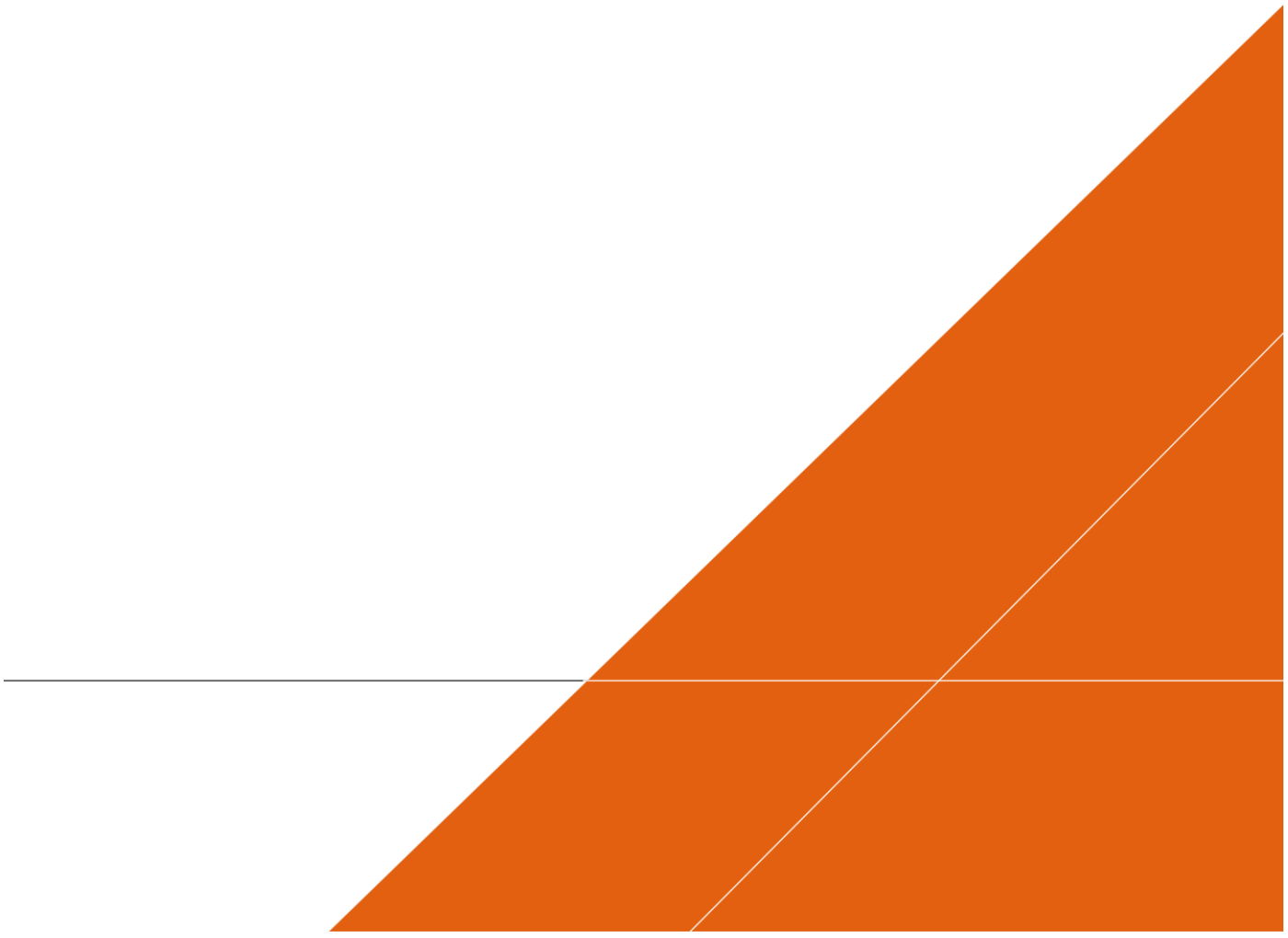
OTTERPOOL PARK

Environmental Statement (ES) Appendix 7.4: Arboricultural Scoping Report – Update to Include 2020 Survey Data

MARCH 2022



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Executive Summary

Arcadis Consulting (UK) Limited has been commissioned on behalf of Otterpool Park LLP to undertake an arboricultural scoping survey to inform an Environmental Impact Assessment (EIA) for the proposed Development and accompany an outline planning application. The proposed Development is 'Otterpool Park', a garden settlement located within Folkestone, Kent. The proposed Development area has been identified as an 'area of search'; hereafter, the area of search is referred to as "the site".

The site is located within Folkestone, Kent within the administrative boundary of Folkestone and Hythe District Council (F&HDC) and spans a large area located immediately south of Junction 11 of the M20. The site is largely agricultural in nature with the majority of the site comprising arable and pasture fields, a disused horseracing course with an artificial lake ('Folkestone Racecourse Lake'), areas modified from historical use (airfields), existing historic settlements and relatively new industrial areas. The proposed Development application site is approximately 589 ha.

The purpose of the Arboricultural Scoping Survey was to:

- Identify notable trees, hedgerows and woodland at an early stage in the design process so that these could be retained and incorporated within the Framework Masterplan design;
- Provide sufficient information that the arboricultural impact of the proposed Development can be determined within the EIA for the outline planning application;
- Inform the requirement for, and design of buffers for, retained arboricultural features; and
- Provide sufficient information that parameters for the built development parcels can be determined, which are both practicable and maximise the arboricultural value of the proposed Development.

It was not the purpose of the scoping survey to identify and survey every arboricultural feature within the site. A high level assessment approach was applied with the intention to retain the majority of the trees, hedgerows and woodlands on site. Due to the outline nature of the Framework Masterplan and the proposed long build out, was considered appropriate that more detailed surveys BS 5837: 2012 surveys and assessments would be conducted to ensure the protection of the trees to be retained at a later stage of the planning process for each development parcel.

A walkover survey to assess the overall quality of the trees, woodlands and hedgerows within the site was undertaken in February 2017. Following the scoping survey, it was estimated that within the site there are in excess of 500 individual trees, 40 hedgerows and 25 areas of woodland (which vary greatly in size, quality and age). The individual trees within the area of search do not have an overall uniform characteristic. However, there are a significant number of trees within the mature age class throughout the site.

A walkover survey to update previous findings was conducted in 2020 and identified no significant changes.

To provide an overview of its arboricultural status, the site has been divided into four character areas, referred to in this report as Areas 1, 2, 3 and 4. Two of these Areas: Area 1 and Area 3 hold the majority of the high quality trees and hedgerows, these two areas present the majority of potential masterplanning constraints and opportunities. Area 4 contains a few notable arboricultural features, containing mainly isolated single species hedgerows and a small group of mature trees. The trees and hedgerows in Area 2 are mainly of low quality and so of less value than those in the other areas

A number of Tree Preservation Orders (TPOs) have been identified across the site, of which the majority are within areas that have been developed such as Lympne Village, Sellindge and Newingreen. A small number of TPOs are located within the grounds of the property Upper Otterpool within Area 3 and to the south of Area 2 adjacent to Aldington Road. The TPOs along Aldington Road were likely designated as a response to previous proposals to develop this area, and do not necessarily demonstrate greater arboricultural value than trees and hedgerows in the undeveloped parts of the site.

Within the iterations of the Framework Masterplan, and the design of GI areas across the site, there has been a design parameter to retain notable and valuable arboricultural features, and enhance the arboricultural value of the site through actions such as:

- The creation of a Woodland Park within the SSSI area;
- Planting appropriate trees within the areas to be developed;
- Removing diseased, damaged or inappropriate trees from the site (inappropriate trees are trees that are in the wrong setting and unlikely to reach their full potential or trees that are a threat to biodiversity);
- Managing woodlands and hedgerows to improve their amenity, biodiversity and overall functional value; and
- ‘Gapping up’ of defunct and partially removed hedgerows.

The Tier 1 parameter approach is to retain and buffer all woodlands, and the design has been iterated to retain trees within the Framework Masterplan. Where trees fall within development parcels, where it is practicable these trees will be retained within the proposed Development. This is a set parameter for the detailed design at Tiers 2 and 3.

Elements of potential impacts and mitigation for trees, woodlands and hedgerows are considered within the Chapter 7: Biodiversity. It is considered that the information contained within this report is suitable for its purpose and provide sufficient information to support an outline planning application. However, to fully quantify and evaluate the quality of the tree stock on site, and to ensure protection of retained trees within each phase of the proposed Development, a detailed Arboricultural Survey in line with BS 5837: 2012 would be required to inform planning at Tier 3. This will also require an Arboricultural Impact Assessment (AIA) based on the detailed design to identify any required tree removal and associated mitigation to ensure tree retention and an appropriate replacement strategy.

A hedgerow survey was conducted on the site in 2018 (updated in 2020/ 2021), in relation to the Hedgerows Regulations (1997). This is reported within Appendix 7.3: The Habitat and Hedgerow Report. This report should be read alongside that and all other related reports.

1 Introduction

1.1 Overview

1.1.1 Arcadis Consulting (UK) Limited has been commissioned on behalf of Otterpool Park LLP to undertake an arboricultural scoping survey to inform an Environmental Impact Assessment (EIA) for the proposed Development and accompany an outline planning application. The proposed Development is 'Otterpool Park', a garden settlement located within Folkestone, Kent. The development area has been identified as an 'area of search'; hereafter, the area of search is referred to as "the site".

1.1.2 This Arboricultural Scoping Report aims to identify:

- The value of the site with regard to trees woodlands and hedgerows (detail regarding the ecological value of the woodlands and hedgerows is presented in Appendix 7.3 Habitat and Hedgerows Survey Report);
- Identify notable trees, hedgerows and woodland at an early stage in the design process so that these could be retained and incorporated within the Framework Masterplan design;
- Provide sufficient information that the arboricultural impact of the proposed Development can be determined for the outline planning application;
- Inform the requirement for, and design of, buffers for retained arboricultural features and list opportunities for protection and retention of notable features and opportunities for enhancement of the arboricultural value of the site;
- Provide sufficient information that parameters for the build development parcels can be determined, which are both practicable and maximise the arboricultural value of the development; and
- Inform any additional arboricultural surveys likely to be required to inform the later stages of the planning and development process (i.e. Tier 2 and Tier 3).

1.2 Site Location and Setting

1.2.1 The site is located within Folkestone, Kent within the administrative boundary of Folkestone and Hythe District Council (F&HDC) and spans a large area located immediately south of Junction 11 of the M20 motorway. The site as referred to in this report is a 'Study Area' initially identified for the proposed Development (approximately 700ha) and is largely agricultural in nature with the majority of the site comprising arable and pasture fields, a disused horseracing course with an artificial lake ('Folkestone Racecourse Lake'), areas modified from historical use (airfields), existing historic settlements and relatively new industrial areas.

1.2.2 The M20 motorway, Channel Tunnel Rail Link and Westenhanger Station are located to the north of the site, beyond which lie the villages of Stanford and Postling within a largely rural setting including the Kent Downs Area of Outstanding Natural Beauty (AONB). This AONB extends to the east, beyond which lies the town of Hythe, and to the south where it includes Lympne village. The site also includes the settlements of Barrowhill, Sellindge, Westenhanger and Newingreen. Lympne Industrial Park and some areas of woodland are located immediately south of the site. In addition, East Stour River flows through the site in a north-east to west direction. The site is centred on Ordnance Survey Grid Reference TR 111 363.

1.2.3 An aerial image illustrating the site is presented in Image 1. Photographs of the site and trees can be found in Appendix B- Photographs.

Image 1 Aerial imagery of the site

1.3 Proposed Development

1.3.1 The proposed Otterpool Park Area proposed Development is located on 589 ha of land within the wider study area as shown in Figure 1. The development proposals are to be submitted in outline for a new garden settlement accommodating up to 8,500 homes (use class C2 and C3) and use Class E, F, B2, C1, Sui Generis development, including use of retained buildings as identified, with related infrastructure, highway works, green and blue infrastructure, with access, appearance, landscaping, layout and scale matters to be reserved. A summary of the maximum floorspace areas for each land use type is provided in Chapter 4: The Site and the Proposed Development of the Environmental Statement (ES).

2 Methodology

2.1 Desk Study

2.1.1 A desktop study was undertaken between February and May 2017 and subsequently updated with new data in 2020 and included the following:

- A review of F&HDC's 'Explore Folkestone and Hythe District' map (F&HDC, 2020) to identify any Conservation Areas and Tree Preservation Orders (TPOs);
- Accessing the MAGIC (Multi-Agency Geographical Information for the Countryside) website to identify any ancient woodland located within and immediately adjacent to the site;
- A review of the Kent Local Biodiversity Action Plan (BAP) to identify any Habitat Actions Plans (HAPs) relevant to trees and hedgerows;
- A review of historical aerial imagery to assess the landscape within the site; and
- A review of data and photographic information collected in October 2016 for Arcadis for the biodiversity assessment.

2.2 Field Survey

2017-2018 surveys

2.2.1 An arboricultural tree and hedgerow scoping survey was undertaken by Darren Hood FdSc MArborA (Principal Arboriculturist) on 9 February 2017, which also utilised species data obtained during Phase 1 walkover surveys conducted on 4, 5 and 6 October 2016 by Arcadis ecologists Guy Stone MCIEEM and Brandon Murray MCIEEM. This data was also updated throughout 2017 and 2018 as further access was obtained across the site. Dates of further visits to the site where tree information was obtained is presented in the Table 1.

Table 1 Dates and details of surveys where additional arboricultural information was obtained in 2016-2018

Date	Surveyor(s)	Areas Accessed
4 – 6/10/2016	Brandon Murray and Guy Stone	Walkover of the main areas of the site, especially the racecourse and farmland across the site.
25/10/2016	Brandon Murray and Martina Girvan	Lympne Airfield Land and land north of Lympne surveyed, targeted surveys on other areas of the site.
10/05/2017	Aline Brodzinski and Ellen Poppleton	Land owned by 'Simmonds'
04/08/2017	Brandon Murray, Alex Ward	Properties along the south of the A20 (The Willows, north of the A20 (White House) Cob Tree Cottage) and Upper Otterpool.
14/08/2017	Hannah Tracey	Lorry park south of the A20
03/05/2018	Brandon Murray	Hilhurst Farm and surrounds
11/05/2018	Brandon Murray and Katy Smart	Field west of Stone Street
31/05/2017	Brandon Murray and Ewan Gibson	Pack and Holiday Extras land
14/06/2016	Brandon Murray and Rebecca Beale	South of the A20 around The Willows.

Date	Surveyor(s)	Areas Accessed
		North of the A20, 'Whiteways' and 'Boleh'.
15/06/2018	Brandon Murray and Rebecca Beale	Rose Cottage north of the A20
21/06/2018	Brandon Murray	Little Greys Cottage
28/06/2018	Brandon Murray and Katy Smart	Arable field adjacent to Cob Tree Cottage. 'Killymoon' north of the A20

2.2.2 The arboricultural survey involved a walkover to assess the overall quality, species make up and overall amenity value of the arboricultural features of the site.

2020 update

2.2.3 A further walkover survey was conducted in 2020 in conjunction with other ecological surveys.

Table 2 Dates and details of surveys where additional arboricultural information was obtained in 2020

Dates of Visits	Surveyor	Areas Accessed
30/04-01/05/2020	Brandon Murray	Area surrounding ponds during great crested newt pond HSI and eDNA surveys and a water vole and otter survey.
05-07/05/2020	Brandon Murray and Rory Roche	Most of the site excluding areas without access, in tandem with badger surveys and water vole and otter surveys.
15/05/2020	Brandon Murray	Remaining areas not surveyed earlier in 2020 around buildings scattered over the survey area.

2.3 Survey Limitations

2.3.1 This assessment has been used to inform the Framework Masterplan development and the requirement for further surveys.

2.3.2 Due to access constraints the initial scoping survey (February 2017) was restricted to land within the ownership of Folkestone Racecourse, public rights of way and the public highway. Additional areas were accessed as further land access was obtained, largely during the completion of other surveys.

2.3.3 There is no detailed topographical information was available to denote the precise locations of individual trees. Locations have been plotted using GIS on the ground (using hand held tablets where appropriate) and positioned from georeferenced aerial imagery.

2.3.4 Areas of existing residential and commercial development were not accessed or scoped in 2017-2018. These areas are identified in Figure 1 as 'areas not fully surveyed'.

2.3.5 Whilst this report makes general observations on the long-term potential of the trees surveyed, trees are dynamic organisms and subject to continual change. Unforeseen future

circumstances such as neglect, wilful damage or severe/extreme weather conditions may affect the future health and condition of the trees and hedgerows covered in this report.

2.3.6 No hazard assessment has been made and therefore no information is provided as to the structural integrity of any of the trees onsite.

2.3.7 Due to the outbreak of the COVID-19 virus in 2020, survey scope was greatly impacted and had to be altered to what was safe and practical to achieve. As such, the 2020 surveys endeavoured to collect the information intrinsic to ensuring the submission is founded on robust survey data, whilst acknowledging that the surveys needed to be proportionate in light of the additional risks to Arcadis employees and members of the public. As a result, the following changes were made to the scope:

- For the update surveys, access was not requested to parcels of land where members of the public were likely to be at increased risk of coming into contact with Arcadis employees.
- Access to private homes and businesses (excluding farms) was not requested, both to reduce exposure risk and to avoid potential for negative reactions to interaction with Arcadis staff.
- Where it was felt that the revised three-tiered approach for a reduced presence on site, without impacting upon the needs of the submission, this approach was adopted to reduce risk associated with surveyor travel.

3 Relevant Legislation, Policies and Guidance

3.1 Hedgerows Regulations

3.1.1 Under the Hedgerows Regulations 1997 it is against the law to remove or destroy "Important" hedgerows without permission from the Local Planning Authority (LPA) in England and Wales. The LPA is also the enforcement body for offences created by these Regulations.

3.1.2 "Important" hedgerows (as defined in the Regulations) are protected from removal (up-rooting or otherwise destroying) by the Regulations. Various criteria specified in the Regulations are used to identify "Important" hedgerows for wildlife, landscape or historical reasons. The LPA can prohibit the removal of an 'Important' hedgerow by issuing a retention notice within 42 calendar days from receipt of notification. The LPA can also require replacement of a hedgerow removed in contravention of the Regulations. Unsuccessful applicants can appeal to the Secretary of State within 28 days of receipt of the LPA decision. The Planning Inspectorate deals with appeals on behalf of the Secretary of State. Contravention of the Regulations is a criminal offence, punishable in some cases in the Magistrates' Court by a fine of up to £5,000. For anyone convicted on indictment in the Crown Court the fine is unlimited.

3.1.3 Details of the status of the hedgerows on the site in relation to the Hedgerows Regulations is presented in Appendix 7.3 Habitat and Hedgerow Survey Report.

3.2 Trees and Planning

3.2.1 Under the UK planning system LPAs have a statutory duty to consider the protection and planting of trees when granting planning permission. The Town and Country Planning (Tree Preservation) (England) Regulations 2012 includes legislation for statutory protected trees which include Tree Preservation Orders and Conservation Areas. The LPAs also have a duty to consider the potential effect of development on its tree population, whether statutorily protected or not.

Tree Preservation Orders (TPOs) and Conservation Areas

3.2.2 A Tree Preservation Order (TPO) or Conservation Area is administered by the LPA which, in general, makes it an offence to cut down, top, lop, uproot, wilfully damage or wilfully destroy a tree protected by that order or within a Conservation Area without the LPA's consent. Protection can be applied to single trees or to all trees located within a defined group, area or woodland.

Kent Biodiversity Action Plan

3.2.3 The Kent BAP contained the following Habitat Action Plans (HAPs) relevant to trees and hedgerows within the site:

- Lowland Wood-Pasture and Parkland;
- Ancient and/or Species-Rich Hedgerows;
- Lowland Beech and Yew Woodland;
- Old Orchards; and
- Wet Woodland.

British Standard 5837:2012 - Trees in relation to design, demolition and construction – Recommendations.

3.2.4 While trees were not assessed to BS5837:2012 standards during this scoping survey, this assessment will be required at a later date in the planning process.

3.2.5 The British Standard "BS 5837:2012 - Trees in relation to design, demolition and construction – Recommendations" outlines the measures required to ensure that trees are appropriately and successfully retained when a development takes place. The LPA will consider trees located within and in close proximity to a development site during the planning process.

3.2.6 BS 5837: 2012 categorises arboricultural items within one of four categories, as listed below:

- Category A (trees of high quality) individual trees, groups of trees and woodlands. Category A items should be retained and incorporated into a final design scheme due to their significance within a site or local area.
- Category B (trees of moderate quality) individual trees, groups of trees and woodlands. Category B items should be retained within a design scheme were possible, however the loss of a small number of Category B trees can be mitigated through suitable replacement planting.
- Category C (trees of low quality) individual trees, groups of trees and woodlands. Category C items should not place a constraint on a design scheme however un-necessary tree removal should be avoided.
- Category U (trees of poor quality unsuitable for retention) individual trees, groups of trees and woodlands. Category U items should not place a constraint on a design scheme and their removal is generally considered desirable under good arboricultural management. However, it should be noted that Category U trees can hold high conservation value and may be desirable for retention for other reasons.

4 Scoping Survey Results

4.1 Introduction

4.1.1 This section of the report outlines the findings of the scoping survey. This report should be read in conjunction with the associated tables, figures and appendices:

- Table 1 Dates and details of surveys where additional arboricultural information was obtained in 2016-2018
- Table 2 Dates and details of surveys where additional arboricultural information was obtained in 2020
- Table 3 Summary of results, constraints and design mitigation
- **Figure *1*: Indicative Character Areas – Arboricultural Scoping Survey**
- **Figure *2*: Indicative Tree Constraints Plan**
- **Figure *3*: Tree Preservation Orders and Conservation Areas**
- Appendix A. Target Notes
- Appendix B. Photographs
- Appendix C: Tree species list

4.2 Overview and Arboricultural 'Character Areas'

4.2.1 Following observations during the site visit and the assessment of data and photographs collected during the ecological walkover carried out in October 2016, and the further surveys conducted in 2017 and 2018 it is estimated that the site contains in excess of 500 individual trees, 40 hedgerows (including defunct hedgerows) and approximately 25 woodlands (these vary greatly in size, quality and age and many are very small copses).

4.2.2 The tree stock is of a mixed age group with a number of mature feature trees and groups of trees scattered across the site. For the purposes of scoping, the site is divided into four distinct 'character areas' (Areas 1, 2, 3 and 4), these are detailed within Figure 1. The features within these areas are described in the following order: tree, hedgerow and woodland constraints and any applicable TPOs (Figure 2 and Figure 3 respectively) within this report.

4.2.3 The four broad landscape areas (excluding the existing residential and commercial areas), Areas 1, 2, 3 and 4, are broadly as follows:

1. This Area contains Folkestone Racecourse and the surrounding area (including areas on the periphery of Westenhanger Castle) occupies part of the northern section of the site and predominantly comprises amenity planting, scattered individual trees, with small woodlands. Some areas surrounding the racecourse are utilised for hay growing or arable planting. Hedgerows are scarce in this area.
2. This Area in the southern part of the site is adjacent to a commercial and residential area (Lympne Village) and largely comprises recently planted trees, small self-seeded woodlands and plantation woodland blocks, with very few scattered mature trees or hedgerows.
3. This Area in the northern, western and central parts of the site are a historic agricultural landscape, characterised by hedgerows, mature groups of trees, boundary trees within hedgerows, woodlands and individual standard trees. Within this area it is likely that hedgerows have historically been removed, as there are large undivided fields in this area. Within this area there is also a riparian corridor, which is lined with arboricultural features including multiple significant trees.

4. This Area in the north-eastern area of the site is a farmed landscape, with few hedgerows. Arboricultural features within this area include a small plantation woodland, species poor hedgerows, including hedgerows with trees and large, scattered trees (many associated with a farmhouse and buildings in the centre of this area).

4.2.4 There are small residential areas within the site, with associated garden planting and scattered trees.

4.3 Overview of Individual Trees within each of the Arboricultural Scoping Character Areas

Area 1: Folkestone Racecourse and Westenhanger Castle

4.3.1 The general nature of the Folkestone Racecourse and Westenhanger Castle area is short grassland, with an avenue of semi mature and mature trees within the vicinity of the main entrance and a number of standard trees and mature tree blocks across this area. The planting within the developed part of this area, in close proximity of the buildings, includes non-native tree species including Norway Maple (*Acer platanoides*), Evergreen Oak (*Quercus ilex*), Horse-chestnut (*Aesculus hippocastanum*) and Cabbage-palm (*Cordyline australis*) as well native species including Yew (*Taxus baccata*), Hawthorn (*Crataegus monogyna*), Lime (*Tilia x europaea*) and Alder (*Alnus glutinosa*). The wider area supports native and naturalised species.

4.3.2 Folkestone Racecourse adjacent to the Westenhanger Castle Grounds and the land within the castle grounds contains a large number of individual mature specimen trees some of which pre-date the Racecourse that was built in approximately 1898 (present on Ordnance Survey, OS, maps from 1877). The value of the tree stock within this area is likely to be high in terms of both arboricultural and biodiversity value and it is estimated that this area is likely to contain a large number of Category A and Category B individual trees and groups, it may be that some of these would qualify as ancient or veteran trees. The majority of the notable trees surrounding Westenhanger Castle are within the site, but outside of the outline planning application boundary.

4.3.3 An artificial lake is present in this area, surrounded by trees and scrub. The arboricultural value of the trees in this area is low. The fields surrounding the lake are used for hay growing or cereal crops, and largely free of trees or hedgerows.

4.3.4 It should be noted that the overall condition of the Horse-chestnut trees growing within character Area 1 is low with the majority being infected with bleeding canker, a bacterial infection.

Area 2: Airfield Areas between the Commercial area to the west and Lympne village to the east, car park of Port Lympne.

4.3.5 This area is adjacent to a commercial area and contains a disused airfield / grassland and an area utilised for access and a car park for the adjacent to Port Lympne Wild Animal Park (located to the west of Aldington Road). It predominantly supports recently planted individual trees and groups of trees with areas of scrub. The trees within the Link Park commercial area and Lympne village were not assessed during this scoping assessment as these areas are outside of the boundary of the outline planning application.

4.3.6 There are areas of apparently self-sown trees within this area, including along the defunct runway within this area, these are predominantly scattered Willow (*Salix* sp.).

4.3.7 Some large standard tees are present along the roadside to the south of this area, these are predominantly Ash (*Fraxinus excelsior*) and Sycamore (*Acer pseudoplatanus*). Within the

area utilised for access to the Port Lympne car park, two rows of Horse-chestnut trees are present.

4.3.8 Overall, this area has the youngest and lowest value tree stock with the overall amenity value being low. It is estimated that this area will likely largely comprise low quality trees of Category C, with a few higher value specimens, particularly those trees which are currently under TPOs (as shown in Figure 3).

Area 3: Agricultural land across the site, between Harringe Lane in the west and Stone Street in the east

4.3.9 This area forms the largest character area across the site. The area is mainly historic agricultural land with a number of significant mature groups of trees, hedgerow trees and boundary trees as well as isolated individual trees within the existing field networks. Trees within this area are largely native species and include Ash, Oak and Willow. The trees within this area have a higher collective landscape value than the other areas of the site.

4.3.10 The area along the East Stour River supports a number of large mature trees, many of them Alder along its banks, the riparian tree line is present on the OS maps published before 1874.

4.3.11 Within this area there are small woodlands, these are described more fully below and within the Target Notes in Appendix A.

Area 4: agricultural land to the east of the site

4.3.12 This area of the site contains some notable arboricultural features, including a group of large trees adjacent to the farmhouse at Hillhurst Farm, including Magnolia (*Magnolia* sp.), Ash, Oak (*Quercus* spp.) and Poplar (*Populus* sp.). In addition, there were a number of trees around a pond adjacent to the farm buildings, including a number of Cherry (*Prunus* sp.) trees and Willows.

4.3.13 A low number of scattered large Oak and Sycamore trees likely to be high value Category A or B trees (according to the BS5837:2012 categorisation) are present within this area.

Residential areas

4.3.14 Within the area of houses and commercial buildings south of the A20 there are a few notable tree specimens. Although this area was not fully surveyed, where possible key arboricultural features were identified and mapped. These included large Oaks, a Copper Beech (*Fagus sylvatica* '*Purpurea*') and Walnut (*Juglans regia*).

4.4 Overview of Hedgerows within Arboricultural Character Areas

4.4.1 This section of the report outlines the overall character of the hedgerows in the site. For full details of the hedgerows, refer to the Appendix 7.3 Habitat and Hedgerow report. Within the Hedgerows Regulations assessment, 67 hedgerow sections were identified and assessed, of which 12 were considered to be likely to qualify as important hedgerows under the prescriptions of the Hedgerows Regulations 1997.

Area 1 - Folkestone Racecourse

4.4.2 The hedgerow character within Area 1 is mainly of an amenity nature with a number of single species hedgerows including both native species such as Hawthorn and non-native ornamentals and Cypress (*Cupressus* sp.). At the entrance to the racecourse are two native species rich hedgerows. The hedgerows in this area are under a high level of horticultural maintenance. There are some defunct (not stock-proof) and 'gappy' hedgerows with trees associated with the residential properties to the east of this area.

Area 2 – Airfield areas between the Commercial area to the west and Lympne village to the east, car park of Port Lympne.

4.4.3 Area 2 supports a limited number of hedgerows with these predominantly being sections of roadside hedgerow. There are a few small sections of hedgerow associated with residential gardens to the east of this area of the site. The main expanse of Area 2 is devoid of hedgerows (likely due to its historic usage as an airfield).

Area 3 - Agricultural land across the site, between Harringe Lane in the west and Stone Street in the east

4.4.4 Due to the historic agricultural land use, Area 3 contains a large number of mature hedgerows containing standard trees. The majority of these hedgerows are fragmented or defunct with limited cross-site connectivity, some are well established and have a good species diversity.

4.4.5 The hedgerow character within this area differs from the adjacent agricultural land outside the site within the wider agricultural setting to the north and the west, having fewer hedgerows with evidence of severance of hedgerows. However, there are intact species rich hedgerows within this area including those that connect with the river corridor and the rail corridor to the north of the site.

Area 4 - Agricultural land to the north east of the site.

4.4.6 This area contains few hedgerows. A low species diversity Hawthorn hedge is present in the centre of this area. A largely defunct hedge with trees is present to the west of this area adjacent to Stone Street.

4.5 Overview of Other Woodlands within Arboricultural Character Areas

4.5.1 Within the site there are multiple small woodlands, ranging from small plantation copses to larger remnants of woodland. Notable woodlands are listed below, full details are presented in Appendix A.

Area 1 - Folkestone Racecourse

4.5.2 Within Character Area 1, there is a small area of wet woodland surrounding the southern edge of a small lake (Folkestone Racecourse Lake) within this area. The wet woodland is predominantly formed of Willow, Alder, Ash and Field Maple (*Acer campestre*). This area appears to be currently unmanaged. Within this area there are also sections of ditch which are tributaries for the East Stour. These areas contain some arboricultural features including mature Alder trees.

Area 2 – Airfield Areas between the Commercial area to the west and Lympne village to the east, car park of Port Lympne.

4.5.3 Within Character Area 2 there are two notable woodland features in this area include a block of largely Hawthorn, Sycamore and Blackthorn (*Prunus spinosa*) which is developing into a broadleaved woodland located to the east of this area adjacent to Lympne village and a block of young woodland to the north of the Link Park industrial area on a landscape bund. This area of planation woodland is dominated by Oak, Field Maple and Poplar. Adjacent to the existing Link Park industrial area there is an area of planted Privet (*Ligustrum vulgare*) which forms a dense thicket, and screening woodland planting containing a mixture of species (including Scots Pine (*Pinus sylvestris*), Pedunculate Oak (*Quercus robur*) and Field Maple.

Area 3 - Agricultural land across the site, between Harringe Lane in the west and Stone Street in the east

4.5.4 Within Character Area 3 are a number of woodlands, including two small blocks of young woodland behind the properties lining the south of the A20 (adjacent to TN58). There is also a wooded river corridor along the banks of the East Stour River and its tributaries, forming a narrow continuous wet woodland in this area. Historic aerial imagery confirms that the treescape has not changed in this area since 1940 (when these aerial records started) but the tree cover and general character predates this. It is scoped that a high number of Category A and B trees/groups will be within this area including trees along the river corridor which is a significant landscape, arboricultural and ecological feature. Trees along this riparian corridor are largely Alder, Willow, Ash, Hawthorn and Oak.

4.5.5 There are also two small woodlands within this area, Park Wood and Springfield Wood, (present on OS maps pre-1877). Park Wood contains large specimen Oak and Hazel (*Corylus avellana*) coppices with other trees consistent with native woodland. Springfield Wood is predominantly Ash and is heavily grazed by sheep.

Area 4 - Agricultural land to the north-east of the site

4.5.6 Within Character Area 4, there is a block of roadside shelterbelt planting adjacent to the A20 roundabout containing Sycamore, Lime (*Tilia cordata*) and Hawthorn and a short strip of mature trees and scrub to the south-east of the site adjacent to the A20, containing Sycamore, Oak and Blackthorn.

4.6 Ancient Woodlands Across the Site

4.6.1 The desk study did not identify any areas of ancient and semi-natural woodland located within the site. The nearest area of ancient and semi-natural woodland is Harringe Brooks Wood, which is located adjacent to the western boundary of the site, Area 3 (at Grid Reference TR 102 361, Target Note 29 in Figure 2). Parts of Folks Wood and Kiln Wood to the east of the site are also registered as ancient woodland. The proposed Development within the site will not directly impact these areas within the construction phase.

4.6.2 Park Wood, within Area 3 of the site to the west of Barrow Hill Road is not recorded as ancient woodland, but during the walkover survey, conducted by Arcadis in October 2016, some ancient woodland ground flora indicator species were recorded within a discreet area of this woodland (including Bluebell (*Hyacinthoides non-scripta*), Honeysuckle (*Lonicera periclymenum*), Enchanter's Nightshade (*Circaea lutetiana*), Opposite-leaved Golden-saxifrage (*Chrysosplenium oppositifolium*) and Greater Stitchwort (*Stellaria holostea*)). This woodland also contains large specimen Oak and Hazel coppices with other trees consistent with native woodland.

4.6.3 More details on the presence of ancient woodlands around the Otterpool Park application site are presented within the Appendix 7.5 Desk Study Data and Incidental Records Report.

4.7 Tree Preservation Orders and Conservation Areas

Tree Preservation Orders

4.7.1 The desk study identified several clusters of TPOs at the following locations (shown in Figure 3) within or adjacent to the site:

- within Newingreen adjacent to Areas 3 and 4 within an area which was not scoped (adjacent to the site), associated with a business area outside of the redline boundary 'Holiday Extras';
- within Lympne village adjacent to Area 2, within an area which was not scoped (off-site);
- within Lympne Industrial Park adjacent to Area 2, within an area which was not scoped (off-site);
- within Barrowhill, Sellindge village adjacent to Area 3, within an area which was not scoped (off-site);
- adjacent to Upper Otterpool in the centre of the site, within Area 3 (on site); and
- the verges of Aldington Road between Lympne Industrial Park and Lympne village. These trees were largely outside of the area which was scoped, although a small number of trees are within the site.

4.7.2 The 2020 update found that there were few additional TPOs and extensions to existing TPOs which were in close proximity to the site and that no changes or additions had been made within the site boundary.

Conservation Areas

4.7.3 There are no Conservation Areas located within the site. The nearest Conservation Area located to the site is Lympne Conservation Area, located adjacent to the southern boundary of the site, south of Aldington Road at Grid Reference TR 118 349. Development within the site would not impact upon the arboricultural features within this conservation area.

4.7.4 The 2020 update found no changes or additions to Conservation Areas within or near to the site.

5 Discussion

5.1.1 Area 1 (Folkestone Racecourse) and Area 3 (Agricultural land across the site, between Harringe Lane in the west and Stone Street in the east) hold the majority of the arboricultural interest that could pose a constraint and/or an opportunity to the Framework Masterplan including the mature individual trees along the East Stour River corridor and a large number of mature standard trees and groups of trees.

5.1.2 These areas could add considerable value to the proposed Development in terms of amenity value and other natural capital value.

5.1.3 Area 2 (between the Link Park commercial area and to the west of Lympne village, and the Port Lympne car park) has a young to semi-mature tree stock with a few mature specimens, these are not likely to present a constraint to the development, but transplanting or other use and tree replacement if removed should be considered. These trees likely have landscape value insofar as they screen this area from views to the north, this should be considered within any masterplan design.

5.1.4 Area 4 contains a few notable trees, largely those around the farm buildings and the small woodland areas identified. These should be retained within any development.

5.1.5 The residential areas not assessed do contain trees that border the site which are of importance and need to be retained particularly those between the Character Areas 1 and 4 in the Newingreen Area.

5.1.6 Hedgerows within the site vary greatly, but many are defunct and there are only 12 hedgerows which are likely to qualify as important hedgerows under the Hedgerows Regulations (full details are presented in Appendix 7.3 Habitat and Hedgerow Survey report.

5.1.7 A very high level map of the features on the site which are likely to pose a constraint to the development is shown in Figure 2.

5.1.8 The site contains a large number of high quality arboricultural features that are part of the dominant landscape character of the site and surrounding area.

5.1.9 A walkover survey to update previous findings was conducted in 2020 and identified no significant changes.

6 Mitigation Recommendations and Further Work

6.1 Introduction

6.1.1 This section of the report outlines the mitigation to be incorporated within the Otterpool Park development. In line with the mitigation hierarchy, the majority of potential impacts are addressed through avoidance of the most valuable areas.

6.2 Design Mitigation

6.2.1 The arboricultural scoping assessment has identified key features and areas for retention, which are listed below and identified in detail in Appendix A. During the evolution of the Framework Masterplan, mitigation through the avoidance of sensitive key features was incorporated into the design. The broad features to be retained which were identified include:

- Hedgerows across the site;
- Notable trees, largely within and bordering Areas 1,3 and 4;
- The riparian zone along the East Stour River (with the exception of where crossings are required or trees are to be cleared for ecological enhancement);
- Woodlands on and around the site, especially Park Wood, Springfield Wood and the unnamed woodland to the north of the Link Park.

6.2.2 Very early in the design process, the key arboricultural areas of the site were identified and retention areas and buffers were determined. The following broad buffers (each side of a linear feature or around an individual tree or woodland) around arboricultural features are incorporated within the Framework Masterplan:

- Minimum of 50m buffer around the off-site ancient woodland (where an undeveloped area exists – Kiln Wood off site to the east is currently immediately bordered by the A20 road);
- Minimum of 15m buffer around key woodlands and the river / riparian corridor (although this is much larger in most places, particularly where this is a dark corridor);
- Minimum of 5m buffer around hedgerows; larger where notable trees are present (minimum of 10m);
- Minimum of 15m buffer around notable trees;
- Minimum of 25m buffers along hedgerows where these form a dark corridor.

6.2.3 The key opportunities for enhancement which were identified within the arboricultural scoping survey and are generally included within the masterplan include:

- Enhancing and improving existing hedgerows on the site;
- Retaining and managing the existing woodlands on site;
- Removal of diseased and inappropriate trees and replacement with appropriate specimens (inappropriate trees are trees that are in the wrong setting and unlikely to reach their full potential or trees that are a threat to biodiversity); and
- Inclusion of high-quality tree planting within any development.

6.3 Construction Mitigation

6.3.1 A Code of Construction Practice (CoCP) propose to include best practice construction mitigation. This will avoid and/or reduce impacts to retained arboricultural features.

6.3.2 Relevant guidance will be cited including BS 5837:2012. Trees in relation to design, demolition and construction. – Recommendations and the requirement for Arboricultural Method Statements.

6.3.3 Within the build out of the development, additional mitigation will be delivered which will ensure that potential impacts to arboricultural features are adequately mitigated. A CoCP or similar document would be in place in advance of site clearance to ensure that measures are put in place to protect the environment, including the trees, woodlands and hedgerows within the site. The CoCP would adhere to relevant legislation for the protection of the environment and implement best practice guidelines for works within or near water. Relevant guidance including Pollution Prevention Guidelines prepared by the Environment Agency and literature produced by CIRIA would form the basis for pollution control measures. Specifically, in relation to arboricultural items, the CoCP would ensure that:

- Appropriate measures are put in place to control dust and other emissions that could affect air quality.
- Site compounds, storage facilities and staff facilities are suitably bunded and located in places that would not have an adverse effect on the environment; in particular, the CoCP would ensure that retained trees are protected.
- In advance of site clearance, protective fencing is installed to protect retained and/or ecologically sensitive habitats (woodlands, mature trees and hedgerows) and their associated buffer zones to ensure that they are not subject to accidental damage (to be determined on a phase by phase basis).
- Haul routes, storage compounds and staff facilities would be located away from retained habitats to minimise disturbance to the species they support.
- An ecological clerk of works is in place to oversee site clearance, in particular any works that have the potential to disturb notable receptors. They would also ensure that the mitigation measures proposed adhere to best practice guidelines and take account of any changes in legislation that may have occurred.
- The ecological clerk of works would ensure that the hedgerow translocation is undertaken in accordance with an agreed method statement. They would also ensure that the retained and translocated hedgerows are monitored to ensure that they are managed appropriately.
- The construction site drainage solutions would incorporate measures to ensure that all surface water runoff is balanced and treated and returned to the watercourse at greenfield runoff rates.
- Care is taken with the design of site drainage to prevent unbalance of and untreated silt laden surface water runoff from entering retained habitats.
- Care should be taken to ensure that biosecurity measures are in place to prevent the spread of arboricultural diseases such as Ash dieback.

6.3.4 An ecological clerk of works would be employed to ensure that the ecological protection measures outlined in the CoCP are adhered to. They would also undertake regular monitoring to ensure that the protection measures remain in place for the time that they are required.

6.3.5 The Ecological Clerk of Works would report to the Site Manager and Environmental Clerk of Works to ensure that remedial actions are undertaken in a timely manner.

6.4 Additional Mitigation

6.4.1 In addition to the above mitigation measures, key areas for arboricultural planting have been identified. These will involve habitat creation and enhancement plans to be evolved with the detailed design and phasing of the development (i.e. outlining the habitats within the development parcels) to create and enhance habitats These include:

- Tree planting within the Harringe Brooks Woods buffer area;
- A 'Woodland Park' to be created within a SSSI area in the centre of the site;
- Additional tree planting within the River corridor buffer area;
- Screening tree planting across the site;
- Planting hedgerows to subdivide parcels and phases and using hedgerows to delineate the edge of ownerships (e.g. back gardens);
- Additional hedgerow planting within the dark corridors to create a dark area for commuting bats and foraging badgers.
- The parameters for each phase, secured at Tier 2 and 3, although not to be designed at this Tier, will specify a minimum quantum of street tree planting and the conditions for that planting, type, specification, tree pit size etc.

6.4.2 Overall, this design mitigation, including avoidance within design, parameters for built areas and tree and hedgerow planting within the GI areas will ensure a net gain in arboricultural features across the site.

6.5 Operational Mitigation

6.5.1 Post construction, during the operation phase, impacts to retained and newly created habitats would be minimised through Green Infrastructure (GI) design to focus recreational impacts in certain areas and to minimise impacts to other areas, utilising topography, habitat and fencing to control recreational pressures. Ecological Management Plans will be required to achieve the outline targets set out in the Appendix 7.20 Otterpool Park Biodiversity Action Plan (BAP). However, an overview of the management and mitigation is provided within the Otterpool BAP (ES Appendix 7.20).

6.6 Further Survey Work

6.6.1 At Tier 2 / 3 of the planning process, it will be necessary to fully evaluate the quality of the tree stock and tree numbers by carrying out a detailed Arboricultural survey in line with BS 5837: 2012. This would be a pre-requisite of any detailed planning application and complying with the F&HDC Local Plan. Given the scale of development and uncertainty over specific development plots at outline planning application stage, more detailed information would be provided at the reserved matters application stage, as agreed with F&HDC / Kent County Council (KCC). An Arboricultural Impact Assessment (AIA) will also be required once detailed design footprints are available to assess the impacts and any required tree removal, protection required for protection for the trees to be retained, and a tree replacement strategy. A full topographical survey would be required to accurately complete the AIA report.

7 Summary of Scoping Results, Constraints and Design Mitigation for Arboriculture within the Otterpool Park Framework Masterplan Site

Table 3 Summary of results, constraints and design mitigation

Area	Summary of overall arboricultural character	Summary of tree and woodland status	Summary of hedgerow status	Main constraints identified within the Framework Masterplan	Main opportunities incorporated within the Framework Masterplan
1	This area is associated with the now closed Folkestone Racecourse and surrounds, and the periphery of Westenhanger Castle. The arboricultural character of the area can be broken down into two key areas, an area associated with the racecourse built area and castle grounds, and the wider Racecourse area to the south.	Trees within this area vary greatly in character and potential value. There are a number of notable tree specimens within the area surrounding the Racecourse and Castle buildings, including a large mature Yew, Ash, Oak and a number of Beech, Lime and Poplar trees. There is a large number of Horse-chestnut trees with bleeding canker which will likely have to be removed to facilitate the development. The other area of notable trees is to the south of the buildings, surrounding the Folkestone Racecourse Lake. This area is predominantly young to semi mature, and is dominated by Willow, Ash and Alder.	There are a limited number of hedgerows within this area, mainly ornamental or defunct or associated with the residential area to the east.	Some notable specimen trees within this are likely to be worthy of retention within any new development, including Beech, Lime, Hawthorn Oak and Ash trees. Multiple large Horse-chestnut trees are present, most appear to be diseased or of poor quality and are unsuitable for retention. The exact locations of the trees will need to be confirmed by a BS5837: 2012 survey based on a detailed topographical survey to inform detailed design. The appropriate time to conduct this is likely to be prior to detailed planning. The Framework Masterplan parameters retains the most notable trees within this area.	Retention of notable specimens will add value to the development. Removal of diseased / poor quality trees and replacement with appropriately selected species of high quality trees as part of planting strategy will improve the arboricultural status of this area. Inclusion of native species hedgerows within any new development will increase the stock of this ecologically valuable habitat within the site.
2	This area is associated with the industrial area and historical airfield to the south of the site. The arboricultural character in this area is indicative of its historical land use as an airfield, with few trees which are older than 60 years old. The woodlands within this area are young plantations, generally small. Small amounts of hedgerows are present within this area, mainly along roadsides.	Few mature trees are present, those which are present are generally located adjacent to the road and are Sycamore and Ash. Willows are present along the runway of the disused airfield. Two rows of Horse-chestnut are present within the access to the car park for Port Lympne. Many of the mature trees in the periphery of this area have TPOs. Woodland blocks within this area are largely immature and appear to have been planted as screening, but have ecological value, including a mixed woodland to the north of the Link Park airfield.	Very few hedgerows are present in this area, those which are present are largely of low species diversity and associated with existing roads.	Within this area, there are a number of TPOs, primarily associated with the industrial area and to the north of the Aldington Road.	The woodlands within this area are to be retained. As a component of the development, these woodlands would benefit from management, which would likely include thinning. Suitable tree planting within development of standard trees would improve the amenity value of the development within this area. Creation of hedgerows within this area to increase connectivity through the site will benefit wildlife.
3	The arboricultural character of this area is related to its current and historical land use as agricultural land. Large isolated and hedgerow trees are present within this area. There are also areas of woodland which are valuable arboricultural and ecological features. There are a number of hedgerows (although these vary greatly in quality and it is evident that many hedgerows have been removed). Within this area there are also a number of woodlands, ranging from small young plantation woodlands to larger woodlands containing some ancient woodland indicators. The majority of the individual trees within this area are standards associated with hedgerows and liner features, however there are a low number of scattered trees within the landscape. Within this area there is a significant arboricultural features associated with the river corridor. This is a near	Trees which are likely to be of high arboricultural value are present within this area. Key arboricultural areas include: • The band of trees along the river corridor forming a narrow wet woodland, predominantly formed of Alder, Ash, Willow, Oak and Hawthorn. There are a few large specimen trees within the riparian corridor. • Small woodlands which are to be retained within the development, including Park Wood and Springfield Wood. • A number of significant hedgerow trees are present within this area. • Field trees, mainly large Oaks are present within this area. Some of these, particularly within the SSSI have applicable TPO's.	There is a large number of hedgerows within this area, most are defunct and/or unmanaged. There is extensive evidence of hedgerow removal. Most of the hedgerows in this area are dominated by Hawthorn, with Elder and Blackthorn. A low number of hedgerows within this area qualify as important hedgerows under the criteria of the Hedgerows Regulations 1997 (HMSO 1997).	The design of development within this area retains the majority of the hedgerows Where practicable, retained hedgerows will be improved and 'gapped -up'. Removed hedgerows will be translocated where possible. New hedgerows to subdivide areas of the development and to delineate gardens etc. are proposed within the masterplan. The trees along the East Stour River Corridor are present on the historical maps. The Framework Masterplan retains this corridor which provides multiple valuable benefits for biodiversity, water quality and volume attenuation etc. A significant buffer between the development and this area is incorporated within the Framework Masterplan.	It was noted that the overall character of this area differed from the agricultural areas to the east and west (outside of the area of search), having fewer intact hedgerows and woodlands. Reinforcement and replacement of historically removed / neglected hedgerows and hedgerow planting would benefit the arboricultural value of the area. Retention of existing woodlands and the trees along the East Stour River Corridor will retain a valuable landscape feature. Large mature trees within this area will add value to the proposed properties within this area.

Area	Summary of overall arboricultural character	Summary of tree and woodland status	Summary of hedgerow status	Main constraints identified within the Framework Masterplan	Main opportunities incorporated within the Framework Masterplan
	continuous band of trees lining the East Stour corridor, which runs through the site from east to west. There are some large mature trees associated with the residential and commercial areas south of the A20. Although these trees were not fully surveyed (due to access issues), key specimens were mapped where possible. The trees lining this stream vary greatly in age and condition, and include Ash, Oak, Willow, Elder, Alder and Hawthorn.			Woodlands within this area are being retained. The adjacent Harringe Brooks Wood to the west of this area (ancient woodland, not on site) is to be buffered within the Framework Masterplan design by a minimum 50m buffer.	
4	Areas 4 is an arable area in the north east of the site. This area has fewer notable arboricultural features than Area 3 but does have some features worthy of retention.	There notable trees / tree groups within this area of the site including an area of large mature trees in the centre of this area adjacent to the buildings at Hillhurst Farm and a small block of shelter belt woodland adjacent to the A20 roundabout and along the A20 road to the south east of this area. Across the A20 is a large area of woodland including ancient woodland (outside of the site). There are two large oaks within the fields of this area, one is adjacent to the A20 and one is in the south between Stone Street and the A20.	Hedgerows are not abundant in this area, being limited to a species poor native hedge in the centre of this area and a largely defunct hedge with trees to the west of this area along a roadside.	The main constraints within this area are the large mature trees within the centre of this area and the defunct hedgerow to the west of this area.	Within the Framework Masterplan the trees around the Hilhurst Farm buildings are to be retained. The hedgerow to the west of this area is bisected but is largely retained within a green corridor. Additional new hedgerows are to be planted to create dark corridors across this area and subdivide the development.

8 Conclusions

8.1.1 It is estimated that the site contains in excess of 500 individual trees, 40 hedgerows (including sections of defunct hedgerow) and 25 woodlands (although most of these are very small and vary greatly in age and quality). The tree stock is of a mixed age group with a high number of mature feature trees and groups of trees scattered across the site. Considering the size of the site, it is considered that the development can incorporate and retain many of the notable arboricultural features within it. This was achieved during the master planning exercise.

8.1.2 The site can be divided into four distinct character areas with two of these, Area 1 and Area 3, likely to be holding the majority of the high quality trees and hedgerows. These two areas present the majority of constraints to development and these constraints have been incorporated into the Framework Masterplan. The tree and hedgerow quality within Area 2 is limited, with the majority of these being of low quality. Area 4 contains some notable arboricultural features which are in distinct areas

8.1.3 A number of Tree Preservation Orders (TPOs) have been identified across the site with most of these are within developed areas such as Lympne Village, Sellindge and Newingreen. A small number of TPO's are located within the grounds of the property Upper Otterpool within Area 3.

8.1.4 The general impact on trees, woodlands and hedgerows and outline mitigation proposals has been included within Chapter 7: Biodiversity.

8.1.5 The arboricultural scoping assessment has identified key features and areas for retention, which are taken into account within the Framework Masterplan design. The majority of impacts are controlled through design avoidance. The areas avoided include:

- Hedgerows across the site;
- Notable trees, largely within Areas 1, 3 and 4; and
- Woodlands on the site.

8.1.6 The key opportunities for enhancements which were identified within the arboricultural scoping survey and are included within the Framework Masterplan are:

- Enhancing and improving existing hedgerows on the site;
- Retaining and managing the existing woodlands on site;
- Removal of diseased and inappropriate trees and replacement with appropriate specimens; and
- Inclusion of high-quality tree planting within any development.

8.1.7 A Woodland Park with extensive tree planting is proposed within the area of the SSSI in the centre of the site. A range of areas where tree planting is to occur, predominantly for screening, are included in the development. Within the parameters for the development of the Phases, a street tree planting quantum is proposed.

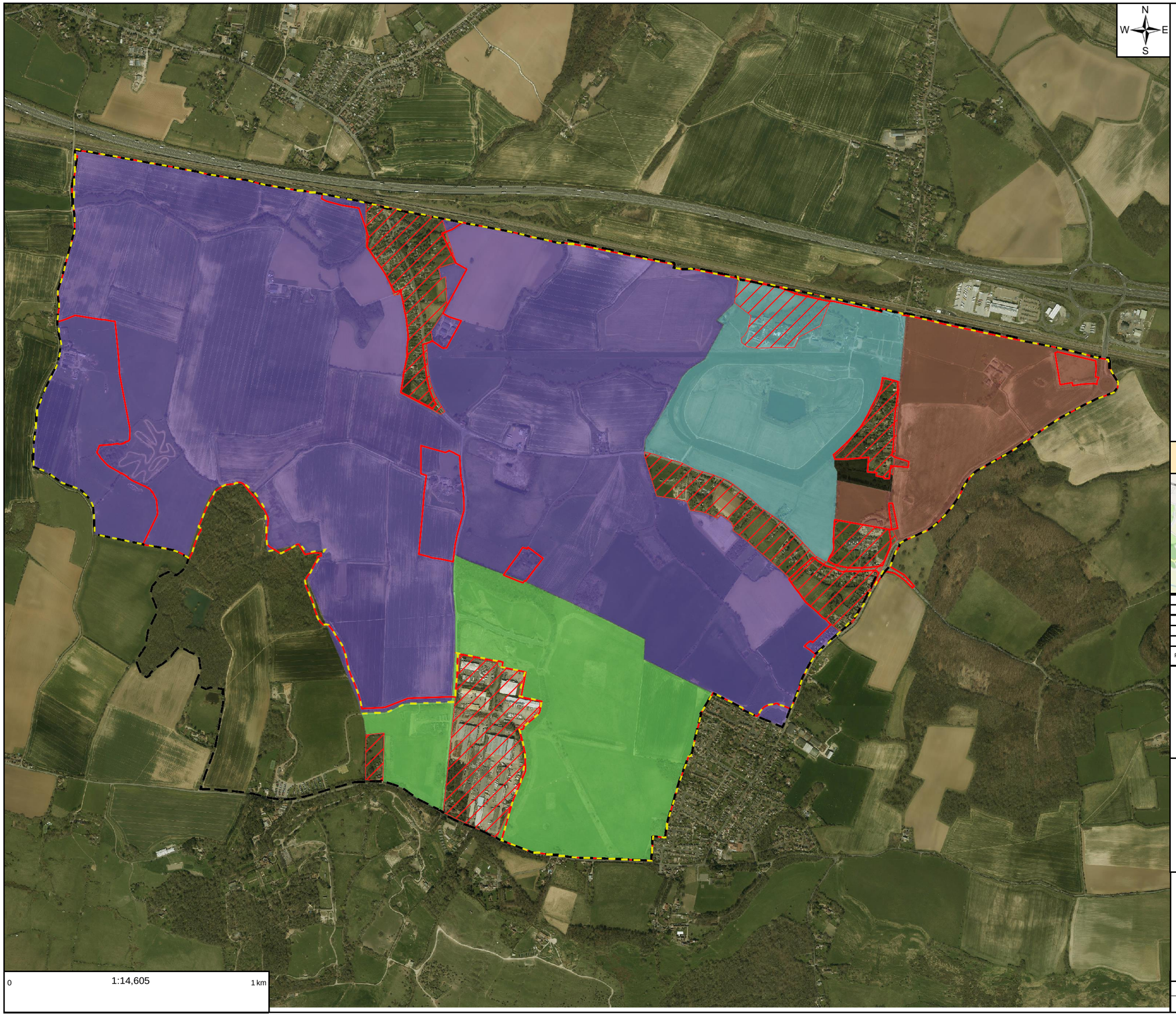
8.1.8 Overall, there will be a net gain of arboricultural features resulting from the development.

8.1.9 This scoping survey provided sufficient information to inform the ES for the outline application. However, to fully quantify and evaluate the quality of the tree stock on site, and to ensure protection of retained trees within each phase of the development, a detailed Arboricultural survey in accordance with BS 5837: 2012 would be required. This would be undertaken at a suitable point in the planning process at Tier 2 / 3. An AIA will also be required for each detailed design footprint to assess the impacts and any required tree removal and/or protection of trees to be retained.

9 References

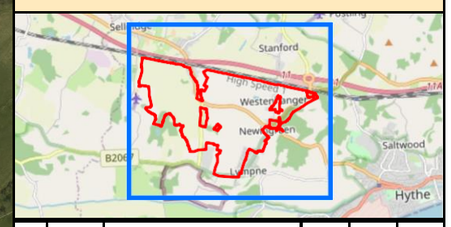
0Ref.	Reference Description
Ref 1	British Standards Institution (2010) BS 3998:2010, Tree Work Recommendations.
Ref 2	British Standards Institution (2012) *BS 5837: 2012 Trees in relation to design, demolition and construction – Recommendations.*
Ref 3	F&HDC (2020) *Explore Folkestone and Hythe.* Available at: https://folkestone-hythe.maps.arcgis.com/apps/webappviewer/index.html?id=95f9db5c8443496aa543e7d4193717c8 [Accessed November 2020].
Ref 4	HMSO (1997) *The Hedgerows Regulations, Section 97 of the Environment Act 1995*. HMSO, London.
Ref 5	HMSO (2012) *The Town and Country Planning (Tree Preservation) (England) Regulations*. HMSO, London.
Ref 6	Kent BAP (undated) *Kent Biodiversity Action Plan*. Available online: http://www.kentbap.org.uk/ [Accessed November 2020].
Ref 7	Kent BAP (undated) *Kent Biodiversity Action Plan*. Available online: http://www.kentbap.org.uk/ [Accessed November 2020].
Ref 8	Mattheck, C. and Broeler, H. DETR (1994) *The Body Language of Trees: A Handbook for Failure Analysis Research for Amenity Trees No.4*. Stationery Office Books.
Ref 9	Natural England (2013) *Multi-Agency Geographical Information for the Countryside (MAGIC).* Available online: https://www.magic.gov.uk [Accessed November 2020].
Ref 10	Shepway District Council (2006) Shepway District Council Local Plan Review: Policies Applicable 2013 Onwards. Available online: (Deprecated) [Accessed November 2020].
Ref 11	Shepway District Council (2013) Shepway Core Strategy: Local Plan. Available online: https://www.folkestone-hythe.gov.uk/downloads/file/3641/1-5-core-strategy-local-plan-2013 [Accessed November 2020].
Ref 12	Folkestone & Hythe District Council (2020) Core Strategy Review Submission Draft. Available online: https://www.folkestone-hythe.gov.uk/downloads/file/3640/1-1-places-and-policies-local-plan-submission-draft-february-2018 [accessedNovember 2020].

Figure 1: Indicative Character Areas – Arboricultural Scoping Survey



Legend

- Outline Planning Application Boundary
- Framework Masterplan Boundary
- Arboricultural Survey / Study Area
- Area 1
- Area 2
- Area 3
- Area 4
- Residential Area
- Area not fully surveyed



REV	Date	Description	Drawn	Check	Approv
02	15/11/21	FOR INFORMATION	PS	BM	MG
01	12-01-2020	FOR INFORMATION	PN	BM	MG

ARCADIS
80Fen
80 Fenchurch Street
London
EC3M 4BY

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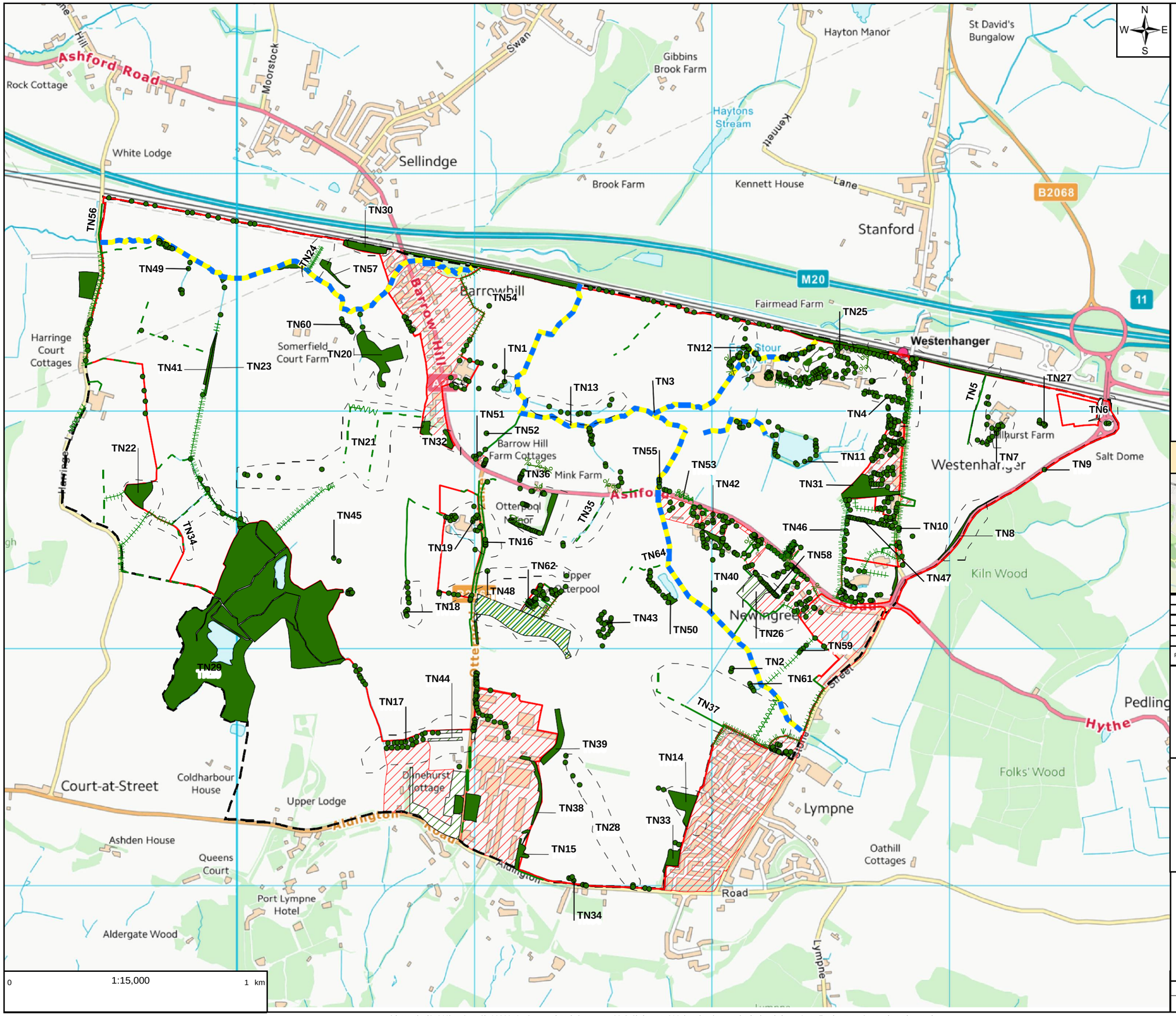
Figure 1
Indicative character areas - arboricultural scoping survey

scale	original size	datum	grid
1:14,605	A3	Sx	BNG

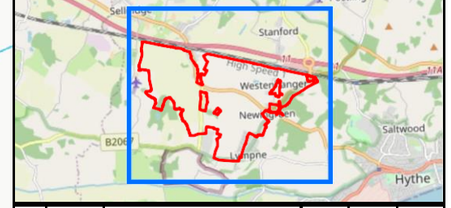
Figure 2: Indicative Tree Constraints Plan

N.B. This should be read alongside all other EIA Appendices including Appendix 7.3 Habitat and Hedgerow Survey Report



Legend

- Outline Planning Application
- Framework Masterplan Boundary
- Area not fully surveyed
- Scattered Tree
- Riparian Corridor
- Native Species Rich Hedge with trees
- Native species rich intact hedge
- Native species poor defunct hedge
- Species poor hedgerow with trees (confier)
- Species poor hedge with trees
- Species poor intact hedge
- Species poor defunct hedge
- Broad-leaved semi-natural woodland
- Broad-leaved parkland scattered trees
- Mixed plantation woodland
- Plantation woodland



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01	23-11-2018	FOR INFORMATION	PN	BM	MG

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80Fen
80 Fenchurch Street
London
EC3M 4BY

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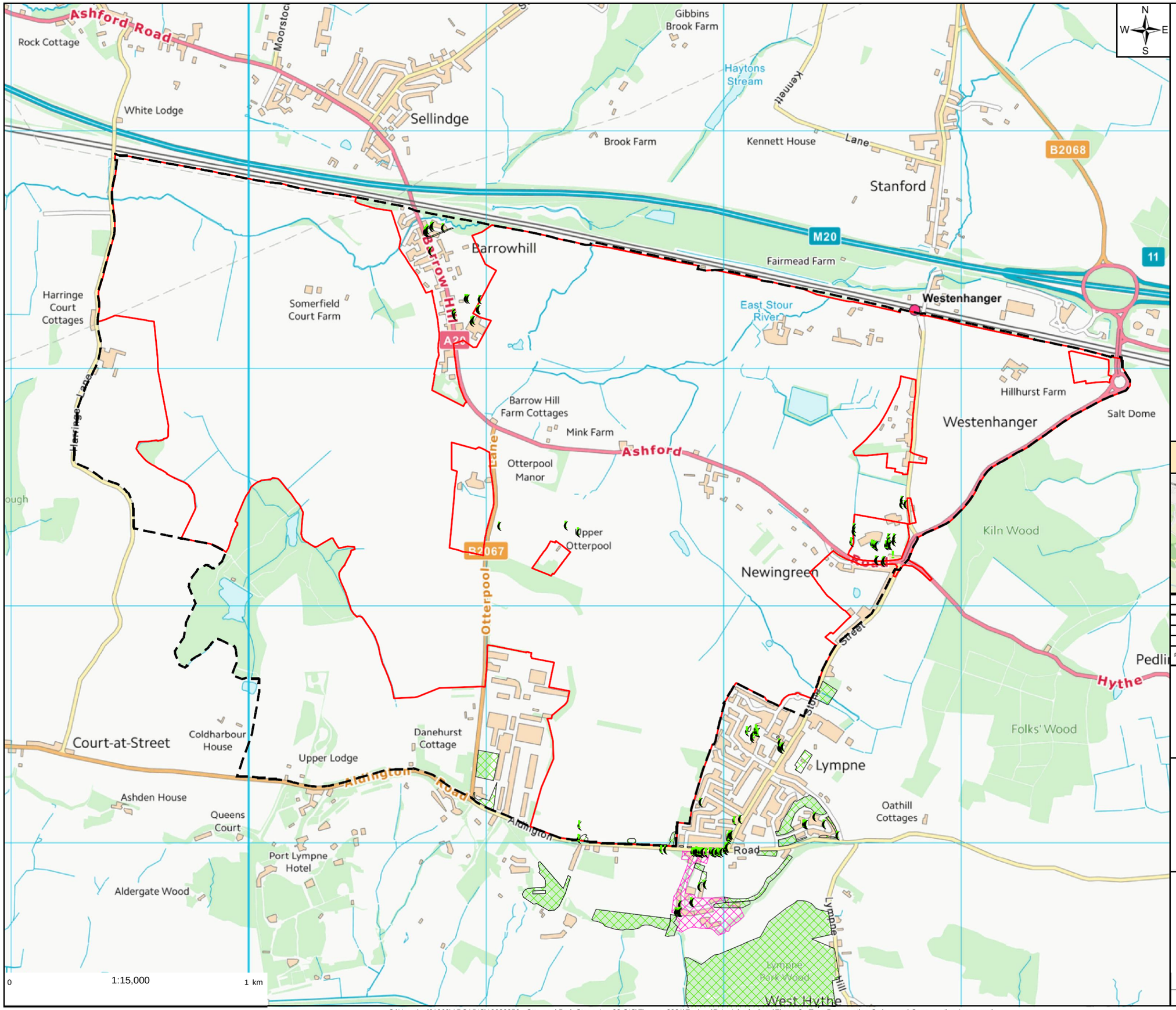
Figure 2
Indicative Tree Constraints Plan

scale	original size	datum	grid
1:15,000	A3	Sx	BNG

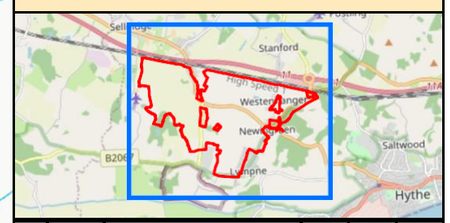
C:\Users\psi01069\ARCADIS\10029956 - Otterpool Park Stage 4a - 23 GIS\Figures_2021\Ecology\7.4 - Arboriculture\Figure 2 - Indicative Tree Constraints Plan.mxd

Figure 3: Tree Preservation Orders and Conservation Areas



Legend

- Outline Planning Application Boundary
- Framework Masterplan Boundary
- Tree Preservation Order (TPO)
- Area TPO
- Conservation



REV	Date	Description	Drawn	Check	Approv
02	03-03-2022	FOR INFORMATION	PS	BM	MG
01	12-07-2020	FOR INFORMATION	PN	BM	MG

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80 Fenchurch Street
London
EC3M 4BY

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Figure 3
Tree Preservation Orders and Conservation Areas

scale	original size	datum	grid
1:15,000	A3	Sx	BNG

C:\Users\psi01069\ARCADIS\10029956 - Otterpool Park Stage 4a - 23 GIS\Figures_2021\Ecology\7.4 - Arboriculture\Figure 3 - Tree Preservation Orders and Conservation Areas.mxd

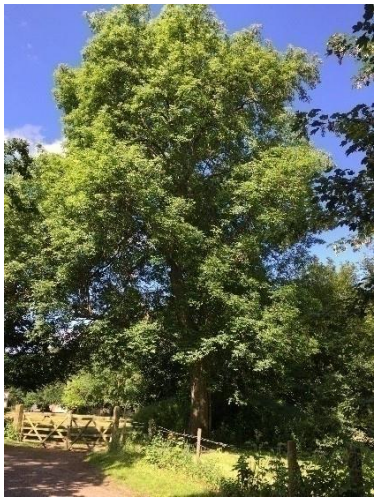
APPENDIX A: Target Notes

Target Note	Description
TN1	Large Oak trees adjacent to ponds likely to be worth of retention
TN2	Riparian tree corridor, likely to be valuable to wildlife, largely surrounded by trees predominantly Alder, Ash, Oak, Hawthorn and Willow.
TN3	Riparian corridor, contains a fairly continuous area of trees dominated by Alder and Willow with Hawthorn, Elder and Ash.
TN4	Area containing scattered trees predominantly Horse-chestnut. The Horse-chestnut are of limited value due to condition.
TN5	Native species poor hedge dominated by Hawthorn.
TN6	Roadside tree planting containing sycamore, Field Maple and Lime.
TN7	Group of large mature trees containing Oak, Poplar and Hawthorn. These trees are likely to be worth of retention.
TN8	A narrow belt of roadside trees containing Sycamore, Ash, Oak and Blackthorn with Elder and Bramble scrub.
TN9	Large Oak likely to be worthy of retention
TN10	Defunct native species rich hedge with trees containing Ash, Hawthorn, Hazel and Blackthorn.
TN11	Young wet woodland dominated by Willow
TN12	Scattered trees including Birch, Alder, Beech and Oak. Some of the trees in this area are likely to be worthy of retention.
TN13	Scattered trees predominantly Willow and Hawthorn.
TN14	Woodland copse dominated by Hawthorn and Blackthorn.
TN15	A mixed plantation woodland containing Oak, Field Maple, Elder, White Poplar and Hazel.
TN16	Two parallel species poor hedgerows along the roadside dominated by Hawthorn.
TN17	An avenue of Horse-Chestnut trees.
TN18	Some scattered mature trees at the southern end of a hedgerow. Some of these trees are likely to be worthy of retention. Predominantly Oak.
TN19	Scattered trees around a farm area, including Ash and White Willow. Some of the trees in this area are likely to be worth of retention.
TN20	Area of woodland. Contains some ground flora indicating areas may be ancient semi natural woodland (ground flora of Enchanter's Nightshade, Bluebell, Greater Stitchwort, Red Campion, Opposite Leaved Golden Saxifrage). Trees are predominantly Oak, Hazel and Ash.
TN21	Largely defunct hedgerows dominated by Hawthorn and scattered trees including White Willow, Field Maple, Blackthorn, Hawthorn.

Target Note	Description
TN22	Woodland with minimal understorey or ground flora (grazed by sheep). Trees present include Ash, Hornbeam, Hazel, Oak and Hawthorn.
TN23	Stream / ditch with scattered Hawthorn.
TN24	Parallel native species rich hedgerows containing Field Maple, Elder, Hawthorn, Ash, Hop.
TN25	Scattered parkland trees within the vicinity of Westenhanger castle and Folkestone racecourse. Species present include Ash, Evergreen Oak, Hawthorn, Beech, Lime and Oak. It is likely that many of the trees within this area are worthy of retention.
TN26	An area of dense scrub dominated by Hawthorn and Blackthorn with Elder.
TN27	A group of trees around a shallow pond with Grey Willow, Elder and Hawthorn.
TN28	Scattered trees along a partially removed airfield runway. Trees present are predominantly Willow.
TN29	Ancient woodland adjacent to the boundary of the site. Dominated by Oak, Hazel, Ash, Hornbeam and Sweet Chestnut.
TN30	Woodland adjacent to the railway containing Oak, *Prunus* sp., Hawthorn, Elder, Grey Willow and Birch.
TN31	Woodland not assessed. Woodland is outside of the application site boundary.
TN32	Mixed plantation woodland. Area visible was dominated by Poplar. Woodland is outside of the application site boundary.
TN33	A group of large Sycamore trees
TN34	A group of trees containing predominantly Ash and Sycamore.
TN35	A hedgerow dominated by Hawthorn
TN36	Two areas of trees surrounding a lorry park and a café. These trees include coniferous plantation hedge.
TN37	Hedgerows dominated by Hawthorn. These are predominantly defunct.
TN38	Within the commercial areas were bands of screening woodland containing Scots Pine. These were not fully assessed during the scoping as they are outside of the application site boundary.
TN39	A mixed woodland plantation between the airfield and the commercial areas. Contains Field Maple, Ash, Scots Pine, White Poplar, Willow, Hawthorn
TN40	Large specimen trees located within this area of the riparian corridor, Oak and Ash are dominant in this area.
TN41	A wooded area is present along the ditch in this area, dominated by Willow, including Crack Willow and White Willow, Hawthorn, Elder.
TN42	Large mature trees within this residential and commercial area include a large mature copper beech, willow and walnut.

Target Note	Description
TN43	A small copse of predominately hawthorn and blackthorn scrub with some Ash trees.
TN44	Two small plantation woodlands either side of an access road. Dominated by Hawthorn.
TN45	Scattered Ash Trees
TN46	A row of large mature trees. Lime, Ash, Maple, Copper Beech, Oak, Sycamore.
TN47	Scattered mature trees adjacent to a defunct hedge and along a dry ditch. Tree species are mature. Tree species present include Poplar, Ash, a maple, Hawthorn, Scots Pine, Lime, Birch, Elder.
TN48	Large field trees, largely Oak. Some of these trees have an applicable TPO.
TN49	A short length of scrub and trees, Grey Willow, Oak, Hawthorn and Elder
TN50	A small area of wet woodland to the south-west of a pond. Dominated by Willow.
TN51	A small woodland surrounding a residential property to the south and north-east. Weeping Willow, Lombardy-poplar, Oak, Blackthorn, Elder, Leyland Cypress.
TN51	A small woodland copse dominated by Oak and Blackthorn.
TN52	A large field tree
TN53	Large Scots Pine within a residential garden.
TN54	Large Oak tree within a field
TN55	Grey Willow and Elder scrub along a ditch.
TN56	Screening planting on an embankment. Hawthorn, Sycamore, Bramble, Hazel, Dog-rose, Dogwood.
TN57	A small woodland dominated by Alder
TN58	A row of mature Grey Alder and Hawthorn
TN59	Three large Oak trees within a hedgerow
TN60	A row of mature Oak trees.
TN61	Trees around a pond. Dominated by hawthorn and Blackthorn
TN62	A number of large trees are present within this residential property. Oak, Cherry, Apple, Horse-chestnut, Hawthorn, Scots Pine, Silver Birch, Willow, Field Maple, Plum, Pear, Ash, Hazel, Fig.
TN63	Defunct Hedgerow of Hawthorn

APPENDIX B: Photographs

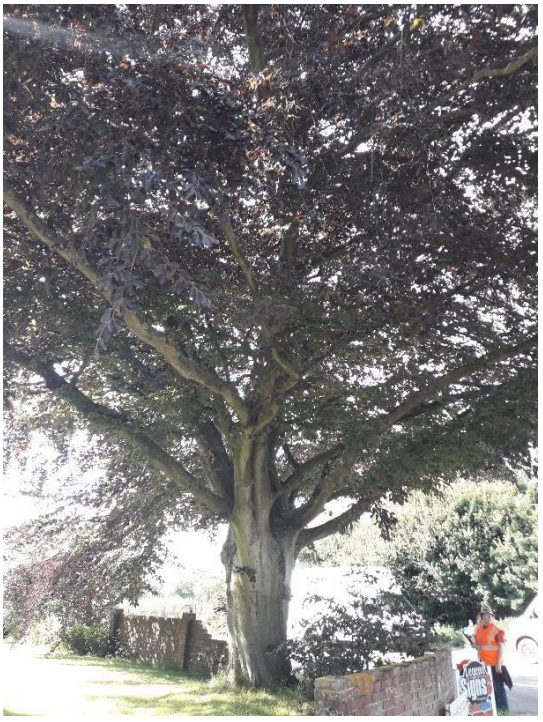
Area	Description	Photograph	Target note (if applicable)
1	Example of Horse-chestnut trees within the Racecourse area (Area 1) TN4 in **Figure *2***		TN4
1	Mature standard trees around Westenhanger Castle (Area 1)		TN25
1	Mature Ash around Westenhanger Castle (Area 1)		N/A
2	Area to the west of Link Park. Note area largely devoid of hedgerows (Area 2)		N/A

Area	Description	Photograph	Target note (if applicable)
2	View of the character of the south of the site to the west of link park. Note absence of hedgerows in this area and prevalence of young planted woodland copses (Area 2).		TN15 visible
3	Defunct species poor hedgerow typical of the west of the site (Area 3).		Typical of hedgerows around TN22
3	Mature trees adjacent to Barrow Hill Farm (Area 3) (TN1 in **Figure *2***).		TN1
3	Trees adjacent to a riparian area to the west of the site (Area 3)		TN2
3	View across the site from the west, showing defunct hedgerows and hedgerow trees (Area 3).		N/A

Area	Description	Photograph	Target note (if applicable)
3	View across the site from the west (Area 3).		N/A
3	View of the arboricultural features associated with the River East Stour Corridor to the west of the Folkestone Racecourse lake (Area 3). TN3 in **Figure *2***.		TN3
3	View of the arboricultural features associated with the River East Stour Corridor to the west of the Folkestone Racecourse lake (Area 3)		TN3
3	View of the arboricultural features associated with the River East Stour Corridor to the west of the Folkestone Racecourse lake (Area 3)		TN3
4	Single species hawthorn hedge within Area 4. TN5 in **Figure *2***.		TN5

Area	Description	Photograph	Target note (if applicable)
4	Copse of woodland planting within Area 4. TN 6 in **Figure *2***		TN6
4	View across Area 4 to the west of the site showing lager mature trees around the farmhouse (right of photo, TN7 in **Figure *2***). Note absence of hedgerows.		TN8, TN7 visible
3	Within Springfield Wood		TN22
N/A	Within Harringe Brooks Wood		TN29

Area	Description	Photograph	Target note (if applicable)
3	Trees along a tributary to the East Stour		TN23
3	Defunct Hedgerow		TN63
2	Woodland north of Link Park		TN15
2	Scrub and Ash trees north of the airfield		TN45

Area	Description	Photograph	Target note (if applicable)
2	Willow trees on the disused runway		TN28
1	Off-site woodland not surveyed		TN31
3	Old orchard south of the A20		West of TN42
3	Large tree south of A20		TN42

Area	Description	Photograph	Target note (if applicable)
3	Hedge and trees in the east of the site		TN59
3	Row of Grey Alder south of the A20		TN58
3	Two small woodland blocks south of the A20		TN26
2	Rows of trees on access to Port Lympne car park		TN17

Area	Description	Photograph	Target note (if applicable)
1	Row of trees between field and a residential house		TN10

APPENDIX C: Tree Species List

Common name	Latin name
Alder	*Alnus glutinosa*
Almond	*Prunus dulcis*
Apple	*Malus* sp.
Ash	*Fraxinus excelsior*
Beech	*Fagus sylvatica*
Blackthorn	*Prunus spinosa*
Box	*Buxus sempervirens*
Cabbage-palm	*Cordyline australis*
Cherry	*Prunus* sp.
Cherry Laurel	*Prunus laurocerasus*
Crack Willow	*Salix fragilis*
Alder	*Alnus glutinosa*
Copper Beech	*Fagus sylvatica 'Purpurea'*
Dog-rose	*Rosa canina* agg.
Dogwood	*Cornus sanguinea*
Elder	*Sambucus nigra*
Evergreen Oak	*Quercus ilex*
Field Maple	*Acer campestre*
Fig	*Ficus carica*
Goat willow	*Salix caprea*
Grey Alder	*Alnus incana*
Grey Willow	*Salix cinerea*
Hawthorn	*Crataegus monogyna*
Hazel	*Corylus avellana*
Hornbeam	*Carpinus betulus*
Horse-Chestnut	*Aesculus hippocastanum*

Common name	Latin name
Laburnum	*Laburnum* sp.
Larch	*Larix* sp.
Lawson cypress	*Chamaecyparis lawsoniana*
Leyland Cypress	*X Cuprocyparis leylandii*
Lime	*Tilia x europaea*
Lombardy-poplar	*Populus nigra 'Italica'*
Magnolia	*Magnolia* sp.
Maple	*Acer* sp.
Norway Maple	*Acer platanoides*
Pear	*Pyrus* sp.
Pedunculate Oak	*Quercus robur*
Pine	*Pinus* sp.
Plum	*Prunus domestica* subsp. *domestica*
Poplar	*Populus* sp.
Rowan	*Sorbus aucuparia*
Scots Pine	*Pinus sylvestris*
Sessile Oak	*Quercus petraea*
Silver Birch	*Betula pendula*
Small-leaved Lime	*Tilia cordata*
Smoke-tree	*Cotinus coggygria*
Sweet Chestnut	*Castanea sativa*
Sycamore	*Acer pseudoplatanus*
Walnut	*Juglans regia*
Weeping Willow	*Salix babylonica*
White Willow	*Salix alba*
Wild Cherry	*Prunus avium*
Wild Plum	*Prunus domestica*
Wild Privet	*Ligustrum vulgare*

Common name	Latin name
Willow	*Salix* sp.
Yew	*Taxus baccata*

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