



ARBORICULTURAL IMPACT ASSESSMENT

At

**EAST HORTON GOLF CLUB,
MORTIMERS LANE,
FAIR OAK, EASTLEIGH,
HAMPSHIRE**

For:

EXDELL MANAGEMENT LTD

This report was compiled by
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*This report is the responsibility of Arbor-Eco Consultancy.
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.*

Report Number: MB240602-01

February 2025

EXECUTIVE SUMMARY

The development proposals for this site have been carefully considered by Exdell Management Ltd in consultation with East Horton Golf Club and Arbor-Eco Consultancy. There is an acute understanding of the importance of trees in the landscape and every effort has been made to retain all trees at this site.

1. It is understood that a Planning Application for site includes a two-phase construction program which includes for Phase 1;
 - Closure and re-planting of 1st Fairway,
 - New 1st Tee Box and new 1st Fairway along existing Driving Range,
 - Improved 18th Green,
 - Closure of existing Driving Range; reprofiling to create a swale and landform; replanting – all to create a new Garden, walkway and wildlife areas along with an attractive edge to the new 1st Fairway,
 - Accessibility improvements,
 - Alleviation of waterlogging and poor drainage.

and for Phase 2;

- Closure of holes 14, 15 and 18,
- Reprofiling and landscaping to create a new 300-yard driving range,
- Creating of swales and drainage to reduce waterlogging and improve drainage,
- OUTLINE ONLY (Construction of a new Driving Range building).

These phases of construction fall within both Eastleigh Borough Council and Winchester City Council Planning Departments.

2. There are a number of veteran and ancient trees that border the training facility fairway; however, these are outside of the proposed section of land and can be adequately protected.
3. As the land is already contoured and several sections of land have already been sculptured for playing golf, the conflict with the existing trees has been deemed to be minimal.
4. A number of trees have been identified for removal to facilitate the fairway development. There is a strong opportunity to carry out tree translocation in favour of felling and this should be investigated further.

Arbor-Eco Consultancy supports this Planning Application and proposed development layout in its current form. It must be remembered that there is no guarantee that this proposed development will be granted through the use of this report alone.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

Exdell Management Ltd commissioned Arbor-Eco Consultancy to compile an Arboricultural Impact Assessment following the undertaking of an Arboricultural Survey of trees situated on land at East Horton Golf Club, Fair Oak. The appointed Agents for this project are Exdell Management Ltd. The site is within the administrative boundary of Eastleigh Borough Council and within the county of Hampshire.

This report details the impact that the proposed development will have upon the site's existing tree stock and sets out recommendations for the subsequent mitigation or avoidance of impact. The study has been completed in accordance with guidance contained within British Standard BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.

1.2 SITE DESCRIPTION

The proposed development of land is located within the existing golf club and comprises of two bespoke areas of land adjacent to the existing club house. This includes,

- 260 acres of land
- 2 nr. 18-hole courses, a 9-hole par-3 course and driving range
- Golf shop, clubhouse and facilities
- Buggy store
- Fully licenced bar (Greenside Bar)
- Fully licenced function rooms and facilities with kitchens
- Groundskeepers Store with temporary facilities attached

The golf club is situated towards the north-eastern fringes of the settlement of Horton Heath and directly east of the village of Fair Oak. The site is situated a private driveway.

The site is dominated by existing club house, storage facilities, and various out-buildings, along with areas of hard surfacing, shrub borders, water features and scattered trees.

The two bespoke areas (see Section 5) are within the existing golf course and delineated from neighbouring land by a mix of natural and artificial structures.

The site is centred at National Ordnance Survey Grid Reference SU 50764 18213. The topography of the survey area is undulating and in keeping with a golf course layout.

Arbor-Eco Consultancy, Drawing Number MB240405-01-01 in Section 5 indicates the location of the trees surveyed.

1.3 DEVELOPMENT PROPOSALS

It is understood that a Planning Application for site includes a two-phase construction program which includes for Phase 1;

- Closure and re-planting of 1st Fairway,
- New 1st Tee Box and new 1st Fairway along existing Driving Range,
- Improved 18th Green,
- Closure of existing Driving Range; reprofiling to create a swale and landform; replanting – all to create a new Garden, walkway and wildlife areas along with an attractive edge to the new 1st Fairway,
- Accessibility improvements,
- Alleviation of waterlogging and poor drainage.

and for Phase 2;

- Closure of holes 14, 15 and 18,
- Reprofilling and landscaping to create a new 300-yard driving range,
- Creating of swales and drainage to reduce waterlogging and improve drainage,
- OUTLINE ONLY (Construction of a new Driving Range building).

1.4 DOCUMENTATION PROVIDED

This assessment is based upon the information provided by the clients' architect in addition to information collected by Arbor-Eco Consultancy. The documents and drawings considered are detailed within Table 1.1.

Author	Document	Document Number	Date
Aspect Landscape Planning	Landscape Strategy Plan	8466-ASP1.LSP	Mar 2024
Inert Surveying & Design Limited	Topographical Survey	SUR-03	May 2024
Exdell Ltd	Working Drawing Phase 1WIP	241213_DD678XR01	Feb 2025
Exdell Ltd	Working Drawing Phase 2WIP	241216_DD678XR02	Feb 2025

Table 1.1: Documentation Provided

2. STATUTORY PROTECTION

2.1 TREE PRESERVATION ORDER AND CONSERVATION AREA DESIGNATIONS

Examination of Eastleigh Borough Council (2024) interactive mapping system (<https://emaps.eastleigh.gov.uk/webmaps/Map.aspx?MapName=WebMaps>) accessed on 7th June 2024, indicated that, at the time of the survey, the trees surveyed are not the subject of a Tree Preservation Order (TPO).

Examination of Winchester Council (2025) interactive mapping system (<https://winch.maps.arcgis.com/apps>) accessed on 27th February 2025, indicated that, at the time of the survey, the trees surveyed are not the subject of a Tree Preservation Order (TPO).

Further examination of Eastleigh Borough Council (2024) interactive mapping system (<https://emaps.eastleigh.gov.uk/webmaps/Map.aspx?MapName=WebMaps>) accessed on 7th June 2024, indicated that, at the time of the survey, the site is not situated within a Conservation Area.

Further examination of Winchester Council (2025) interactive mapping system (<https://winch.maps.arcgis.com/apps>) accessed on 27th February 2025, indicated that, at the time of the survey, the site is not situated within a Conservation Area.

2.2 PROTECTED SPECIES

Bats: A bat survey must be performed on the relevant roost potential prior to demolition. If bats are found to be present, a Natural England licence will be required prior to demolition. 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, as amended (Habitats Regulations 2017, as amended). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process. As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present. The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on public bodies to have regard for the conservation of biodiversity and maintains lists of species and habitats which are of principal importance for the purposes of conserving biodiversity in England and Wales. A number of bat species are listed on Section 41 (England) and Section 42 (Wales) of the NERC Act 2006.

Nesting Birds: The removal of relevant features must be undertaken outside of the bird nesting season (this generally extends between March and August but is weather dependent). If this is not possible the area concerned should be checked immediately prior to removal by a suitably qualified ecologist. Nesting and nest building birds 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.

2.3 LAND DESIGNATIONS (NATURAL ENGLAND)

For land you own or occupy, Natural England can select all or part of it for protection. Natural England will do this when it believes the site has features of special interest, such as its:

- wildlife
- geology
- landform

Natural England will 'notify' (or designate) the land, for example, as a site of special scientific interest (SSSI).

East Horton Golf Course is not situated within a designated Natural England site at the time of writing the report. However, it is important to note that a Site of Interest to Nature Conservation does exist to the north of the site and this must be a consideration in the planning application.

2.4 BIODIVERSITY NET GAIN

Biodiversity Net Gain (BNG) is an approach to development. It makes sure that habitats for wildlife are left in a measurably better state than they were before the development.

In England, BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021).

2.5 OCCUPIERS' LIABILITIES ACT 1957 AND 1984

An occupier of premises owes the same duty, the "common duty of care", to all his visitors whether by invite or otherwise. The common duty of care is a duty to take such care as in all the circumstances of the case is reasonable to see that the 'visitor' will be reasonably safe in using the premises for the purposes for which he is invited or permitted by the occupier to be there or for purposes other than that which they have been invited (trespassers).

3. ARBORICULTURAL IMPACT ASSESSMENT

3.1 INTRODUCTION

All trees within and closely surrounding the site have been surveyed and each has been identified with a unique number.

The development proposals have been provided in two bespoke phases. Phase 1 to develop the wedding venue and putting greens. Phase 2 to develop a new fairway.

The location of the trees can be found in Section 5, Arbor-Eco Consultancy, Drawing Numbers;
Phase 1 - MB240602-01-01 TCP
Phase 2 - MB240602-01-02 TCP

A schedule of the trees surveyed can be found within Appendix 1, again divided between the two phases.

3.2 DEVELOPMENT DESIGN AND LONG-TERM IMPACTS

3.2.1 Potential Impact on the Amenity Value of Trees

Impacts

Tree Removal

Phase 1:

The proposed development and soft landscaping scheme will require the removal of two trees within G1 to permit its successful implementation.

Phase 2:

The proposed development and soft landscaping scheme will require the removal of tree numbers T8 to T21, and two groups of trees, G3 and G4

Proposed Tree Works

To permit space for the proposed development and to provide working space for the hard and soft landscaping improvements it will be necessary to carry out tree work on this site prior to any other works being carried out. The proposed tree works are detailed in Table 3.1a and 3.1b.

Tree No	Species	BS5837 Cat	Tree work and reason required
G1	Norway Maple Raywood Ash	C	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.

Table 3.1a: Tree Works Required Phase 1

Tree No	Species	BS5837 Cat	Tree work and reason required
8	Scots Pine	B1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
9	Scots Pine	C1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
10	Silver Birch	B1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
11	Silver Birch	C1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
12	Hornbeam	C1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.

Table 3.1b: Tree Works Required Phase 2 (continues)

Tree No	Species	BS5837 Cat	Tree work and reason required
13	Silver Birch	B1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
14	Silver Birch	C1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
15	Sweet Chestnut	B1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
16	Silver Birch	B1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
17	Scots Pine	B1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
18	Scots Pine	B1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
19	Scots Pine	B1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
20	Silver Birch	B1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
21	Scots Pine	B1	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
G3	Scots Pine	B2	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.
G4	Scots Pine Silver Birch	B2	To remove in order to facilitate the proposed development. Investigate tree translocation in favour of felling.

Table 3.1b: (cont'd) Tree Works Required Phase 2

As a precaution from the entrance to the site, all trees and vegetation that overhang the highway should be crown-lifted to at least 5.2 m above ground level to allow safe passage of high sided vehicles as well as being cut back sufficiently from the edge of the carriageway to allow clearance for wing mirrors. Trees and vegetation that overhang footways and footpaths should be crown-lifted to at least 2.5 m above ground level and cut back to ensure the footpath/way is at least 1.2 m in width. This is to allow safe passage for all footpath/way users including wheelchairs, mobility scooters, etc.

These heights have been selected as an acceptable standard and any vegetation below this may be deemed to be an obstruction. The local authority may enforce Section 154 of the Highways Act (1980) which allows a Local Authority to serve notice upon the owner of the trees/ vegetation informing them that they need to clear any obstructions safely.

Mitigation/Avoidance

There is evidence of new planting on the proposed layout drawings. In addition, in favour of felling the trees which could attract a high BNG metric penalty, the translocation of these trees should be investigated with a receptor site within the curtilage of the golf course.

New tree planting should be carried out in accordance with British Standard 8545:2014 Trees: from nursery to independence in the landscape – Recommendations.

3.2.2 Proximity of Trees to Proposed Structure

Impacts

Branch Spread

It is evident that an existing tree management regime existed, in the form of pruning (as was noted at the time of the inspection) and it is noted that any future conflict that may arise from the proposed development can be appropriately managed through continued management works to the trees,

hedgerows and shrubs canopy. So long as such works are completed in accordance with best practice guidance, they will not cause significant harm to the health or amenity value of the tree.

It was observed that good practice in the form of flailing, pruning and tree health management has been carried out at this site. Should this continue, then any trees planted would receive the same amount of care.

Shading

It is unlikely that the trees will cause any significant shading during the day as the sun tracks across the horizon. The orientation of the buildings and aspects of the windows (Phase 1) would suggest that any shading of the western face of the building could be felt in the mid to late afternoon. Therefore, it can be assumed that no significant shading of primary living spaces within the proposed new buildings is likely to occur due to existing or proposed trees.

Leaf Litter, Fruits, Pollen, Sap etc.

Whilst the majority of the retained trees are species associated with significant fruit fall, leaf and branch drop or sap exudate problems the inconvenience experienced can be overcome by implementing good housekeeping as was evident during the survey.

Mitigation/Avoidance

Trees across this site will be the subject of cyclical pruning as the trees continue to grow. Further works will be required in the future to prevent conflict occurring. However, such works will not be significant as to impact the long-term visual quality of the trees and hedgerows.

With respect to leaf litter, it is noted that the sweeping up of leaves and cleaning of gutters, which may become blocked by falling leaves, is considered to be routine seasonal household maintenance and, as such, no notable conflict with the proposed development is considered 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.

3.3 POTENTIAL IMPACTS FROM CONSTRUCTION PROCESSES OF THE PROPOSED DEVELOPMENT

3.3.1 Potential Root and Canopy Protection

To prevent harm occurring to retained trees during development it is recommended that construction works are excluded from the Root Protection Areas (RPA) of retained trees. Additionally, works should not be undertaken beneath the canopy spread of retained trees where this can be avoided.

The RPA represents the minimum area around trees that must be left undisturbed to ensure their survival. The roots typically occupy the top 600 mm of soil and the fine roots which absorb water, oxygen and nutrients are situated in the top 100 mm of soil. Any incursion into the rooting zone of a tree can cause a notable impact upon a tree's health.

Where existing buildings and areas of hard surfacing exists within the RPA of retained trees it is very likely that the rooting will have occurred asymmetrically due to the hard structures and the morphology of the roots is such that they are likely to have formed a fan shape with many roots running parallel to the man-made structures rather than being offset so far in to the site. The current RPA is shown in accordance with the guidance within BS5837:2012 which is effectively a presumed calculation of the extent of a tree's root system that is required to ensure the continued vigour of a tree.

Demolition and construction work carried out within the RPAs of the retained trees will cause the greatest damage. Soil that has been compacted will not provide suitable conditions for the survival and growth of vegetation, whether existing or new, and is a common cause of post-construction tree loss on development

sites. Compacted soil will adversely affect drainage, gas exchange, nutrient uptake and organic content, and will seriously impede or restrict root growth. The risk of soil compaction is greatest in soils with a significant clay content and in wet conditions. It can result from temporary or short-term loadings, such as the passage of a single vehicle, or from longer-term construction activities, including materials storage.

The RPA and canopy spread of each tree to be retained is shown on Arbor-Eco Consultancy, Drawing Numbers Phase 1 - MB240602-01-01 TCP, Phase 2 - MB240602-01-02 TCP, Section 5. Additionally, details of the crown spread measurements are contained within Appendix 1 and a schedule of RPAs for trees on the site is located at Appendix 2.

Impacts

Since the trees that would be in the greatest area of conflict will be removed or translocated, it is considered that the retained trees identified on Arbor-Eco Consultancy, Tree Protection Drawings; TPP - Phase 1 - MB240602-01-03, TPP - Phase 2 - MB240602-01-04, Section 5, will not be so significantly impacted upon with the adoption of tree protection measures and good working practices as described below.

Overall, it is considered that the potential for harm to occur to the root systems of retained trees can be adequately controlled through the adoption of appropriate working practices and erection of protective barriers to exclude access from vulnerable sections of trees RPAs.

Mitigation/Avoidance

Construction Exclusion Zones

It is acknowledged that the retained trees will be at a significant distance from the main development that installing tree protection barriers of a high grade and to BS5837:2012 would not be cost effective or necessary. The tree protection barriers can be installed as shown on Figure 3, Appendix 3 as this is a relatively low-impact development in terms of trees.

To minimise the potential for harm to occur to the root systems and canopies of retained trees during development it will be necessary to implement construction exclusion zones throughout the site. These are areas surrounding the trees' RPAs and canopies in which no demolition or construction works, or related activities, will be undertaken. These zones will be demarcated by the erection of tree protection barriers prior to any works (with the exception of tree works) being carried out.

It is recommended that the exclusion zones are afforded protection at all times through the use of tree protection barriers (specified in accordance with BS5837:2012 as mentioned above). It must be noted that any hoarding and tree protection barrier uprights driven into the ground must adopt the procedures as specified within Section 3.3.9.

Where hard surfacing already exists on site, consideration should be given so that these areas will be retained and utilised as ground protection within the RPAs of retained trees until the replacement of hard landscaping is implemented into the construction phase of the development. The retention of the hard surfacing is deemed suitable ground protection and therefore the conflict with retained tree's roots is eliminated.

Where the replacement of hard surfacing is being considered then retaining the sub-base hard-core layer will also reduce the risk of root damage.

Arbor-Eco Consultancy, Tree Protection Drawings; TPP - Phase 1 - MB240602-01-03, TPP - Phase 2 - MB240602-01-04, Section 5, provides a Tree Protection Plan indicating the potential location of tree protection barriers.

All works within the RPA of a retained tree shall be carried out under the supervision of the retained Arboricultural Consultant. All tree protection measures should be confirmed for their position and suitability prior to any construction works being carried out (See Section 3.3.13 for contact details).

3.3.2 Site Construction Access

Impacts

Construction access to the site will need to make use of the existing access routes in to the golf course of Mortimers Lane, and select a route as shown on Tree Protection Drawings; TPP - Phase 1 - MB240602-01-03, TPP - Phase 2 - MB240602-01-04, Section 5.

To minimise the potential for harm to occur to the crowns of the retained trees which overhang the route further access facilitation pruning works may be required over time due to seasonal extension growth to the existing vegetation. The extent of such pruning works should be revised prior to any construction traffic entering the site. Maximum heights of vehicles should also be investigated to ensure crown height is sufficient throughout the various phases of the development.

Additionally, where vehicles need to pass within close proximity to retained trees protective barriers should be installed to prevent vehicles accidentally encroaching into areas where retained trees are situated to minimise the potential for collision damage to trees stems occurring.

Mitigation/Avoidance

All trees surrounding the potential access routes should be adequately fenced or protected to ensure that no damage to these specimens occurs during construction activities.

The retained Arboricultural Consultant shall submit a summary written report or email to the local authority confirming that all tree protection measures are in place, fit for purpose and adequately signed prior to construction or demolition works being carried out.

3.3.3 Contractors Parking

Impacts

The location of contractor parking is yet to be determined but it is understood that it will occur within existing parking areas and well away from the RPAs of retained trees.

Mitigation/Avoidance

No contractor parking is to occur at this site. The Contracts Manager is to ensure that all highway laws are respected and **no parking** is to occur on any highway verge. No neighbouring property shall be inconvenienced by construction or contractor activity.

3.3.4 Site Cabins and Welfare Facilities

Impacts

The location of the Site Cabins and Welfare Facilities is yet to be determined; however, it is understood that it will occur in locations well away from the RPAs of retained trees.

Mitigation/Avoidance

Installation of protective barriers and ground protection to ensure that trees are protected from physical damage resulting from works to establish a Site Cabins and Welfare Facilities.

3.3.5 Delivery and Storage of Materials

Impacts

The proposed locations for site deliveries and materials storage during the development is yet to be determined; however, it is understood that it will occur outside of the RPAs of retained trees.

Mitigation/Avoidance

Ensure no storage occurs upon un-surfaced ground within the defined RPAs of the retained trees via the installation of protective barriers and ground protection.

3.3.6 Demolition of Existing Structures

Impacts

The proposed development of the site will not require the demolition of any existing building to facilitate the project.

Mitigation/Avoidance

None required.

3.3.7 Construction of Buildings

Impacts

There are no proposed new buildings for this planning application.

Mitigation/Avoidance

None required.

3.3.8 Construction of New Hard Surfacing

Impacts

Examination of Exdell Ltd, Proposed Site Layout, does not indicate whether any hard surfacing will be considered for renewal or refurbishment. However, as the trees are at a significant distance from the hard surfacing (Phase 1) it is unlikely that any conflict will occur.

The potential for significant harm to occur to the retained trees can be controlled through adoption of appropriate working techniques, tree protection measures along with adequate supervision as deemed necessary once the final design is completed.

No access shall occur within the Construction exclusion Zone without the permission of the retained Arboricultural Consultant or Arboricultural Officer for the Local Authority (See Section 3.3.13 for more details).

Mitigation/Avoidance

Should new hard surfacing be a consideration then discussions with the retained arboricultural consultant shall take place beforehand so that the ground remains protected within the RPAs. Should there be a requirement to construct or replace hard surfacing within proximity of a retained tree then this will be carried out under the supervision of the retained Arboricultural Consultant or Arboricultural Officer for the Local Authority (See Section 3.3.13 for more details).

In particular:

- Works shall be conducted in such a manner as to prevent physical damage to roots during construction, such as soil compaction or root severance.
- Provision for water and oxygen to reach the roots must be made and the soil structure must not be disturbed.

- Provision must be made for future root growth and precautions taken to ensure that such root growth does not cause unacceptable levels of damage to the finished construction.
- The soil must not be compacted and soil bulk density must be maintained at suitable levels for tree root growth and function. In this respect, a soil bulk density of over 1.8g/cm³ is likely to impede root growth and function.

To achieve the above requirements for tree root growth and function the proposed temporary hard surfaces shall be designed so that:

- No excavation of bare ground is required for their installation; to ensure that physical root damage does not occur.
- The surface can be installed without compaction of the existing soils; thus, ensuring damage to the soil structure does not occur.
- The surface is permeable; thus, ensuring that oxygen and water can reach the root system and that CO₂ can diffuse vertically out of the soil as high concentrations can cause root suffocation.

No work shall commence to refurbish or renew hard surfacing without first confirming the drawings and design with the retained Arboricultural Consultant (See Section 3.3.13 for contact details).

3.3.9 Boundary and Ancillary Structures

Impacts

The exact details of any proposed boundary structures are not known at this time; however, it is understood that they will remain unchanged.

Mitigation/Avoidance

As a precaution, the location of any concrete foundations and supporting posts needs to be carefully considered to ensure no damage to the adjacent trees occurs. For example, due to the highly alkaline leachate produced during the curing process of wet concrete, the concrete should not be poured within the RPA of a retained tree unless an impermeable liner has been installed.

Foundations for any proposed retaining wall within an RPA should not be of traditional trench style but consideration made for an above ground bridged-lintel to allow for future growth both above and below ground.

Additionally, any new fence posts should not be constructed within 1.0 m of the stem of any retained tree. Consideration for the use of half-panels to relocate fence posts away from retained trees by measuring site boundaries beforehand is recommended. This will reduce the amount of excavation for post foundations required within the RPAs of the retained trees. Any excavation for fence posts in RPAs will need to occur by hand and under arboricultural supervision to ensure no root damage occurs (See Section 3.3.13 for contact details).

No machinery should be used for the installation of fence posts and ground protection may be a consideration in some circumstances.

In accordance with BS5837:2012 all areas of construction activity within the RPA should be supervised by the retained Arboricultural Consultant (See Section 3.3.13 for contact details).

3.3.10 Site Gradients

Impacts

There will be minor adjustments with gradients when the fairway development is considered, however, this will be carried out well away from the retained trees and no conflict is anticipated.

Mitigation/Avoidance

Where gradients are considered, so long as this is carried out well away from retained trees then no damage to underlying roots shall occur.

3.3.11 Service Requirements

Impacts

As the site was previously developed there are existing service connections throughout part of it and it as such it is considered that various opportunities to create new service connections without harming trees exist.

Mitigation/Avoidance

The methodology for the installation, maintenance or removal of any services within an RPA will be in accordance with NJUG Volume 4 'Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees'. This will include hand dug 'broken' trenches to ensure that maximum protection is given to tree roots.

It is advised that the installation of any new services and drainage occur outside the RPAs of the retained trees. It is also advised that CCTV and lighting columns should not be situated in locations which will place future pressure on trees for crown pruning due to visibility/shadowing. Any lighting bollards, road signage or similar structures that require to be fixed to the ground with underground services shall be fitted outside of the RPAs of retained trees.

All areas of construction activity within the RPA of a retained tree should be supervised by the retained Arboricultural Consultant (See Section 3.3.13 for contact details).

3.3.12 Preconstruction Recommendations

Auditable systems of site monitoring should be made available to the Local Planning Authority/Arboricultural Officer and included within the program of development construction as recommended within BS5837:2012. This should include a schedule of events whereby periods of supervision or input from the Project Arboriculturist is required (See Section 3.3.13 for contact details).

Carry out all tree works prior to any demolition or construction activity taking place.

A pre-commencement site meeting involving all interested parties should be convened to confirm;

- Phased Construction of Phase 1 and Phase 2;
- Confirmed location for Tree Protection Measures;
- Underground Services Installation Methodology;
- Site Compound location and set-up;
- Parking locations;
- Audit and Periods of Supervision.

3.3.13 Contact Details

Name: Marco Bartolini

Position: Arboricultural Consultant

Mobile: 07542 093882

Email: arborecoconsultancy@gmail.com

Arboricultural Officer

Local Authority: Eastleigh Borough Council

Address: Eastleigh House, Upper Market Street, Eastleigh SO50 9YN

Phone: 023 8068 8000

3.3.14 Additional Considerations

Planning Context; National Planning Policy Framework

It is important to note that trees are a material consideration in the UK planning system and existing trees are an important factor requiring forethought when assessing the development potential of a site, whether they are within the working area or within such proximity to it that they may be affected by construction operations.

Environmental Benefits of Trees

It is worthwhile noting that the trees can intercept many of the hostile elements humans and animals need shelter from. Trees provide shading and offer significant humidity regulation and a cooling effect felt at ground level. All trees will consume a considerable amount of ground water that will regulate the local hydrology and may assist with the removal of local flooding issues. A mature tree will consume tens of thousands of litres of water during a year. A group of trees can provide an element of acoustic dampening effect at ground level and growing next to a road many tree species have been linked with the sequestration of impurities from the atmosphere. Finally, the trees will provide some shelter from prevailing winds and inclement weather. Therefore, it can be seen that the trees will benefit, rather than hinder, the landscape in which they are growing.

Biodiversity Enhancement

Biodiversity Net Gain (BNG) is an approach to development. It makes sure that habitats for wildlife are left in a measurably better state than they were before the development.

In England, BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021).

Developers must deliver a minimum BNG of 10%. This means a development will result in more or better-quality natural habitat than there was before development. The developer must also maintain the habitats created or enhance them for a minimum of 30 years. This applies to any off-site gains or significant on-site gains.

Tree Translocation

The author has carried out a study and published findings of the benefits of tree translocation. In terms of financial benefits, it is deemed that the cost of removal is equal or less to that of translocation (previous case studies verify). In addition, the benefits of tree movement within the site will allow the trees to adapt quickly (same geology and hydrology) and growth should not be delayed or stunted.

4. ARBORICULTURAL METHOD STATEMENT

An Arboricultural Method Statement is not considered for the project as the various aspects of the proposed construction phases that require works to be undertaken within close proximity to the RPAs of retained trees can be adequately supervised by the retained Arboricultural Consultant.

The purpose of a 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, specification and extent of tree protection barriers if deemed necessary.

5. DRAWINGS

Tree Constraints Plans;

TCP - Phase 1 - MB240602-01-01

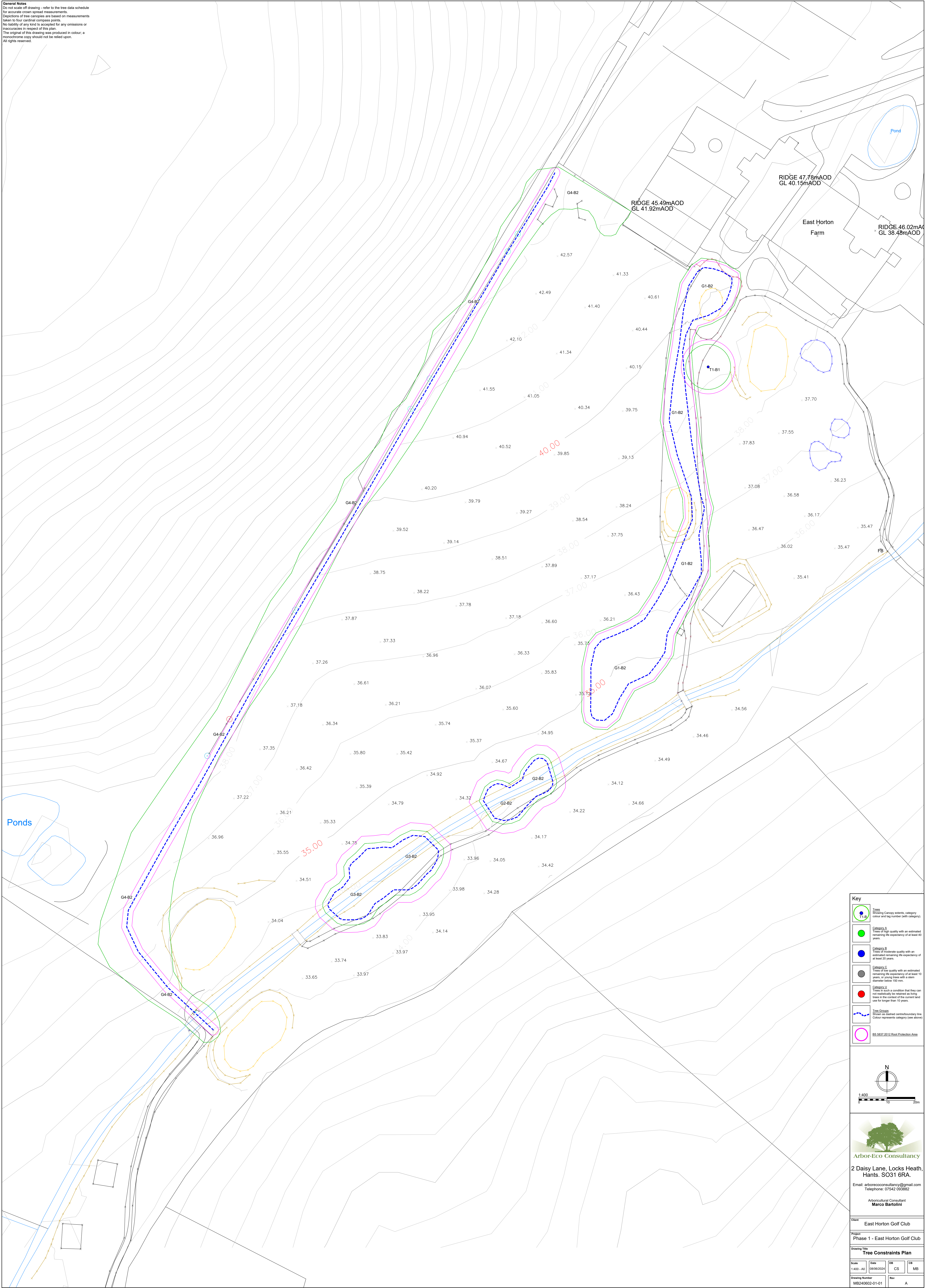
TCP - Phase 2 - MB240602-01-02

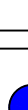
Tree Protection Drawings;

TPP - Phase 1 - MB240602-01-03,

TPP - Phase 2 - MB240602-01-04.

General Notes
Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
Depictions of tree canopies are based on measurements taken to four cardinal compass points.
No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.
The original of this drawing was produced in colour; a monochrome copy should not be relied upon.
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Tree
Showing Canopy extent, category color and tag number (with last digit 0)



Category A
Tree of top quality with an estimated remaining life expectancy of at least 40 years



Category B
Tree of moderate quality with an estimated remaining life expectancy of at least 20 years



Category U
Tree of poor quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 100 mm



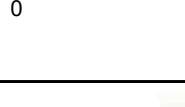
Category I
Tree in a condition that they can not realistically be retained as living trees in the context of the current land use for longer than 10 years



Tree group
Showing the relative corresponding line. Colour represents category (see above)



BS 5837:2012 BS6 Protection Area



Arboriculture Consultant
Marco Bartolini

Client East Horton Golf Club

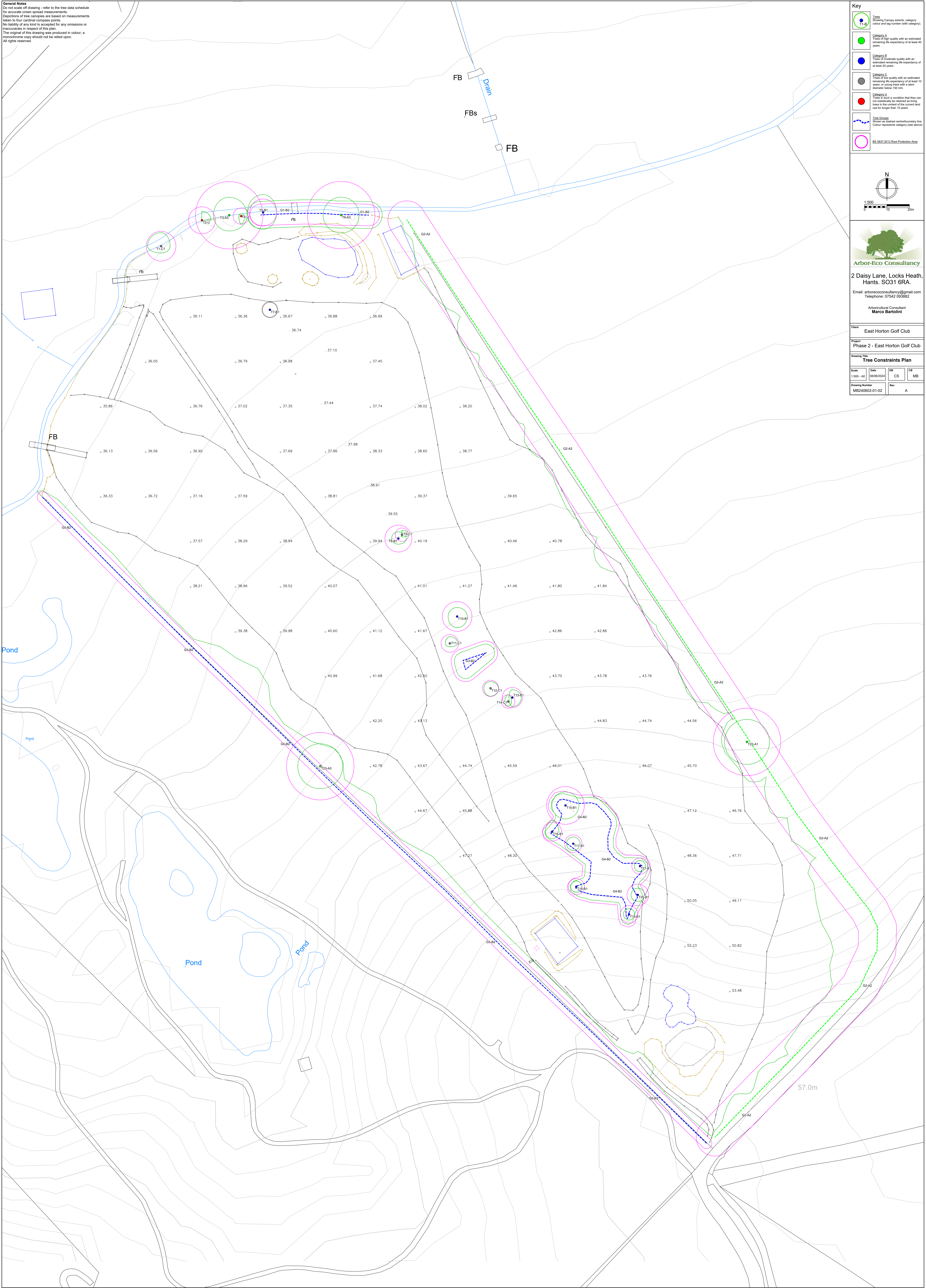
Project Phase 1 - East Horton Golf Club

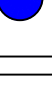
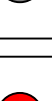
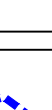
Drawing Title **Tree Constraints Plan**

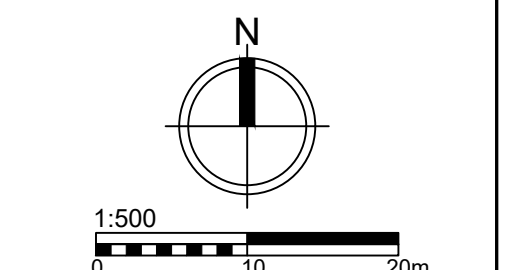
Scale	Date	DS	CS	MB
1:400 - A2	09/06/2024			

Drawing Number MB240602-01	Rev A
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General Notes
Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
Depictions of tree canopies are based on measurements taken to four cardinal compass points.
No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.
The original of this drawing was produced in colour; a monochrome copy should not be relied upon.
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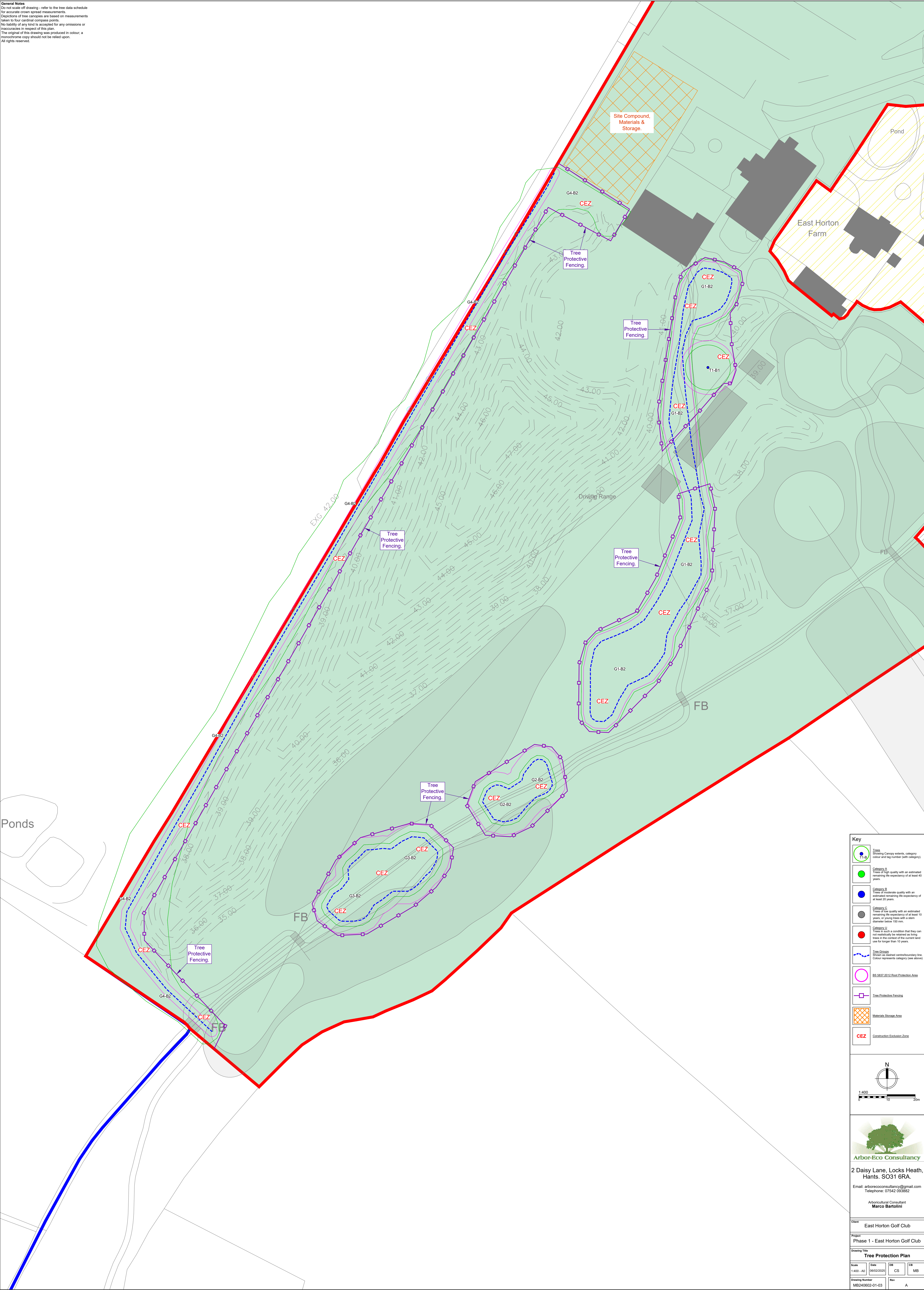


Key	
	Tree Showing Canopy extent, category colour and tag number (with category)
	Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years
	Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
	Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm
	Category U Trees in such a condition that they can not realistically be retained as living trees in the context of the current land use for longer than 10 years
	Tree Group Shown as dashed centrebodyline-line. Colour represents category (see above)
B5 5837-2013 Root Protection Area	



Client			
East Horton Golf Club			
Project			
Phase 2 - East Horton Golf Club			
Drawing Title			
Tree Constraints Plan			
Scale	Date	DB	CB
1:500 - AD	08/06/2024	CS	MB
Drawing Number		Rev	
MB240602-01-02		A	

General Notes
Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
Depictions of tree canopies are based on measurements taken to four cardinal compass points.
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The original of this drawing was produced in colour; a monochrome copy should not be relied upon.
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Key

- Trees showing canopy extents, category colour and tag number (with category).
- 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 100 mm.
- Category D**
 Trees in such a condition that they can not realistically be retained as living trees in the context of the current land use for longer than 10 years.
- Tree Groups
Shown as dashed centre/boundary line. Colour represents category (see above).
- BS 5837:2012 Root Protection Area
- Tree Protective Fencing
- Materials Storage Area
- Construction Exclusion Zone

1:400
0 10 20m

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Arboricultural Consultant
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Client
East Horton Golf Club

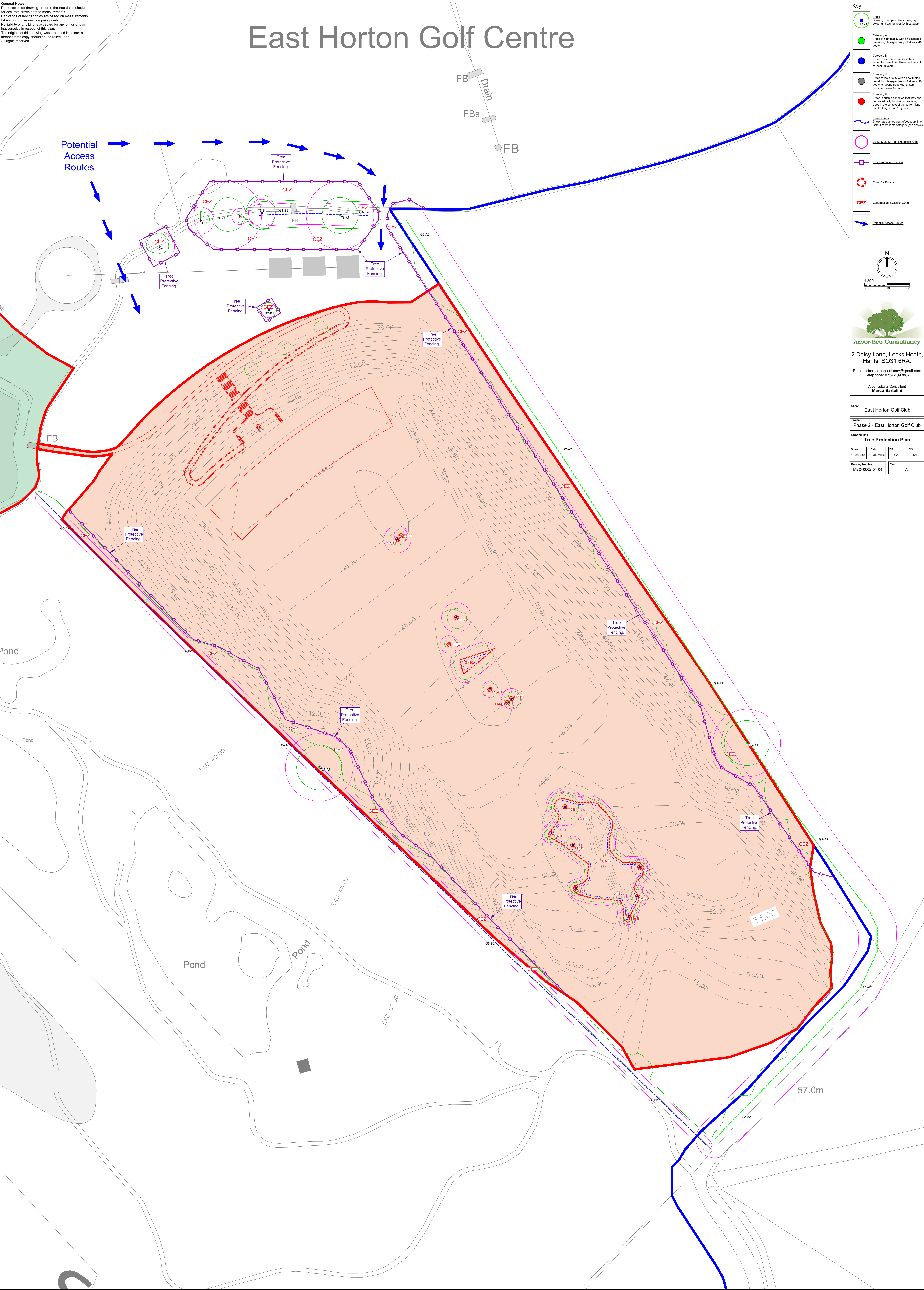
Project
Phase 1 - East Horton Golf Club

Drawing Title
Tree Protection Plan

Scale 1:400 - A0	Date 06/02/2025	CS CS	CB MB
Drawing Number MB240602-01-03	Rev A		

General Notes
Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
Depictions of tree canopies are based on measurements taken to four cardinal compass points.
No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.
The original of this drawing was produced in colour; a monochrome copy should not be relied upon.
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East Horton Golf Centre



Key

- Tree
Showing Canopy extent, category colour and tag number (with category)
- Category A
Tree of high quality with an estimated remaining life expectancy of at least 40 years
- Category B
Tree of moderate quality with an estimated remaining life expectancy of at least 20 years
- Category C
Tree of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 100 mm
- Category U
Tree in such a condition that they can not realistically be retained as living trees in the context of the current land use for longer than 10 years
- Tree Groups
Shown as dashed centreboundary line. Colour represents category (see above)
- BS 5837:2012 Root Protection Area
- Tree Protective Fencing
- Trees for Removal
- CEZ
Construction Exclusion Zone
- Potential Access Routes

North Arrow
1:500
10 20m

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Project
Phase 2 - East Horton Golf Club

Drawing Title
Tree Protection Plan

Scale	Date	CS	MB
1:500 - A0	06/02/2025	CS	MB

Drawing Number	Rev
MB240602-01-04	A

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APPENDICES

APPENDIX 1:	Table A1.1 – Tree Survey Schedule
APPENDIX 2:	Table A2.1 – Root Protection Areas of Category A, B and C Trees
APPENDIX 3:	Headings for Tree Protection Signs and Example Sign
APPENDIX 4:	Tree Protection Barriers (Default and Variant)
APPENDIX 5:	Photographic Montage
APPENDIX 6:	Trees; Causes Of Death – Construction Site

APPENDIX 1

Table A1.1 – Tree Survey Schedule Phase 1 & Phase 2

Phase 1 Tree Survey Results

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	Ht.1 st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
1	Oak	1	800	17.0	2.0 S	8.0	8.0	8.0	8.0	2.0	2.0	2.0	2.0	M	G	G	20+	B1	• Compacted RPA. • Major deadwood in canopy. • Overhanging footpath between clubhouse and fairway. • Artificial structures within RPA.	Crown clean over footpath.
G1	Oak Norway Maple Sweet Gum Ash Raywood Ash Cherry Lime	EM	350	12.0	1.0 S	5.0	5.0	5.0	5.0	1.0	1.0	1.0	1.0	Y EM	G	G	20+	B2	• Low hanging branches. • Ash dieback evident. • Linear group providing good visual separation between fairways.	Crown clean Ash trees of deadwood.
G2	Ash	1	850	18.0	2.0 N	7.0	7.0	7.0	7.0	2.0	2.0	2.0	2.0	EM M OM	F	G	20	B2	• Dominant species of Ash in group. • Ash dieback evident. • Ivy on stems and in crowns limited access to survey. • Growing either side of watercourse upon banks. • Roots undermined by watercourse. • Exposed roots. • Major deadwood in crowns.	Crown clean deadwood.
G3	Ash Oak Alder Hawthorn	1	450	20.0	0.0 W	8.0	8.0	8.0	8.0	1.0	1.0	1.0	1.0	Y EM M OM	F	F	20+	B2	• Dominant species of Ash and Oak trees. • Ash dieback evident. • Ivy on stems and in crowns limited access to survey. • Growing either side of watercourse upon banks. • Roots undermined by watercourse. • Exposed roots. • Major deadwood in crowns.	Crown clean deadwood.

Table A1:1 Tree Survey Schedule (continues)

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	Ht 1 st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
G4	Elder Hawthorn Willow species. Silver Birch Oak Ash Rose Bramble Field Maple Cherry Plum	1	150	8.0	0.0 S	4.0	4.0	4.0	4.0	0.0	0.0	0.0	0.0	Y EM M	G	G	20+	B2	• Mainly of-site group beyond chain-link fence. • Compacted RPAs. • Ash dieback evident. • Linear group providing good visual separation between sites.	Nothing required at time of survey.
Key <u>Age Class</u> Y: Young = tree within first third of average life expectancy EM: Early mature = tree within second third of average life expectancy M: Mature = tree within final third of average life expectancy OM: Over mature = tree beyond average life expectancy V: Veteran = shows signs of retrenchment and in decline. D: Dead.						<u>Physiological Condition</u> G: Good = no health problems F: Fair = symptoms of ill health that may be remedied P: Poor = poor health D: Dead <u>Structural Condition</u> G: Good = no structural defects F: Fair = remedial structural defects P: Poor = significant structural defects D: Dead										<u>000</u> : Estimated measurement due to access restrictions RPA: Root Protection Area Major deadwood: branches in excess of 50 mm diameter Minor deadwood: branches/twigs less than 50 mm diameter Int: Interim category due to access restrictions.				

Table A1:1 (cont'd) Tree Survey Schedule Phase 1

Phase 2 Tree Survey Results

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	Ht.1 st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
1	Ash	1	<u>550</u>	21.0	4.0 W	<u>6.0</u>	<u>4.0</u>	<u>3.0</u>	<u>6.0</u>	3.0	5.0	2.0	1.0	OM	P	F	10+	C1 Int	- Ash dieback evident. - Growing on bank of watercourse with restricted access. - Roots undermined by water. - Good wildlife value.	Retain for wildlife habitat – low risk due to restricted public access.
2	Ash	1	<u>480</u>	12.0	5.0 E	<u>4.0</u>	<u>4.0</u>	0.0	0.0	<u>4.0</u>	<u>4.0</u>	<u>0.0</u>	<u>0.0</u>	EM	P	P	<10	U	- Ash dieback evident. - Growing on bank of watercourse with restricted access. - Roots undermined by water. - Good wildlife value.	Retain for wildlife habitat – low risk due to restricted public access.
3	Oak	1	<u>850</u>	16.0	4.0 S	<u>8.0</u>	8.0	7.0	<u>7.0</u>	3.0	4.0	2.0	2.0	V	F	G	40+	A3	- Veteran tree. - Ganoderma australe fungal bracket at base of stem. - Growing on bank of watercourse with restricted access. - Roots undermined by water. - Retrenching canopy. - Major deadwood in crown.	Retain deadwood for wildlife habitat.
4	Field Maple	2	<u>290</u>	10.0	0.0 N	1.0	1.5	3.5	1.0	0.0	0.0	0.0	0.0	EM	P	F	<10	U	- Bifurcated at ground level. - Major deadwood in crown. - Apical dieback. - Retrenching canopy with decay pockets.	Retain for wildlife habitat – low risk due to restricted public access.
5	Oak	1	<u>500</u>	16.0	2.0 N	<u>8.0</u>	6.0	7.5	<u>7.0</u>	5.0	2.0	2.0	3.0	EM	G	G	20+	B1	- Ivy on stem and in crown limited access to survey. - Growing on bank of watercourse with restricted access. - Roots undermined by water. - Major deadwood in crown.	Retain deadwood for wildlife habitat – low risk due to restricted public access.
6	Oak	1	1200	18.0	2.0 N	8.0	8.0	8.0	8.0	2.0	2.0	2.0	2.0	V	G	G	40+	A3	- Landscape veteran tree. - Growing on bank of watercourse with restricted access. - Roots undermined by water. - Retrenching canopy. - Major deadwood in crown. - Ganoderma australe fungal bracket at base of stem. - Damage to buttress roots.	Retain deadwood for wildlife habitat – low risk due to restricted public access.

Table A1:1 Tree Survey Schedule (continues)

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	Ht 1 st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
7	Silver Birch	1	270	13.0	2.0 S	3.5	3.5	3.5	3.5	2.0	2.0	2.0	2.0	EM	G	G	20+	B1	• No visible significant defects.	None required at time of survey.
8	Scots Pine	1	480	11.0	2.0 E	3.0	3.5	2.5	3.0	3.0	2.0	3.0	3.0	EM	G	G	20+	B1	• No visible significant defects.	None required at time of survey.
9	Scots Pine	1	240	8.0	3.0 N	2.0	3.0	1.0	0.0	2.0	2.0	2.0	2.0	EM	G	G	20+	C1	• No visible significant defects.	None required at time of survey.
10	Silver Birch	1	530	15.0	1.5 E	4.0	4.5	5.0	4.0	2.0	2.0	2.0	2.0	M	G	G	20+	B1	• Bifurcated at 1.5 m above ground level. • Exposed surface roots.	None required at time of survey.
11	Silver Birch	1	310	11.0	1.5 E	3.0	3.5	1.5	2.0	2.0	2.0	2.0	2.0	EM	G	F	10+	C1	• Bifurcated at 1.5 m above ground level. • Asymmetrical canopy.	None required at time of survey.
12	Hornbeam	1	300	9.0	1.0 N	3.0	3.5	3.5	3.0	1.0	1.0	1.0	1.0	EM	F	G	10+	C1	• Apical stem previously snapped out. • Multi-stemmed at 1.2 m above ground level.	None required at time of survey.
13	Silver Birch	1	370	11.0	2.0 S	3.5	4.0	4.0	1.5	2.0	2.0	2.0	2.0	M	G	F	20+	B1	• Swept stem. • Asymmetrical canopy due to T14.	None required at time of survey.
14	Silver Birch	1	250	13.0	2.0 S	3.0	1.5	2.0	1.5	5.0	4.0	2.0	2.0	EM	F	F	10+	C1	• Swept stem. • Asymmetrical canopy due to T13.	None required at time of survey.
15	Sweet Chestnut	1	680	12.0	1.0 N	6.0	6.0	6.0	6.0	2.0	2.0	2.0	2.0	M	G	G	20+	B1	• No visible significant defects.	None required at time of survey.
16	Silver Birch	1	350	17.0	2.0 N	5.0	3.0	3.0	3.0	1.0	1.0	1.0	1.0	M	G	G	20+	B1	• No visible significant defects.	None required at time of survey.
17	Scots Pine	1	310	8.0	2.0 S	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	EM	G	G	20+	B1	• No visible significant defects.	None required at time of survey.
18	Scots Pine	1	300	6.0	1.0 E	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	EM	G	G	20+	B1	• Multi-stemmed at 1.5 m above ground level.	None required at time of survey.
19	Scots Pine	1	320	8.0	1.0 E	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	EM	G	G	20+	B1	• Multi-stemmed at 2.0 m above ground level.	None required at time of survey.
20	Silver Birch	1	400	17.0	2.0 N	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	EM	G	G	20+	B1	• Bifurcated at 2.0 m above ground level.	None required at time of survey.
21	Scots Pine	1	280	6.0	1.5 E	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	EM	G	G	20+	B1	• No visible significant defects.	None required at time of survey.

Table A1:1 (cont'd) Tree Survey Schedule (continues)

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	Ht 1 st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
22	Oak	1	<u>1200</u>	24.0	2.0 N	10.0	10.0	10.0	10.0	1.0	1.0	1.0	1.0	M	G	G	40+	A1	- Off-site tree. - Landscape and notable tree. - Ivy on stem and in crown limited access to survey. - Major deadwood in crown. - Low hanging branches – minimal human intervention recorded (valuable tree).	Retain deadwood for wildlife habitat – low risk due to restricted public access.
23	Oak	1	<u>900</u>	23.0	3.0 N	10.0	10.0	10.0	10.0	1.0	1.0	1.0	1.0	V	G	G	40+	A3	- Notable landscape tree. - Retrenchment of canopy. - Low hanging branches with minimal human intervention. - Ivy on stem and in crown limited access to survey. - Major deadwood in crown.	Retain deadwood for wildlife habitat – low risk due to restricted public access.
G1	Oak Ash	1	<u>400</u>	14.0	2.0 S	<u>6.0</u>	<u>6.0</u>	<u>6.0</u>	<u>6.0</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	EM	F	G	20+	B2	- Ash dieback evident. - Major deadwood in crown. - Growing on bank of watercourse with restricted access. - Roots undermined by water. - Ivy on stem and in crown limited access to survey.	Crown clean Ash trees.
G2	Hawthorn Oak Ash Field Maple	1	<u>700</u>	22.0	0.0 S	<u>7.0</u>	<u>7.0</u>	<u>7.0</u>	<u>7.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	Y EM M	G	G	40+	A2	- Boundary edge group with minimal human intervention evident. - Major deadwood in crowns. - Dense understorey. - Provides good visual separation. - Mainly off-site trees beyond boundary fence. - Linear group providing good visual separation between sites.	Retain deadwood for wildlife habitat – low risk due to restricted public access.
G3	Scots Pine	1	<u>450</u>	12.0	2.0 E	<u>4.0</u>	<u>4.0</u>	<u>4.0</u>	<u>4.0</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	Y EM	G	G	20+	B2	- Group of trees between fairways in rough. - No visible significant defects.	None required at time of survey.
G4	Scots Pine Silver Birch	1	<u>280</u>	8.0	1.0 E	<u>3.0</u>	<u>3.0</u>	<u>3.0</u>	<u>3.0</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	Y	G	G	20+	B2	- Group of trees between fairways in rough. - No visible significant defects.	None required at time of survey.

Table A1:1 (cont'd) Tree Survey Schedule (continues)

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	Ht 1st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
G5	Holly Hawthorn Rose Oak Ash Field Maple Goat Willow Hazel Blackthorn Bramble	1	U			3.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	Y EM M	G	G	20+	B2	- Group of trees between fairways in rough. - Compacted RPAs in sections. - Part managed group. - Linear group providing good visual separation between fairways.	None required at time of survey.
Key <u>Age Class</u> Y: Young = tree within first third of average life expectancy EM: Early mature = tree within second third of average life expectancy M: Mature = tree within final third of average life expectancy OM: Over mature = tree beyond average life expectancy V: Veteran = shows signs of retrenchment and in decline. D: Dead.						<u>Physiological Condition</u> G: Good = no health problems F: Fair = symptoms of ill health that may be remedied P: Poor = poor health D: Dead <u>Structural Condition</u> G: Good = no structural defects F: Fair = remedial structural defects P: Poor = significant structural defects D: Dead										<u>000</u> : Estimated measurement due to access restrictions RPA: Root Protection Area Major deadwood: branches in excess of 50 mm diameter Minor deadwood: branches/twigs less than 50 mm diameter Int: Interim category due to access restrictions.				

Table A1:1 (cont'd) Tree Survey Schedule

APPENDIX 2

Table A2.1 – Root Protection Areas of Trees and Groups Surveyed
Phase 1 & Phase 2

Phase 1

Tree No.	Species	Diam (mm)	Approximate Root Protection Radius (m)	Root Protection Area (m ²)
1	Oak	<u>800</u>	9.6	290
G1	Oak Norway Maple Sweet Gum Ash Raywood Ash Cherry Lime	<u>350</u>	4.2*	55*
G2	Ash	<u>850</u>	10.2*	327*
G3	Ash Oak Alder Hawthorn	<u>450</u>	5.4*	92*
G4	Elder Hawthorn Willow species. Silver Birch Oak Ash Rose Bramble Field Maple Cherry Plum	<u>150</u>	1.8*	10*
Key: <u>000</u> : estimated dimensions due to access restrictions *: Average measurement taken around centre of group				

Table A2-1: RPA and Approximate Root Protection Radius of Trees and Groups Surveyed for Phase 1

Phase 2

Tree No.	Species	Diam (mm)	Approximate Root Protection Radius (m)	Root Protection Area (m ²)
1	Ash	<u>550</u>	6.6	137
2	Ash	<u>480</u>	6.0	113
3	Oak	<u>850</u>	10.2	327
4	Field Maple	<u>290</u>	3.6	41
5	Oak	<u>500</u>	6.0	113
6	Oak	1200	14.4	652
7	Silver Birch	270	3.3	34
8	Scots Pine	480	6.0	113
9	Scots Pine	240	3.0	28
10	Silver Birch	530	6.6	137
11	Silver Birch	310	3.9	48
12	Hornbeam	<u>300</u>	3.6	41
13	Silver Birch	370	4.5	64
14	Silver Birch	250	3.0	28
15	Sweet Chestnut	680	8.4	222
16	Silver Birch	350	4.2	55
17	Scots Pine	310	3.9	48
18	Scots Pine	300	3.6	41
19	Scots Pine	320	3.9	48
20	Silver Birch	400	4.8	72
21	Scots Pine	280	3.6	41
22	Oak	<u>1200</u>	14.4	652
23	Oak	<u>900</u>	10.8	366
G1	Oak Ash	<u>530</u>	4.8*	72*
G2	Hawthorn Oak Ash Field Maple	<u>310</u>	8.4*	222*
G3	Scots Pine	<u>300</u>	5.4*	92*
G4	Scots Pine Silver Birch	<u>370</u>	3.6*	41*
G5	Holly, Hawthorn, Rose, Oak, Ash, Field Maple, Goat Willow, Hazel, Blackthorn, Bramble	<u>250</u>	2.4*	18*
Key: <u>000</u> : estimated dimensions due to access restrictions *: Average measurement taken around centre of group				

Table A2-1: (cont'd) RPA and Approximate Root Protection Radius of Trees and Groups Surveyed for Phase 2

APPENDIX 3

Headings for Protective Barrier Notices and Example Sign

Root Protection Area (RPA) Model Notice

DON'T excavate within this area

DON'T use any form of mechanical plant with this area

DON'T store materials, plant or equipment within this area

DON'T move plant or vehicles within this area

DO contact the Local Authority Arboricultural Officer or owner of the tree if excavation within this area is unavoidable

DO protect any exposed roots uncovered within this area with dry sacking

DO backfill with a suitable inert granular and top soil material mix as soon as possible on completion of work

ANY WORK in this area requires permission from the Local Authority Arboricultural Officer



**PROTECTIVE FENCING. THIS
FENCING MUST BE
MAINTAINED IN ACCORDANCE
WITH THE APPROVED PLANS
AND DRAWINGS FOR THIS
DEVELOPMENT.**



**TREE PROTECTION AREA
KEEP OUT !**

**(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A
TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY
LEAD TO CRIMINAL PROSECUTION**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE
WITH THE WRITTEN PERMISSION OF THE LOCAL
PLANNING AUTHORITY**

APPENDIX 4

Details of Protective Barrier (Default and Variant)

Figure 2 Default specification for protective barrier

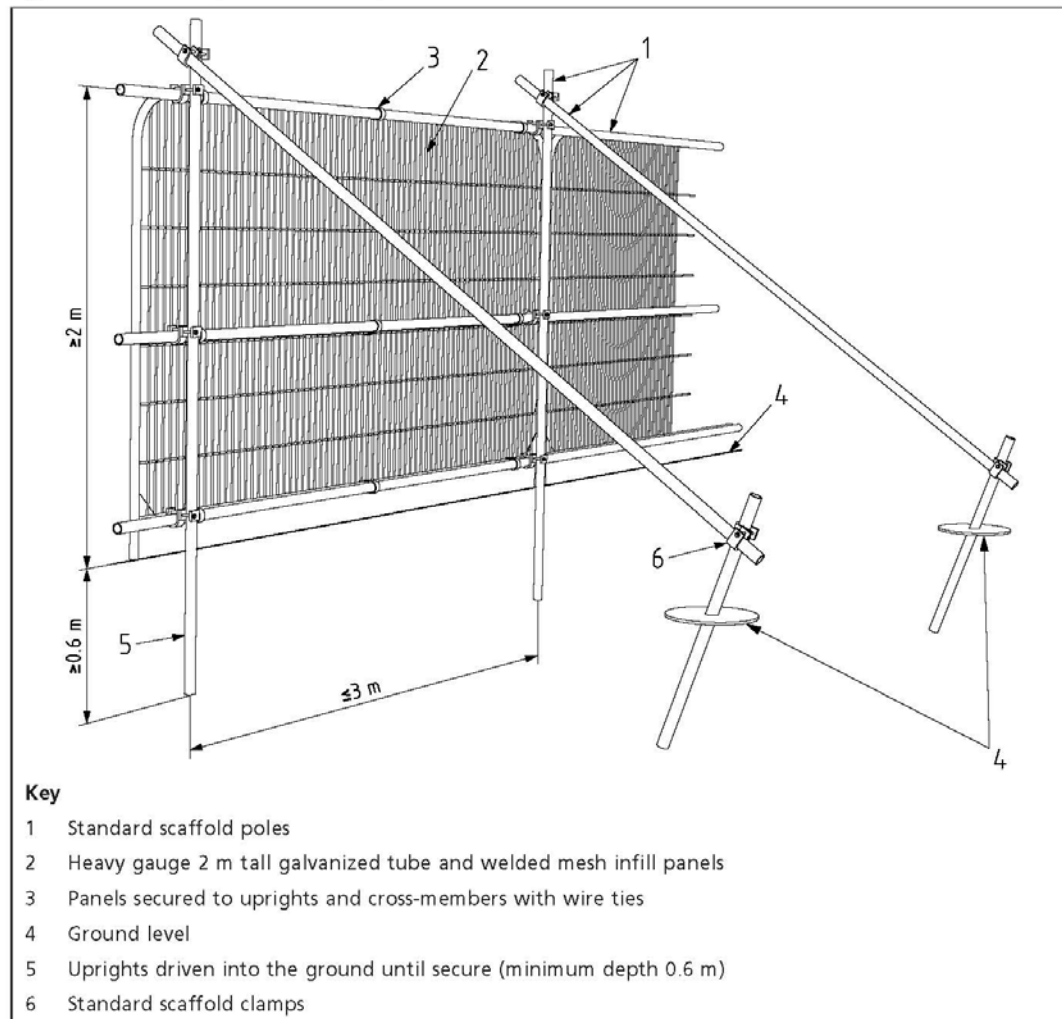
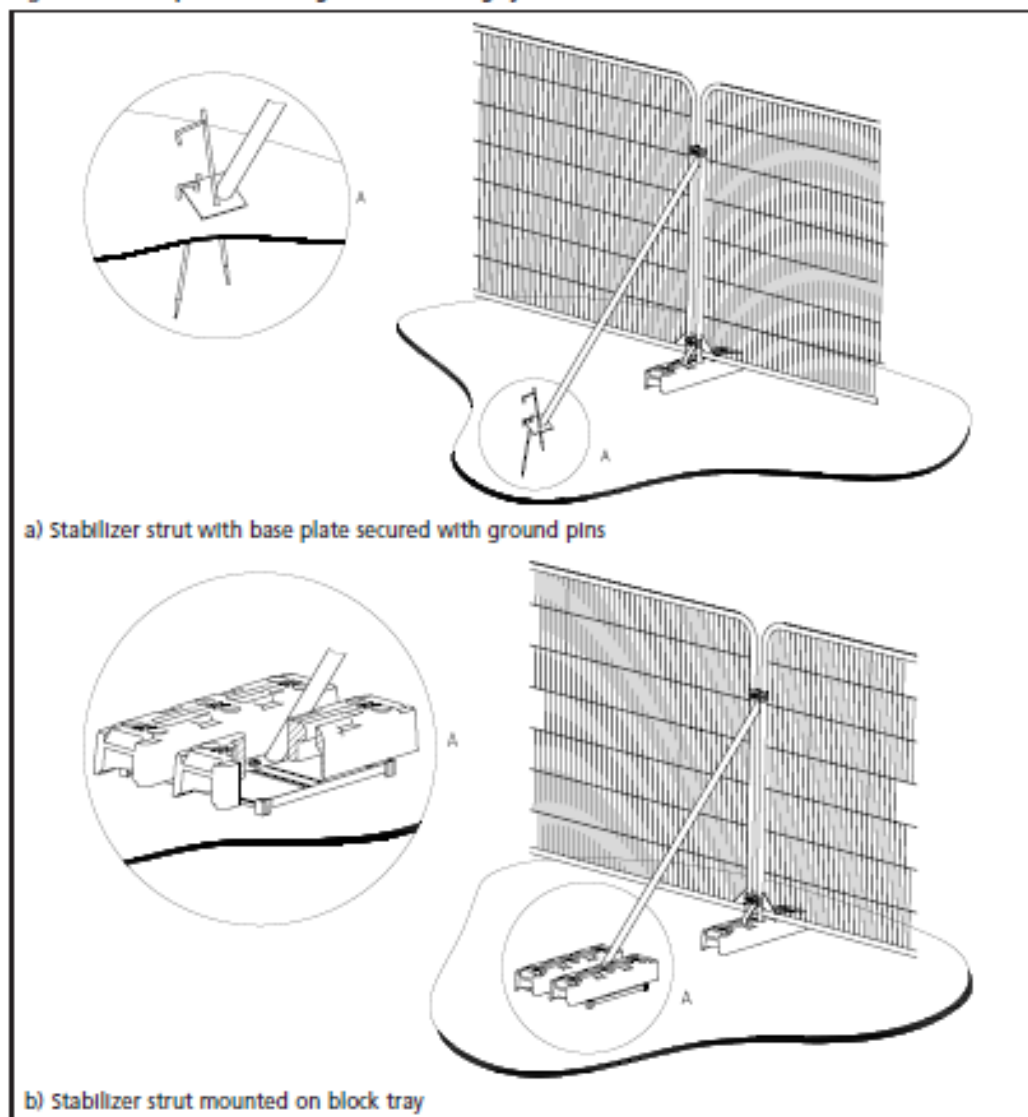


Figure 3 Examples of above-ground stabilizing systems



APPENDIX 5

Photographic Montage





























































APPENDIX 6

Trees; Causes of Death – Construction Site

Common Causes of Tree Death

The use of properly positioned protective fencing can prevent tree deaths occurring.
For site offices and contractors.

