

WHARTON

Natural
Infrastructure
Consultants

Arboricultural Impact Assessment

SITE LOCATION

The Station, Hedon, Hull

ISSUE DATE

10th October 2023

OUR REFERENCE

231010 1771 AIA V1

PREPARED FOR

J S Associates (NW) Ltd on
behalf of Star Pubs & Bars

PRINCIPAL AUTHOR

Callum Throw – Principal
Arboricultural Consultant



Arboricultural Impact Assessment

VERSION: V1 DATE: October 2023

REF NO: 231009 1771 AIA V1



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Signature			
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Position	Principal Arboricultural Consultant		
Signature			
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1. Introduction

1.1 Terms of instruction

1.1.1 J S Associates (NW) Ltd on behalf of Star Pubs & Bars (hereafter the 'Client') commissioned Wharton Natural Infrastructure Consultants Ltd ('Wharton') to undertake an arboricultural assessment and prepare an Arboricultural Impact Assessment (AIA). It is prepared in relation to the project at The Station, Hedon, Hull (hereafter referred to as the 'Site').

1.1.2 The Principal Author of this report is Callum Throw, Principal Arboricultural Consultant at Wharton. The Principal Author is a Technical Member of the Arboricultural Association (AA).

1.2 Aims of the Arboricultural Assessment

1.2.1 Trees may form a constraint to the Proposed Development and therefore a detailed tree survey was undertaken following the methodology as set out in *BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations* (The British Standards Institution, 2012) hereafter referred to as 'BS5837:2012'.

1.2.2 This AIA is required to fulfil the requirements of the Local Planning Authority (LPA), East Riding of Yorkshire Council, to make an informed decision on our client's planning application. This approach accords with best practice as set out in BS5837:2012, which is a planning policy requirement of most Local Planning Authorities (LPAs) in the UK.

1.2.3 The assessment has considered trees directly on Site or within influencing distance (a 15m buffer based on the surveyor's discretion, hereafter the 'Study Area') to ensure that arboricultural features which are outside the developable area but whose root protection areas or crowns extents extend into the developable area, are recorded, and considered.

1.3 Scope of the Project

1.3.1 The scope and level of detail included within this AIA is appropriate with that required for the adequate consideration of arboricultural features as part of a detailed, full planning application.

1.3.2 Information provided complies with the requirements of BS5837:2012, Table B.1 and broadly comprises three stages, these are:

- i. Undertake a survey of trees on the Site and those within the Study Area to fulfil the requirements of BS5837:2012.
- ii. Provide a Tree Constraints Plan for the Site demonstrating the above and below-ground constraints including Root Protection Areas (RPA) and canopy spreads.
- iii. Provide an AIA to evaluate the impacts and effects which have arisen from the Development and identify mitigation for retained trees, where necessary.

1.3.3 BS5837:2012 outlines guidance on how to assess an arboricultural feature's quality and advises on assessing both direct and indirect impacts. Neither a methodology for defining impacts nor specific criteria for determining an arboricultural feature's perceived sensitivity are provided.

1.3.4 If a disagreement arises regarding compliance with associated planning decisions, this document may be utilised as a reference. However, if the LPA grants planning approval, a formal AMS should be conditioned to ensure adequate protection of retained trees.

1.4 Caveats and Limitations

1.4.1 The contents of this report are valid for a period of one year (12 months) from the date of this survey.

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- 1.4.2 This is a report which should be used to accompany a planning application and provides no detail specifically in relation to the health and safety of the trees. This report in no way constitutes a tree risk-benefit or health and safety survey. Where concerns for tree health and safety exist the necessary and appropriate tree inspections should be carried out.
- 1.4.3 Trees are growing dynamic structures. Whilst reasonable effort has been made to identify defects within the trees inspected, no guarantee can be given as to the absolute safety or otherwise of any individual tree. No tree is ever safe due to the unpredictable laws and forces of nature. As a result of this, natural failure of intact trees will occur; extreme climatic conditions can cause damage to even apparently healthy trees.
- 1.4.4 All tree inspections were undertaken from ground level and no climbing inspections were undertaken.
- 1.4.5 Where trees have been captured beyond the Site boundary, all dimensions of trees and their associated parts are based on estimation unless otherwise stated. If trees are located within the Site boundary, measurements will not be estimated unless otherwise stated within the comments of the Tree Schedule.
- 1.4.6 This is an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering, or soil. Further, this is an arboricultural report and therefore does not rely on ecological or archaeological data. If either is commented upon within the report further professional advice should be sought.
- 1.4.7 Assessment of statutory and non-statutory constraints have been carried out using publicly accessible third-party information and aerial imagery. While this is deemed to be broadly accurate, in some instances no specific date is given for the information and images used and Wharton cannot and will not accept liability for any deficiencies in third party information.
- 1.4.8 The survey has only been undertaken from land within the Client's ownership, from public land or from areas where formal access has been arranged.

1.5 Confidentiality

- 1.5.1 The report is for the sole use of the Client as named on this report and its reproduction or use by anyone else is forbidden unless written consent is given by the author. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Wharton.



2. Site Overview

2.1 Site description

2.1.1 Table 1 provides a description of the Site, with the Site location, denoted by a red line boundary, presented at Appendix 1.

Table 1 Site Description and Overview

Item	Description
Site Name	The Station Hedon, 65 Soutter Gate, Hedon, Hull, HU12 8JR
Ordnance Survey National Grid Reference	TA 18862 28970
Site Description, surrounding land use and Topography	<p>The Site is in Hedon, a town and civil parish in Holderness in the East Riding of Yorkshire, situated approximately 5 miles east of Hull city.</p> <p>The Site comprises a traditional Pub (The Station) and rear Beer Garden which encompasses, and expansive area set to lawn, patio area and outdoor seating. The grounds of the Pub adjoin Twyers Lane to the north, a small, single-track road leading to rear of properties off The Boulevard, whilst the main arterial route, Soutter Gate runs alongside the eastern elevation of the Pub.</p> <p>Immediately surrounding the Site are residential properties of mixed ages and character.</p>



3. Relevant Legislation, Policy, Statutory and Non-Statutory Designations

3.1.1 This report has been compiled with reference to the following legislation, policy, and guidance.

3.2 Legislation

- The Town and Country Planning Act 1990.
- The Town and Country Planning (Tree Preservation) (England) Regulations 2012.
- The Forestry Act 1967

3.2.1 Other legislation that affords a lesser or indirect level of protection to trees includes the following:

- The Wildlife & Countryside Act 1981 (as amended).
- Conservation of Species and Habitat Regulations 2017 (as amended).
- Natural Environment and Rural Communities Act 2006 (Section 41 England and Section 42 Wales).
- Hedgerow Regulations (1997).

3.3 National Planning Policy

- National Planning Policy Framework (NPPF), July 2021¹

3.4 Related Guidance

- British Standards Institute. BS 5837: 2012 Trees in relation to design, demolition and construction – Recommendations. London: BSI.
- British Standards Institution. (2010). British Standard 3998:2010, Tree Work - Recommendations. British Standards Institution, London.
- Forestry Commission and Natural England, Ancient woodland, ancient trees, and veteran trees: protecting them from development (2018).
- Tree Council & Ancient Tree Forum Ancient Tree Forum, Lonsdale, D (ed.) (2013) Ancient and other Veteran Trees: Further Guidance on Management.
- Owen & Alderman (2008) and Reed, H. (2000), Veteran Trees: A Guide to Good Management.
- Royal Institute of British Architects, RIBA Plan of Work 2020 Overview, RIBA (2020).

3.4.1 Full details on the Legislation, Statutory and Non-Statutory Designations listed above have been provided in Appendix 6.

¹ Ministry of Housing, Communities & Local Government (2021) National Planning Policy Framework. [Online] Available at <https://www.gov.uk/government/publications/national-planning-policy-framework--2>



4. Arboricultural Desk Study

4.1 Arboricultural Desk Study

4.1.1 A desk study has been undertaken as a means of identifying if any statutory and non-statutory constraints or designations are present within the Site or Study Area. This desk study includes consideration of the following environmental constraints:

- Tree Preservation Orders (TPO).
- Conservation Areas.
- Ancient Woodland and Ancient, Veteran, or Notable trees.

Tree Preservation Orders and Conservation Areas

4.1.2 It has been confirmed via East Riding of Yorkshire Council online mapping system² that there are no TPOs within or bordering the Site. The Site is however, within a local Conservation Area, Hedon Conservation Area (CA30). As such, statutory constraints do apply.

4.1.3 Provisional Tree Preservation Orders (TPO) may be made whenever a local planning authority deems it appropriate with only those persons interested in the land served with a copy of the Order. A further search for the presence of TPOs should be carried out prior to commencement of any tree works or removals specified within this report.

Ancient Woodland

4.1.4 The presence of ancient woodland designation within or bordering the Site was checked using Natural England's Multi Agency Geographical Information for the Countryside (MAGIC) map³ on 10th October 2023.

4.1.5 The Site was absent of this non-statutory designation.

Ancient, Veteran and Notable trees

4.1.6 The presence of Ancient, Veteran, or Notable trees⁴ associated with the Site were checked using Woodland Trust's Ancient Tree Inventory on 10th October 2023.

4.1.7 The Site was absent of these non-statutory designations.

² East Riding of Yorkshire Council (Online). Available at < <https://www.eastriding.gov.uk/planning-permission-and-building-control/applications-for-planning-and-building-control/planning-constraints-map/planning-constraints-map-tool/> > (Last Accessed 10 October 2023)

³ Magic (DEFRA), 2018. Multi Agency Geographic Information for the Countryside (Online). Available at: < <https://magic.defra.gov.uk/MagicMap.aspx> > (Last Accessed 10 October 2023).

⁴ Ancient Tree Inventory, 2018. Ancient Tree Inventory [Online]. Available at: < <https://ati.woodlandtrust.org.uk> > (Last Accessed 10 October 2023).



5. Arboricultural Walkover Survey

- 5.1.1 The walkover survey and arboricultural assessment was undertaken on 3rd October 2023 by Callum Throw, Principal Arboricultural Consultant at Wharton.
- 5.1.2 The weather at the time of the survey was clear, sunny, and bright. There were no limitations to the assessment.

5.2 Method of data collection

- 5.2.1 The arboricultural survey was undertaken in accordance with BS5837:2012, with OS master maps forming the base mapping.
- 5.2.2 The trees on the Site were surveyed without reference to the Site layout as detailed in Clause 4.4.1.1 of BS5837:2012. However, for the purposes of this arboricultural assessment, the design proposal for the Site has been considered.
- 5.2.3 The survey recorded trees either as individual specimens or as groups, where these trees were aerodynamically, culturally, or visually important as groups. The tree numbers associated with each tree are cross-referenced within the schedule and plans at Appendix 3 and 4 respectively.
- 5.2.4 A specific methodology for identifying and documenting Ancient, Veteran, or Notable trees in the field is not provided by BS5837:2012. While the term 'Veteran' is defined in paragraph 3.12 of BS5837:2012, the term 'Ancient' or 'Notable' is not given. There are currently several published approaches that are available associated with defining and classifying Ancient, Veteran, or Notable trees. However, due to the intricacy and subjectivity of this subject, different definitions and methodologies exist.
- 5.2.5 For this BS5837:2012 survey, the methodology set out by the Recognition of Ancient, Veteran & Notable Trees – RAVEN⁵ has been adopted to survey and assess potential Ancient, Veteran or Notable trees.
- 5.2.6 It should be noted that Table 1 of BS5837:2012 only gives recommendations in relation to remaining years. A tree may be considered to have a longer remaining life, however, still be of a lower category given its maturity, condition, or overall impact to the application site.
- 5.2.7 Full details of the survey methodology used are provided in Appendix 2.

5.3 Arboricultural Survey Results

- 5.3.1 Full details of the trees are provided within the Tree Schedule and the location of each tree and their associated constraints including canopy spread and root protection areas are illustrated on the Tree Constraints Plan (TCP) at Appendix 4. A summary of recorded features can be seen below in Table 2.

Table 2 Arboricultural features recorded and quality categories in accordance with BS5837:2012

	Category A	Category B	Category C	Category U
Trees	0	1	2	0
Groups	0	0	2	0
Hedges	0	0	0	0
Total	0	1	4	0

⁵ J. Forbes-Laird. (2018). *Recognition of Ancient, Veteran & Notable Trees – RAVEN*. [Online]. FLAC. Last Updated: 2018. Available at: <https://www.flac.uk.com/wp-content/uploads/2018/08/RAVEN.pdf> [Accessed 8 March 2023].

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- 5.3.2 A total of 5no. arboricultural features were surveyed across the wider Site (Arboricultural Study Area, as defined by a dashed blue line on the TCP) comprising 3no. individual trees and 2no. groups of trees. These include 1no. category B and 4no. category C features.
- 5.3.3 None of the arboricultural features recorded were considered to offer a high arboricultural quality (category A).
- 5.3.4 All trees were off-site, within third-party land.
- 5.3.5 In line with BS5837:2012, the category B trees should be considered as providing a substantial contribution to a Site. Therefore, Category A and B trees should be retained and incorporated into the Proposed Development where possible and feasible.
- 5.3.6 Generally, category C and U trees are of low quality or are young specimens, which can be readily replaced, therefore, should not be considered a constraint to Proposed Development. However, it is understood that, wherever possible, trees will be retained for the benefits that they currently provide as well as helping to ensure a continuity of tree cover and providing a mature landscape to the Proposed Development.



6. Arboricultural Impact Assessment

6.1 Purpose of the AIA

6.1.1 The purpose of the AIA is to assess the direct and indirect impacts and effects associated with construction of the Development on existing trees. Where necessary, the AIA further identifies necessary compensation and mitigation measures where these are deemed appropriate.

6.2 Proposed Development Description

6.2.1 The Development is to erect 4no. timber summer houses with felt roof and double-glazed doors, to be positioned atop a subbase composed of concrete slabs, accessed via a gravel pathway.

6.2.2 As of the date of the survey and assessment, the Development has been completed and therefore, this AIA is retrospective only.

6.3 Reference documents

6.3.1 As background information, the following documentation set out in *Table 3* below, has been referenced.

Table 3 Document and Plans Provided

Document Description	Reference No.	Prepared By	Date
Proposed Floor Plan	330 - 401	JSA Design	June 2023

6.4 Limitations

6.4.1 This AIA has been compiled based on the following limitations:

Limitations

- Impacts arising to any trees beyond the Study Area have not been considered.
- Details on enabling works, such as the installation or diversion of services and utilities by statutory undertakers beyond the Site, were not considered during this Impact Assessment.
- All arboricultural features subject to this AIA have been plotted using aerial imagery and on-site GPS location which cannot always be relied upon. The Tree Plans have features plotted with approximate locations only.

6.5 Arboricultural Impacts from the Development

6.5.1 The Development (drwg.no. 330 - 401) has been overlaid on the TCP to allow for an assessment of the arboricultural features to be retained and removed, as shown on the Tree Retention and Removals Plan provided at Appendix 4.

6.5.2 This plan helps to illustrate the relationship between the RPAs associated with the trees and the Proposed Development and outlines any impacts, conflicts, or mitigating effects. The RPA for the trees has been calculated as prescribed by BS5837:2012 and are shown as pink dashed circles on the Tree Retention and Removals Plan.



Arboricultural Features Removed

- 6.5.3 None of the arboricultural features subject to this assessment would have been removed, nor would they require removal at this stage, to facilitate the Development.
- 6.5.4 There was no evidence of tree removal as a direct result of this Development.

6.6 Below Ground Constraints

Root protection areas

- 6.6.1 The below ground constraints are generally summarised as the Root Protection Areas (RPA). BS5837:2012 defines the root protection area as *'the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability'* and is an area within which the requirements of the tree *'must be given priority'*.
- 6.6.2 The RPA is an area equivalent to a circle with a radius 12 times the diameter of the trees measured at 1.5 metres for single stemmed trees. For trees with more than one stem, one of two calculation methods should be used, dependent on the number of stems.
- 6.6.3 In all cases, the stem diameter(s) should be measured in accordance with Annex C, and the RPA should be guided from Annex D of BS5837:2012.
- 6.6.4 The RPA is an area in which no ground works should be undertaken without due care in relation to the retained tree(s) and this is to avoid soil compaction, changes in levels or soil contamination which could alter the trees condition and/or stability. The shape of the RPA and its exact location will depend upon arboricultural considerations and existing ground conditions.
- 6.6.5 This does not mean that some works can't be proposed within the RPAs of retained trees however, this needs to be limited to as low as practicable. The BS5837:2012 states that incursion *"should not exceed 20% of any existing unsurfaced ground within the RPA"* and encroachment upon the RPA should be avoided, in general, with excavation avoided as this poses the greatest risk to root severance.

Existing RPA incursions

- 6.6.6 Trees T2 and T3, along with group G2, have existing incursions into their RPAs. These incursions exist in the form of a single-track access road to the north, a boundary forming wall (T2), and the deep, steeply sided banks of the Redmere Sewer cutting through the middle of G2.

New RPA incursions

- 6.6.7 The default position should be that structures are located outside the RPAs of trees to be retained. However, where there is an overriding justification for construction within the RPA, technical solutions might be available to prevent damage to the tree(s). Recommended within BS 5837:2012, paragraph 5.3.1.
- 6.6.8 The summerhouse constructed furthest east of the Site (closest to the patio and outdoor seating area adjoining the rear elevation of the Pub) has been constructed proportionality within the RPA of T1. This incursion is minimal (c. <5% of the RPA) and due to the low impact nature of the Development, would not be considered an impact likely to be at detriment to T1.

Underground Utilities

- 6.6.9 Due to the details provided for this application, there is insufficient information relating to below ground infrastructure available however, during the Site visit, there was no apparent evidence of trenching or disturbed ground within RPAs of retained trees.



6.7 Above Ground Constraints

Tree Crowns

- 6.7.1 The above ground constraints predominantly refer to the impact of the canopy of any retained tree on the Site either by size and form, shadowing, and nuisance factors. The above ground constraints imposed by trees for this Development should be considered in relation to the following:
- The crown's extent and its relationship to any structures. The primary consideration should be whether there will be enough space to prevent branches from damaging structures, post-construction and whether the proximity of the crown will appear oppressive to occupiers and visitors and result in future pressure for removal.
 - Seasonal nuisance (e.g., leaf fall blocking gutters, fruit fall creating slippery patches and honey dew dripping on vehicles and surfaces).
- 6.7.2 Pruning urban trees to regulate their spatial requirements is a routine practice and might be used to address the issues raised above. However, pruning is not acceptable in all situations, and professional guidance should be obtained before depending on it to address any of the issues outlined.

Proposed Tree Works and Pruning

- 6.7.3 No tree work or pruning was required to facilitate the Development.
- 6.7.4 The continued growth of the crown of T1 and groups G1 and G2 may cause some ongoing conflict with the use of the Pub's Beer Garden. Whilst currently providing a good level of landscape buffering between the Pub and neighbouring properties, their crowns overhang the Site boundary considerably and, in the case of G1, are low hanging, in some areas providing no crown to ground clearance.
- 6.7.5 These trees, despite being off-site, under third-party ownership, would benefit from targeted management and routine pruning, on an ad-hoc basis. Initially, it is recommended that the crowns are lifted/raised to provide greater ground clearance.
- 6.7.6 All tree works undertaken within a conservation area will need to be formally applied for, and approved, by way of an application to the acting local authority. Tree works are to comply with *British Standard 3998:2010 – Tree Work Recommendations* and should therefore be carried out by skilled tree surgery contractors, ideally Arboricultural Association Approved Contractors.
- 6.7.7 All vegetation and, particularly, woody vegetation proposed for clearance, must be removed outside of the bird-breeding season (March - September inclusive). Birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. If this is not practicable, a qualified Ecologist should inspect the vegetation to be removed or pruned for the presence of nesting birds.



7. Conclusions and Recommendations

- 7.1.1 At the time of preparing this AIA, the Development, as shown on the Proposed Floor Plan, has already been implemented.
- 7.1.2 There appears to have been minimal impact on existing trees from this Development.
- 7.1.3 A total of 5no. arboricultural features were surveyed across the wider Site (Arboricultural Study Area, as defined by a dashed blue line on the TCP) comprising 3no. individual trees and 2no. groups of trees. These include 1no. category B and 4no. category C features.
- 7.1.4 None of the arboricultural features recorded were considered to offer a high arboricultural quality (category A).
- 7.1.5 All trees were off-site, within third-party land.
- 7.1.6 The continued growth of the crown of T1 and groups G1 and G2 may cause some ongoing conflict with the use of the Pub's Beer Garden. Whilst currently providing a good level of landscape buffering between the Pub and neighbouring properties, their crowns overhang the Site boundary considerably and, in the case of G1, are low hanging, in some areas providing no crown to ground clearance.
- 7.1.7 These trees, despite being off-site, under third-party ownership, would benefit from targeted management and routine pruning, on an ad-hoc basis. Initially, it is recommended that the crowns are lifted/raised to provide greater ground clearance and avoid future nuisance.



8. References

British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendation'

British Standard 3998:2010 – Tree Work Recommendations

Recognition of Ancient, Veteran & Notable Trees – RAVEN (Julian Forbes-Laird, 2018)

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Appendix 1

Site Location Plan

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Appendix 2

BS5837:2012 Survey and Assessment Methodology

- i. The trees on the Site were originally surveyed without reference to site layout as detailed in paragraph 4.4.1.1 of BS5837:2012. However, for the purposes of the Arboricultural Impact Assessment the Proposed Development for the Site has been considered.
- ii. The position of each tree was plotted with reference to the supplied ordinance survey plan. Small trees with a stem diameter less than 75mm were generally not surveyed as they would either be easily replaced or relocated.
- iii. Each individual tree has been given a tree identification number, the groups and hedges clearly defined for the purpose of this report. Metal tags have not been used for this survey as identification on-site does not require this. The tree numbers associated with each tree are cross referenced within the schedule and plans at Appendix 3 and 4 respectively.
- iv. The tree species have been recorded with both common and botanical names.
- v. All tree heights have been assessed using a clinometer and were indicated in groups the height of the tallest tree was measured unless otherwise stated. Tree heights are given in metres.
- vi. All stem diameters were measured at 1.5 metres above ground level and are given in millimetre units (unless otherwise stated where "gl" is an abbreviation for ground level where diameter was measured just above root flare, "est" is an estimate and "av" is an average).
- vii. The canopy spread is recorded in either the four cardinal points or is given as an average diameter for the crown, especially in groups or where the crown is evenly weighted. Canopy spreads are measured in metres.
- viii. The height of the ground clearance is given in metres and is an estimate of the height of the first branch above ground level.
- ix. In absence of detailed information on the age the following classification has been used:

Young	Young trees aged less than 1/3 life expectancy.
Semi-Mature	Established specimen approaching 1/3 life expectancy.
Early-Mature	Middle age trees 1/3 – 2/3 life expectancy.
Mature	Mature trees over 2/3 life expectancy.
Over-Mature	Over-mature – declining or moribund trees of low vigour; and
Veteran	Veteran trees – specimens exhibiting features of biological, cultural, or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.

N.B. Age class is indicative and will vary between species.

- x. The structural condition of the trees has been assessed and is summarised as:

Good	Few minor defects of little overall significance.
Fair	A significant defect or several small defects.
Poor	Major defect present or many small defects.



- xi. The physiological condition has been recorded to provide an indication of the tree's general health and vitality. The trees have been described thus:

Good	Generally in good health typical of the species.
Fair	Reasonable health with few defects.
Poor	Trees that exhibit significant risk features which are irremediable or moribund tree.
Dead	Tree has died.

- xii. Each tree was individually assessed and comments, where appropriate, were recorded for the condition of each tree's roots, main stem, and crown.
- xiii. General comments have also been made where appropriate, with recommendations when relatively immediate works are given.
- xiv. Estimated remaining contribution has been categorised as: less than 10 years, 10-20 years, 20-40 years or over 40 years, based upon an assessment of the tree's potential safe useful life expectancy. The remaining contribution in years has not always been directly followed in relation to the retention categories of the trees as trees may have a long remaining life however be of little significance in terms of development.

Ancient Woodland, Ancient, Veteran and Notable trees

- xv. For this BS5837:2012 survey, the methodology set out by the Recognition of Ancient, Veteran & Notable Trees – RAVEN (Julian Forbes-Laird, 2018) has been adopted to survey and assess potential Ancient, Veteran or Notable trees.
- xvi. The Forestry Commission (FC) and Natural England (NE) have published guidance and recommendations to safeguard Ancient Woodland, Ancient, and Veteran trees against development. In summary this guidance advises on the use of semi-natural buffer zones as a means of protection with minimum distances identified as:
- Fifteen metres between any development and ancient woodland.
 - Fifteen times the diameter of its stem or 5m from the edge of its canopy, if that's greater, around any ancient or veteran tree.

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Appendix 3

BS5837:2012 Tree Schedule

BS5837:2012 Tree Schedule

Client Name: J S Associates (NW) Ltd on behalf of Star Pubs & Bars
Site: The Station, Hedon, Hull
Ref No: 231009 1771 TS V1

Consultant: Callum Throw
Survey Date: October 2023



Measurements		Age Class		Physiological Condition		Structural Condition	
Height	All tree heights have been assessed using a clinometer. Tree heights are given in metres.	Young	Establishing, good vigour, fast growth rates and strong apical dominance; < 1/3rd estimated life expectancy.	Good	Generally in good health typical of the species.	Good	Few minor risk features of little overall significance.
Stem Dia.	Diameter in millimetres (mm) in accordance with BS5837:2012 paragraph 4.6.1, Annex C.	Semi-Mature	Established specimen approaching 1/3 life expectancy.	Fair	Reasonable health with few risk features.	Fair	A significant risk feature or several small risk features.
Crown spread	Given as an average diameter or measured using a distometer. North (N), east (E), south (S) and west (W) provided.	Early-Mature	1/3 – 2/3 life expectancy, vigorous growth rate and increasing in height.	Poor	Trees that exhibit significant risk features which are irremediable or moribund tree.	Poor	Major risk feature present or many small risk features.
Crown Height	Height of ground clearance is given in metres. Estimate of the height of the first branch above ground level.	Mature	Over 2/3 life expectancy. Generally good vigour and achieving full height potential with crown still spreading.	Dead	Tree has died.	Collapsing	Feature has uprooted or the whole tree, or part of the tree has collapsed.
Species name	The tree species have been recorded with both common and scientific names.	Over-Mature	Declining or moribund trees of low vigour.	Abbreviations and Notes est - Estimated stem diameter av - Average stem diameter for multiple stems upto - Maximum stem diameter of a group erc - Estimated remaining contribution			
Tag no.	Where present, any metal tags attached to trees have been recorded.	Veteran	Exhibiting features of biological, cultural, or aesthetic value characteristic of species surviving beyond the typical age range.				

Root Protection Areas (RPA)

The below ground constraints are generally summarised as the root protection areas (RPA). The RPA is an area equivalent to a circle with a radius 12 times the diameter of the trees measured at 1.5 metres for single stemmed trees. For trees with more than one stem, one of two calculation methods should be used. In all cases, the stem diameter(s) should be measured in accordance with Annex C, and the RPA should be guided from Annex D of BS5837:2012. Both RPA radius in metres from the main stem and total area for the RPA as square metres.

An average stem diameter is provided for tree groups, wooded areas and hedges. Where veteran trees have been identified the RPA has been calculated in accordance with Natural England guidance i.e. 15x the stem diameter or 5m beyond the crown whichever is greater.

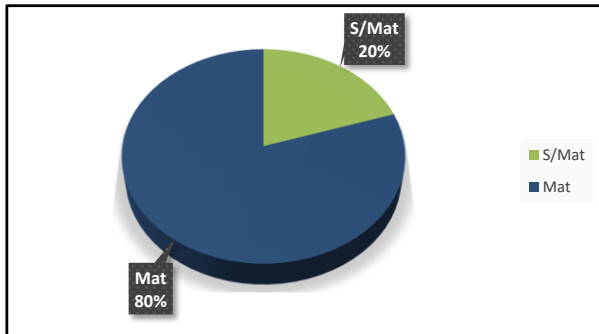
General Notes

Each tree was individually assessed and comments, where appropriate, were recorded for the condition of each tree's roots, main stem, and crown. The physiological condition has been recorded to provide an indication of the tree's general health and vitality. General comments have also been made where appropriate, with recommendations for tree work given, where applicable.

Each individual tree has been given an identification number. Metal tags have not been used for this survey as identification on-site does not require this. The tree numbers associated with each tree are cross referenced within the schedule and Tree Constraints Plan/s. Small trees with a stem diameter less than 75mm were not surveyed as they would either be easily replaced or relocated.

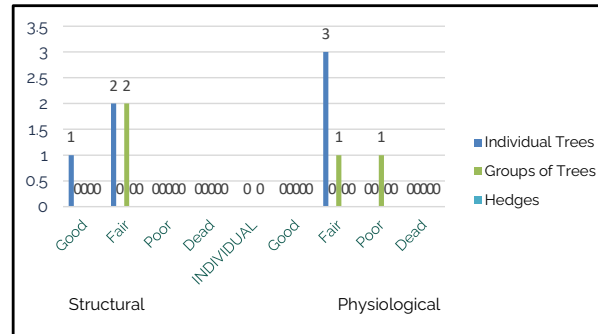


Age Distribution of the Tree Population



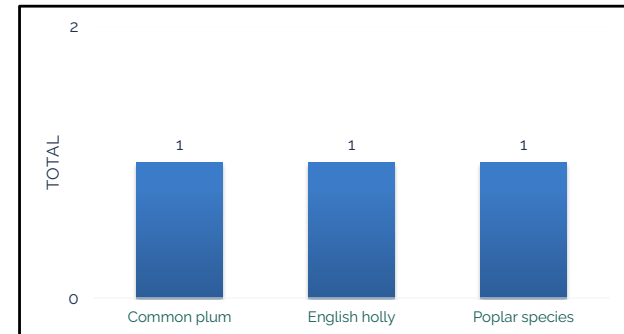
The distribution of age category across the tree population is useful for understanding expected longevity and can be used for determining mitigation, management and replacement.

Distribution of Physiological and Structural Conditions across the Tree Population



Physiological condition provides an indication of the vitality of the tree. Structural condition is related to the presence of defects that can lead to failures.

Species Composition of the Individual Tree Population



The proportions of any given family, genus, species, and cultivar which make up the total individually recorded tree population across the Site.

Ancient Woodland and Ancient, Veteran and Notable Trees

Ancient Tree - A tree that has passed beyond maturity and is old, or aged, in comparison with trees of the same species. Characterised by biological, cultural, or aesthetic features of interest.

Ancient Woodland - Any wooded area that has been continuously wooded since 1600 AD

Veteran Tree - Exhibiting features of biological, cultural, or aesthetic value characteristic of species surviving beyond the typical age range.

Notable Tree - mature trees which may stand out in the local environment because they are large in comparison with other trees around them.

Forestry Commission and Natural England Guidance for the protection of ancient woodland, ancient trees and veteran trees from development and the use of semi-natural buffer zones:

- Fifteen metres between any development and ancient woodland.

- Fifteen times the diameter of its stem or 5m from the edge of its canopy, if that's greater, around any ancient or veteran tree.

Ancient Woodlands

0

Ancient Trees

0

Veteran Trees

0

Notable Trees

0

BS5837:2012 Tree Schedule



CATEGORY A		CATEGORY B		CATEGORY C		CATEGORY U	
Trees with an estimated remaining contribution of at least 40 years. Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features.		Trees with an estimated remaining life expectancy of at least 20 years. Trees that might be included in category A, but are downgraded because of impaired condition or trees lacking the special quality necessary to merit the category A designation.		Trees with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm. Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.		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.	
Sub-categories		Mainly arboricultural value	1	Mainly landscape value	2	Mainly cultural or conservation value	3
Summary of Individual trees, Groups, Woodlands and Hedges							
		T1		T2, T3, G1, G2			
0		1		4		0	
Estimated Remaining Contribution (ERC)							
> 40 years		> 20 years		< 20 years		< 10 years	
Breakdown of Arboricultural Features for each BS5837:2012 Category							
Trees	0	Trees	1	Trees	2	Trees	0
Groups	0	Groups	0	Groups	2	Groups	0
Woodlands	0	Woodlands	0	Woodlands	0	Woodlands	0
Hedgerows	0	Hedgerows	0	Hedgerows	0	Hedgerows	0
Percentage of tree population	0.0%	Percentage of tree population	20.0%	Percentage of tree population	80.0%	Percentage of tree population	0.0%

In assigning the BS5837:2012 Category, particular consideration has been given to the presence of any structural defects for each feature, the size and form of each feature, its suitability within the context of a proposed development, and the location of each feature relative to existing site features e.g. its screening value or landscape amenity value.

BS5837:2012 Tree Schedule



Tree No.	Tag No.	Species (Common Name)	Species (Scientific Name)	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Estimated remaining contribution (erc)	Ret Cat	RPA (m ²)	RPA Radius (m)
						N	E	S	W									
INDIVIDUAL TREES																		
T1	0	Common plum	<i>Prunus domestica</i>	10	700	5.5	4	5.5	4	2	Mat	Fair	Fair	Offsite tree, cables gain access, stem positioned behind a boundary fence circa 2.5 m high, base obscured. Dense ivy cover from ground level to top of tree. Obscures inspection of most primary limbs and secondary limbs. Crown bias to the North, overhanging the site.	0	B1	222	8.4
T2	0	English holly	<i>Ilex aquifolium</i>	4	100	0.3	1	1.3	1	0	S/Mat	Good	Fair	Growing against brick wall, asymmetric crown. Limited future potential.	0	C1	5	1.2
T3	0	Poplar species	<i>Populus sp.</i>	14	700	8	6	6	8	7	Mat	Fair	Fair	Unable to gain access, tree situated on the Southern side of the brook, no access from the site or offside track. Three appears to be single stemmed to a height of circa 6 m. Then subdivides. Stem oriented to the south dying back significantly. Stem position to the north extended at a 40° angle, in contact with nearby phone lines. Dense ivy cover noted on the main stem. Tree has possibly previously been pollarded - difficult to tell from point of closest access. Downgraded to a category C due to lack of access.	0	C1	222	8.4

BS5837:2012 Tree Schedule



Tree No.	Tag No.	Species (Common Name)	Species (Scientific Name)	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Estimated remaining contribution	Ret Cat	RPA (m ²)	RPA Radius (m)
						N	E	S	W									
TREE GROUPS																		
G1	-	Sycamore, Common plum, Elder	<i>Acer pseudoplatanus, Prunus domestica, Sambucus nigra</i>	4.5 - 10	15 - 450	3.5	3.5	3.5	3.5	0.5	Mat	Fair	Fair	Offsite boundary forming tree group. Unable to gain access or inspect lower stem and base. Boundary forming fence circa 2.5 m high. Canopies overhang the site, touching the ground in some areas. Dense ivy cover established on all trees within the group. Further access restricted to the Western end of the group by boundary forming chain link fence. Multiple stems, crossing and rubbing, with several partially collapsed or leaning. Deadwood of varying proportions. Wood benefit from some targeted management.	10 to 20 years	C2	92	5.4
G2	-	Common plum, Elder	<i>Prunus domestica, Sambucus nigra</i>	4.5 - 8	140 - 400	3.5	3.5	3.5	3.5	1	Mat	Fair	Poor	Offsite boundary tree group, trees growing either side of a brook. Water within the brook quite high. Most trees predominantly multi-stemmed from base. Dense ivy cover growing along main stems and into crown. Numerous trees positioned on a steep bank, leaning abruptly over the brook. Unable to gain access to the majority of trees. Pruning wounds, sprint Stubbs, dead branches noted. Several trees have previously failed (main stem collapsed) and remained hung up within adjacent trees.	10 to 20 years	C2	72	4.8

Arboricultural Impact Assessment

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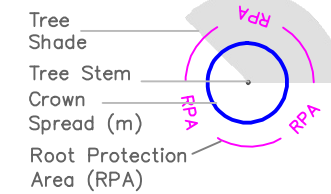
Appendix 4

Tree Constraints Plan

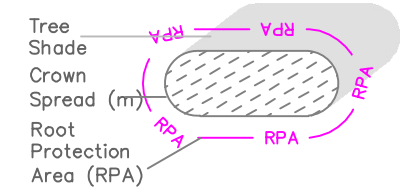
Tree Retention and Removal Plan



Individual Trees – Crown colour in accordance with BS:5837 (2012) category



Groups and Hedgerows – Crown colour in accordance with BS:5837 (2012) category



BS:5837 (2012) Category Colours

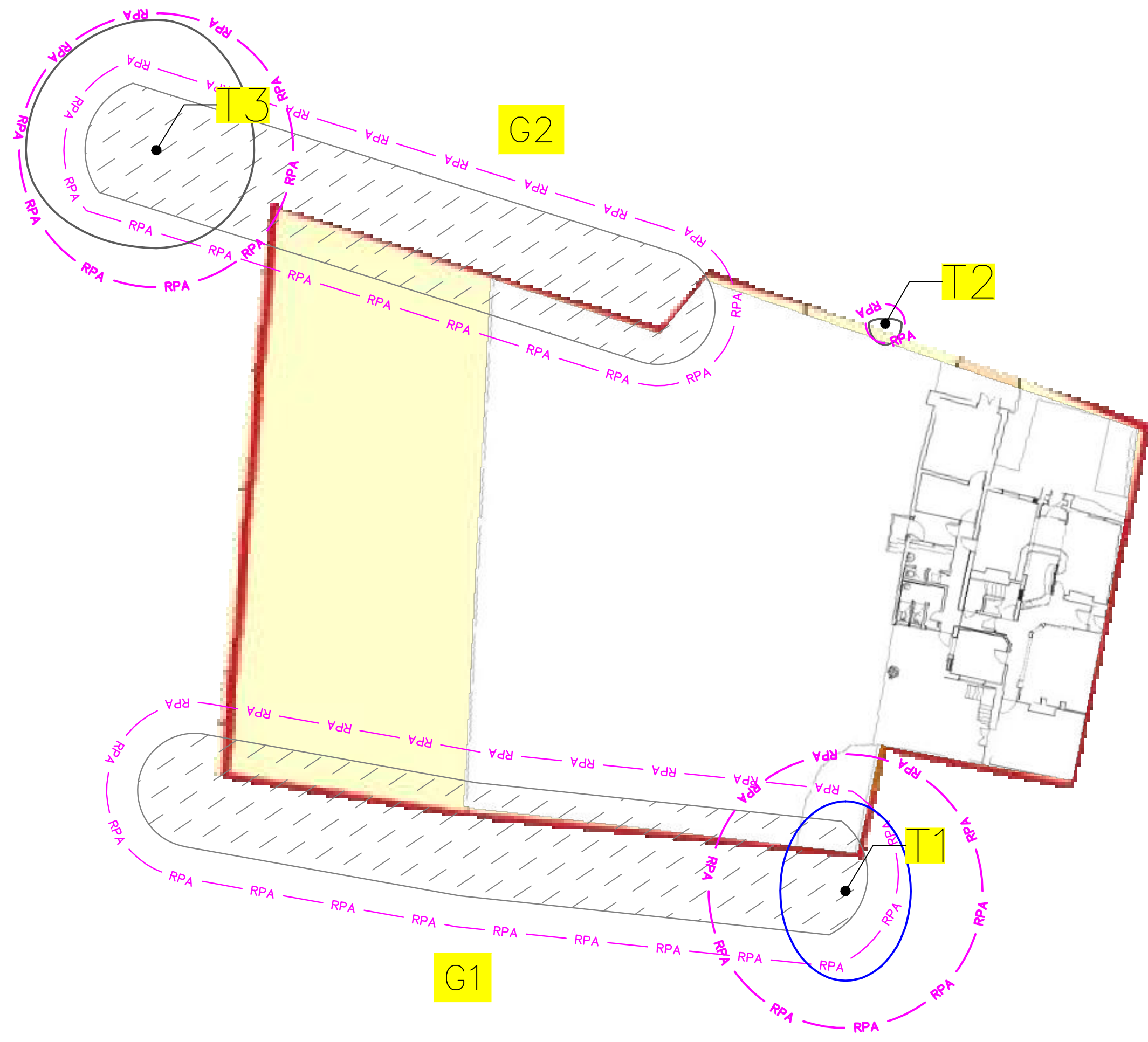
Category B ———

Category C ———

Additional Attributes

Redline Boundary ———

Trees plotted without topographical reference T1



Tree locations are based on the topographical survey provided.

This TCP is created as a design tool and does not make an assessment of the impacts or subsequent effects of the Proposed Development to trees. Therefore, the TCP must not be submitted solely to inform the planning application. An Arboricultural Impact Assessment or similar report will be required to inform the planning application which the TCP may form part of.

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S2 – Information / Reference	

Date: October 2023 Drawn: CTT Checked: PW

Client: J S Associates (NW) Ltd

Project: The Station, Hedon, Hull

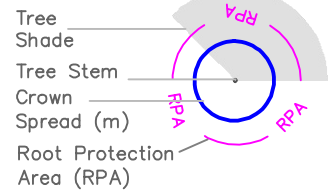
Title: Tree Constraints Plan

Drawing file reference	DWG No
231009 1771 TCP V1	1 of 1

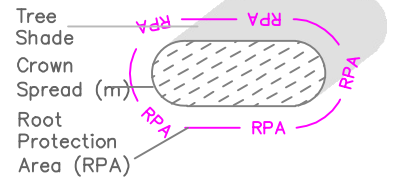




Individual Trees – Crown colour in accordance with BS:5837 (2012) category



Groups and Hedgerows – Crown colour in accordance with BS:5837 (2012) category



Arboricultural feature to be removed to facilitate the development



BS:5837 (2012) Category Colours

Category B — (blue line)
Category C — (black line)

Additional Attributes

Redline Boundary — (red line)

Trees plotted without topographical reference T1 (yellow box)

Tree locations are based on the topographical survey provided.

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Drawing Status:

S2 – Information / Reference

Date: October 2023 Drawn: CTT Checked: PW

Client: J S Associates (NW) Ltd

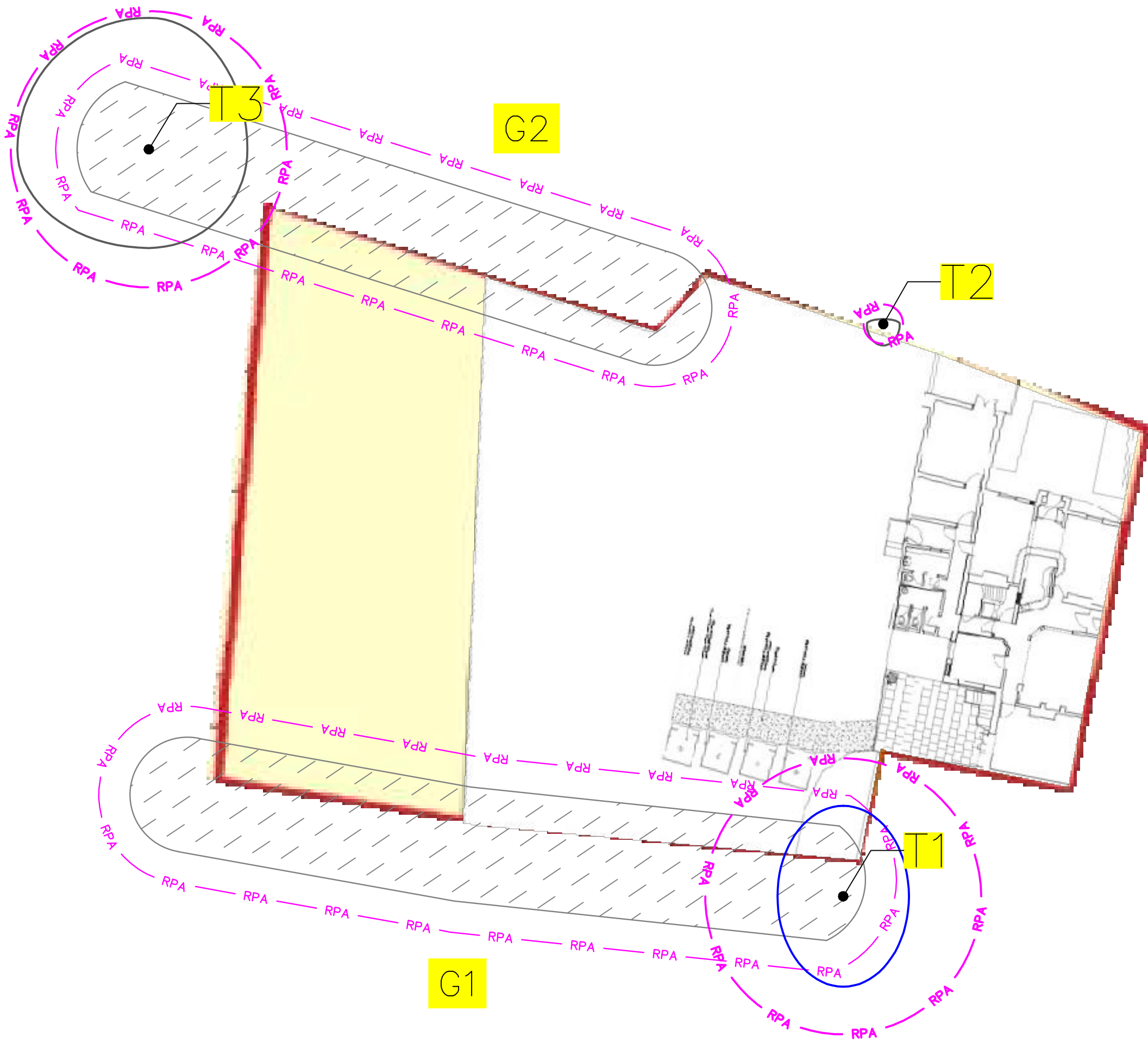
Project: The Station, Hedon, Hull

Title: Tree Retention Removals Plan

Drawing file reference DWG No

231009 1771 TRRP V1

1 of 1





Appendix 5

Glossary of Terms

Term	Acronym	Definition
Amenity Clearance Zone	ACZ	An ACZ is used to consider the impact of the proximity of retained trees to structures. The ACZ is defined as an area surrounding the tree that enables a satisfactory relationship to exist between the property and the tree, and as such is equal to two-thirds of the tree's expected mature height. The ACZ is a combination of factors such as shading, future pressure for removal and seasonal nuisance.
Ancient Tree	-	A tree that has passed beyond maturity and is old, or "aged", in comparison with trees of the same species. Characterised by biological, cultural, or aesthetic features of interest.
Ancient Woodland	AW	Any wooded area that has been continuously wooded since 1600 AD.
Arboricultural Clerk of Works	ACoW	The ACoW is a competent arboriculturist that is employed to oversee all construction matters relating to trees. Typical site monitoring tasks include but not limited to checking tree protection fencing is installed and positioned correctly, oversee excavation works that are within the RPA of trees and deliver toolbox talks.
Arboricultural Impact Assessment	AIA	An element of the British Standard 5837:2012 ' <i>Trees in Relation to Design, Demolition and Construction - Recommendation</i> '. An AIA is a report intended to inform the Local Planning Authority of the impacts of a proposed development to the surrounding trees. The report acknowledges the direct and indirect impacts that the development will (or may, in relation to outline applications) have on the trees and conversely, the trees on the development. The aim is to establish if the trees can co-exist in harmony with the development and continue to contribute to the site for many years.
Arboricultural Method Statement	AMS	Part of British Standard 5837:2012 ' <i>Trees in Relation to Design, Demolition and Construction - Recommendation</i> ' the AMS specifies what works are required in relation to tree protection and retention and details any alternative construction methods necessary to protect and avoid foreseeable damage to retained trees.

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Term	Acronym	Definition
Arboriculturist	-	A person who has, through relevant education, training, and experience, gained professional expertise in the field and study of trees.
British Standard 5837:2012	BS5837:2012	The nationally recognised British Standard for the integration of trees and development, providing guidance and recommendations on the relationship between trees and design, demolition, and construction processes. It sets out principles and procedures to be applied to achieve a harmonious and sustainable relationship between trees and structures and is to be interpreted by an arboriculturist.
Construction Exclusion Zone	CEZ	The CEZ is a designated area decided by the project arboriculturist. It is where pedestrians, storage of materials and vehicular movement is prohibited during the construction period. This is identified on a tree protection plan, where lines are annotated onto the site plan, indicating where fencing must be installed onsite to form an exclusion zone.
Root Protection Area	RPA	The RPA provides the minimum amount of space deemed sufficient to sustain a trees viability. This area is typically calculated by measuring the diameter of a trees stem at 1.5m from ground level in millimetres and multiplied by 12. This equals the radius in metres and is used to create a circular radius centred off the stem. There are external factors that means there are sometimes variations to this method.
Tree Constraints Plan	TCP	The initial stage of a BS5837:2012 tree survey. A site assessment of all trees on or within influencing distance of the site, trees are denoted on a plan overlaid with the existing context of the site, often in the form of a topographical survey or OS map. Trees are superimposed onto the plan to show their reference number (e.g., T1), canopy spread, retention categorisation and RPA.
Tree Retention and Removals Plan	TRRP	A plan denoting which trees will be lost because of the development and the trees that can viably be retained within the proposed setting. Trees are often denoted in green and red, for retention and removal.

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Term	Acronym	Definition
Tree Protection Plan	TPP	A plan showing the retained trees will be protected through construction of the proposed development. Various annotations are added to demonstrate what mitigation and protection is required; pre, during and post development.
Veteran Tree	-	Trees exhibiting features of biological, cultural, or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.



Appendix 6

Legislation and Policies

Legislation

Town and Country
Planning Act 1990

Section 197 places a duty on the local planning authority to ensure that, where appropriate, planning conditions are imposed which require the preservation or planting of trees.

Section 198 provides local planning authorities with the powers to impose Tree Preservation Orders where it is expedient in the interests of amenity.

The role of a TPO is to protect specific trees, groups of trees and woodlands for the purpose of amenity. In the Secretary of State's view *'Orders should be used to protect trees and woodlands if their removal would have a significant negative impact on the local environment and its enjoyment by the public'*.

Town and Country
Planning (Tree
Preservation) (England)
Regulations 2012

These Regulations govern the administration of Tree Preservation Orders. They make it a statutory offence to undertake specified activities without the formal consent of the local planning authority.

Prohibited activities include:

- cutting down.
- topping.
- lopping.
- uprooting.
- wilfully damaging; and,
- wilfully destroying.

Exemptions for the need to obtain formal consent include, but are not limited to:

- Dead trees.
- The removal of dead branches.
- Works necessary to remove a risk of serious harm.
- Works necessary to implement a planning permission (excluding outline planning permission) or where permission is granted under the *Town and Country Planning (General permitted Development Order 1995) (as amended)*.



Legislation

Forestry Act 1967

Tree felling is also restricted under the Forestry Act 1967. Under this act, there is an exemption from the need for a felling licence for "Felling trees immediately required for the purpose of carrying out development authorised by planning permission (granted under the Town and Country Planning Act 1990) ..."

If full planning permission is granted, then any trees which require felling to implement the approved plans are exempt from this statutory protection. Outline planning permission does not provide an exemption to the regulations that control tree felling in the Forestry Act 1967.

If permission is granted on the reserved matters application, then any trees which require felling to implement the approved plans are exempt from this statutory protection. Outline planning permission does not provide an exemption to the regulations that control tree felling in the Forestry Act 1967.

The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Species and Habitat Regulations 2017 (as amended)

Provides statutory protection of birds, bats and other species that can inhabit trees. The Natural Environment and Rural Communities Act 2006 (Section 41 England and Section 42 Wales) also places a duty on Local Planning Authorities to consider biodiversity when carrying out their duties. The Conservation of Habitats and Species Regulations 2017 specifically provides safeguards for European Protected Sites and Species (as listed in the Habitats Directive). This has recently been amended by the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 which continue the same provision for European protected species, licensing requirements, and protected areas now that the UK has left the European Union.

Great care is required to avoid an offence under the above legislation, and consideration should be given to the potential presence of protected species within a tree subject to future works. Where the presence of protected species is suspected, the project ecologist or Natural England should be contacted for advice before works proceed.



National Planning Policy

National Planning
Policy Framework
(NPPF) (July 2021)

When determining planning applications, Local Planning Authority's (LPA) should apply the following principles from the NPPF:

Paragraph 131

"Trees make an important contribution to the character and quality of urban environments and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly planted trees, and that existing trees are retained wherever possible."

Paragraph 174 (B & D)

"Planning policies and decisions should contribute to and enhance the natural and local environment by:

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures."

Paragraph 180 (A, C & D)

"When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁶³ and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."

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Guidance

Forestry Commission and Natural England, Ancient woodland, ancient trees, and veteran trees: protecting them from development (2018)

The Forestry Commission and Natural England published guidance giving information for the protection of ancient woodland, ancient trees and veteran trees from development. In summary this guidance advises on the use of semi-natural buffer zones as a means of protection with minimum distances identified as:

- Fifteen metres between any development and ancient woodland.
- Fifteen times the diameter of its stem or 5m from the edge of its canopy, if that's greater, around any ancient or veteran tree.

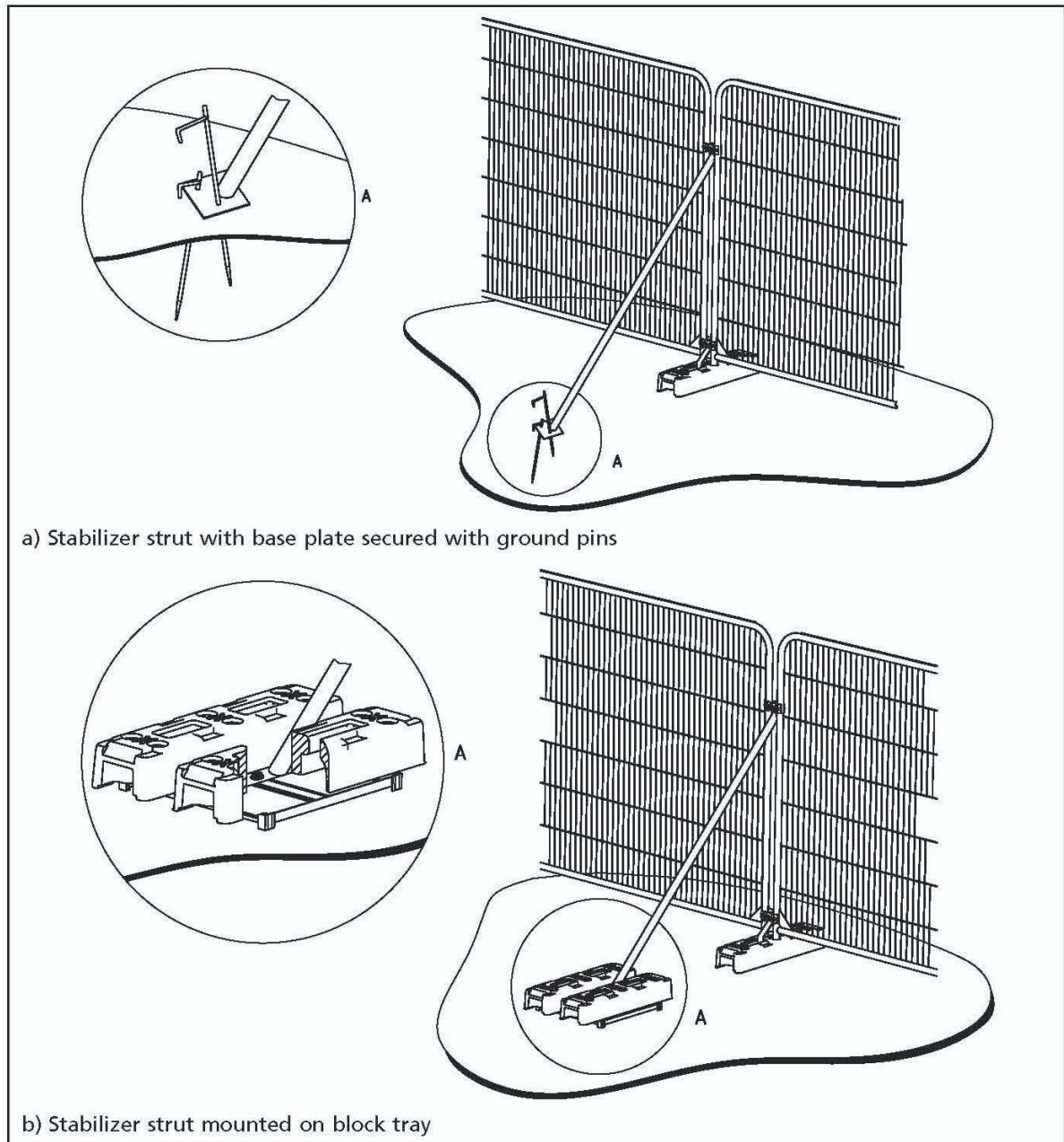
Further guidance is provided on the compensation measures which may be applied should adverse impacts arise.

Appendix 7

Tree Protective Fencing Specification



Figure 3 Examples of above-ground stabilizing systems



WHARTON

01789 459458 hello@wnic.co.uk wnic.co.uk

Head Office | The Coach House, Birmingham Road, Alcester, Warwickshire, B49 5HU
Lichfield Office | Georgian Mews, 24a Bird Street, Lichfield, Staffordshire, WS13 6PR



 Institute of
Chartered Foresters
Registered Consultant

Land
Trees
Ecology

