# Appendix 11.1

**Data Centre Application - Landscape Statement** 

PRICENED. 73/08/2024

THIS PAGE IS INTENTIONALLY BLANK

PRICEINED. 73/08/2024

# Herbata Data Centre Campus Landscape Design Statement

Est. 1968



BSM Brady Shipman Martin

Built. Environment.

Client:

Herbata Limited

Date:

26 April 2024

## DOCUMENT CONTROL SHEET

## 6971\_RP-02\_Landscape Design Statement

Project No. 6971

Client: Herbata Limited

Project Name: Herbata Data Centre Campus
Report Name: Landscape Design Statement

Document No. RP-02

Issue No. 01

Date: 26/04/2024

This document has been issued and amended as follows:

Issue	Status	Date	Prepared	Checked
P01	For Planning	26 Apr 2024	BM	DB



# **Table of Contents**

1	Intro	oduction	1
2	Site	Context	1
	2.1	Subject Site	3 5
3	Pre-	App Consultation	5
4	Land	Iscape Proposals	7
	4.1 4.2 4.3 4.4	Landscape Principals  Landscape Masterplan  Integrated Landscape Surface Water Management  Landscape Boundary Treatments	9
	4.5 4.6 4.7	Internal Site Areas  Landscape Construction Phasing  Landscape Maintenance	16
5	Outl	ine Landscape Specification	19
	5.1 5.2 5.3 5.4	PROTECTION  EARTHWORKS / SOIL WORKS / CULTIVATION WORKS  PLANTING  GRASS SEEDING	19 19 22
	5.5	AFTFRCARF	24

#### Introduction 1

This Landscape Design Report is submitted as part of the planning application for the proposed development at Naas, Co. Kildare.

This report comprises a landscape design statement prepared to accompany the planning application to Kildare County Council.

This report should be read with the following landscape drawings and reports:

1.1 Drawing Title	Drawing Number	Size
Existing Tree Survey 01 of 04	BSM-ZZ-ZZ-DR-L-0101	Α0
Existing Tree Survey 02 of 04	BSM-ZZ-ZZ-DR-L-0102	Α0
Existing Tree Survey 03 of 04	BSM-ZZ-ZZ-DR-L-0103	Α0
Existing Tree Survey 04 of 04	BSM-ZZ-ZZ-DR-L-0104	Α0
Tree Removal, Retention & Protection Plan 01 of 04	BSM-ZZ-ZZ-DR-L-0211	Α0
Tree Removal, Retention & Protection Plan 02 of 04	BSM-ZZ-ZZ-DR-L-0212	Α0
Tree Removal, Retention & Protection Plan 03 of 04	BSM-ZZ-ZZ-DR-L-0213	Α0
Tree Removal, Retention & Protection Plan 04 of 04	BSM-ZZ-ZZ-DR-L-0214	Α0
Landscape Master Plan	BSM-ZZ-ZZ-DR-L-0301	Α0
Landscape Boundary Treatments Plan	BSM-ZZ-ZZ-DR-L-0311	Α0
Coordinated Services & Landscape Plan	BSM-ZZ-ZZ-DR-L-0312	Α0
Landscape Sections 01 of 02	BSM-ZZ-ZZ-DR-L-0401	A1
Landscape Sections 02 of 02	BSM-ZZ-ZZ-DR-L-0402	A1
Landscape Elevations 01 of 02	BSM-ZZ-ZZ-DR-L-0405	A1
Landscape Elevations 02 of 02	BSM-ZZ-ZZ-DR-L-0406	A1
Landscape Details 01 of 02	BSM-ZZ-ZZ-DR-L-0450	Α0
Landscape Details 02 of 02	BSM-ZZ-ZZ-DR-L-0451	A0
1.2 Report Title	Report Number	Size
Tree Survey and Arboricultural Impact Assessment Report	BSM-ZZ-ZZ-RP-L-0001	A4
Landscape Design Report (this document)	BSM-ZZ-ZZ-RP-L-0002	A4

#### 2 Site Context

The proposed development subject lands are approximately 37ha in extent and are located on the western side of the M7 motorway, positioned between Junctions 9a and 10. The site is bound to the north by the R409 road which provides a direct link to the centre of Naas, c.2.5km to the east.

The subject lands are located between the existing 'M7 Business Park' and 'Osberstown Business Park'. The Osberstown Wastewater Treatment Plant is located nearby to the north. The site is bounded to the east by the M7 motorway and to the west by agricultural lands. The 'Newhall Retail Park' is located to the south of the site, on the east side of the M7 motorway.

CRADOCKSTO

West of the M2, land uses transition to retail, residential and commercial around the Newhall Retail Park. To the west of the site sits the River Liffey past Newhall Road to the Commons.

Refer to Figure 1.

WATERS TOWN

OSBERSTOWN

MONREAD NORTH

Schristown

NAME STOWN

NAME S

Figure 1 Site Location and context



Figure 2 Site Existing conditions

The area is characterised by its flat landscape, containing a mixture of agricultural, commercial, and industrial development clusters, modern high capacity road infrastructure and a network of high voltage overhead powerline infrastructure. Developments are set within the landscape and sub-divided by layers of traditional treeline / hedgerows and more recent boundary typologies. R409 Road and Newhall Road to the north and west of the site respectively are more traditional rural roads

with narrow carriageways and roadside treelines and hedgerows providing visual containment along the roads.

# 2.1 Subject Site

The site for the proposed development is currently in agricultural use. The site falls at a generally even grade from north to south. It comprises several large fields, divided by man-made drainage ditches, most of which have associated hedges and trees. The site is bounded by semi-mature hedgerows and tree lines on the north, west and east, and a combined hedgerow and flowing Blue Bell stream to the south. For more detail on the existing features, please refer to BSM-ZZ-ZZ-RP-L-0001 Tree Survey and Arboricultural Impact Assessment Report.

The site is within the administrative area of Kildare County Council and the Kildare Development Plan 2023-2029 provides the statutory planning framework for its development.

The site is Zoned *P: Data Centre (C7)*, as a central part of the digital economy and to provide added economic benefit across the value chain (see Figure 3). It is one of two areas nominated for data centres within the Naas Local Area Plan (2021-2027).

To the north and south of the site is land zoned *H: Industry & Warehousing (C2.2)*. Further north is land zoned *U: Utilities / Services (N)* which encompasses the Osberstown Wastewater Treatment Plant.

Existing tree survey landscape plans have been prepared for the proposed development. For further details see drawings 'DR-L-0101-4 Existing Tree Survey 01-04 of 04' submitted as part of this planning application.

To the north west, west and south west of the site sits agricultural land, with intermittent residential plots.

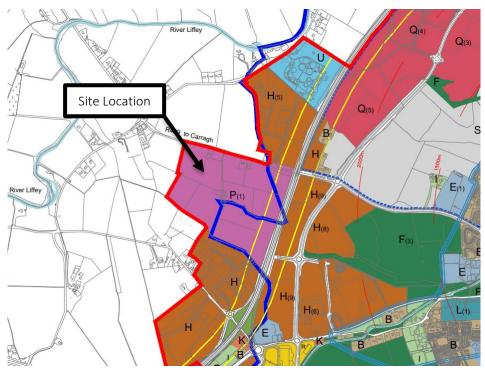


Figure 3 Land use zoning — extract from Naas Local Area Plan 2021-2027, Land Use Zoning Map Oct 2021 (Kildare County Council, Oct 2021)

The topography of the site is gradually sloping from north to south, and has no protrusions or natural vertical features of note from the surrounding context. This natural slope ensures much of the northern section of the site is dry, and towards the southern and eastern boundaries water is more abundant. This occurs in two types, either through ephemeral wet grasslands, where large areas of flat low lying ground are predominantly wetland habitat (more common along the eastern boundary), or along the southern boundary, where the approx. 4-5m wide Bluebell stream collects much of the surface water run off. In this section more low light and damp vegetation occurs, as well as water logged trees.

Within the site and along the boundaries, there are a number of existing hedgerows. These have been surveyed and assessed as part of the development. For more detail on these landscape elements, please refer to the Biodiversity chapter (5) in the EIAR.

Within the Naas Local Area Plan 2021-2027 Green Infrastructure Map (DWG 200/21/1135) as shown in Figure 4 there are nominated significant hedgerows in green lines. There is a section of significant hedgerow to the south of the site, to the north of the M7 Business park, running along the Bluebell stream and southwards towards Newbridge Rd which is being retained within the landscape proposal.

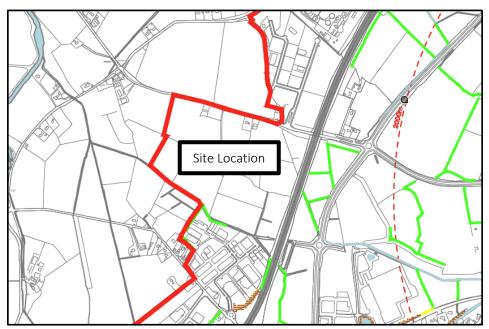


Figure 4 Naas Local Area Plan Green Infrastructure Map (Naas Local Area Plan 2021 – 2027, Kildare County Council, Oct 2021)



#### Hedgerows

In the southeast corner of the site sits a Fulacht Fiadh. The exact location of this is further developed in the Cultural Heritage chapter in the EIAR. Currently this area is a mix of wet and dry grassland / pasture.

Within the centre of the site is an assorted number of farm buildings, some derelict/overgrown, and others functional. Many of the open areas are managed farmland for grazing of livestock.

## 2.2 Tree Protection

All existing retained trees and hedgerows are proposed to have tree protective fencing to BS 5837:2012 erected. The layout of the site has been developed to ensure as much existing trees and hedgerows are maintained amongst proposed utilities, services, buildings, roads, fences and other required infrastructure.

Any services to be installed within the protected area to be carried out following a specialised construction methodology under the supervision of the Project Landscape Architect/Arborist. For further details see drawings 'DR-L-0211-4 Tree Removal, Retention & Protection Plan 01-04 of 04 submitted as part of this planning application.

- Sturdy tree protection fencing will be erected along the lines shown on the accompanying Tree & Landscape Protection & Removal Plan Drawing to prevent construction activity and machinery encroaching into the root protection areas (RPAs) of the trees and hedges to be retained. The fencing will be erected as soon as the tree and hedge removal works have been completed and will not be removed or moved unless authorised by a qualified arborist;
- Where works/site machinery has to encroach the RPAs of the trees to be retained for reasons unforeseen and unavoidable; suitable ground protection will be put in place to prevent any significant soil compaction or root damage near the trees; this should take the form of suitable strength ground protection mats or cellular confinement system capable of supporting the appropriate weight. Any works will be carried out in accordance with Arborculture Association 'Guidance Note 12 the use of cellular confinement systems near trees';
- Any new underground services such as electricity cables, water pipes etc. will be routed away from the root protection areas of the trees to be retained; where this is not possible for reasons unforeseen, the services will be installed using specialist methodology (such as Airspade excavation or Mole drilling) that ensures minimal impact on any tree roots;
- All site offices, materials storage, staff parking etc. will be located outside of the RPAs of the trees; there is ample space on the site to accommodate these facilities outside the RPAs of the retained trees and hedges;
- The tree protection measures and specialist work methods will be overseen by a qualified arborist; the arborist should also make regular visits to the site during the construction process to ensure compliance and be available to provide advice and guidance where necessary; and
- The retained trees will be assessed by a qualified arborist following the completion of the construction works.

# 3 Pre-App Consultation

A number of pre-application meetings were held between representatives from Kildare County Council (KCC), the client and the design team. The meetings, as well as Local Area Plans and Development Plans, has informed the overall landscape development strategy for the Herbata lands.

During the course of design development, Herbata met with KCC Parks and Water Services department to discuss the current design, visual mitigation strategy, and landscape proposals.

The technical meeting for the overall drainage strategy was held on the 11/04/2023, online, with members of the design team and representatives from Ridare County Council. Items discussed included

- Proposed Sustainable Urban Drainage Strategy, including existing conditions and proposed integration of SuDs principals into the design, incorporating flooding and overall drainage scheme;
- Bio-retention integration including basins and ponds, bioswales, green retaining walls;
- Bio-diverse planting of SuDs features and drainage schemes;
- Carpark and Road network SuDs integration.

This meeting primarily discussed the proposed developments drainage strategy and noted the integration between drainage and landscape that will be a part of the design. For further information, please refer to the Planning Engineering Report, Appendix C, KCC Water Services Department Meeting Notes.

The meeting with KCC Parks department was held online, on the 22/05/2023, with members of the design team and a representative from the Kildare County Council Parks Dept. A number of items were discussed, including:

- Proposed planting typologies;
- Tree protection;
- Boundary treatments;
- Services and utilities (please refer to drawing BSM-ZZ-ZZ-DR-L-0312 CoordinatedServices&LandscapePlan) and;
- Green walls and building vegetation

This meeting discussed the overall landscape masterplan proposal, including the perimeter landscape treatments of mounding with native woodland vegetation.

The green walls were noted as an item of potential opportunity for further screening in previous discussions with KCC, however, it was discussed in the meeting that vertical building green walls would prove unsustainable for the scale of the proposed development due to the availability of space, ventilation, fire access, exposure and potential high failure rates, and high consumption of water due to irrigation. The opportunity of an integrated green wall system as mentioned in 3.2 (p9) was discussed and noted to be a more sustainable solution to providing vertical vegetation and screening of heavy elements within the proposed development, alongside a robust, resilient and deliverable perimeter boundary treatment of structural screening woodland, scrub and hedgerows.

#### 4 **Landscape Proposals**

#### 4.1 **Landscape Principals**

The guiding principals of this landscape proposal include:

- PRICENED. 7300 ■ Visual screening and integration of the proposed development into the landscape;
- Retention, protection and enhancement of the boundary hedgerows and tree lines to the eastern, southern and western boundaries;
- Increase and enhance biodiversity through pollinator friendly native planting, wildflower meadows, native wetlands, and habitat enhancement measures for flora and fauna;
- Creation of quality landscaped network and boundary settings for the development;
- Good quality, low maintenance hard and soft landscape measures throughout the site;
- Integrated sustainable water management to ensure a clean and diverse environment and reduce urban heat island effect;
- Integration of landscape treatments with proposed buildings, utilities and substation proposals.

Following the above landscape principals, a Landscape Masterplan has been prepared to accompany the development. The plan is accompanied by a series of supporting drawings outlined in the Introduction (refer section 1.1).

#### 4.2 Landscape Masterplan

A landscape masterplan has been prepared for the proposed development (refer to Figure 5 for an extract from the Landscape Masterplan).



Figure 5 Overall Landscape Masterplan. Refer drawing BSM-ZZ-ZZ-DR-L-0301.

The landscape masterplan seeks to develop a high-quality data campus and native environment for the proposed new development. It places a high priority on biodiversity and sustainable water management at the proposed lands. In particular the majority of the perimeter boundary hedgerows and tree lines are retained, strengthened and bolstered, encompassing the campus in a native woodland perimeter.

Landscape mitigation measures include:

- Protection of existing trees and hedgerows during construction;
- **Retention** and incorporation of site features into the layout of the scheme;
- Natural and site specific boundary treatments including mounding and native woodland planting;
- Integrated sustainable campus water management;
- Protection of existing riparian water ways;
- Native low maintenance, biodiverse wildflower planting throughout the Campus environment
- Additional tree and other **diverse planting** for biodiversity.

The perimeter treatment of the site will be densely planted, mounded native woodland to provide visual mitigation to the development and further increase the

existing biodiversity of the local area and the site. The perimeter will further bolster the existing retained trees and vegetation along the boundaries.

Much of the western, eastern and southern perimeter hedgerows and tree lines will be retained and protected as part of the proposed development. Although much of the internal hedgerows will be removed (approx. 2.9 linear km), this loss will be mitigated and offset with a dense, wide belt, of over 5.4 hectares of perimeter planting of native woodland and structural screen planting being proposed surrounding the site from all available sides, with a mixture of 10-15% Semi-Mature. A selection of over 200 native tree species is proposed throughout the development, further offsetting the removal of hedgerows. This is in addition to the proposed native long and short meadow grassland of wildflowers, which will cover over 6 hectares, integrated aquatic and SuDs planting and seeding which will include over 3.8 hectares, and green roof proposals providing over 8,000m2 of vegetation.

The landscape design has been prepared by a qualified landscape architect who will also supervise the implementation of all works relevant to the landscape design.

# 4.3 Integrated Landscape Surface Water Management

The proposed development has developed an integrated sustainable surface water management. This has been guided by the *Nature-based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas* National Guidance Document, *The SuDS Manual* by CIRIA and *The Kildare County Council Development Plans 2023 – 2029 Chapter 6: Infrastructure & Environmental Services*. As part of the project's aim, the Kildare Development Plan's Aim from Chapter 6 has been highlighted throughout the development process:

To create an environment characterised by high quality infrastructure networks and environmental services that complement the overall settlement and economic strategy and ensures the health and wellbeing of those who live and work in the County, also securing the economic future of the County. P.203.

The sustainable management of water throughout the site is a critical element to the campus proposal and seeks to ensure there is no increased flood or pollution risk to the catchment, whilst ensuring the integration of SuDs principals throughout. This includes the protection of groundwater, increased water catchment areas, increased water infiltration, reduction in water conveyance throughout the site utilising porous pavement, green roofs, biofiltration, detention and attenuation basins, utilisation of appropriate green infrastructure that increases biodiversity, protection of existing riparian corridors and providing adequate infrastructure for management of all required water services throughout the campus. The guiding principals found in KCC Development Plan 6.6 Surface Water / Drainage highlights the key planning objectives that the development proposal has sought to align with throughout the integrated proposal of water management.

Below outlines the suite of surface water drainage elements incorporated into the proposed development that intake, filter, manage and discharge water sustainably across the development.

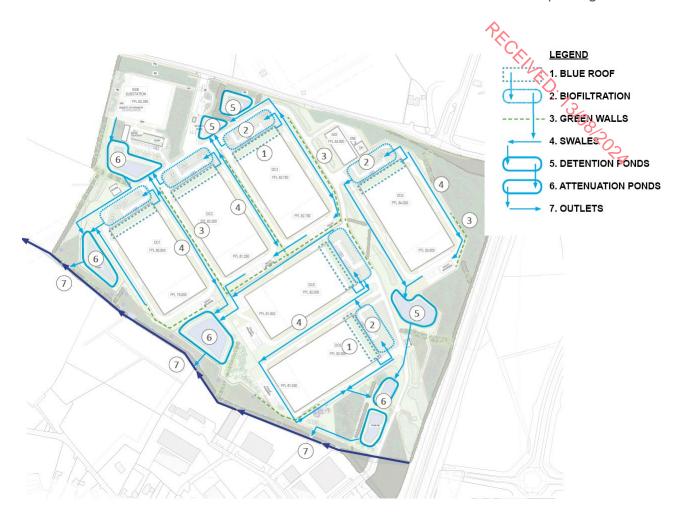


Figure 6 Proposed site wide water path diagram

No.	SuDS Feature	Diagram / Description	Reference Image
1	Green Roof		
		Vagantion (general predictor)  Filter folior: Instruction (Part folior): In	
		Rainwater is captured and collected on the Admin roofs of DC Buildings and filtered through a	
		vegetation layer of organic materials, providing a greater water holding capacity whilst providing for	

biodiversity and greater building climate efficiency.

(See IN O25, KCC Development Plan 6.6)

10

Reference Image

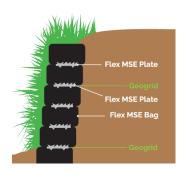
#### No. **SuDS Feature** Diagram / Description

2 Biofiltration



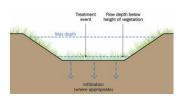
Rainwater run-off from building surfaces, roads, footpaths and other impermeable surfaces is captured in vegetation biofiltration beds which capture, filter, permeate water into the ground and outlet into a network of swales. Permeable pavement is also utilised to provide water infiltration across campus. (See IN O23, KCC Development Plan 6.6)





Low level retaining walls will be vegetated with native plants to provide further infiltration along the path of water movement. (See IN O24, KCC Development Plan 6.6)





A network of planted swales from DC units connected to local ponds channel water throughout the site and allow for further ground water infiltration in both low- and high-level flooding. (See IN O23, KCC Development Plan 6.6)





No.	SuDS Feature	Diagram / Description	Reference Image
5	Biofiltration Basins		TED.
		Contraction of the contraction o	703 <sub>7</sub>
		Planted biofiltration basins will sit primarily on the northern end of the site and will provide further infiltration of site water in low and high rainfall events. (See IN O23, KCC Development Plan 6.6)	
6	Wet Attenuation Ponds	Planted attenuation ponds will be placed at designated locations towards the south of the site. They will perform a dual role of providing a water course and ability to caputre runoff in the event of an emergency. (See IN O23, KCC Development Plan 6.6)	

7 Discharge Headwalls and Outlets



Before water exits the site and enters the local catchment, local vegetated headwalls will be constructed to provide further opportunity for water infiltration and increase in biodiversity for the local ecology.





Sustainable management of water across the project will also include the connection between existing water courses and internal campus water. Clear management, connection and integration between the two has been incorporated into the landscape proposal. A project wide buffer has been established from all riparian

corridors, with any required planting including native woodland and low-lying native grassland.

The surface water management across the site will be further managed by an integrated green wall system for all vertical elements. This system will be utilised to soften or replace all retaining wall elements and headwalls, ensuring an increased amount of planting and biodiversity for the local ecology and a more visually amenable campus for staff and visitors. For more detail, please refer to drawing BSM-ZZ-ZZ-DR-L-0451.

Native Wetland Wildflower planting comprising a mix of Devils Bit Scabious, Common Sorrel, Cowslip, Fleabane\*, Greater Trefoil\*, Hemp Agrimony, Lesser Knapweed, Marsh Cinquefoil, Marsh Marigold, Meadow Buttercup, Meadowsweet, Meadow Rue, Oxeye Daisy, Purple Loosestrife, Ragged Robin, Red Clover and Red Rattle will be planted in dry swales and biofiltration basins to provide a native wildflower appearance throughout the campus environment and enhance the biodiversity value of the water corridors.

Native wetland marginals and aquatics comprising of *Schoenplectus lacustris, Iris pseudacorus, Typha latifolia, Carex acuta* and other native species will be planted in the biofiltration basins and biofiltration planters beside hard surfaces to provide further wetland appearance, provide further water infiltration throughout the campus and further purify surface water before discharging it into the local catchment / ground.

## 4.4 Landscape Boundary Treatments

A key feature of the landscape masterplan is the perimeter boundary planting. This is a consistently planted boundary treatment that softens the edges of the built development, provides screening to neighbouring receptors, ensures increased protection of existing vegetation and increases biodiversity through additional planting of woodland, hedgerows, meadows and wetland planting.

To the northern boundary, a large extent of planting will be incorporated into the data campus, providing a softened edge and maintaining a lineal hedgerow feature along the R409 route. This planting will be integrated with additional earth mounding, road upgrades, site entrances and active travel. Mounding and planting of native evergreen and deciduous trees at key locations beside major infrastructure will play a further role in softening the campus edge. A consistent treatment of timber rail fencing will be provided to the northern boundary, with mounded hedge planting behind to provide a consistent boundary treatment and native screen to the R409.

Table 4-1 Native hedge mix, refer drawing BSM-ZZ-ZZ-DR-L-0450.

Native Hedge Mix								
Holly	llex aquifolium	Hawthorn	Crataegus monogyna					
Hazel	Corylus avellana	lvy	Hedera helix 'Hibernica'					
Oak Blackthorn	Quercus robur Prunus spinosa	Dog Rose	Rosa canina					

The site entrance will be a key feature of the site. Integrated mounding, stonewalls, evergreen species and native planting will ensure the entrance into the site is settled and integrated with the context of the landscape, whilst also providing a sense of arrival for visitors to the campus.

Along the eastern boundary, the landscape masterplan proposes to retain all existing hedgerows, protect, and bolster them with approximately 30-40m wide native woodland and structural screen planting on raised 1:2-3 gradient/sloped mounds ranging in height from 3-10 meters parallel to the hedgerow.

The proposed mounding will help provide increased height and immediate screening between the M7 and the data campus environment. The mounding will take into account the retention of remaining retained trees and hedgerows and fit the earthworks accordingly.

The mounding will be planted with a mixture of native and adaptive large deciduous and evergreen trees. The proposed planting will generally be established in line with normal landscape planting techniques, i.e., 'whips' and 'feathered trees' which adapt readily to disturbed ground conditions. These will be planted at average 1.m centres. A minimum of 10-15% of evergreen trees and shrubs will be mixed through the planting to minimise impact during winter months. Evergreen plants will be supplied as container grown stock.

Larger 'standard' and semi-mature trees (up to 5m tall) will be used closer to the building and footpaths to give a more immediate impact. Semi-mature Pine trees (3-4m tall) will be planted to the in groups along the mounds to augment visual screening of the built development.

Woodland screen planting trees and shrubs to be planted will be selected from the following list of species. As discussed with KCC Parks Department on the 22/05/2023, the proposal will provide a range of plant material sizes, spacing and species according to the different landscape typologies. This will include transplants, feathered whips, standard and advanced tree species (native deciduous and evergreen). Trees will be minimum 1.2m high, planted at 1.2m centres, feathered, individually staked and protected with rabbit proof guards. For further information, please refer to drawing BSM-ZZ-ZZ-DR-L-0450.

Table 4-2 Proposed woodland species. See drawing BSM-ZZ-ZZ-DR-L-0450.

Tree Planting									
Alder	Alnus glutinosa	Pine	Pinus sylvestris						
Willow	Salix spp.	Birch	Betula pubescens						
Downy Birch	Betula pendula, B pubescens	Blackthorn	Prunus spinosa						
Hawthorn	Crataegus monogyna	Oak	Quercus robor						
Wild cherry	Prunus avium, P. padus	Beech	Fagus sylvatica						
Understorey Pla	anting								
Hazel	Corylus avellana	Dogwoods	Cornus sanguinea						
Wild Rose	Rosa spp.	Holly	llex aquifolium						
Guelder rose	Viburnum opulus	Elder	Sambucus nigra						
lvy	Hedera helix	Rowan	Sorbus aucuparia						

Beyond the proposed woodland planting, a security fence will run parallel, which will separate the screen woodland planting from the data centre buildings and infrastructure. Around the buildings, the landscape treatment will include short and

long meadow grassland, swales, green walls, biofiltration planting, detention basins and ponds.

Within the 220kv powerline wayleave, a native scrub planting (hawthorn, blackthorn, hazel, holly with maximum height of 3m) is proposed. A corridor of 4 metres will be left clear as meadow grassland for ESB maintenance access from within the site. See below table for specified species.

Table 4-3 Native scrub/ hedge mix. See drawing BSM-ZZ-ZZ-DR-L-0450

Native Scrub Planting								
Hazel	Corylus avellana	Honeysuckle Lonicera periclymenum						
Spindle / Peg Bush	Euonymus europaeus	Blackthorn	Prunus spinosa					
Dogwood	Cornus sanguinea	Elder	Sambucus nigra					
Dog Rose	Rosa canina	Guelder	Viburnum opulus					
		Rose						
Wild Rose	Rosa rubiginosa							

With these extensive areas of mounding and planting, the proposed development will be substantially screened from the M7.

Along the southern boundary, a large amount of native planting will strengthen the existing riparian corridor, buffering the ecology from the data campus. Native woodland and riparian vegetation is proposed 10-20m from the vicinity of the riparian corridor. This vegetation will provide native vegetation for protection and extension of the riparian ecology further into the site, and at the same time act as a protective barrier from any potential hazards. This planting will be separated by fencing running parallel, encasing the data campus, beyond which will sit predominantly biofiltration basins and native wildflower grasslands. The attenuation basins will connect into the Bluebell stream at three points along the southern boundary. These connections will be placed in locations to avoid impacts to existing vegetation, and green walls installed and vegetated to ensure minimal disturbance to the existing ecology.

The western boundary will maintain all existing hedgerows protecting the existing habitat and will provide further habitat improvement through the installation of native wildflower meadows, native trees and scrub planting. Due to the existing 110kv power lines entering the site and being rerouted, the southern end of the western boundary planting will be extended with low height scrub and shrubby planting to 3m in height. This will consist of Hazel, Hawthorne, Holly and Viburnum species strengthening the existing hedgerows for the existing flora and fauna running along the western boundary. Towards the northern end of the western boundary, the existing hedgerows will be maintained and strengthened with similar scrub and shrub species set behind. Mounding and woodland planting is proposed further to the northern most corner between the boundary and the ESB Substation. This planting will consist of native evergreen trees including Pine, Alder, Birch, Oak and more, further bolstering the western boundaries native habitat for local species and screening the data campus from surrounding receptors.

## 4.5 Internal Site Areas

Within the development site, the areas around the DC will be landscaped so as to enhance the overall appearance and presentation of the campus. Surface water drainage and management will be accommodated in permeable paving provided for surface car parking areas and a number of biofiltration basins planted with marginal species. Additional tree planting will be included throughout the facility within the open spaces, and it is proposed to establish wild flower meadow areas with 1-2m wide mown grass verges.

A services wayleave is incorporated into the landscape masterplan through the middle of the site from southeast to northwest and from the lower southwest of the site through to the ESB Substation. Native wildflower meadows and 3m high scrub planting is located in these areas to further provide vegetated screening and enhance the biodiversity.

## Tree Planting in Grassland

Areas between built elements will be seeded to establish managed wildflower meadows areas and will include copses of trees with selected species in order to enhance the amenity of the facility for staff and to improve the overall biodiversity value of the site. Trees sizes will include heavy standards and standards. Species proposed will include a selection of *Alnus glutinosa*, *Betula pendula*, *Prunus avium*, *Pinus sylvetsris*, *Quercus robur*, and other native tree species.

#### Wild Flower Meadow

Wild flower meadow areas are proposed to be located within internal landscaped areas and further incorporate the biofiltration basins and dry grass swales throughout the site. The objective is to further strengthen the southern site landscape character and biodiversity characteristics of this part of the site. The meadow will be established over existing subsoil. Typical species will include:

Birdsfoot Trefoil, Black Meddick, Burnet Saxifrage, Century, Wild Chamomile, Cowslip, Eyebright, Meadow Buttercup, Marjoram, Red Bartsia, Mallow, Forget-menot, Hoary Plantain, Kidney Vetch, Lady's Bedstraw, Ox-eye Daisy, Red Clover, Ribwort Plantain, Rough Hawksbit, St Johnswort, Wild Carrot, Sorrel, Yarrow and Quaking Grass.

Typically these will be seeded at 5-10g seed/sqm and will be sourced from native species suppliers with traceable provenance.

#### **Security Fencing**

The proposed security fencing surrounding the site and internally between buildings will be a black powder coated 2.4m high Palisade security fencing. For further detail, consult the Architectural boundary and fence details, drawing no. 22217-RKD-ZZ-ZZ-DR-A-1400.

## 4.6 Landscape Construction Phasing

As part of this application, a proposed construction phasing plan is included to highlight the construction timeline of the campus and its elements. For the landscape, there will be two main stages of completion of works (Refer Figure 12 Proposed Site Phasing Plan).

- Phase 1 DC 1 & DC 2
  - During this phase, all perimeter planting in locations where no temporary access is required will be undertaken. This will predominately include the eastern, southern and western boundary, and majority of the northern boundary. All internal roads, Ponds, Utilities and Services, and accompanying landscape treatments will be completed during this phase.
- Phase 2 DC 3 & DC 5
- Phase 3 DC 4 & DC 6
  - ☐ At the end of this phase, the removal of all temporary construction access will ensure that all landscape mounding and planting not yet completed, can be completed.

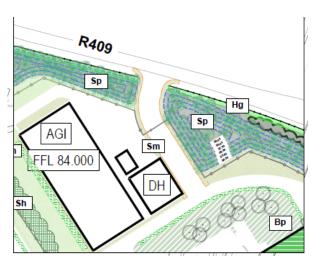


Figure 7 R409 Temporary Construction Access



Figure 8 Proposed Site Phasing Plan. Refer Architecture Drawings.

# 4.7 Landscape Maintenance

Please see Section 4, Outline Landscape Specification for further details.

Landscape works are to be undertaken by an ALCI approved landscape contractor and in accordance with BS 4428:1989 Code of Practice for general landscape operations. All planting works are to be carried out to BS8545:2014 (Trees from nursery to independence in the landscape). Good quality topsoil to BS3882:2015. All tree works are to be carried out to BS3998:2010 (Tree Work Recommendations). The proposed mixed woodlands planting will establish a closed canopy within five years.

Any failures in planting within the first year will be replaced by the appointed landscape contractor. All planting areas will be maintained weed free to help the establishment of the tree cover with the objective of providing full canopy cover of the planting areas within the first five years. The landscape will be implemented, managed and maintained for five years to ensure 100% coverage of the site. The planting is to be carried out within the first planting season (November-March) after construction work.

5 Outline Landscape Specification

5.1 PROTECTION

5.1.1 Introduction

Landscape works shall have full regard to guidance, recommendations and requirements of:

- The final Landscape Design Report and associated Landscape Drawings;
- The Tree Survey and related Report and Drawings;
- The Planning Authority

#### 5.1.2 Trees and Hedgerows

Trees to be retained within the site, shall be fenced off in accordance with BS 5837: 2012, prior to commencement of the works. The fence will be removed at the end of the works.

#### 5.2 EARTHWORKS / SOIL WORKS / CULTIVATION WORKS

#### 5.2.1 General

Works will also involve general site preparation and landscape reinstatement within landscape areas and open spaces.

#### 5.2.2 Weather and Soil Conditions

Normally all work involving soil shall be carried out only when soil is dry and in dry weather. Soil shall not be stripped or moved when frozen or waterlogged.

#### 5.2.3 Topsoil

Generally excavations, re-grading etc. shall only take once topsoil has been removed. Therefore topsoil shall be stripped initially and stored separately for re-use within gardens and open space.

#### 5.2.4 Grading

The full extent of landscape areas shall be re-graded in a series of initial operations followed by decompaction, secondary grading and final grading.

Grading and re-profiling of the landscape shall leave a free-flowing and draining surface, free of humps and hollows.

#### 5.3 **PLANTING**

#### 5.3.1 Standards of Workmanship and Materials

All landscape works to be carried out to comply with BS 4428:1989 (General Landscape Operations) and all plants to conform to BS 3936 (Nursery Stock).

#### 5.3.2 Unsuitable Weather

Cultivation, planting and other works will be suspended in wet weather and when conditions are unsuitable.

## 5.3.3 Plants generally

All new plants shall be well grown, sturdy and bushy according to type and free from all diseases and defects.

#### 5.3.4 Materials

All plant material shall be good quality nursery stock, free from fungal, bacterial or viral infection, Aphis, Red Spider or other insect pest, and physical damage. It shall comply with the requirements of the appropriate sections of BS 3936, Specification for Nursery Stock, where applicable.

All plants shall have been nursery grown in accordance with good practice and shall be supplied through the normal channels of the wholesale nursery trade. They shall have the habit of growth that is normal for the species.

#### 5.3.5 Species

All plants supplied shall be exactly true to name.

### 5.3.6 Specimen Trees, Larger Trees and Standard Trees

Trees shall conform to appropriate standards for sizes as proposed. All trees shall have a well-balanced, branching head. Trees shall be well furnished with lateral and fibrous roots, and shall be lifted without severance of major roots. Roots shall be of the habit normal for the species and size.

#### 5.3.7 Whips

Whips shall have a well-defined, straight and upright leader and stout, straight stem and be well furnished with strong lateral branches of balanced, feathered habit. Plants shall have been twice transplanted and shall have an extensive fibrous root system. Roots shall be of the habit normal for the species.

## 5.3.8 Conifers

Conifers shall be supplied root balled or container grown, with a good fibrous root system. Plants shall conform to specified height with well-developed, uniform branching systems.

#### 5.3.9 Hedging, Shrubs and Climbers

Hedge plants, climbers and shrubs shall be of the minimum size specified, with several stems originating from or near ground level and of reasonable bushiness, healthy, well grown, and with a good root system. Roots shall not be deformed or restricted.

## 5.3.10 Damage

All plants are to be adequately and carefully packed and protected to survive transport, by whatever means, to the site, without damage in loading, transit or unloading.

## 5.3.11 Planting Generally

All planting operations shall be carried out in accordance with BS 4428 and good horticultural practice. Particular attention must be paid to correct depth of planting ensuring the soil is firmed in around the roots.

#### 5.3.12 Herbicides

Unless unavoidable, no herbicides shall be used on the site. Where required, a natural-based herbicide as approved shall be used on the site.

#### 5.3.13 Tree Pits

Tree pits shall be excavated 150mm all round larger than the natural spread of the roots/rootball of the plant. The base of the pit shall be thoroughly forked to a depth of 300mm to allow roots to penetrate below the pits.

## 5.3.14 Planting of Trees

All trees shall be planted according to the general directions on planting given above.

#### 5.3.15 Stakes

Stakes shall be turned and pointed at one end. Sizes shall be as follows:-

- For Specimen / larger trees: 2 x 2400mm long x 75mm dia.
- For Standard trees: 1800mm long x 50mm dia.
- For other trees/conifers generally: 1200mm long x 50mm dia.

Set stake(s) vertically in the pit, to the western side of the tree station. Drive stake(s) before planting to secure firmly and to leave between 600-900mm above ground. Drive stake(s) with a drive-all, wooden maul or cast iron headed mell, not with a sledge hammer.

#### 5.3.16 Tree Ties

Tree ties shall be of rubber, PVC or proprietary fabric laminate composition, and shall be strong and durable enough to hold the tree securely in all weather conditions for a period of three years. They shall be flexible enough to allow proper tightening of the tie. Ties shall be minimum 35mm wide for standard trees.

#### 5.3.17 Soil Conditions

Planting shall not be carried out while the ground is frozen or waterlogged.

#### 5.3.18 Watering

All root balled and pot grown plants shall be well-soaked before planting. All planting shall be watered after planting, to consolidate soil around the roots, unless ground is so wet as to make additional water unnecessary.

# 5.3.19 Planting Specimen, Larger and Standard Trees

Excavate tree pits to 150mm all round larger than the natural spread of the roots of the plant. The base of the pit shall be broken up to a depth of 150mm and glazed sides roughened. Supply and drive the stake(s) as scheduled.

Trees shall be planted at the same depth as in the nursery, as indicated by the soil mark on the stem of the trees. They shall be centred in the planting pit and planted upright. The roots shall be spread to take up their normal disposition. Clean a neat circle 500 mm dia. of all grass.

## 5.3.20 Whip and Transplant Planting

Excavate tree pits to 150mm all round larger than the natural spread of the roots of the plant.

Place tree in pocket at same depth as in the nursery, spreading out roots to their natural configuration. Backfill pocket carefully incorporating ameliorated soil mix from stockpile on site.

Firm soil around roots, and firm thoroughly on completion. Any surplus soil shall be spread evenly over the surrounding area.

## 5.3.21 Planting of Shrubs and Climbers

All shrubs and climbers to be planted in excavated pits to give 100mm minimum growth space to accommodate root spread. Climbers to be fixed with adjustable ties to walls.

## 5.3.22 Planting of Hedges

All hedge plants to be planted in an excavated pit or trench to give 100mm minimum growth space to accommodate root spread. Hedgerows to be established as double staggered row. Plants to be randomly dispersed within mixed species hedgerows.

## 5.3.23 Workmanship

Whips Transplants: Leave ground free of superficial debris including all stones and debris over 35mm diameter and grass / weed within 500mm of plant.

Shrubs and Mixed Transplants/Shrubs: Leave surface reasonably even, free of all stones and debris over

35mm diameter, free of grass / weed free within 500mm of plant.

#### 5.3.24 Replacements

The planting will be inspected in spring and again in the September following planting. Any tree or shrub found to have died shall be replaced to the original specification.

#### 5.4 GRASS SEEDING

## 5.4.1 Grass Requirements

DW01 Short Cut Floral Lawn: A closely knit, native grassland mix of even density, height.

DW03 Tall Wildflowers: A native Irish mix of larger wildflowers of thick density and bright colours.

EC05 Wetland Wild Flora: A vigorous, medium tall mixture made for moist soils.

## 5.4.2 Seed Mixture: DW01 Short Cut Floral Lawn

The general high-quality low-maintenance seed mixture shall be used for verges and areas of frequent maintenance access within the development area, or an equivalent product of similar performance.

#### 5.4.3 Seed Mixture: DW03 Tall Wildflowers

The general high-quality low-maintenance seed mixture shall be used for large open spaces and detention basins within the development area, or an equivalent product of similar performance.

#### 5.4.4 Seed Mixture: EC05 Wetland Wild Flora

EC05 is a vigorous, medium tall mixture which can compete with the often fertile wetland soils on which many wetlands are situated. It shall be used for open dry swales and detention ponds in the development area.

#### 5.4.5 Weather

Work to soil shall be carried out in dry weather and when the soil can be reduced to a friable condition, avoiding smearing or panning, and rutting and compaction.

#### 5.4.6 Final Grading

Where required, areas to be grassed will be graded during cultivation with a light blade grader to bring them to a uniform and even grade to tie into surrounding levels and to remove all minor hollows and ridges.

## 5.4.7 Cultivation and Stone Burying

Cultivate the surface using rotavators so as to break up the top 100mm of soil by two passes in transverse directions to provide a fine tilth up to 25mm suitable for grass seeding. All landscape areas shall be stone-buried to remove stones and debris over 35mm from the final seeding surface.

#### 5.4.8 Seeding

Grass seed shall be sown at the rates appropriate to the seed mix (refer planting schedule for more information). Seeding shall only be carried out on areas where cultivation and preparatory work has been approved.

Seeding shall be carried out during suitable calm weather conditions using an efficient broadcast machine for large areas or by hand in small areas and confined spaces. The operation will be carried out in equal sowings in transverse directions. After sowing, the ground will be rolled with a light-weight roller.

#### 5.4.9 Quality

Grass sward shall be even and consistent in terms of height, density and growth of each sward type. Re-cultivate and reseed any areas that fail to germinate or are of poor quality.

#### 5.4.10 Defects / Making Good

All damaged / failed grass seeded areas to be reseeded in spring and late summer following seeding, in accordance with this specification.

#### 5.5 **AFTERCARE**

#### 5.5.1 Period

All landscape works, including planting and seeded areas, shall be maintained for a minimum period of 5 years from practical completion.

#### 5.5.2 Performance Standards

#### 5.5.2.1 Plants / Planting Areas

All plants shall be alive, healthy, free of minor defects and free of weedkiller or cultivation damage.

Planting areas shall be free of weeds and debris.

#### 5.5.2.2 **Amenity Grass**

Amenity grassland describes all natural and semi-natural grassland used for amenity/recreation purposes.

Grassed areas shall be managed for the visual amenity and enjoyment of staff and visitors and encourage biological diversity.

#### 5.5.2.3 Maintenance Objectives

All grass areas on the site will be managed to follow the All-Ireland Pollinator Plan 2021-2025 which aims to that aims to help bees, other pollinating insects, our wider biodiversity and reduce resource consumption. All grass areas will be managed to enhance biodiversity as grassland meadows though the following measures:

- Reduction in the frequency of mowing to provide short and long height meadows;
- For short grass areas, this will entail:
- Delay cutting the grass until mid-April to allow the Dandelion flowers to
- Mowing the grass every six weeks to allow flowers like Clover to bloom;
- Removing all arisings from the grassland, after each cut reducing fertility and preventing nutrients building up.
- Non-use of pesticides (herbicides, fungicides, insecticides) and fertilisers in the grass meadow areas.

<sup>1</sup> https://pollinators.ie/aipp-2021-2025/

The mowing regime will allow common pollen-rich with lowers such as Dandelions, Clovers, Knapweed, and Bird's-foot-trefoil naturally colonise and grow among longer grass, providing food for pollinators and other insects.

#### 5.5.2.4 Maintenance Actions

Grass areas will be broken down into different maintenance zones with varying actions.

Zone A - Regular grass mowing with differential mowing height to edges; every 2 weeks.

#### Location:

2m wide perimeter buffer edge to paths and planting areas will be maintained as ornamental amenity grass with two differential grass cutting heights with regular cutting.

## Specification:

- No use of fertilisers and weedkillers;
- First lower cut to border to edge, boundary, or path, or open area within though meadow. Height 30-35mm, minimum width 1.07m (42") wide;
- Second slightly higher cut/border to higher meadow (as per photo below).
   Height 40/75mm, width 0.5m (21") wide;
- Allow for yearly decompaction in areas of high pedestrian footfall.



Figure 9 Differential grass maintenance

## Zone B - Short flowering grass meadow; every 6 weeks.

#### Location:

Road verges (min. 2m from the back of road verge), building edges, adjoining pathways.

## Specification:

- No use of fertilisers and weedkillers;
- Cut grass meadows to 100mm height at six weeks intervals throughout the year, allowing more flowers to get a chance to grow and provide food source for pollinators amongst the grass, following outline mowing regime in Figure 13;
- Collect and dispose of arisings off-site.
   Install signage to communicate intent/raise public awareness (artwork available from National Biodiversity Data Centre or custom graphics/signage).

Task	Start	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avoid cutting			Dandelion Po	eak		Clov	er Peak						
Commence first cut	After 15th April												
Commence second cut	End May					1	₹						
Commence third cut	Mid/late July							7					
Commence fourth cut	End August								1	7			
Commence fifth cut	Mid October										V		
		Recomn	nended s	start task			Recomr	mended į	growing t	time			
		Recomm	nended i	mileston	e 🔻		Avoid c	utting/m	owing				

Figure 4-1 - Typical grass cutting regime of short flowering grass meadow.



Figure 10 Signage

#### Zone C - Annual cut (Long flowering grass meadow); Once a year.

#### Location:

All remaining grassland area outside short flowering grass meadow areas and existing planting areas, providing both food and shelter for insects.

#### Specification:

No use of fertilisers and weedkillers;

- Leave the area grow, with one cut per yeak
- Cut once a year in September, 100mm high;
- Leaving arisings for 1 week to dry and drop seed lead;
- Collect and dispose of arisings;
- Draw chain harrow over area detach grass and create opportunities for native flower seeds to germinate amongst grass;
- Over seed area with native Yellow rattle, Ox Eye Daisy, Knapweed, Vetches, annual cornflowers/poppies, etc. (@5g/sq.m). See Figure 15 below.



Figure 11 Long Flowering Grass Meadow Reference Image

#### 5.5.3 New Tree Planting

Young trees need regular monitoring and attention in the first number of years to ensure establishment.

#### 5.5.3.1 Maintenance Objectives

Establish a stable and healthily growing tree with a well-shaped framework for future growth.

Guards will be used to protect the plant against rabbits, etc. The most important operation is to keep the soil around the base of the tree free from weeds or grass and to ensure secure and correct staking.

#### 5.5.3.2 Maintenance Actions

Protect foliage of all plants during applications of herbicides. No plant, foliage or stem, shall be directly sprayed, even in winter. Any plants affected by herbicide shall be replaced.

Maintain a 1m diameter circle of plant-free soil around the base of each isolated tree by 75mm deep bark mulch and hoeing or the use of approved herbicide other than a residual. Avoid strimming around the base of standard trees to avoid damage to young bark.

- Allow for hoeing up of soil once every 4 weeks in the growing season (5 times per year). Allow for herbicide treatment once in the winter or spring and 3 additional treatments. Note: In some areas this operation may be replaced by the application of bark mulch as ground cover.
- Cut back any tall vegetation that is threatening to shade or smother the young tree (i.e. taller vegetation growing from outside the m weed free area). Allow for cutting back regularly (3/4 times a year).
- If required, water the newly planted trees throughout the summer months (May to August) as required after any period of 4 weeks without significant rainfall (less than 5 mm). Apply sufficient water to thoroughly wet the top 150 mm of soil around the tree roots. This will normally require approximately 10 litres for a seedling or whip and 20 litres for a standard tree. Supply/transport of water will be the responsibility of the Landscape Contractor.
- Check stakes and ties for firmness and support and adjust as necessary.
   Allow for checking twice a year, preferably in late spring and late summer.
- Firm the soil around the roots to ensure that the plant is securely planted in the ground and upright. Allow for firming once in the spring after planting.
- Formative prune to remove any dead, diseased or damaged shoots and create a balanced form for future growth. Allow for pruning once in the season after planting.
- Where tree guards, stakes, ties, strimmer guards, rabbit guards and temporary fencing is no longer deemed necessary, the contractor shall allow for removing and discarding of these elements appropriately off site.

#### 5.5.3.3 Maintenance Objectives

Regularly clip hedges to maintain a uniform and tidy appearance (according to the type of hedge and situation) and a well-developed cover of vegetation over the whole of the hedge surface. Control any weed or grass growth at the base of the hedge so that it does not detract from the overall appearance or adversely compete with the hedge.

As wildlife often relies on the berries and nesting spots provided by the Hawthorn, it is recommended that they are pruned during the summer and autumn months, after the plant has flowered. Pruning during these seasons will encourage a fuller growth of flowers the following year, although this will also reduce the volume of berries the hedge is able to produce that winter. Avoid cutting the Hawthorn hedge before it is established, typically this is around 2 years after planting when the hedge has reached around c. 1.2 to 1.5m feet tall.

During the second year of planting, between February and March, is the recommended time for hard pruning Hawthorn hedges. Cut back growth by half during these months to encourage new growth. Remove dead, diseased or broken branches first to keep your hedge looking neat and stimulate new growth. Be careful to avoid cutting these branches flush with the trunk as this can make the trunk susceptible to decay. Removing any cross branches from inside your Hawthorn hedge will also help to prevent diseases as this improves circulation within the hedging. Pruning at this time of year while your hedge is dormant will also cause the

least disruption to the wildlife that rely on your Hawther, as it will not interfere with the nesting season or the volume of berries.

#### 5.5.3.4 Maintenance Actions

- Clip the top and sides of the hedge to maintain true and even levels and using suitable mechanical cutters to maintain the shape and height.
  Remove any cuttings lodged in the surface of the hedge and rake up and remove all arisings.
- Allow the operation to be carried out to suit the species and position of the hedge.
- Maintain weed free 750mm wide band at the base of the hedge (weeds at a maximum height of 100mm and a maximum ground cover of 10%) by mulch, regular hand removal, hoeing or by the use of approved herbicide. Allow for control once every 6 weeks in the main growing season (4 times per year).

## 5.5.4 New Ornamental Shrub/Groundcover Planting

Ornamental planting areas shall be managed, where appropriate, to encourage biological diversity, to manage objectives of the individual planting and to provide for the safety and enjoyment of Users.

## 5.5.4.1 Maintenance Objective

Maintain shrub growth to cover as much as possible of the border area and allowing the individual plants to achieve as nearly as possible their natural form. Maintain the borders free of visible grasses and shape and prune the shrubs to avoid obstructing pathways or blocking light to, or adhering to windows.

#### 5.5.4.2 Maintenance Operations

After planting, if appropriate and in season for the species involved, prune shrubs to remove dead or dying and diseased wood and suckers, to promote healthy growth and natural shape and to develop their desirable ornamental characteristics. At the same time remove intermediate plants that are restricting the natural and attractive development of their neighbours. Remove all arisings from site.

Lightly cultivate the surface soil, to a depth of approximately 50 mm, remove or bury all annual weed or natural litter and break any surface capping. Take special care to avoid unnecessary damage to the shrub plants and ensure that all the shrubs are firmly bedded in the soil. Leave the surface with a fine and even tilth with soil crumbs of less than 50 mm in diameter.

*Note*. This operation is only essential where the soil is compacted or as a means of incorporating mulch. Not required where the areas are mulched.

Maintain the soil surface substantially free of not planted grasses by hand removal Spot treatment at approximately four-weekly intervals throughout maintenance period.

*Note*: As an alternative the borders can be regularly hand-hoed at up to two-weekly intervals in the main growing season, to 6 times per year. This procedure is

recommended for the first year after planting when the plants may be more sensitive to contact herbicide damage and residual herbicides may not be used.

Apply slow release fertiliser to all planted areas in Autumn (NPK 0:20:30) at 25g/sq.mm to encourage strong root structure and winter hardiness.

Water as necessary to ensure the establishment and continued triving of all planting. Water using a fine rose or sprinkler until full depth of topsoil is saturated.

### 5.5.5 Herbaceous Planting

#### 5.5.5.1 Maintenance Objective

Maintain a dense, grass free cover of healthy growth, clipped or pruned as necessary to give a neat and tidy finish and contained within the planted area.

#### 5.5.5.2 Maintenance Operations

Maintain the soil surface substantially free of non-planted grasses by hand removal. Spot treatment at approximately four-weekly intervals throughout maintenance period.

Trim and tidy the plants once a year in the winter months, to remove dead vegetation or overgrowing branches. Remove all arisings from site. The amount of work will vary according to the species.

Apply slow-release fertiliser to all planted areas in Autumn (NPK 0:20:30) at 25g/sq. M to encourage strong root structure and winter hardiness.

Water as necessary to ensure the establishment. Water using a fine rose or sprinkler until full depth of topsoil is saturated.

At the end of the defect's liability period:

- Ensure that the soil is thoroughly moistened prior to re mulching, applying water where necessary.
- Remulch the whole surface of planting beds as specified at 75mm depth.

## 5.5.6 Programme

The landscape shall be reviewed quarterly during the maintenance period and any defects made good immediately thereafter.

## 5.5.7 Weed killing (only if no viable alternative)

Protect foliage of all plants during applications of herbicides. No plant, foliage or stem, shall be directly sprayed, even in winter. Any plants affected by herbicide shall be replaced.

## 5.5.8 Watering

Water all planting as necessitated by dry weather. Apply water as a fine spray, to moisten full depth of root run.

Avoid washing or compaction of the soil surface.

## Herbata Data Centre Campus

Landscape Design Statement

5.5.9 Tidiness and Clearance

All landscape areas shall be maintained free from debris including free from all aftercare debris.

PECENED. 7300 POZA

# **Brady Shipman Martin**

#### **DUBLIN**

Mountpleasant Business Centre Ranelagh Dublin 6 D06 X7P8 +353 1 208 1900

#### CORK

Penrose Wharf Business Centre Penrose Wharf Cork T23 A8PT +353 21 242 5620

mail@bradyshipmanmartin.com www.bradyshipmanmartin.com

# Appendix 11.2 Substation Application - Landscape Statement

PRICENED. 73/08/2024

THIS PAGE IS INTENTIONALLY BLANK

PRICEINED. 73/08/2024

# RECEINED: 73/08/2024 Herbata Data Centre Campus – ESB Substation

Landscape Design Statement

Est. 1968

**Brady Shipman** Built. **Environment.** 

Landscape Design **Built Environment** 

Client:

Herbata Limited

Date:

27 May 2024

#### DOCUMENT CONTROL SHEET

#### 6971\_RP-03\_Landscape Design Statement

Project No. 6971

Client: Herbata Limited

Project Name: Herbata Data Centre Campus – ESB Substation

Report Name: Landscape Design Statement

Document No. RP-03

Issue No. 01

Date: 27/05/2024

This document has been issued and amended as follows:

Issue	Status	Date	Prepared	Checked
P01	For Planning	27 May 2024	ВМ	DB



# **Table of Contents**

1	Introd	uction1
2	Site Co	ontext1
	2.1 2.2	Subject Site
3		pp Consultation Error! Bookmark not defined
4	Lands	cape Proposals5
	4.1 4.2 4.3	Landscape Principals
	4.4 4.5 4.6 4.7	Landscape Boundary Treatments Error! Bookmark not defined Internal Site Areas Error! Bookmark not defined Landscape Construction Phasing Error! Bookmark not defined Landscape Maintenance
5	Outlin	e Landscape Specification10
	5.1 5.2 5.3 5.4	PROTECTION

# 1 Introduction

This Landscape Design Report is submitted as part of the planning application for the proposed ESB Substation at the proposed Herbata Date Centre Campus at Haleverstown, Naas, Co. Kildare.

This report comprises a landscape design statement prepared to accompany the Strategic Infrastructure Development (SID) application to An Bord Pleanala.

A separate planning application for the data centre campus has been separately lodged to Kildare County Council.

This report should be read with the following landscape drawings and reports:-

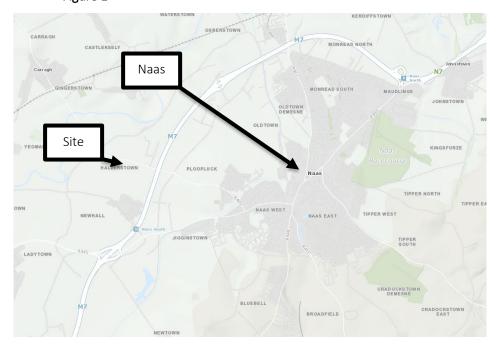
1.1 Drawing Title	Drawing Number	Size
Landscape Master Plan	BSM-ZZ-ZZ-DR-L-0301_LandscapeMasterplanSID	A0
Landscape Plan	BSM-ZZ-ZZ-DR-L-0302_LandscapePlanSID	Α0
Landscape Sections and Elevations	BSM-ZZ-ZZ-DR-L-0401_LandscapeSectionsElevationsSID	A1

The architect's and engineers' drawings and reports which accompany the application should also be read in conjunction with the landscape proposals.

#### 2 Site Context

The proposed development subject lands are approximately 3.15ha in extent and are located to the west of the M7 motorway. The site is adjoined to the north by the R409 road which provides a direct link to the centre of Naas, c.2.5km to the east.

#### Refer to Figure 1.



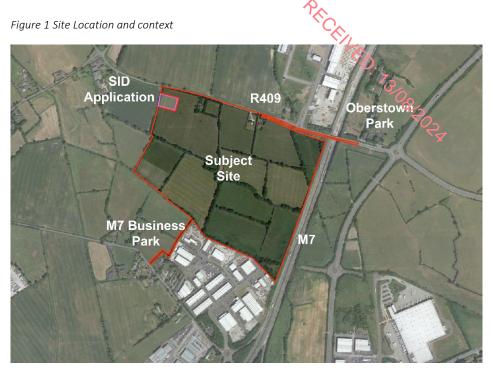


Figure 2 Site Existing conditions

The site is currently under agricultural use and the surrounding area is characterised by its flat landscape, containing a mixture of agricultural, commercial, and industrial development clusters, modern road infrastructure and a network of high voltage overhead powerline infrastructure. Developments are set within the landscape and sub-divided by layers of traditional treeline / hedgerows and more recent boundary typologies. R409 Road and Newhall Road to the north and west of the site respectively are more traditional rural roads with narrow carriageways and roadside treelines and hedgerows providing visual containment along the roads.

#### 2.1 Subject Site

The site for the proposed development is currently in agricultural use. The site falls at a generally even grade from north to south. The site is bounded by an established and mature hedgerow to the west, with a smaller hedge to the R409.

The site is within the administrative area of Kildare County Council and the Kildare Development Plan 2023-2029 provides the statutory planning framework for its development.

The site is Zoned *P: Data Centre (C7)*, as a central part of the digital economy and to provide added economic benefit across the value chain (see Figure 3). It is one of two areas nominated for data centres within the Naas Local Area Plan (2021-2027).

To the north and south of the site is land zoned *H: Industry & Warehousing (C2.2)*. Further north is land zoned *U: Utilities / Services (N)* which encompasses the Osberstown Wastewater Treatment Plant.

To the north west, west and south west of the site sits agricultural land, with intermittent residential plots.

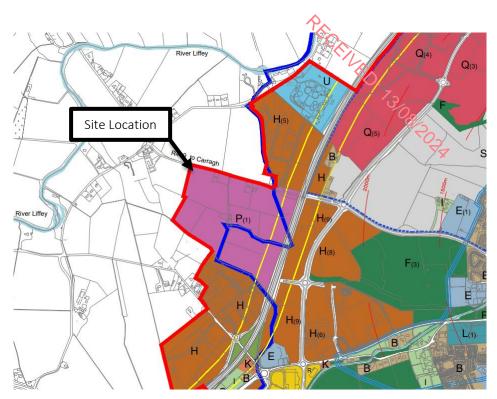


Figure 3 Land use zoning — extract from Naas Local Area Plan 2021-2027, Land Use Zoning Map Oct 2021 (Kildare County Council, Oct 2021)

The topography of the site is gradually sloping from north to south. Within the site and along the boundaries, there are a number of existing hedgerows.

Within the Naas Local Area Plan 2021-2027 Green Infrastructure Map (DWG 200/21/1135) as shown in Figure 4 there are nominated significant hedgerows in green lines. There is a section of significant hedgerow to the south of the site, to the north of the M7 Business park, running along the Bluebell stream and southwards towards Newbridge Rd which is being retained within the landscape proposal.

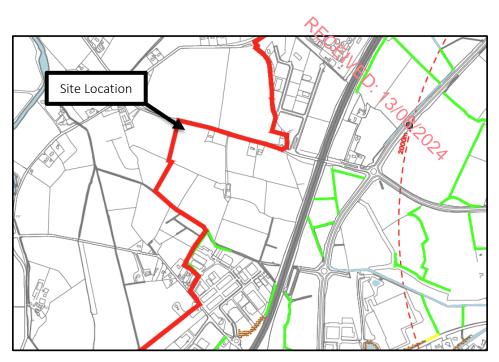


Figure 4 Naas Local Area Plan Green Infrastructure Map (Naas Local Area Plan 2021 – 2027, Kildare County Council, Oct 2021)



Hedgerows

#### 2.2 Tree Protection

The existing treeline and hedgerows to the west of the site is proposed to have tree protective fencing to BS 5837:2012 erected. The layout of the site has been developed to ensure as much existing trees and hedgerows are maintained amongst proposed utilities, services, buildings, roads, fences and other required infrastructure. The smaller existing hedge to the north adjoining the R409 will be removed as part of the Herbata Data Centre application, which includes the provision of adequate sightlines to access the site and provision of 4m high planted mounds.

Any services to be installed within the protected area to be carried out following a specialised construction methodology under the supervision of the Project Landscape Architect/Arborist. Sturdy tree protection fencing will be erected outside the existing hedge immediately west of the site to prevent construction activity and machinery encroaching into the root protection areas (RPAs) of the trees and hedges to be retained. The fencing will be erected as soon as the tree and hedge removal works have been completed and will not be removed or moved unless authorised by a qualified arborist;

- Where works/site machinery has to encroach the RPAs of the trees to be retained for reasons unforeseen and unavoidable; suitable ground protection will be put in place to prevent any significant soil compaction or root damage near the trees; this should take the form of suitable strength ground protection mats or cellular confinement system capable of supporting the appropriate weight. Any works will be carried out in accordance with Arboriculture Association 'Guidance Note 12 the use of cellular confinement systems near trees';
- Any new underground services such as electricity cables, water pipes etc. will be routed away from the root protection areas of the trees to be retained; where this is not possible for reasons unforeseen, the services will be

- installed using specialist methodology (such as Airspade excavation or Mole drilling) that ensures minimal impact on any tree roots;
- All site offices, materials storage, staff parking etc. will be located outside of the RPAs of the trees; there is ample space on the site to accommodate these facilities outside the RPAs of the retained trees and hedges;
- The tree protection measures and specialist work methods will be overseen by a qualified arborist; the arborist should also make regular visits to the site during the construction process to ensure compliance and be available to provide advice and guidance where necessary; and
- The retained trees will be assessed by a qualified arborist following the completion of the construction works.

# 3 Landscape Proposals

### 3.1 Landscape Principals

The guiding principals of this landscape proposal include:

- Visual screening and integration of the proposed development into the landscape;
- Retention, protection and enhancement of the boundary hedgerow and tree lines to the western boundaries;
- Integration of landscape treatments with proposed utilities and substation proposals.

Following the above landscape principals, a Landscape Masterplan has been prepared to accompany the development. The plan is accompanied by a series of supporting drawings outlined in the Introduction (refer section 1.1).

# 3.2 Landscape Masterplan

A landscape masterplan has been prepared for the Herbata Data Centre Campus amd for the proposed electrical substation development (refer to Figure 3-1 below).

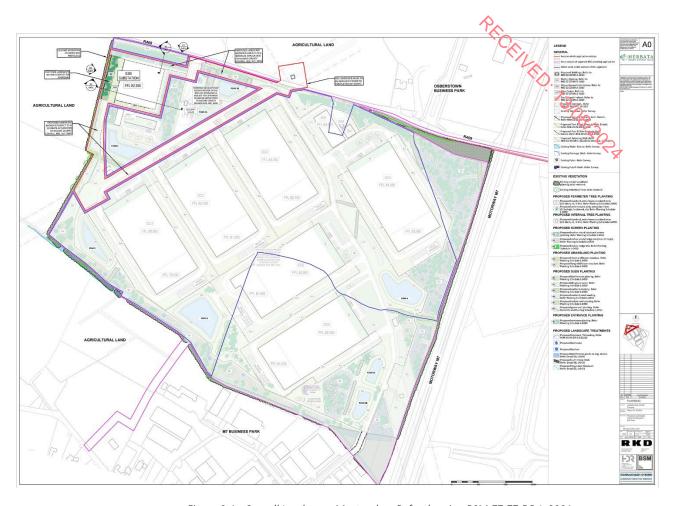


Figure 3-1 - Overall Landscape Masterplan. Refer drawing BSM-ZZ-ZZ-DR-L-0301

The landscape masterplan seeks to develop a well screened and enclosed area for the proposed new substation development.

Landscape mitigation measures include:

- Protection of existing trees and hedgerows during construction;
- Mounding and native woodland planting to visually screen the substation from surrounding areas.
- Native low maintenance, biodiverse wildflower planting outside the substation compound.

The perimeter treatment of the north and east of the substation compound will have mounding (up to 4m tall) and native woodland planting as part of the adjoining data centre site development to visually screen the substation and further increase the existing biodiversity of the local area and the site.

The landscape design has been prepared by a qualified landscape architect who will also supervise the implementation of all works relevant to the landscape design.

Planting is proposed immediately west of the ESB Substation compound (see Figure 3-2 and Figure 3-3 below), and will generally be established in line with normal landscape planting techniques, i.e., 'whips' and 'feathered trees' which adapt readily to disturbed ground conditions. These will be planted at average 1.m centres. A minimum of 10-15% of evergreen trees and shrubs will be mixed through the planting to minimise impact during winter months. Evergreen plants will be supplied as container grown stock.

Larger 'standard' and semi-mature trees (up to 5m tail) will be used closer to the building and footpaths to give a more immediate impact. Semi-mature Pine trees (3-4m tall) will be planted to the in groups along the mounds to augment visual screening of the built development.

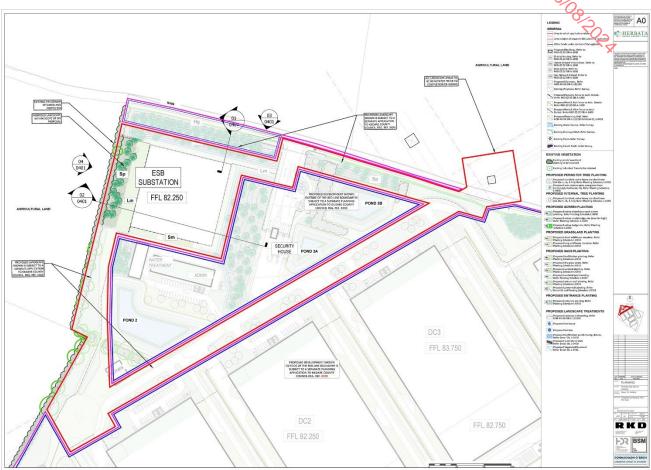


Figure 3-2 Landscape Plan to Substation Refer drawing BSM-ZZ-ZZ-DR-L-0302\_LandscapePlanSID

Table 4-1 Proposed woodland species.

Tree Planting							
Alder	Alnus glutinosa	Pine	Pinus sylvestris				
Willow	Salix spp.	Birch	Betula pubescens				
Birch	Betula pendula	Blackthorn	Prunus spinosa				
Hawthorn	Crataegus monogyna	Oak	Quercus robor				
Wild cherry	Prunus avium, P. padus	Beech	Fagus sylvatica				
Understorey Pl	anting						
Hazel	Corylus avellana	Dogwoods	Cornus sanguinea				
Wild Rose	Rosa spp.	Holly	Ilex aquifolium				
Guelder rose	Viburnum opulus	Elder	Sambucus nigra				
lvy	Hedera helix	Rowan	Sorbus aucuparia				

Within the 220kv powerline wayleave, a native scrub planting (hawthorn, blackthorn, hazel, holly with maximum height of 3m) is proposed. A corridor of 4 metres will be left clear as meadow grassland for ESB maintenance access from within the site. See below table for specified species.

Table 4-2 Native scrub/ hedge mix.

		~//	
Native Scrub Pl	anting and a second		
Hazel	Corylus avellana	Honeysuckle	e Lonicera periclymenum
Spindle / Peg Bush	Euonymus europaeus	Blackthorn	Prunus spinosa
Dogwood	Cornus sanguinea	Elder	Sambucus nigra
Dog Rose	Rosa canina	Guelder Rose	Viburnum opulus
Wild Rose	Rosa rubiginosa		

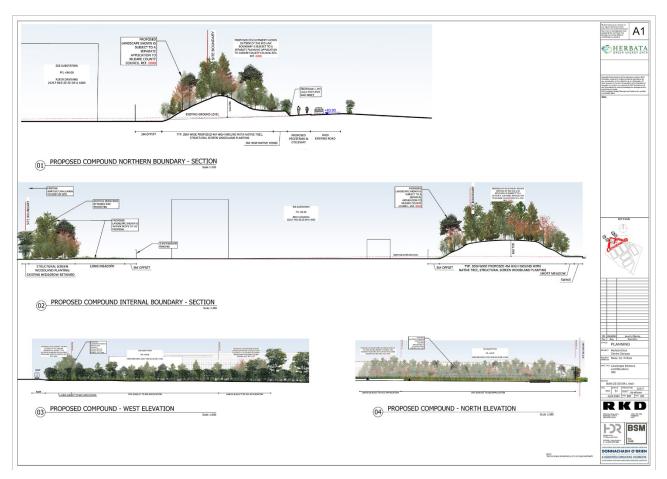


Figure 3-3 - Landscape Sections and Elevations

# 3.3 Landscape Maintenance

Please see Section 4, Outline Landscape Specification for further details.

Landscape works are to be undertaken by an ALCI approved landscape contractor and in accordance with BS 4428:1989 Code of Practice for general landscape operations. All planting works are to be carried out to BS8545:2014 (Trees from nursery to independence in the landscape). Good quality topsoil to BS3882:2015. All tree works are to be carried out to BS3998:2010 (Tree Work Recommendations). The proposed mixed woodlands planting will establish a closed canopy within five years.

Any failures in planting within the first year will be replaced by the appointed landscape contractor. All planting areas will be maintained weed free to help the

#### Herbata Data Centre Campus – ESB Substation

Landscape Design Statement

establishment of the tree cover with the objective of providing full canopy cover of the planting areas within the first five years. The landscape will be implemented, managed and maintained for five years to ensure 100% coverage of the site. The planting is to be carried out within the first planting season (November-March) after construction work.

4 Outline Landscape Specification
4.1 PROTECTION

4.1.1 Introduction

Landscape works shall have full regard to guidance, recommendations and requirements of:

- The final Landscape Design Report and associated Landscape Drawings;
- The Tree Survey and related Report and Drawings;
- The Planning Authority

#### 4.1.2 Trees and Hedgerows

Trees to be retained within the site, shall be fenced off in accordance with BS 5837: 2012, prior to commencement of the works. The fence will be removed at the end of the works.

#### 4.2 EARTHWORKS / SOIL WORKS / CULTIVATION WORKS

#### 4.2.1 General

Works will also involve general site preparation and landscape reinstatement within landscape areas and open spaces.

#### 4.2.2 Weather and Soil Conditions

Normally all work involving soil shall be carried out only when soil is dry and in dry weather. Soil shall not be stripped or moved when frozen or waterlogged.

#### 4.2.3 Topsoil

Generally excavations, re-grading etc. shall only take once topsoil has been removed. Therefore topsoil shall be stripped initially and stored separately for re-use within gardens and open space.

#### 4.2.4 Grading

The full extent of landscape areas shall be re-graded in a series of initial operations followed by decompaction, secondary grading and final grading.

Grading and re-profiling of the landscape shall leave a free-flowing and draining surface, free of humps and hollows.

#### 4.3 **PLANTING**

#### 4.3.1 Standards of Workmanship and Materials

All landscape works to be carried out to comply with BS 4428:1989 (General Landscape Operations) and all plants to conform to BS 3936 (Nursery Stock).

#### 4.3.2 Unsuitable Weather

Cultivation, planting and other works will be suspended in wet weather and when conditions are unsuitable.

#### 4.3.3 Plants generally

All new plants shall be well grown, sturdy and bushy according to type and free from all diseases and defects.

#### 4.3.4 Materials

All plant material shall be good quality nursery stock, free from fungal, bacterial or viral infection, Aphis, Red Spider or other insect pest, and physical damage. It shall comply with the requirements of the appropriate sections of BS 3936, Specification for Nursery Stock, where applicable.

All plants shall have been nursery grown in accordance with good practice and shall be supplied through the normal channels of the wholesale nursery trade. They shall have the habit of growth that is normal for the species.

#### 4.3.5 Species

All plants supplied shall be exactly true to name.

#### 4.3.6 Specimen Trees, Larger Trees and Standard Trees

Trees shall conform to appropriate standards for sizes as proposed. All trees shall have a well-balanced, branching head. Trees shall be well furnished with lateral and fibrous roots, and shall be lifted without severance of major roots. Roots shall be of the habit normal for the species and size.

#### 4.3.7 Whips

Whips shall have a well-defined, straight and upright leader and stout, straight stem and be well furnished with strong lateral branches of balanced, feathered habit. Plants shall have been twice transplanted and shall have an extensive fibrous root system. Roots shall be of the habit normal for the species.

#### 4.3.8 Conifers

Conifers shall be supplied root balled or container grown, with a good fibrous root system. Plants shall conform to specified height with well-developed, uniform branching systems.

#### 4.3.9 Hedging, Shrubs and Climbers

Hedge plants, climbers and shrubs shall be of the minimum size specified, with several stems originating from or near ground level and of reasonable bushiness, healthy, well grown, and with a good root system. Roots shall not be deformed or restricted.

#### 4.3.10 Damage

All plants are to be adequately and carefully packed and protected to survive transport, by whatever means, to the site, without damage in loading, transit or unloading.

#### 4.3.11 Planting Generally

All planting operations shall be carried out in accordance with BS 4428 and good horticultural practice. Particular attention must be paid to correct depth of planting ensuring the soil is firmed in around the roots.

#### 4.3.12 Herbicides

Unless unavoidable, no herbicides shall be used on the site. Where required, a natural-based herbicide as approved shall be used on the site.

#### 4.3.13 Tree Pits

Tree pits shall be excavated 150mm all round larger than the natural spread of the roots/rootball of the plant. The base of the pit shall be thoroughly forked to a depth of 300mm to allow roots to penetrate below the pits.

#### 4.3.14 Planting of Trees

All trees shall be planted according to the general directions on planting given above.

#### 4.3.15 Stakes

Stakes shall be turned and pointed at one end. Sizes shall be as follows:-

- For Specimen / larger trees: 2 x 2400mm long x 75mm dia.
- For Standard trees: 1800mm long x 50mm dia.
- For other trees/conifers generally: 1200mm long x 50mm dia.

Set stake(s) vertically in the pit, to the western side of the tree station. Drive stake(s) before planting to secure firmly and to leave between 600-900mm above ground. Drive stake(s) with a drive-all, wooden maul or cast iron headed mell, not with a sledge hammer.

#### 4.3.16 Tree Ties

Tree ties shall be of rubber, PVC or proprietary fabric laminate composition, and shall be strong and durable enough to hold the tree securely in all weather conditions for a period of three years. They shall be flexible enough to allow proper tightening of the tie. Ties shall be minimum 35mm wide for standard trees.

#### 4.3.17 Soil Conditions

Planting shall not be carried out while the ground is frozen or waterlogged.

#### 4.3.18 Watering

All root balled and pot grown plants shall be well-soaked before planting. All planting shall be watered after planting, to consolidate soil around the roots, unless ground is so wet as to make additional water unnecessary.

# 4.3.19 Planting Specimen, Larger and Standard Trees

Excavate tree pits to 150mm all round larger than the natural spread of the roots of the plant. The base of the pit shall be broken up to a depth of 150mm and glazed sides roughened. Supply and drive the stake(s) as scheduled.

Trees shall be planted at the same depth as in the nursery, as indicated by the soil mark on the stem of the trees. They shall be centred in the planting pit and planted upright. The roots shall be spread to take up their normal disposition. Clean a neat circle 500 mm dia. of all grass.

#### 4.3.20 Whip and Transplant Planting

Excavate tree pits to 150mm all round larger than the natural spread of the roots of the plant.

Place tree in pocket at same depth as in the nursery, spreading out roots to their natural configuration. Backfill pocket carefully incorporating ameliorated soil mix from stockpile on site.

Firm soil around roots, and firm thoroughly on completion. Any surplus soil shall be spread evenly over the surrounding area.

#### 4.3.21 Planting of Shrubs and Climbers

All shrubs and climbers to be planted in excavated pits to give 100mm minimum growth space to accommodate root spread. Climbers to be fixed with adjustable ties to walls.

#### 4.3.22 Planting of Hedges

All hedge plants to be planted in an excavated pit or trench to give 100mm minimum growth space to accommodate root spread. Hedgerows to be established as double staggered row. Plants to be randomly dispersed within mixed species hedgerows.

#### 4.3.23 Workmanship

Whips Transplants: Leave ground free of superficial debris including all stones and debris over 35mm diameter and grass / weed within 500mm of plant.

Shrubs and Mixed Transplants/Shrubs: Leave surface reasonably even, free of all stones and debris over

35mm diameter, free of grass / weed free within 500mm of plant.

#### 4.3.24 Replacements

The planting will be inspected in spring and again in the September following planting. Any tree or shrub found to have died shall be replaced to the original specification.

#### 4.4 GRASS SEEDING

#### 4.4.1 Grass Requirements

DW01 Short Cut Floral Lawn: A closely knit, native grassland mix of even density, height.

DW03 Tall Wildflowers: A native Irish mix of larger wildflowers of thick density and bright colours.

EC05 Wetland Wild Flora: A vigorous, medium tall mixture made for moist soils.

#### 4.4.2 Seed Mixture: DW01 Short Cut Floral Lawn

The general high-quality low-maintenance seed mixture shall be used for verges and areas of frequent maintenance access within the development area, or an equivalent product of similar performance.

#### 4.4.3 Seed Mixture: DW03 Tall Wildflowers

The general high-quality low-maintenance seed mixture shall be used for large open spaces and detention basins within the development area, or an equivalent product of similar performance.

#### 4.4.4 Seed Mixture: EC05 Wetland Wild Flora

EC05 is a vigorous, medium tall mixture which can compete with the often fertile wetland soils on which many wetlands are situated. It shall be used for open dry swales and detention ponds in the development area.

#### 4.4.5 Weather

Work to soil shall be carried out in dry weather and when the soil can be reduced to a friable condition, avoiding smearing or panning, and rutting and compaction.

#### 4.4.6 Final Grading

Where required, areas to be grassed will be graded during cultivation with a light blade grader to bring them to a uniform and even grade to tie into surrounding levels and to remove all minor hollows and ridges.

#### 4.4.7 Cultivation and Stone Burying

Cultivate the surface using rotavators so as to break up the top 100mm of soil by two passes in transverse directions to provide a fine tilth up to 25mm suitable for grass seeding. All landscape areas shall be stone-buried to remove stones and debris over 35mm from the final seeding surface.

#### 4.4.8 Seeding

Grass seed shall be sown at the rates appropriate to the seed mix (refer planting schedule for more information). Seeding shall only be carried out on areas where cultivation and preparatory work has been approved.

Seeding shall be carried out during suitable calm weather conditions using an efficient broadcast machine for large areas or by hand in small areas and confined spaces. The operation will be carried out in equal sowings in transverse directions. After sowing, the ground will be rolled with a light-weight roller.

#### 4.4.9 Quality

Grass sward shall be even and consistent in terms of height density and growth of each sward type. Re-cultivate and reseed any areas that fail to germinate or are of poor quality.

#### 4.4.10 Defects / Making Good

All damaged / failed grass seeded areas to be reseeded in spring and late summer following seeding, in accordance with this specification.

#### 4.5 AFTERCARE

#### 4.5.1 Period

All landscape works, including planting and seeded areas, shall be maintained for a minimum period of 5 years from practical completion.

#### 4.5.2 Performance Standards

#### 4.5.2.1 Plants / Planting Areas

All plants shall be alive, healthy, free of minor defects and free of weedkiller or cultivation damage.

Planting areas shall be free of weeds and debris.

#### 4.5.2.2 Amenity Grass

Amenity grassland describes all natural and semi-natural grassland used for amenity/recreation purposes.

Grassed areas shall be managed for the visual amenity and enjoyment of staff and visitors and encourage biological diversity.

#### 4.5.2.3 Maintenance Objectives

All grass areas on the site will be managed to follow the All-Ireland Pollinator Plan 2021-2025<sup>1</sup> which aims to that aims to help bees, other pollinating insects, our wider biodiversity and reduce resource consumption. All grass areas will be managed to enhance biodiversity as grassland meadows though the following measures:

- Reduction in the frequency of mowing to provide short and long height meadows;
- For short grass areas, this will entail:
- Delay cutting the grass until mid-April to allow the Dandelion flowers to bloom.
- Mowing the grass every six weeks to allow flowers like Clover to bloom;
- Removing all arisings from the grassland, after each cut reducing fertility and preventing nutrients building up.
- Non-use of pesticides (herbicides, fungicides, insecticides) and fertilisers in the grass meadow areas.

-

<sup>&</sup>lt;sup>1</sup> https://pollinators.ie/aipp-2021-2025/

The mowing regime will allow common pollen-rich with lowers such as Dandelions, Clovers, Knapweed, and Bird's-foot-trefoil naturally colonise and grow among longer grass, providing food for pollinators and other insects.

#### 4.5.2.4 Maintenance Actions

Grass areas will be broken down into different maintenance zones with varying actions.

Zone A - Regular grass mowing with differential mowing height to edges; every 2 weeks.

#### **Location:**

2m wide perimeter buffer edge to paths and planting areas will be maintained as ornamental amenity grass with two differential grass cutting heights with regular cutting.

#### Specification:

- No use of fertilisers and weedkillers;
- First lower cut to border to edge, boundary, or path, or open area within though meadow. Height 30-35mm, minimum width 1.07m (42") wide;
- Second slightly higher cut/border to higher meadow (as per photo below).
   Height 40/75mm, width 0.5m (21") wide;
- Allow for yearly decompaction in areas of high pedestrian footfall.



Figure 5 Differential grass maintenance

### Zone B - Short flowering grass meadow; every 6 weeks

#### Location:

Road verges (min. 2m from the back of road verge), building edges, adjoining pathways.

#### Specification:

- No use of fertilisers and weedkillers;
- Cut grass meadows to 100mm height at six weeks intervals throughout the year, allowing more flowers to get a chance to grow and provide food source for pollinators amongst the grass, following outline mowing regime in Figure 13;
- Collect and dispose of arisings off-site.
   Install signage to communicate intent/raise public awareness (artwork available from National Biodiversity Data Centre or custom graphics/signage).

Task	Start	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avoid cutting			Dandelion P	eak		Clov	er Peak	_					
Commence first cut	After 15th April												
Commence second cut	End May					1	₹						
Commence third cut	Mid/late July							7					
Commence fourth cut	End August									7			
Commence fifth cut	Mid October										<b>V</b>		
		Recom	mended :	start task	•		Recomr	nended g	growing t	time			
		Recom	mended i	mileston	e 🔻		Avoid c	utting/m	owing				

Figure 4-1 - Typical grass cutting regime of short flowering grass meadow.



Figure 6 Signage

#### Zone C - Annual cut (Long flowering grass meadow); Once a year.

#### Location:

All remaining grassland area outside short flowering grass meadow areas and existing planting areas, providing both food and shelter for insects.

#### Specification:

No use of fertilisers and weedkillers;

- Leave the area grow, with one cut per yeak
- Cut once a year in September, 100mm high;
- Leaving arisings for 1 week to dry and drop seed head;
- Collect and dispose of arisings;
- Draw chain harrow over area detach grass and create opportunities for native flower seeds to germinate amongst grass;
- Over seed area with native Yellow rattle, Ox Eye Daisy, Knapweed,
   Vetches, annual cornflowers/poppies, etc. (@5g/sq.m). See Figure 15 below.



Figure 7 Long Flowering Grass Meadow Reference Image

#### 4.5.3 New Tree Planting

Young trees need regular monitoring and attention in the first number of years to ensure establishment.

#### 4.5.3.1 Maintenance Objectives

Establish a stable and healthily growing tree with a well-shaped framework for future growth.

Guards will be used to protect the plant against rabbits, etc. The most important operation is to keep the soil around the base of the tree free from weeds or grass and to ensure secure and correct staking.

#### 4.5.3.2 Maintenance Actions

Protect foliage of all plants during applications of herbicides. No plant, foliage or stem, shall be directly sprayed, even in winter. Any plants affected by herbicide shall be replaced.

Maintain a 1m diameter circle of plant-free soil around the base of each isolated tree by 75mm deep bark mulch and hoeing or the use of approved herbicide other than a residual. Avoid strimming around the base of standard trees to avoid damage to young bark.

- Allow for hoeing up of soil once every 4 weeks in the growing season (5 times per year). Allow for herbicide treatment once in the winter or spring and 3 additional treatments. Note: In some areas this operation may be replaced by the application of bark mulch as ground cover.
- Cut back any tall vegetation that is threatening to shade or smother the young tree (i.e. taller vegetation growing from outside the m weed free area). Allow for cutting back regularly (3/4 times a year).
- If required, water the newly planted trees throughout the summer months (May to August) as required after any period of 4 weeks without significant rainfall (less than 5 mm). Apply sufficient water to thoroughly wet the top 150 mm of soil around the tree roots. This will normally require approximately 10 litres for a seedling or whip and 20 litres for a standard tree. Supply/transport of water will be the responsibility of the Landscape Contractor.
- Check stakes and ties for firmness and support and adjust as necessary.
   Allow for checking twice a year, preferably in late spring and late summer.
- Firm the soil around the roots to ensure that the plant is securely planted in the ground and upright. Allow for firming once in the spring after planting.
- Formative prune to remove any dead, diseased or damaged shoots and create a balanced form for future growth. Allow for pruning once in the season after planting.
- Where tree guards, stakes, ties, strimmer guards, rabbit guards and temporary fencing is no longer deemed necessary, the contractor shall allow for removing and discarding of these elements appropriately off site.

#### 4.5.3.3 Maintenance Objectives

Regularly clip hedges to maintain a uniform and tidy appearance (according to the type of hedge and situation) and a well-developed cover of vegetation over the whole of the hedge surface. Control any weed or grass growth at the base of the hedge so that it does not detract from the overall appearance or adversely compete with the hedge.

As wildlife often relies on the berries and nesting spots provided by the Hawthorn, it is recommended that they are pruned during the summer and autumn months, after the plant has flowered. Pruning during these seasons will encourage a fuller growth of flowers the following year, although this will also reduce the volume of berries the hedge is able to produce that winter. Avoid cutting the Hawthorn hedge before it is established, typically this is around 2 years after planting when the hedge has reached around c. 1.2 to 1.5m feet tall.

During the second year of planting, between February and March, is the recommended time for hard pruning Hawthorn hedges. Cut back growth by half during these months to encourage new growth. Remove dead, diseased or broken branches first to keep your hedge looking neat and stimulate new growth. Be careful to avoid cutting these branches flush with the trunk as this can make the trunk susceptible to decay. Removing any cross branches from inside your Hawthorn hedge will also help to prevent diseases as this improves circulation within the hedging. Pruning at this time of year while your hedge is dormant will also cause the

least disruption to the wildlife that rely on your Hawthern, as it will not interfere with the nesting season or the volume of berries.

#### 4.5.3.4 Maintenance Actions

- Clip the top and sides of the hedge to maintain true and even levels and using suitable mechanical cutters to maintain the shape and height.
  Remove any cuttings lodged in the surface of the hedge and rake up and remove all arisings.
- Allow the operation to be carried out to suit the species and position of the hedge.
- Maintain weed free 750mm wide band at the base of the hedge (weeds at a maximum height of 100mm and a maximum ground cover of 10%) by mulch, regular hand removal, hoeing or by the use of approved herbicide. Allow for control once every 6 weeks in the main growing season (4 times per year).

#### 4.5.3.5 Maintenance Objective

Maintain shrub growth to cover as much as possible of the border area and allowing the individual plants to achieve as nearly as possible their natural form. Maintain the borders free of visible grasses and shape and prune the shrubs to avoid obstructing pathways or blocking light to, or adhering to windows.

#### 4.5.3.6 Maintenance Operations

After planting, if appropriate and in season for the species involved, prune shrubs to remove dead or dying and diseased wood and suckers, to promote healthy growth and natural shape and to develop their desirable ornamental characteristics. At the same time remove intermediate plants that are restricting the natural and attractive development of their neighbours. Remove all arisings from site.

Lightly cultivate the surface soil, to a depth of approximately 50 mm, remove or bury all annual weed or natural litter and break any surface capping. Take special care to avoid unnecessary damage to the shrub plants and ensure that all the shrubs are firmly bedded in the soil. Leave the surface with a fine and even tilth with soil crumbs of less than 50 mm in diameter.

*Note*. This operation is only essential where the soil is compacted or as a means of incorporating mulch. Not required where the areas are mulched.

Maintain the soil surface substantially free of not planted grasses by hand removal Spot treatment at approximately four-weekly intervals throughout maintenance period.

**Note**: As an alternative the borders can be regularly hand-hoed at up to two-weekly intervals in the main growing season, to 6 times per year. This procedure is recommended for the first year after planting when the plants may be more sensitive to contact herbicide damage and residual herbicides may not be used.

Apply slow release fertiliser to all planted areas in Autumn (NPK 0:20:30) at 25g/sq.mm to encourage strong root structure and winter hardiness.

Water as necessary to ensure the establishment and continued thriving of all planting. Water using a fine rose or sprinkler until full depth of topsoil is saturated.

#### 4.5.4 Programme

The landscape shall be reviewed quarterly during the maintenance period and any defects made good immediately thereafter.

#### 4.5.5 Weed killing (only if no viable alternative)

Protect foliage of all plants during applications of herbicides. No plant, foliage or stem, shall be directly sprayed, even in winter. Any plants affected by herbicide shall be replaced.

#### 4.5.6 Watering

Water all planting as necessitated by dry weather. Apply water as a fine spray, to moisten full depth of root run.

Avoid washing or compaction of the soil surface.

#### 4.5.7 Tidiness and Clearance

All landscape areas shall be maintained free from debris, including free from all aftercare debris.

PECENED. 7300 POZA

# **Brady Shipman Martin**

#### **DUBLIN**

Mountpleasant Business Centre Ranelagh Dublin 6 D06 X7P8 +353 1 208 1900

#### CORK

Penrose Wharf Business Centre Penrose Wharf Cork T23 A8PT +353 21 242 5620

mail@bradyshipmanmartin.com www.bradyshipmanmartin.com

Appendix 11.3

Tree Survey and Arboricultural Impact Assessment Report

THIS PAGE IS INTENTIONALLY BLANK

PRICEINED. 73/08/2024

# Tree Survey and Arboricultural Impact Assessment Report

Herbata Data Centre Campus Carragh Road Naas Co. Kildare

BSM
Est. 1968

Brady Shipman Martin Built. Environment.

Survey Assessment Built Environment

> DATE: PROJ. REF.

**23 April 2024** 6971-BSM-ZZ-ZZ-RP-L-0001

# Herbata Data Centre Campus, Naas, Co. Kildare

Tree Survey and Arboricultural Impact Assessment Report

PRICEINED. 7300 2024

#### DOCUMENT:

#### **Tree Survey Report**

This document has been issued and amended as follows:

Issue	Revision	Description/Status	Date	Prepared	Checked
				by	by
01	01	For Planning	26/04/2024	JM	DB

PRCENED. 7308 ROX

# **TABLE OF CONTENTS**

		CONTENTS  Japan  Japan	
TAB	LE OF	CONTENTS	
1	Intro	duction	1
2	Repo	ort limitations	1
3	Metl	nodology	3
4	Surv	ey Key	3
	4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8	Tree, Tree Group and Woodland Number  Species	33333
5	Findi	ings	5
6	Preli	minary Recommendations	7
7	Arbo	ricultural Impact Of New Development	7
8	8.1 8.2	Tree Work Operations	8
9	Site	Photographs	10
10	Sche	dule Of Trees included in the survey	13
11	Sche	dule Of Trees & Hedges to be removed	38

PRCENED. 7308 ROX

#### 1 INTRODUCTION

It is proposed to develop zoned lands off the R409 Carragh Road near Naas, Co. Kildare for data centre development. There are numerous trees and hedges across the proposed site. This report has been commissioned to provide an arboricultural assessment of these trees and hedges to assist with the plans for the project. The survey data was collected and collated in accordance with BS5837: (2012) *Trees in relation to design, demolition, and construction – Recommendations*.

The accompanying Tree Survey and Constraints drawing shows the locations of the individual trees, hedges and tree groups identified during the survey. This tree survey data was input into the design and planning of the proposed new development layout and used to prepare the Arboricultural Impact Assessment, Method Statement and Tree Protection Plan for inclusion with the planning application for the project.

This report should be read with the following drawings and reports:

1.1 Drawing Title	Drawing Number	Size
Existing Tree Survey 01 of 04	BSM-ZZ-ZZ-DR-L-0101	A0
Existing Tree Survey 02 of 04	BSM-ZZ-ZZ-DR-L-0102	A0
Existing Tree Survey 03 of 04	BSM-ZZ-ZZ-DR-L-0103	A0
Existing Tree Survey 04 of 04	BSM-ZZ-ZZ-DR-L-0104	A0
Tree Constraints, Removal & Protection Plan 01 of 04	BSM-ZZ-ZZ-DR-L-0211	A0
Tree Constraints, Removal & Protection Plan 02 of 04	BSM-ZZ-ZZ-DR-L-0212	A0
Tree Constraints, Removal & Protection Plan 03 of 04	BSM-ZZ-ZZ-DR-L-0213	A0
Tree Constraints, Removal & Protection Plan 04 of 04	BSM-ZZ-ZZ-DR-L-0214	A0
1.2 Report Title	Report Number	Size
Landscape Design Report	DXCMGY-BSM-ZZ-ZZ-RP-L-0002	A4

#### 2 REPORT LIMITATIONS

The inspection has been carried out from ground level using visual observation methods only.

Trees are living organisms whose health and condition can change rapidly. Trees should be checked on a regular basis, preferably once a year. The conclusions and recommendations of this report are valid for one year.

The fruiting bodies of some important species of decay fungionly emerge at certain times of the year and may not have been visible during this inspection.

There is no such thing as a 100% safe tree in all conditions, since even perfectly healthy trees may fall or suffer branch break.

Climbing plants such as Ivy can obscure structural defects and some symptoms of disease, where such plants prevent a thorough examination it is recommended that the climber be cut at ground level and the tree re-inspected when it has died back.

Tree Survey and Arboricultural Impact Assessment Report

Tree positions on the survey drawing are based upon the tree symbols plotted onto the topographic drawing supplied, with additional trees being added in their *approximate* positions where no such symbol was plotted.

PRICEINED. 7300 RODA

#### 3 METHODOLOGY

The trees and hedges were accessed on foot and assessed using Visual Tree Assessment (VTA) techniques only. Trees growing outside the site boundary were not directly accessed, with the trees being assessed using what visual information was available to the surveyor from inside the site. Groups of trees, hedges and scrub growth were assessed collectively in accordance with BS5837: (2012) *Trees in relation to design, demolition and construction – Recommendations*.

#### 4 SURVEY KEY

#### 4.1 Tree, Tree Group and Woodland Number

Individual trees (prefix T) were tagged with numbered tree tags. Tree groups (prefix G), hedges (prefix H) were allotted reference numbers. These numbers allow for identification and cross reference with the survey schedule and site drawings.

#### 4.2 Species

Refers to the specific tree species with both common and botanical names for individual trees and those present within each tree group.

#### 4.3 Age Class

Y: Young tree – yet to reach biological maturity

SM: Semi-mature - tree now well established and developing

EM: Early-Mature - tree not yet fully grown

M: Mature – Tree fully grown and in full maturity LM: Late Mature – in the later stages of maturity

OM: Over mature - tree now declining from natural causes

Vet: Veteran - tree of value due to old age and ecological/cultural

significance

#### 4.4 Stem Diameter, Tree Height and Crown Size Measurements

Ht: Total Tree Height in metres

Dbh: Diameter (in mm) at breast height measured at 1.5m from

ground level

Cr Crown clearance from ground level (in metres)
NSEW: Crown spread (in metres) for all 4 cardinal points

FSB First significant branch: height from ground and direction

#### 4.5 Condition

Condition refers to both physiological condition (good, fair, poor, dead.) and structural condition.

Good: No obvious defects visible, vitality and form of tree good. Fair: Tree in average condition for its age and the environment.

Poor: Tree shows signs of ill health/structural defect

Bad: Tree in seriously bad health/major structural problem

Dead: Tree now completely dead

#### 4.6 Comments

Additional description/commentary on individual trees where appropriate.

#### 4.7 Recommendations

Preliminary management recommendations are noted, these pertain to current site conditions unless otherwise stated.

Tree Survey and Arboricultural Impact Assessment Report

# 4.8 Tree Retention Category (Cat) (BS5837: 2012 Trees in relation to design, demolition and construction – Recommendations)

The tree retention category system grades a tree's suitability for retention within a development:

- A Indicates a tree of high quality and value. These are trees that are particularly good examples of their species, which also provide landscape value. These trees are in such a condition as to be able to make a substantial contribution. (A minimum of 40 years is suggested)
- B Indicates a tree of moderate quality and value. Trees that might be included in the high category, but are downgraded because of impaired condition. These trees are in such a condition as to make a significant contribution. (A minimum of 20 years is suggested)
- C Indicates a tree of low quality and value trees with an estimated remaining life expectancy of at least 10 years, smaller trees lower than 10m in height, or young trees with a stem diameter of below 150mm.
- Trees that are in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

**Sub Categories** 

Tree categories may be further categorised using the following sub-categories (e.g. C1, C2 or C3) - 1 mainly Arboricultural qualities, 2 mainly landscape qualities, 3 mainly cultural values.

#### 4.9 Root Protection Area

The Root Protection Area (RPA) is the minimum area around individual trees to be protected from disturbance during construction works; RPA is recorded as a radius (rad) in metres measured from the tree stem and is shown on tree survey drawings as a circle with the tree stem in the centre. For single stem trees, the root protection area (RPA) should be calculated as an area equivalent to a circle with a radius 12 times the stem diameter.

For trees with more than one stem, one of the two calculation methods below should be used.

- For trees with two to five stems, the combined stem diameter should be calculated as follows:
- V ((stem diameter 1)<sup>2</sup> + (stem diameter 2)<sup>2</sup> ... + (stem diameter 5)<sup>2</sup>)
- b) For trees with more than five stems, the combined stem diameter should be calculated as follows:
- $\forall$  ((mean stem diameter)<sup>2</sup> × number of stems)

PECENED. 7308ROZA

#### 5 FINDINGS

The trees were assessed during site visits in January and February 2023. The field survey findings are recorded in the survey schedule appended to the report and include the data for 228 individual trees, 10 groups and 18 nedges. The schedule included trees within the redline boundary and also some of those located just outside the redline, but with potential to have some root and or branch spread into the project area.

228 individual trees were identified and assessed; of these 9 trees were graded category A (high value) 42 were graded category B (moderate value), 139 were graded category C (low value) and 38 were graded category U (unsuited to long term retention).

The majority of the trees recorded were Common Ash (Fraxinus excelsior); these made up 66% of the trees. Common Beech (Fagus sylvatica) was the second most numerous at 12%, with the remaining 22% made up of a mix of Oak (Quercus spp.), Willow (Salix spp.), Aspen (Populus tremula), Apple (Malus domestica), Common Alder (Alnus glutinosa), Pear (Pyrus spp.), Wych Elm (Ulmus glabra) and Horse Chestnut (Aesculus hippocastanum).

The survey site covers approximately 37 ha; most of which is land currently under permanent pasture and used for sheep farming. The lands are bordered to the east by the M7 motorway, to the north by the R409 public highway, to the south by the M7 Business Park and to the west and south west by more farmland. The survey area includes the old farmstead and yard in the centre of the site and the dwelling and garden off the R409.

The farm is sub-divided into 13 larger fields and smaller paddocks by a series of hedgerows, many of which are growing out of low banks alongside sunken drainage ditches. The land is mostly flat or very gently sloping, drainage across most of the site seems to be reasonably good, with parts towards the southern boundary becoming more poorly drained.

The trees on and around the site are concentrated into the hedgerows; these hedges are dominated by a mixture of Ash and Hawthorn (Crataegus monogyna), with Hawthorn forming an understorey of multi-stemmed bushes under a taller canopy of early mature and mature Ash trees that have mostly grown up out of long-established coppice stools. The trees are mostly growing out of the low earthen banks that run next to the many drainage ditches, with some trees also being set slightly off the hedge-line, into the fields. The survey schedule records hedgerow trees that were picked out by the topographic survey plus several additional trees that were not recorded in the original land survey. The hedges actually contain many more individual trees and bushes beyond those plotted on the survey drawing; however, it was deemed impractical and of limited benefit to try and record every tree growing on the site. The only trees *not* within the hedges and tree groups on and around the farm are the two young trees (T1018-1019) that have been planted into the north-western field in recent years.

Tree condition is variable across the site, however, all of the Ash trees inspected were seen to be suffering from the fungal disease Ash Dieback disease (*Hymenoscyphus fraxineus*). The disease is likely to eventually cause high mortality amongst the Ash population, but is not expected to kill all the trees. At this early stage in the onset of the disease it is difficult to identify which individual trees will survive and which will die; in the survey schedule the Ash trees currently showing significant symptoms were graded as category U, whilst all other Ash trees have been graded category C. Because of the prevalence of Ash Dieback disease (ADB), no Ash trees were graded category B or A, even if they were noted to be substantial trees with no obvious structural defects.

#### Tree Survey and Arboricultural Impact Assessment Report

The various hedgerows across the site also contain other tree and shrub species, including Hazel (Corylus avellana), Apple, Spindle (Euonymus europaeus), Willow, Alder, Elder (Sambucus nigra), Oak, Elm, Beech and Aspen. The larger and more significant hedgerow trees include the mature Oak trees (including the big old specimen T919) and the line of mature Beech trees (T838-867) along hedge H13. Some of these larger trees are suffering from the effects of old age, with several being slowly degraded by fungal decay and/or branch breakage from high winds.

Most of the hedges inside the site appear to have been left relatively unmanaged for a number of years, however the hedges along the road frontage with the R409 have been kept regularly trimmed, and the sections of hedge running underneath the various overhead ESB powerlines have been subject to regular topping by line clearance works.

The survey included the garden and adjacent small paddock next to the farmers house; this area contains a more diverse range of tree species (including a of number exotic species such as Cedrus, Cupressus, Pinus radiata, Quercus ilex etc.) planted as a landscape screen around the property (groups G1 and G2 in the schedule). These trees are mostly early mature in age class and are becoming in need of thinning out/re-spacing.

PRCENED. 73/08/2024

#### 6 Preliminary recommendations?

Preliminary management recommendations for the trees and tree groups (under present site conditions) are listed in the survey schedule.

The Ash trees should be monitored through regular inspection to track the progress of Ash dieback disease through the hedgerows on the site. Where crown dieback exceeds 50% the tree is unlikely to survive and may be best removed.

Hedgerows degraded by old age, disease, livestock browsing, and utility line clearance works should be restored through a combination of coppicing, hedge-laying, infill planting and where necessary, fencing to prevent further animal damage. Trees and bushes under the ESB lines would be best managed through coppicing on a regular rotation rather than topped.

Works associated with the new development in areas adjacent to trees should be carried out in accordance with the recommendations made in BS5837 (2012) *Trees in relation to design, demolition and construction* – *Recommendations* (BSI Standards Limited 2012)

#### 7 ARBORICULTURAL IMPACT OF NEW DEVELOPMENT

The proposed development will require that large areas of the site are cleared of existing vegetation and structures to facilitate the new layout; this will include the removal of a significant proportion of the trees and hedges across the centre and north of the site. Care was taken to ensure that the boundary hedges along the eastern, southern and western boundaries of the site were left intact by the new layout.

A total of 165 individual trees recorded in the tree survey schedule will be removed; this represents 72% of the trees, however, 134 of these trees (84%) are of category C or U. 4 tree groups will be completely removed, along with 6 hedgerows. 1 tree group will be partially removed. 9 hedgerows will be partially removed, with 7 of these being mostly removed and only short sections being retained.

All of the trees and hedges proposed for removal are listed in the Tree Removal Schedule and shown on the Tree Constraints, Retention and Protection Plan drawings for the project.

The extent of the removal of the trees and hedges necessary to facilitate the proposed development is acknowledged by the project design team and a comprehensive new tree planting plan has been prepared to help mitigate the loss of existing tree cover, providing c. 5.4 hectares (c. 23,760 trees) of native screen woodland planting and c. 1 hectare of native scrub/hedge planting (c. 4,400 small trees/hedge species), together with over 1,000 advanced nursery trees to the perimeter boundaries and over 500 advanced nursery trees internally within the site.

Tree Survey and Arboricultural Impact Assessment Report

#### 8 ARBORICULTURAL METHOD STATEMENT

#### 8.1 Tree Work Operations

The trees listed in the tree removal schedule below and those shown highlighted in red on the landscape drawings will be felled and the stumps removed. Truncated hedges should have the trees/bushes growing at the end of remaining section coppiced and then be allowed to regenerate.

Any trees requiring light facilitation pruning to improve access and prevent damage by the construction activity will be pruned back following consultation with the project arborist.

The felling of and pruning of trees will be undertaken by professional tree surgeons working to BS 3998 (2010) Tree Work – Recommendations.

Timber grade material from the felled trees should be processed into planks, beams, hurleys etc. by appropriate contractors or craftsmen wherever possible. All lower grade woody material arising from the clearance works will be recycled for use on the project (woodchip mulch for new planting areas for example), with logs/branches placed throughout the woodland and riparian corridors as habitat logs, or disposed of at an appropriate green waste facility.

PRICEINED. 7308 ROZA

#### 8.2 Tree Protection Measures

The remaining trees and hedgerows will be protected in accordance with BS5837 (2012) Trees in relation to design, demolition and construction – Recommendations.

The project developer will appoint a qualified arborist to provide advice and guidance to the contractors carrying out the works. The arborist will meet the contractors on-site prior to works commencing and go through the tree protection measures, explaining the recommended procedures and emphasising the importance of protecting the trees during the project. The project arborist will be available to attend the site on a regular basis to aid and advise the tree protection set-up as needed.

Tree protection fencing will be erected around the RPAs of trees being retained to prevent construction activity and machinery encroaching onto exposed soil, where it could cause compaction and root damage. The fencing and protective structures will be erected before site works commence and will not be removed or moved unless authorised by a qualified arborist. The indicative positions of the tree protective fencing are shown on the Tree Removal, Retention and Protection Plan drawings for the project.

Where site machinery must encroach upon original soil surfaces or ground exposed by the removal of the existing hard surfacing within the RPAs of the trees to be retained for reasons unforeseen and unavoidable; suitable ground protection will be put in place to prevent any significant soil compaction or root damage near the trees; this should take the form of suitable strength ground protection mats or cellular confinement system capable of supporting the appropriate weight.

Any new underground services such as electricity cables, water pipes etc. will be routed away from the root protection areas of the trees to be retained; where this is not possible for reasons unforeseen, the services will be installed using specialist methodology (such as *Airspade* excavation, Air Vacuum truck or Directional/Mole drilling) that ensures minimal impact on any tree roots.

All exposed roots and/or soil profiles containing roots of trees to be retained will be kept damp in dry conditions by regular watering and be covered with a double layer of hessian fabric to prevent desiccation. Where backfill is required, this should be of good quality topsoil, structural soil, or clean sand.

Root severance should be avoided where possible, with no roots >25mm being cut without consultation with the project arborist. Where roots must be cut back, they should be pruned with saw or secateurs to leave a clean cut.

All site offices, materials storage, staff parking etc. will located outside of the RPAs of the trees being retained.

The retained trees should be assessed by a qualified arborist following the completion of the construction works.

## 9 SITE PHOTOGRAPHS



Photo 1. Mature Ash trees and Hawthorn bushes along hedge H8, with southern end of H5 in distance



Photo 2 Mature Oak, Ash and Aspen trees along hedge H10, with old Oak T919 to right of ESB wires

PRCRINED. 73002024



Photo 3. Mature Beech and Ash trees making up hedge H13



4. Drainage ditch alongside hedge H15; note trees growing out of raised bank

#### Tree Survey and Arboricultural Impact Assessment Report



PRICEINED. 7300 2024

5. Mature Sycamore tree T963 by track to old farmstead



6. Linear group planting groups G1 and G2 around small paddock by farmers dwelling house

**Tree Survey Report** 

#### 10 SCHEDULE OF TREES INCLUDED IN THE SURVEY

Туре	No.	Species	Age	Ht m	Dbh mm	St	Cr	N	S	E	w	ERC	Phys Cond	Structural Condition/Comments	Preliminary Recommendations	RPA m	Cat
Т	801	Quercus robur (Common Oak)	М	13	630	1	3	3	9	9.5	2	20+	Fair	Fair. Medium sized tree. Asymmetric form due to group competition. Storm damaged branches in crown with hazard beam split in long limb to east.	Target prune broken/damaged branch to east.	57.56	B2
Т	802	Quercus robur (Common Oak)	М	16	750	1	3	11	9	8.5	7	40+	Good	Good. Larger mature tree. Scattered minor deadwood. Some long extended limbs.	Prune to reduce weight of extended branches.	9	A2
Т	803	Quercus robur (Common Oak)	М	15	590	1	2	3	5	8	5	40+	Fair	Fair. Larger tree. Asymmetric form due to group competition. Deadwood in crown.	No urgent works needed.	7.08	A2
T	804	Quercus robur (Common Oak)	М	14	630	1	2	7.5	7	10	8	40+	Fair	Fair. Larger tree. Epicormic shoots on branching throughout crown.	No urgent works needed.	7.56	A2
Т	805	Quercus robur (Common Oak)	M	14	600	1	2	5	3	9	8	40+	Fair	Fair. Larger tree. Asymmetric form due to group competition. Epicormic shoots on branching throughout crown.	No urgent works needed.	7.2	A2
Т	806	Fraxinus excelsior (Ash)	EM	18	622	3	2	8.5	6.5	5.5	5.5	10	Poor	Fair. Multi-stem coppice stool. Medium sized tree. Asymmetric form due to group competition. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.46	C2
Т	807	Fraxinus excelsior (Ash)	М	17	691	6	4	6	6	5	5.5	10	Poor	Fair. Multi-stem coppice stool growing on edge of ditch. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.29	C2
Т	808	Fraxinus excelsior (Ash)	EM	15	495	2	2	4	5	6	5	10	Poor	Fair. Smaller tree. Twin stem from ground level. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.94	C2
Т	809	Fraxinus excelsior (Ash)	EM	16	450	1	1	5.5	5	5	4.5	10	Poor	Fair. Medium sized tree. Upright form. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.4	C2
Т	810	Populus tremula (Aspen)	М	16	600	1	5	4.5	4.5	6	7	<10	Fair	Poor. Copious fungal fruiting bodies around stem base indicative of basal and root decay.	Carry out further inspection to identify fungus species. Tree may need to be crown reduced if retained.	7.2	U
Т	811	Salix fragilis (Crack Willow)	М	14	700	1	1	9	4	3	7	20+	Fair	Poor. Medium sized tree. Unbalanced crown shape. Leaning North. Old tear-out wound on main stem at 3m. Crooked lower stem.	Crown reduce or pollard tree.	8.4	B2

## Tree Survey and Arboricultural Impact Assessment Report

Т	812	Fraxinus excelsior (Ash)	М	17	680	2	2	7	7	6	6.5	10	Poor	Fair. Larger tree growing on edge of ditch. Ivy restricts view of main branch unions. Twin stem from ground level. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.16	C2
T	813	Fraxinus excelsior (Ash)	М	16	600	1	2	6.5	5.5	6	6	10	Poor	Fair. Larger tree growing on edge of ditch. Average shape/form. Scattered minor deadwood. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.2	C2
Т	814	Fraxinus excelsior (Ash)	М	19	650	1	2	8	8	7.5	7.5	10	Poor	Fair. Larger tree growing on edge of ditch. Average shape/form. Scattered minor deadwood. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	<b>4.8</b>	C2
Т	815	Populus tremula (Aspen)	OM	16	650	1	7	5	9.5	6	5	<10	Fair	Poor. Larger tree. Main leader broken off at 7m with significant decay in remaining part of stem. Crown of secondary leaders seem to have reasonable vitality.	Consider coppicing or pollarding if retained.	7.8	U
Т	816	Populus tremula (Aspen)	М	17	430	1	4	5	5.5	5.5	4.5	20+	Good	Good. Medium sized tree. Upright form.	No urgent works needed.	5.16	B2
Т	817	Fraxinus excelsior (Ash)	EM	15	300	1	2	2	4	7	4	10	Poor	Fair. Early symptoms of Ash Dieback Disease. Crooked stem.	Monitor tree condition to track progress of disease.	3.6	C2
Т	818	Populus tremula (Aspen)	М	17	500	1	3	5	4.5	4	6	20+	Good	Good/Fair. Medium sized tree. Upright form.	No urgent works needed.	6	B2
Т	819	Fraxinus excelsior (Ash)	EM	10	453	4	3	5	4	5.5	4	<10	Poor	Fair/Poor. Multi-stem coppice stool. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	5.44	U
T	820	Fraxinus excelsior (Ash)	EM	13	300	1	3	3	5	5	4	10	Poor	Fair. Smaller tree. Average shape/form. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	3.6	C2
Т	821	Fagus sylvatica (Beech)	М	15	570	1	2	6.5	8	3	4	20+	Fair	Fair. Medium sized tree growing on edge of ditch. Slight lean-to stem.	No urgent works needed.	6.84	B2
T	822	Quercus robur (Common Oak)	EM	15	500	1	2	6	7	7	7.5	40+	Fair	Fair. Medium sized tree. Growing on edge of ditch. Average shape/form. Storm damaged branches in crown.	Target prune broken/damaged branches.	6	A1
Т	823	Fraxinus excelsior (Ash)	SM	12	391	3	2	5	5	4.5	4.5	10	Poor	Fair. Multi-stem coppice stool. Smaller sized tree. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.69	C2
Т	824	Fraxinus excelsior (Ash)	SM	10	300	1	3	4	4.5	3.5	3.5	10	Poor	Fair. Smaller sized tree. Growing on edge of ditch. Average shape/form. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	3.6	C2
Т	825	Fraxinus excelsior (Ash)	SM	10	300	1	3	3	3.5	3	3	10	Poor	Fair. Smaller sized tree. Growing on edge of ditch. Slight lean-to stem. Early symptoms of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	3.6	C2

**Tree Survey Report** 

																Tree S	
Т	826	Fraxinus excelsior (Ash)	EM	10	350	1	2	4.5	4	2	3	10	Poor	Fair/Poor. Smaller sized tree. Leaning North. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.2	C2
Т	827	Fraxinus excelsior (Ash)	EM	10	350	1	2	4.5	4	3	4	10	Poor	Fair. Smaller sized tree. Growing on edge of ditch. Slight lean-to stem. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.2	C2
Т	828	Fraxinus excelsior (Ash)	М	15	600	1	2	9.5	6	2	4	10	Poor	Fair/Poor. Leaning North. Minor deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	57.2	C2
Т	829	Fraxinus excelsior (Ash)	М	16	550	1	4	4	7	5	1	<10	Poor	Fair/Poor. Medium sized tree. Leaning North- East. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	6.6	U
Т	830	Fraxinus excelsior (Ash)	М	16	541	2	3	7	7	5.5	3	<10	Poor	Fair/Poor. Medium sized tree. Leaning North. Twin stem from ground level. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	6.49	U
Т	831	Fraxinus excelsior (Ash)	M	16	461	2	2	6.5	3	5	5	10	Poor	Fair/Poor. Leaning North. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	5.53	C2
Т	832	Fraxinus excelsior (Ash)	М	14	450	1	2	6.5	3	5	5	10	Poor	Fair. Medium sized tree. Growing on edge of ditch. Large surface roots. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.4	C2
Т	833	Fraxinus excelsior (Ash)	М	13	600	1	2	7	6	5	4	<10	Poor	Poor. Larger tree. Some decay of structural roots. Polyporous squamosus present in small decay cavity on stem. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	7.2	U
Т	834	Fraxinus excelsior (Ash)	EM	16	532	2	4	7	5	4	6.5	10	Poor	Fair. Medium sized tree. Growing on edge of ditch. Twin stem from ground level. Minor deadwood in crown. Copious epicormic growth on branching throughout crown indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	6.38	C2
Т	835	Fraxinus excelsior (Ash)	М	16	500	1	4	6.5	6.5	5.5	2	10	Poor	Fair/Poor. Growing on edge of ditch. Slight leanto stem. Stem divides above 1.5m. Asymmetric form due to group competition. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	6	C2
Т	836	Fagus sylvatica (Beech)	М	15	1200	1	1	7	7	6	6	10+	Fair	Poor. Large specimen tree growing on edge of ditch. Historic loss of major limb. Ustulina deusta fruiting bodies present.	Carry out further inspection to assess extent of decay.	14.4	C2

## Tree Survey and Arboricultural Impact Assessment Report

	,						- 1							·			
Т	837	Alnus glutinosa (Common Alder)	М	12	691	5	2	6	5	5	5.5	20+	Fair	Fair. Multi-stem coppice stool. Small decay cavity on stem.	No urgent works needed.	8.29	B2
T	838	Fagus sylvatica (Beech)	М	19	800	1	2	6	10	9	8	20+	Fair	Fair. Large specimen tree growing on edge of ditch. Old fencing wire fixed to lower stem.	No urgent works needed.	9.6	В2
T	839	Fagus sylvatica (Beech)	М	21	750	1	2	9	12	5	8	20+	Fair	Fair. Large specimen tree. Large surface roots. Slight lean-to stem. Old fencing wire fixed to lower stem.	No urgent works needed.	9	В2
Т	840	Fagus sylvatica (Beech)	М	17	900	1	1	11	12	6	8	10+	Fair	Fair/Poor. Large specimen tree. Leaning East. Root plate partially lifted. Polyporous squamosus present in old wound to lower stem.	Crown reduce and reduce weight from east side of crown.	10.8	C2
T	841	Alnus glutinosa (Common Alder)	М	15	572	4	2	2.5	5	4	3.5	20+	Fair	Fair. Medium sized tree. Multiple stems at ground level.	No urgent works needed.	6.86	В2
Т	842	Fagus sylvatica (Beech)	М	12	800	1	2	5	10	8	8	<10	Fair	Poor. Large specimen tree. Growing on edge of ditch. Ivy restricts view of main branch unions. Significant wood decay in old wound at stem base. Old fencing wire fixed to lower stem.	Crown reduce if retained.	9.6	U
Т	843	Fagus sylvatica (Beech)	М	16	1050	1	1	5	9	7.5	7	10+	Fair	Poor. Large specimen tree growing on edge of ditch. Ganoderma brackets on stem indicative of significant basal decay. Probably not suited to retention in new development.	Carry out further inspection to assess extent of decay. Crown reduce.	12.6	C2
T	844	Fagus sylvatica (Beech)	М	18	400	1	2	3	6	4	5	20+	Fair	Fair. Medium sized tree. Growing on edge of ditch. Upright form.	No urgent works needed.	4.8	В2
T	845	Fagus sylvatica (Beech)	М	21	600	1	2	6	8.5	4	6	20+	Fair	Fair. Growing on edge of ditch. Slight lean-to stem. Large specimen tree. Upright form. Old fencing wire fixed to lower stem.	No urgent works needed.	7.2	В2
Т	846	Fagus sylvatica (Beech)	М	20	894	2	2	8	9	6	7	20+	Fair	Poor. Large specimen tree growing on edge of ditch. Large surface roots. Some decay of structural roots. Ivy restricts view of main branch unions. Large dead limb broken off and hanging into neighbouring tree crown.	Cut Ivy around stem base. Remove hanger and conduct climbing inspection of tree. Crown reduce northern stem.	10.7	B2
Т	847	Fagus sylvatica (Beech)	М	19	900	1	2	9	8	2	7	20+	Fair	Fair. Large specimen tree. Growing on edge of ditch. Slight lean-to stem. Large surface roots. Asymmetric form due to group competition.	No urgent works needed.	10.8	В2
Т	848	Fraxinus excelsior (Ash)	EM	15	400	1	5	5	6	2	4	<10	Poor	Fair/Poor. Medium sized tree. Initial lean but self corrects to vertical. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	4.8	U
Т	849	Fraxinus excelsior (Ash)	М	17	500	1	2	3	6	5	2.5	10	Poor	Fair. Medium sized tree. Slight lean-to stem. Scattered minor deadwood. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	6	C2

**Tree Survey Report** 

															nerbata Project,		
																Tree S	Survey
Т	850	Fagus sylvatica (Beech)	M	17	700	1	2	4	5	6	6	20+	Fair	Fair. Large specimen tree. Growing on edge of ditch. Asymmetric form due to group competition. Tight unions as stem forks into 3m at 2m; unions appear stable at present.	No urgent works needed.	8.4	B2
Т	851	Fagus sylvatica (Beech)	М	17	1200	1	3	7	7.5	7	7.5	20+	Fair	Fair. Very large old tree. Growing on edge of ditch. Wood decay in old wound to lower stem.	No urgent works needed.	14.4	B2
Т	852	Fagus sylvatica (Beech)	М	17	800	1	1	8	8	5	7	20+	Fair	Fair. Large specimen tree. Growing on edge of ditch. Ivy restricts view of main branch unions. Squirrel damage to branches in crown.	No urgent works needed.	59.6	B2
Т	853	Fagus sylvatica (Beech)	М	16	700	1	2	5	4.5	5	5.5	20+	Fair	Fair. Large specimen tree. Growing on edge of ditch.	No urgent works needed.	8.4	B2
Т	854	Alnus glutinosa (Common Alder)	М	16	400	1	3	3	3.5	3	5	10+	Fair	Fair/Poor. Smaller sized tree. Suppressed by neighbouring trees. Poor shape & form. Thick Ivy growth on tree stem. Wood decay in old wound at stem base. Asymmetric form due to group competition.	No urgent works needed.	4.8	C2
Т	855	Fraxinus excelsior (Ash)	М	16	450	1	2	3	7	6	5	10	Poor	Fair. Medium sized tree. Thick Ivy growth on tree stem. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.4	C2
Т	856	Fagus sylvatica (Beech)	М	17	800	1	2	7	7	6.5	7	20+	Fair	Fair. Large specimen tree. Growing on edge of ditch. Squirrel damage to branches in crown.  Borderline category A tree.	No urgent works needed.	9.6	B2
Т	857	Fraxinus excelsior (Ash)	EM	18	350	1	2	7	3	1	3	<10	Poor	Fair. Slender form. Slight lean-to stem. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	4.2	U
T	858	Fraxinus excelsior (Ash)	EM	14	424	2	2	4	5	5	4	<10	Poor	Fair/Poor. Medium sized tree. Upright form. Dieback in crown. Copious epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	5.09	U
Т	859	Fraxinus excelsior (Ash)	М	15	500	2	4	3	6	4	2	<10	Poor	Poor. Medium sized tree. Leaning East. Poor shape & form. Significant dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease. Bacterial canker present on branches.	Coppice.	6	U
Т	860	Fraxinus excelsior (Ash)	M	15	400	1	4	2	2	4	4	<10	Poor	Poor. Medium sized tree. Thick Ivy growth on tree stem. Ivy restricts view of main branch unions. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	4.8	U

17

## Tree Survey and Arboricultural Impact Assessment Report

	,						- 1							•			
Т	861	Fraxinus excelsior (Ash)	M	16	550	1	2	9	10	2	7	10	Poor	Fair/Poor. Medium sized tree. Broken branches hanging in crown. Early symptoms of Ash Dieback Disease. Stem forks at 2m, with large secondary leaders extending out to the east and west.	Target prune broken/damaged branches. Monitor tree condition to track progress of disease.	6.6	C2
Т	862	Fagus sylvatica (Beech)	М	19	1000	1	1	7	6.5	5	6	20+	Fair	Fair. Large specimen tree. Growing on edge of ditch. Stem divides above 1.5m. Union appears stable at present. Squirrel damage to branches in crown. Borderline cat A.	No urgent works needed.	12	B2
Т	863	Alnus glutinosa (Common Alder)	М	17	719	4	2	4.5	8	2	5	10+	Fair	Fair. Medium sized tree. Thick Ivy growth on tree stem. Multiple stems below 1.5m. Minor dieback in crown. Minor deadwood in crown.	No urgent works needed.	8.63	C2
Т	864	Fagus sylvatica (Beech)	М	18	1000	1	2	7	8	4	6	20+	Fair	Fair. Large specimen tree. Multi-stemmed tree on bank, some tight unions as stems fork.	No urgent works needed.	12	B2
Т	865	Quercus robur (Common Oak)	EM	15	470	1	6	6	1	3	7	20+	Good	Fair. Medium sized tree. Suppressed by neighbouring trees. Asymmetric form due to group competition. Close to mature Beech tree.	No urgent works needed.	5.64	B2
T	866	Fraxinus excelsior (Ash)	EM	17	300	1	6	2.5	3	2	3	<10	Poor	Fair/Poor. Medium sized tree. Upright form. Significant dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	3.6	U
Т	867	Fagus sylvatica (Beech)	М	18	1000	2	2	8	8.5	7	7	20+	Fair	Fair/Poor. Large specimen tree growing on edge of ditch. Storm damaged branches hanging in crown. Small emergent Ganoderma fruiting body at stem base.	Target prune broken/damaged branches. Monitor tree condition.	12	В2
T	868	Fagus sylvatica (Beech)	EM	13	430	2	2	5.5	5	2	5	10+	Fair	Fair. Smaller sized tree. Suppressed by neighbouring trees. Twin stem from ground level. Asymmetric form due to group competition. Squirrel damage to branches in crown.	No urgent works needed.	5.16	C2
Т	869	Prunus avium (Wild Cherry)	М	12	250	1	6	2	1	2	2	<10	Poor	Bad. Smaller sized tree. Poor shape & form. Wood decay in old wound at stem base. Significant basal decay. Recent breakage of leader at 4.5m.	Coppice.	3	U
Т	870	Fagus sylvatica (Beech)	М	16	570	1	3	4	8	3	5	20+	Fair	Fair. Medium sized tree. Squirrel damage to branches in crown.	No urgent works needed.	6.84	В2
T	871	Fraxinus excelsior (Ash)	М	17	532	2	4	5.5	7.5	5	6	10	Poor	Fair. Growing on edge of ditch. Thick Ivy growth on tree stem. Minor deadwood in crown. Early symptoms of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	6.38	C2
Т	872	Prunus avium (Wild Cherry)	М	17	350	1	3	3	7	4	3	20+	Fair	Fair. Medium sized tree. Growing on edge of ditch. Leaning East. Thick Ivy growth on tree stem. Minor deadwood in crown.	No urgent works needed.	4.2	B2
	1	1	1	1	1	1	1	1	1	1				1	l .		

**Tree Survey Report** 

															'\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		
Т	873	Fraxinus excelsior (Ash)	EM	16	424	2	2	5	5	3.5	4	10	Poor	Fair/Poor. Twin stem from ground level. Slender form with slight lean. Thick Ivy growth on tree stem. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.09	C2
Т	874	Fagus sylvatica (Beech)	М	17	583	3	2	6	4	4.5	5	20+	Fair	Fair. Medium sized tree. Growing on edge of ditch. Multiple stems below 1.5m. Deadwood in crown.	No urgent works needed.	7	B2
Т	875	Fraxinus excelsior (Ash)	EM	16	350	1	5	6	2	5.5	3	10	Poor	Fair. Medium sized tree. Upright form. Early symptoms of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	A 2	C2
Т	876	Fraxinus excelsior (Ash)	EM	14	350	1	4	4	2	4	4	10	Poor	Fair. Medium sized tree. Upright form. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.2	C2
Т	877	Prunus avium (Wild Cherry)	М	13	450	1	4	6	6	4	2	20+	Fair	Fair/Poor. Medium sized tree. Wood decay in old wound to lower stem. Deadwood in crown.	No urgent works needed.	5.4	C2
Т	878	Salix fragilis (Crack Willow)	М	18	1200	1	1	8	8	5	6	20+	Fair	Poor. Large old tree with very thick lower main stem. Epicormic growth on stem. Extensive wood decay in large old wound at stem base.	Pollard or heavily crown reduce.	14.4	B2
Т	879	Ulmus glabra (Wych Elm)	EM	10	300	1	4	6	6	1	4.5	10+	Fair	Poor. Slender form. Suppressed by neighbouring trees.	Monitor tree condition.	3.6	C2
Т	880	Malus domestica (Apple)	М	7	424	2	1	5.5	5.5	3	4	20+	Fair	Fair. Asymmetric form due to group competition.	No urgent works needed.	5.09	B2
Т	881	Salix fragilis (Crack Willow)	М	14	1150	1	3	7	7.5	3	3	10+	Fair	Poor. Leaning North-East. Thick Ivy growth on tree stem. Significant basal decay with large decay cavity at stem base. Good biodiversity value.	Pollard or heavily crown reduce.	13.8	C2
Т	882	Salix fragilis (Crack Willow)	М	17	1200	1	2	5	5	3	5.5	10+	Fair	Poor. Large specimen tree. Thick Ivy growth on tree stem. Significant basal decay in old wound at stem base. Good biodiversity value.	Pollard or heavily crown reduce.	14.4	C2
Т	883	Populus tremula (Aspen)	EM	14	350	1	3	4	3.5	3.5	3.5	20+	Good	Good. Self-sown young tree. Upright form. Average shape/form.	No urgent works needed.	4.2	B2
Т	884	Populus tremula (Aspen)	М	21	950	1	2	9	6	6	8	20+	Good	Fair. Larger mature tree. Compacted root-zone with some damage to surface roots. Stem divides above 1.5m. Scattered minor deadwood.	No urgent works needed.	11.4	B2
Т	885	Fraxinus excelsior (Ash)	SM	10	350	1	3	4	4.5	4	3	10	Poor	Fair. Tree very close to wall. Self-sown young tree. Compacted root-zone. Some damage to surface roots. Large surface roots. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider removal as part of good management.	4.2	C2
Т	886	Populus tremula (Aspen)	M	17	500	1	2	5.5	4	5	4	20+	Fair	Fair/Poor. Medium sized tree. Growing on edge of ditch. Initial lean but self corrects to vertical. Minor deadwood in crown.	No urgent works needed.	6	B2

NIZ013\_2024-04-23\_NP01

## Tree Survey and Arboricultural Impact Assessment Report

Т	887	Populus tremula (Aspen)	ОМ	17	1100	1	2	4	4	7	5	10+	Fair	Poor. Large old tree with significant basal decay in large cavity on lower stem at 1.5m. Decay column extends up main stem. Birds nesting in cavity. Tree held up by buttresses. Good biodiversity value.	Significant crown reduction needed if tree is to be retained.	13.2	C2
T	889	Fraxinus excelsior (Ash)	М	4	700	1	1	2	2	3	3	10	Poor	Fair. Epicormic growth on branching indicative of Ash Dieback Disease. Tree pollarded to 3m by ESB contractors.	Monitor tree condition to track progress of disease	8.4	C2
T	890	Fagus sylvatica (Beech)	EM	10	500	1	1	4	3	2	2.5	20+	Fair	Fair. Medium sized tree. Growing on edge of ditch. Leaning North. Stem divides above 1.5m. Asymmetric form due to group competition. Branching cut back by ESB.	No urgent works needed.	Q <sub>X</sub>	В2
T	891	Fraxinus excelsior (Ash)	М	15	470	1	2	4	4	8	4	10	Poor	Fair. Medium sized tree. Asymmetric form due to group competition. Deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.64	C2
Т	892	Fraxinus excelsior (Ash)	М	16	550	1	2	7	6	6	4.5	10	Poor	Fair. Larger tree. Slight lean-to stem. Average shape/form. Deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	6.6	C2
T	893	Fraxinus excelsior (Ash)	М	17	700	1	2	8	7	7	8	10	Poor	Fair. Larger tree. Large surface roots. Initial lean but self corrects to vertical. Deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.4	C2
Т	894	Fraxinus excelsior (Ash)	М	18	716	2	1	8	8	10	8	10	Poor	Fair/Poor. Larger tree. Large surface roots. Scattered minor deadwood. Copious epicormic growth on branching throughout crown indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.59	C2
Т	895	Fraxinus excelsior (Ash)	М	15	700	1	4	7	8	8	9	10	Poor	Fair. Larger tree. Large surface roots. Storm damaged branches in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Target prune broken/damaged branches.	8.4	C2
Т	896	Fraxinus excelsior (Ash)	EM	14	360	1	3	4	1.5	6.5	6.5	10	Poor	Fair. Medium sized tree. Leaning West. Poor shape & form. Asymmetric form due to group competition. Scattered minor deadwood.  Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.32	C2
T	897	Fraxinus excelsior (Ash)	М	19	747	2	2	7	7	10	8	10	Poor	Fair. Larger tree. Scattered minor deadwood. Some long extended limbs. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.96	C2
Т	901	Fraxinus excelsior (Ash)	М	16	522	2	2	5	1	6	6	10	Poor	Fair. Asymmetric form due to group competition. Minor deadwood in crown. Copious epicormic growth on branching	Monitor tree condition to track progress of disease.	6.26	C2
	1	1		1	1		1				1						

**Tree Survey Report** 

														4	herbata Project, i	Tree S	
														throughout crown indicative of Ash Dieback Disease.	Collaboration Project, 1		
Т	902	Fraxinus excelsior (Ash)	М	15	500	1	2	5	5	8	4	10	Poor	Fair. Medium sized tree. Scattered minor deadwood. Copious epicormic growth in crown indicative of Ash Dieback Disease.	Monitor tree condition to track progress of discase.	6	C2
Т	903	Fraxinus excelsior (Ash)	М	14	568	4	4	4	6	8	3	10	Poor	Fair. Larger tree. Minor dieback in crown. Minor deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	56.82	C2
Т	904	Fraxinus excelsior (Ash)	EM	13	350	1	6	5	3	3	5	10	Poor	Fair. Medium sized tree. Upright form. Thick Ivy growth on tree stem. Ivy restricts view of main branch unions. Minor deadwood in crown.  Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.2	C2
Т	905	Fraxinus excelsior (Ash)	М	13	811	8	2	7	7	10	9	<10	Poor	Poor. Medium sized tree. Growing on edge of ditch. Multi-stem coppice stool. Early symptoms of Ash Dieback Disease. Recent breakage of large stem to west at 2m. Canker on stem to east at 8m. Tree becoming oversized for growing position.	Coppice.	9.73	U
Т	906	Fraxinus excelsior (Ash)	EM	14	410	1	2	4.5	3	7	4	10	Poor	Fair. Medium sized tree. Upright form. Scattered minor deadwood. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.92	C2
Т	907	Fraxinus excelsior (Ash)	М	15	800	1	2	9	10	10	6	10	Poor	Fair. Larger tree. Growing on edge of ditch. Spreading form. Dieback in crown. Some long extended limbs. Deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	9.6	C2
T	908	Quercus robur (Common Oak)	М	18	920	1	2	9	10	10	9	40+	Fair	Good. Large specimen tree. Average shape/form. Epicormic shoots on branching throughout crown.	No urgent works needed.	11	A2
Т	909	Fraxinus excelsior (Ash)	М	18	550	1	4	7	8	5	4	10	Poor	Fair. Larger tree. Growing on edge of ditch. Large surface roots. Deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	6.6	C2
Т	910	Fraxinus excelsior (Ash)	EM	16	450	1	1	1	3	7	5	10	Poor	Fair. Medium sized tree. Asymmetric form due to group competition. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.4	C2
Т	911	Fraxinus excelsior (Ash)	М	16	420	1	2	3	4	8	4	10	Poor	Fair. Medium sized tree. Asymmetric form due to group competition. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.04	C2
Т	912	Fraxinus excelsior (Ash)	М	15	420	1	2	4	5.5	7	2	10	Poor	Fair. Medium sized tree. Asymmetric form due to group competition. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.04	C2

## Tree Survey and Arboricultural Impact Assessment Report

Т	913	Fraxinus excelsior (Ash)	EM	14	600	1	2	4	6	9	3	10	Poor	Fair. Medium sized tree. Growing on edge of ditch. Large surface roots. Asymmetric form due to group competition. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.2	C2
Т	914	Fraxinus excelsior (Ash)	М	15	400	1	3	4.5	5.5	7	4	10	Poor	Fair. Medium sized tree. Asymmetric form due to group competition. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.8	C2
Т	915	Fraxinus excelsior (Ash)	EM	14	350	1	3	5	5	4	2.5	10	Poor	Fair. Medium sized tree. Growing on edge of ditch. Asymmetric form due to group competition. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	@3	C2
T	916	Malus domestica (Apple)	М	11	610	3	2	5	5	6.5	5	20+	Fair	Fair. Medium sized tree. Multiple stems below 1.5m. Scattered minor deadwood.	No urgent works needed.	7.32	B2
Т	917	Quercus robur (Common Oak)	М	15	700	1	2	8	6	7	7.5	40+	Fair	Fair. Large specimen tree. Growing on edge of ditch. Scattered minor deadwood. Epicormic shoots on branching throughout crown.	No urgent works needed.	8.4	A2
Т	918	Fraxinus excelsior (Ash)	EM	16	350	1	2	5	2	6	5	<10	Poor	Poor. Slight lean-to stem. Significant basal decay. Asymmetric form due to group competition. Early symptoms of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	4.2	U
Т	919	Quercus robur (Common Oak)	V	16	1383	2	3	8.5	10	9	6	40+	Fair	Poor. Large specimen tree. Twin stem from ground level. Significant basal decay. Fistulina and Ganoderma fungal fruiting bodies on stem base. Previously topped as part of ESB line clearance works. High conservation value.	Crown reduce.	15	A2
T	888	Fraxinus excelsior (Ash)	EM	5	474	4	0	4	2	1	3	<10	Poor	Poor. Smaller sized tree. Poor shape & form. Bacterial canker present on branches. Cut back under ESB lines.	Consider coppicing to allow regeneration of fresh growth.	5.69	U
Т	920	Fraxinus excelsior (Ash)	М	20	1117	4	3	5	9	9	7.5	10	Poor	Fair. Larger multi-stem coppice stool. Scattered minor deadwood. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	13.4	C2
T	921	Fraxinus excelsior (Ash)	М	19	906	5	2	7	8	7	7.5	10	Poor	Fair/Poor. Larger multi-stem coppice stool. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease. Copious epicormic growth on branching throughout crown indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	10.9	U
T	922	Fraxinus excelsior (Ash)	М	18	857	7	1	6	7.5	5.5	6.5	10	Poor	Fair. Larger multi-stem coppice stool. Scattered minor deadwood. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	10.3	C2

**Tree Survey Report** 

															<b>'</b> C		
Т	923	Fraxinus excelsior (Ash)	M	19	834	4	3	6	7.5	7.5	6	<10	Poor	Poor. Large multi-stem coppice stool. Significant basal decay. Epicormic growth on branching indicative of Ash Dieback Disease. Recent failure of large stem to north due to decay.	Coppice.	10	U
Т	924	Fraxinus excelsior (Ash)	M	15	661	4	3	5	5.5	4.5	5.5	10	Poor	Fair/Poor. Previously topped. Decay in old pruning points. Early symptoms of Ash Dieback Disease.	Monitor tree condition to track progress of disease Consider coppicing to allow regeneration of fresh growth.	7.93	C2
Т	925	Fraxinus excelsior (Ash)	М	12	612	4	2	6	5	6	5.5	10	Poor	Fair. Multi-stem coppice stool. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.34	C2
Т	926	Fraxinus excelsior (Ash)	М	15	726	4	2	5.5	5	5.5	5.5	10	Poor	Fair. Medium sized multi-stem coppice stool growing on edge of ditch. Large surface roots.  Dieback in crown. Copious epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.71	C2
Т	927	Fagus sylvatica (Beech)	EM	14	532	2	1	6	5	4	6	20+	Fair	Fair. Medium sized tree. Growing on edge of ditch. Large surface roots. Stem divides below 1.5m. Squirrel damage to branches in crown.	No urgent works needed.	6.38	B2
Т	928	Fraxinus excelsior (Ash)	EM	14	461	2	3	4	5	5	4	10	Poor	Fair. Medium sized tree. Upright form. Thick Ivy growth on tree stem. Stem divides below 1.5m. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.53	C2
Т	929	Fraxinus excelsior (Ash)	М	15	550	1	2	7	6	8	8	10	Poor	Fair. Larger tree growing on edge of ditch. Good shape/form. Minor deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	6.6	C2
Т	930	Salix caprea (Goat Willow)	М	4	430	7	0	5	6	5	1	<10	Poor	Bad. Multiple stems at ground level. Collapsed willow by ditch.	Coppice.	5.16	U
Т	931	Fagus sylvatica (Beech)	EM	8	450	1	1	3	5	4	4	10+	Fair	Fair/Poor. Smaller sized tree. Broken and weakened branches in crown.	Crown reduce by 1-2m.	5.4	C2
Т	932	Quercus robur (Common Oak)	M	12	500	1	2	4	6	6	5.5	20+	Fair	Poor. Medium sized tree. Storm damaged branches hanging in crown.	Target prune broken/damaged branches. Crown reduce.	6	B2
Т	933	Malus domestica (Apple)	М	9	450	1	1	2	5	4.5	2	20+	Fair	Fair. Some long extended limbs.	Prune to reduce weight of extended branches.	5.4	B2
Т	934	Fagus sylvatica (Beech)	EM	11	450	1	1	4	5	4	4	20+	Fair	Fair/Poor. Medium sized tree. Leaning West. Large surface roots. Exposed and damaged roots. Squirrel damage to branches in crown.	No urgent works needed.	5.4	B2
Т	935	Fraxinus excelsior (Ash)	EM	13	280	1	4	3	2	4	3	10	Poor	Fair. Smaller sized tree. Upright form. Minor deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	3.36	C2
		1												I.	I .		

## Tree Survey and Arboricultural Impact Assessment Report

Т	936	Fraxinus excelsior (Ash)	M	13	400	1	4	4	5	4.5	4.5	<10	Poor	Fair/Poor. Low vitality. Medium sized tree. Stem divides above 1.5m. Dieback in crown.  Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.8	U
T	937	Fraxinus excelsior (Ash)	М	15	714	6	2	7	6	6	6	<10	Poor	Poor. Cluster of stems, with some canker and basal decay. Maybe one individual or more trees. Epicormic growth on branching indicative of Ash Dieback Disease. Bacterial canker present on branches.	Coppice weaker/selected stems.  Monitor tree condition to track progress of disease.	8.57	U
T	938	Fraxinus excelsior (Ash)	EM	10	344	2	2	4	4	5	5	10	Poor	Fair. Smaller sized tree. Large surface roots.  Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.13	C2
Т	939	Crataegus monogyna (Hawthorn)	М	7	450	1	1	4	3	3	3	10+	Fair	Fair. Older Hawthorn bush on edge of bank. Bird nest in crown. Wood decay in old wound to lower stem.	No urgent works needed.	5.4	C2
T	940	Fraxinus excelsior (Ash)	EM	10	350	1	2	3	3	4	5.5	10	Poor	Fair. Smaller sized tree. Poor shape & form. Asymmetric form due to group competition. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.2	C2
T	941	Crataegus monogyna (Hawthorn)	М	7	572	3	2	4.5	3	2	3	10+	Fair	Fair/Poor. Larger old Hawthorn on bank. Branch weakened by decay in crown.	Prune to reduce weight of extended branches.	6.86	C2
T	942	Fraxinus excelsior (Ash)	EM	16	300	1	4	2	2	3	3	10	Poor	Poor. Smaller sized tree. Upright form. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	3.6	C2
Т	943	Fraxinus excelsior (Ash)	M	18	602	2	5	7	7	5	4	10	Poor	Fair. Medium sized tree. Twin stem from ground level. Minor dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.22	C2
Т	944	Fraxinus excelsior (Ash)	М	20	600	1	5	5	4	5	4	10	Poor	Fair/Poor. Medium sized tree. Compression fork on main stem; union appears stable at present. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.2	C2
Т	945	Fraxinus excelsior (Ash)	М	16	450	1	2	6	4	5	5	10	Poor	Fair/Poor. Medium sized tree. Ivy restricts view of main branch unions. Wood decay in old wound at stem base. Epicormic growth on branching indicative of Ash Dieback Disease. Decay pocket in foot of secondary stem now gone at 1m.	Monitor tree condition to track progress of disease.	5.4	C2
T	946	Fraxinus excelsior (Ash)	М	15	630	4	2	5	6	5	6	10	Poor	Fair. Multi-stem coppice stool. Wood decay in old wound at stem base. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.56	C2
Т	947	Fraxinus excelsior (Ash)	М	14	500	1	3	5	5.5	5	5	10	Poor	Fair. Medium sized tree. Good shape/form. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	6	C2

**Tree Survey Report** 

Т	948	Fraxinus excelsior (Ash)	EM	14	403	2	3	5	4	3	2	10	Poor	Fair. Smaller sized tree. Some bark wounds to lower stem. Epicormic growth on branching indicative of Ash Dieback Disease. Conjoined with Hawthorn bush.	Monitor tree condition to track progress of disease.	4.84	C2
Т	949	Fraxinus excelsior (Ash)	М	18	950	5	2	8	8	7.5	7	10	Poor	Fair. Larger multi-stem coppice stool. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of discase.	11.4	C2
Т	950	Fraxinus excelsior (Ash)	EM	10	350	1	2	4	4	4	3	10	Poor	Fair. Smaller sized tree. Leaning South-West. Average shape/form. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition track progress of disease.	54.2	C2
Т	951	Fraxinus excelsior (Ash)	М	11	555	3	1	6	5	5.5	2	<10	Poor	Poor. Multi-stem coppice stool. Significant wood decay in old wound at stem base. Epicormic growth on branching indicative of Ash Dieback Disease.	Coppice.	6.66	U
Т	952	Fraxinus excelsior (Ash)	EM	12	400	1	2	4	3	4	3	<10	Poor	Poor. Smaller sized tree. Wood decay in old wound at stem base. Early symptoms of Ash Dieback Disease.	Coppice.	4.8	U
Т	953	Fraxinus excelsior (Ash)	EM	10	450	3	2	5	3	4	5	10	Poor	Fair/Poor. Small decay pocket at stem base. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.4	C2
Т	954	Fraxinus excelsior (Ash)	М	17	933	4	2	7	6	6	7	10	Poor	Fair. Larger tree. Multiple stems growing out of large old root stock. Minor deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	11.2	C2
Т	955	Fraxinus excelsior (Ash)	М	18	786	4	3	7.5	7	6	5	10	Poor	Fair. Larger tree. Multiple stems below 1.5m. Some branch stubs left from poor quality pruning works in past. Epicormic growth on branching indicative of Ash Dieback Disease. Some tight unions as stem forks.	Monitor tree condition to track progress of disease.	9.43	C2
Т	956	Fraxinus excelsior (Ash)	М	18	737	3	2	7	4	6.5	7	10	Poor	Fair. Larger tree. Multiple stems below 1.5m. Minor deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.84	C2
Т	957	Fraxinus excelsior (Ash)	EM	11	492	2	3	6	6	6	3	10	Poor	Fair. Medium sized tree. Asymmetric form due to group competition. Scattered minor deadwood. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.9	C2
Т	958	Fraxinus excelsior (Ash)	EM	11	686	5	3	7	6.5	6	7	10	Poor	Fair. Multi-stem coppice stool. Minor deadwood in crown. Copious epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.23	C2
Т	959	Fraxinus excelsior (Ash)	М	9.5	424	2	3	3.5	4	4	2	10	Poor	Fair. Smaller sized tree. Twin stem from ground level. Asymmetric form due to group competition. Copious epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.09	C2

## Tree Survey and Arboricultural Impact Assessment Report

Т	960	Fraxinus excelsior (Ash)	М	13	680	2	2	6	7	6	5.5	10	Poor	Fair. Scattered minor deadwood. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.16	C2
T	961	Fraxinus excelsior (Ash)	M	12	779	6	2	6	5	6	6	10	Poor	Fair. Medium sized tree. Multiple stems below 1.5m. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	9.35	C2
Т	962	Fraxinus excelsior (Ash)	M	10	702	6	2	6	5	5.5	6	10	Poor	Fair. Medium sized tree. Multiple stems below 1.5m. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.42	C2
Т	963	Acer pseudoplatanus (Sycamore)	M	13	700	1	3	6.5	6	6	5	20+	Fair	Fair. Fair vitality. Medium sized tree. Average shape/form. Ground to east compacted due to track within root-zone.	No urgent works needed.	8.4	B2
T	964	Fraxinus excelsior (Ash)	M	18	667	3	3	5.5	6	5.5	6	<10	Poor	Fair/Poor. Larger tree. Wood decay in old wound at stem base. Epicormic growth on branching indicative of Ash Dieback Disease. Polyporous squamosus present in old wound site.	Consider coppicing to allow regeneration of fresh growth.	8	U
Т	965	Fraxinus excelsior (Ash)	М	16	806	2	2	4.5	6.5	6	6.5	10	Poor	Fair. Larger tree. Twin stem from ground level. Minor dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease. Bacterial canker present on branches.	Monitor tree condition to track progress of disease.	9.67	C2
Т	966	Fraxinus excelsior (Ash)	M	15	689	4	3	6	6	5	6	10	Poor	Fair. Larger tree. Multiple stems below 1.5m. Scattered minor deadwood. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.27	C2
Т	967	Fraxinus excelsior (Ash)	EM	14	350	1	3	5	5	2	4	10	Poor	Fair. Medium sized tree. Asymmetric form due to group competition. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.2	C2
T	968	Fraxinus excelsior (Ash)	М	17	644	3	2	6	7	6	3	10	Poor	Fair. Medium sized tree. Multiple stems below 1.5m. Scattered minor deadwood. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.73	C2
T	969	Fraxinus excelsior (Ash)	M	17	400	1	6	5	4	4	4	10	Poor	Fair. Medium sized tree. Upright form. Scattered minor deadwood. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.8	C2
T	970	Fraxinus excelsior (Ash)	M	15	430	2	2	4	4	6	3	10	Poor	Fair. Medium sized tree. Scattered minor deadwood. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.16	C2
T	971	Fraxinus excelsior (Ash)	M	17	570	1	2	6	6	9	5	10	Poor	Fair. Larger tree. Ivy restricts view of main branch unions. Minor dieback in crown. Copious epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	6.84	C2

**Tree Survey Report** 

															Pierbata Project,		Survey
Т	972	Fraxinus excelsior (Ash)	М	17	758	3	1	4	5	7	4	10	Poor	Fair/Poor. Medium sized tree. Multiple stems below 1.5m. Wood decay in old wound at stem base. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	9.1	C2
Т	973	Fraxinus excelsior (Ash)	М	14	500	1	3	4	4	6	6	<10	Poor	Poor. Medium sized tree. Significant basal decay. Epicormic growth on branching indicative of Ash Dieback Disease.	Consider coppicing to allow regeneration of fresh growth.	6	U
Т	974	Fraxinus excelsior (Ash)	М	16	636	2	4	7	6	5	5	10	Poor	Fair/Poor. Larger tree. Stem divides below 1.5m. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	Ø63	C2
Т	975	Fraxinus excelsior (Ash)	М	15	704	4	1	5	6	5	5	10	Poor	Fair. Medium sized tree. Multiple stems below 1.5m. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.45	C2
Т	976	Pyrus communis (Common Pear)	М	15	690	1	2	5	5	4.5	4	20+	Fair	Fair. Large mature Pear tree in old kitchen garden.	No urgent works needed.	8.28	B2
Т	977	Fraxinus excelsior (Ash)	М	18	640	2	3	7	7.5	7	7	<10	Poor	Poor/Bad. Larger tree. Stem divides below 1.5m. Significant basal decay. Early symptoms of Ash Dieback Disease. Split developing up western stem.	Coppice.	7.68	U
Т	978	Fagus sylvatica (Beech)	М	19	830	1	3	7	8	8	7	20+	Good	Fair/Poor. Large specimen tree. Small decay cavity on stem. Some branch stubs left from previous pruning works. Branch weakened by decay in crown. Next to small concrete shed.	Carry out further inspection to investigate decay cavity. Reduce weakened branch at 9m south side.	9.96	B2
Т	979	Quercus robur (Common Oak)	М	18	990	1	2	11	7	8	10	20+	Fair	Fair/Poor. Large specimen tree. Suppressed by neighbouring trees. Wood decay in old wound to lower stem. Asymmetric form due to group competition. Deadwood in crown.	Prune to reduce weight of extended branches.	11.9	B2
Т	980	Fraxinus excelsior (Ash)	М	19	636	3	2	9	6	6	6	10	Poor	Fair. Larger multi stem tree. Minor deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.63	C2
Т	981	Fraxinus excelsior (Ash)	EM	19	300	1	10	4	1	4	4	<10	Poor	Fair. Slender form. Significant basal decay. Copious epicormic growth on branching indicative of Ash Dieback Disease.	Coppice.	3.6	U
Т	982	Fraxinus excelsior (Ash)	EM	17	461	4	2	9	3	2	6	10+	Poor	Fair. Medium sized tree. Leaning North. Multiple stems below 1.5m. Asymmetric form due to group competition. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.53	C2
Т	983	Pyrus communis (Common Pear)	М	11	300	1	1	5	4	3	4	10+	Fair	Poor. Smaller sized tree. Leaning North. Small decay cavity on stem. Held up by buttress roots to bank. Potential wildlife habitat in decay cavity at 2m.	No urgent works needed.	3.6	C2

27

## Tree Survey and Arboricultural Impact Assessment Report

															'\'\'\		
Т	984	Fraxinus excelsior (Ash)	EM	13	474	3	3	5	5	5	4	10	Poor	Fair. Smaller sized tree. Upright form. Multiple stems below 1.5m. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.69	C2
Т	985	Fraxinus excelsior (Ash)	EM	12	482	6	2	5.5	5	5	5.5	10	Poor	Fair. Multi-stem coppice stool. Early symptoms of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.78	C2
T	986	Fraxinus excelsior (Ash)	SM	10	250	1	3	6	3	4	5	10	Poor	Fair. Smaller sized tree. Slight lean to stem. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease	3	C2
Т	987	Fraxinus excelsior (Ash)	М	13	430	2	2	5	5	5	4	10	Poor	Fair. Medium sized tree. Thick Ivy growth on tree stem. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5,18	C2
Т	988	Quercus petraea (Sessile Oak)	М	18	755	3	2	9	6	6	5.5	40+	Good	Fair. Larger tree growing on edge of ditch. Thick lvy growth on tree stem. Multiple stems below 1.5m.	No urgent works needed.	9.06	A2
T	989	Fraxinus excelsior (Ash)	M	14	510	4	2	8	4	6	5	10	Poor	Fair/Poor. Smaller sized tree. Thick Ivy growth on tree stem. Epicormic growth on branching indicative of Ash Dieback Disease. Decay in stool base. Recent collapse of stem to west.	Consider coppicing to allow regeneration of fresh growth.	6.12	C2
Т	990	Fraxinus excelsior (Ash)	EM	14	539	6	1	5	4	5	5.5	10	Poor	Fair. Multi-stem coppice stool. Thick Ivy growth on tree stem. Early symptoms of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	6.47	C2
Т	991	Fraxinus excelsior (Ash)	EM	16	527	5	2	6	6	6	4	10	Poor	Fair/Poor. Multi-stem coppice stool. Early symptoms of Ash Dieback Disease. Some decay under stool base.	Monitor tree condition to track progress of disease.	6.32	C2
T	992	Fraxinus excelsior (Ash)	М	16	800	1	2	8	5	6.5	6	10	Poor	Fair. Multi-stem coppice stool. Epicormic growth on branching indicative of Ash Dieback Disease. Stems develop from single stool base at 2m.	Monitor tree condition to track progress of disease.	9.6	C2
T	993	Fraxinus excelsior (Ash)	EM	15	430	4	2	6	5	5	3	10	Poor	Fair. Multi-stem coppice stool. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.16	C2
T	994	Fraxinus excelsior (Ash)	SM	15	381	5	2	6	5	5.5	5	10	Poor	Multi-stem coppice stool. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	4.57	C2
T	995	Fraxinus excelsior (Ash)	EM	15	424	2	2	6	4	4	5	10	Poor	Fair. Medium sized tree. Twin stem from ground level. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.09	C2
Т	996	Fraxinus excelsior (Ash)	SM	7	346	6	2	6	3	4	5	10	Poor	Fair/Poor. Multi-stem coppice stool. Poor shape & form. Thick Ivy growth on tree stem. Wood decay in old wound at stem base. Epicormic growth on branching indicative of Ash Dieback Disease.	Consider coppicing to allow regeneration of fresh growth.	4.15	C2
Т	997	Fraxinus excelsior (Ash)	М	18	684	4	3	7	5.5	6	5	10	Poor	Fair. Medium sized tree. Multi-stem coppice stool. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.21	C2

**Tree Survey Report** 

т	998	Fraxinus	М	17	497	4	2	7	4	5.5	5	10	Poor	Fair. Medium sized tree. Multi-stem coppice	Monitor tree condition to	5.96	C2
		excelsior (Ash)												stool. Epicormic growth on branching indicative of Ash Dieback Disease.	track progress of disease.		
Т	999	Fraxinus excelsior (Ash)	M	16	439	3	3	6	2	5	4	<10	Poor	Fair. Low vitality. Medium sized tree. Multi- stem coppice stool. Upright form. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	5.27	U
Т	1000	Fraxinus excelsior (Ash)	М	17	577	4	4	8	6	6	4	10	Poor	Fair. Multi-stem coppice stool. Thick Ivy growth on tree stem. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	<u>692</u>	C2
Т	1001	Fraxinus excelsior (Ash)	М	16	687	7	2	7	4	6	6	10	Poor	Fair/Poor. Larger multi-stem coppice stool. Thick Ivy growth on tree stem. Fungal fruiting bodies on stem. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	8.24	C2
Т	1002	Fraxinus excelsior (Ash)	М	17	550	1	2	6.5	6	6	5.5	10	Poor	Fair. Larger tree. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	6.6	C2
Т	1003	Fraxinus excelsior (Ash)	М	17	600	1	2	8	5	7	6	10	Poor	Fair. Larger tree. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.2	C2
Т	1004	Fraxinus excelsior (Ash)	М	17	773	5	2	11	6	6	7	<10	Poor	Fair. Larger tree. Multiple stems below 1.5m. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease. Tree is struggling with disease.	Monitor tree condition to track progress of disease.	9.28	U
Т	1005	Fraxinus excelsior (Ash)	М	19	600	1	5	7.5	6.5	6	6	10	Poor	Fair. Larger tree. Thick Ivy growth on tree stem. Early symptoms of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.2	C2
Т	1006	Fraxinus excelsior (Ash)	М	18	654	4	2	7	6	7	6	10	Poor	Fair/Poor. Multi-stem coppice stool. Wood decay in old wound at stem base. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.85	C2
Т	1007	Fraxinus excelsior (Ash)	EM	12	269	2	2	5.5	1	5	5.5	<10	Poor	Poor. Smaller sized tree. Poor shape & form. Significant wood decay in old wound at stem base. Asymmetric form due to group competition. Epicormic growth on branching indicative of Ash Dieback Disease.	Coppice.	3.23	U
T	1008	Fraxinus excelsior (Ash)	EM	16	424	2	2	7.5	6	6	5	<10	Poor	Poor. Multi-stem coppice stool. Significant wood decay in old wound at stem base.  Deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Coppice.	5.09	U
Т	1009	Fraxinus excelsior (Ash)	EM	17	439	3	2	6	5	6	5	<10	Poor	Poor. Medium sized tree. Significant wood decay in old wound at stem base. Deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Coppice.	5.27	U
Т	1010	Fraxinus excelsior (Ash)	EM	17	450	1	3	6	3.5	5	5	10	Poor	Fair. Medium sized tree. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.4	C2

## Tree Survey and Arboricultural Impact Assessment Report

															, C.		
T	1011	Prunus avium (Wild Cherry)	М	15	532	2	3	7.5	4	4	6	10+	Poor	Poor. Medium sized tree. Twin stem from ground level. Wood decay in old wound to lower stem.	Prune to reduce western stem.	6.38	C2
Т	1012	Crataegus monogyna (Hawthorn)	М	7	300	1	1	5	5	4	4.5	10+	Fair	Fair. Older Hawthorn bush in hedge.	No urgent works needed.	3.6	C2
T	1013	Fraxinus excelsior (Ash)	М	17	490	5	2	4	7	4	5	10	Poor	Fair. Multi-stem coppice stool. Thick Ivy growth on tree stem. Wood decay in old wound at stem base. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	5.88	C2
Т	1014	Fraxinus excelsior (Ash)	М	17	781	3	2	6	7.5	5	5	10	Poor	Fair. Multi-stem coppice stool. Thick Ivy growth on tree stem. Wood decay in old wound at stem base. Deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	9.37	C2
T	1015	Fraxinus excelsior (Ash)	EM	16	400	1	3	6	5	2	4	<10	Poor	Poor. Slender form. Thick Ivy growth on tree stem. Significant basal decay. Large decay cavity on stem. Early symptoms of Ash Dieback Disease.	Consider coppicing to allow regeneration of fresh growth.	4.8	U
T	1016	Fraxinus excelsior (Ash)	М	10	636	3	2	8.5	7	4	6	10	Poor	Fair/Poor. Multi-stem coppice stool. Wood decay in old wound at stem base. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.63	C2
T	1017	Fraxinus excelsior (Ash)	EM	10	250	1	3	4	5	4	4	<10	Poor	Poor. Smaller sized tree. Thick Ivy growth on tree stem. Wood decay in old wound to lower stem. Early symptoms of Ash Dieback Disease.	Consider coppicing to allow regeneration of fresh growth.	3	U
T	1018	Quercus petraea (Sessile Oak)	SM	6.5	260	1	2	3	3	3	3	10+	Good	Good. Average shape/form. Young tree in field.	No urgent works needed.	3.12	C2
Т	1019	Aesculus hippocastanum (Horse Chestnut)	SM	7	300	1	2	2.5	2.5	2.5	2.5	10+	Fair	Good. Average shape/form. Young tree in field.	No urgent works needed.	3.6	C2
T	1020	Fraxinus excelsior (Ash)	М	12	570	4	1	5.5	6	5	5	10	Poor	Fair. Medium sized tree. Multi-stem coppice stool. Thick Ivy growth on tree stem. Early symptoms of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	6.84	C2
T	1021	Acer pseudoplatanus (Sycamore)	EM	11	640	2	1	5	5	4	4	20+	Fair	Fair. Medium sized tree in hedge. Thick Ivy growth on tree restricts view of main branch unions.	No urgent works needed.	7.68	B2
T	1023	Fraxinus excelsior (Ash)	М	16	652	4	2	8	6	6	6	10	Poor	Fair/Poor. Larger tree. Spreading form. Multiple stems below 1.5m. Epicormic growth on branching indicative of Ash Dieback Disease. Tight unions at stool base.	Monitor tree condition to track progress of disease.	7.82	C2

**Tree Survey Report** 

Т	1024	Alnus glutinosa (Common Alder)	М	7	453	5	3	4	4	4	5	<10	Poor	Fair/Poor. Multi-stem coppice stool. Unable to inspect stem due to undergrowth. Significant dieback in crown.	Consider coppicing to allow regeneration of fresh growth.	5.44	U
Т	1026	Alnus glutinosa (Common Alder)	М	7	403	3	4	6	5.5	4	4	10+	Fair	Fair. Smaller sized tree. Multi-stem coppice stool. Thick Ivy growth on tree stem.	No urgent works needed.	4.84	C2
T	1027	Fraxinus excelsior (Ash)	M	10	707	3	3	5	5	5	6	<10	Poor	Fair/Poor. Multi-stem coppice stool. Thick Ivy growth on tree stem. Dieback in crown. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor tree condition to track progress of disease Consider coppicing to allow regeneration of fresh growth.	8.48	U
Т	1029	Alnus glutinosa (Common Alder)	М	12	693	3	1	5	5	5	5.5	20+	Fair	Fair. Multi-stem coppice stool. Scattered minor deadwood.	No urgent works needed.	8.32	B2
Т	1030	Fraxinus excelsior (Ash)	М	17	923	7	3	10	9	8	8	10	Poor	Fair/Poor. Larger multi-stem coppice stool. Spreading form. Epicormic growth on branching indicative of Ash Dieback Disease. Ganoderma spp. brackets at stem base.	Monitor tree condition to track progress of disease.	11.1	C2
Т	1031	Fraxinus excelsior (Ash)	EM	17	923	10	2	6.5	6	6	6.5	10	Poor	Fair. Larger multi-stem coppice stool.  Deadwood in crown. Epicormic growth on branching indicative of Ash Dieback Disease.  Some tight unions as stems divide.	Monitor tree condition to track progress of disease.	11.1	C2
Т	1032	Fraxinus excelsior (Ash)	М	19	762	2	4	6.5	8	7	7.5	10	Poor	Fair. Larger tree. Epicormic growth on branching indicative of Ash Dieback Disease.  Nest in crown.	Monitor tree condition to track progress of disease.	9.14	C2
T	1033	Fraxinus excelsior (Ash)	М	18	600	1	3	7	7.5	6	6	10	Poor	Fair. Larger tree. Average shape/form. Early symptoms of Ash Dieback Disease.	Monitor tree condition to track progress of disease.	7.2	C2
T	1034	Fraxinus excelsior (Ash)	EM	12	480	4	2	7	4	3	5	<10	Poor	Fair. Multi-stem coppice stool. Epicormic growth on branching indicative of Ash Dieback Disease. Bacterial canker present on branches.	Monitor tree condition to track progress of disease. Consider coppicing to allow regeneration of fresh growth.	5.76	U

## Tree Survey and Arboricultural Impact Assessment Report

G	1	Acer campestre (Field Maple) Betula pendula (Silver Birch) Quercus ilex (Holm Oak) Pinus radiata (Monterey Pine) Pinus sylvestris (Scots Pine) Fraxinus excelsior (Ash) Fagus sylvatica (Beech) Salix caprea (Goat Willow) Crataegus monogyna (Hawthorn)	EM	12	200	1	2	3	3	3	3	10+	Good	Fair. Densely planted linear tree group around paddock and garden boundary. 1-2m spacing. Upright form, except where cut back to 4-6m under ESB wires. Taller Birch and Scots Pine, with single larger Radiata Pine in eastern side. Trees provide good screen to the public road.	Standwill need thinning out to respace the trees in the coming years.		
G	2	X Cupressocyparis leylandii (Leyland Cypress)	М	15	350	1	0	5	5	5	5	10+	Good	Fair. Linear group planting along eastern side of front garden of house. No recent trimming work, trees becoming oversized for site.	Trim back to control tree height and spread.	4.2	C2
G	3	Chamaecyparis lawsoniana (Lawson Cypress)	EM	8	350	1	1	3	3	3	3	10+	Fair	Fair. Linear group planting along eastern side of garden of empty house.	No urgent works needed.	4.2	C2
G	4	Malus domestica (Apple)	М	6	400	1	1	4	4	4	4	10+	Fair	Fair. Cluster of Apple trees in garden of empty house. Some branch spread out over boundary wall.	No urgent works needed.	4.8	C2
G	5	Cedrus atlantica 'Glauca' (Blue Cedar)	EM	12	400	1	2	5	5	5	5	20+	Good	Fair. Group of six Cedar trees in front garden of empty house. Not accessed for detailed assessment or measurements etc.	No urgent works needed.	4.8	B2
G	6	Fraxinus excelsior (Ash)	SM	10	200	1	1	3	3	3	3	10+	Poor	Fair. Young scrub growth along sloping roadside embankment. Mostly semi-mature Ash 100-300mm dbh, 6 to 8m tall. Widespread epicormic growth on branching indicative of Ash Dieback Disease throughout group.	Monitor tree condition to track progress of disease.	2.4	C2

**Tree Survey Report** 

G	7	Alnus glutinosa (Common Alder) Salix caprea (Goat Willow) Salix fragilis (Crack Willow) Sambucus nigra (Elder) Fagus sylvatica (Beech) Fraxinus excelsior (Ash) Corylus avellana (Hazel) Crataegus monogyna (Hawthorn)	SM EM M	8	400	1	0	4	4	4	4	10+	Fair	Fair/Poor. Scrub growth along stream and border area of southern end of site. Numerous multi-stemmed trees and bushes. Not fully accessed due to undergrowth. No recent management.	Coppice weaker/selected stems.	4.8	C2
G	8	Fraxinus excelsior (Ash)	EM	14	485	3	2	5	5.5	5	5.5	10	Poor	Fair. Linear group of six Ash coppice stools growing in hedgerow. Thick Ivy growth on tree stems. Unable to inspect stems due to dense undergrowth. Epicormic growth on branching indicative of Ash Dieback Disease.	Monitor condition to track progress of disease.	5.82	C2
G	9	Alnus glutinosa (Common Alder)	М	8	464	4	1	4	4	4	4	10+	Poor	Fair. Low vitality. Linear group of multi-stem coppice stools. Minor dieback in crown.	Monitor tree condition.	5.57	C2
G	10	Alnus glutinosa (Common Alder)	М	8	487	4	1	4	4	4	4	10+	Fair/Poor	Fair/Poor. Low vitality. Group of three small multi-stem trees. Central stool has a dead stem.	Coppice weaker/selected stems.	5.84	C2
Н	1	Crataegus monogyna (Hawthorn) Fagus sylvatica (Beech) Castanea sativa (Sweet Chestnut) Pinus sylvestris (Scots Pine) Fraxinus excelsior (Ash)	EM	12	300	1	0	4	4	4	4	20+	Fair	Fair. Roadside Hawthorn hedgerow clipped to around 2m. Row of young trees has been established on the inside of the Hawthorn hedge.; these trees are now up to around 10-12m tall and in reasonable condition.	No urgent works needed.	3.6	B2

## Tree Survey and Arboricultural Impact Assessment Report

															, C.		
Н	2	Crataegus monogyna (Hawthorn)	EM	2	200	1	0	1	1	1	1	10+	Good	Good. Roadside Hawthorn hedge clipped to 2m	No urgent works needed.	2.4	C2
Н	3	Fagus sylvatica (Beech)	SM	2	150	1	0	1	1	1	1	10+	Good	Good. Beech hedgerow planted along the garden boundary of private dwelling. Clipped to around 2m.	No urgent works needed.	1.8	C2
Н	4	Crataegus monogyna (Hawthorn)	EM	2	200	1	0	1	1	1	1	10+	Good	Good. Roadside Hawthorn hedge clipped to 2m	No urgent works needed.	2.4	C2
Н	5	Corylus avellana (Hazel) Crataegus monogyna (Hawthorn) Fagus sylvatica (Beech) Fraxinus excelsior (Ash) Malus domestica (Apple) Quercus robur (Common Oak) Salix caprea (Goat Willow)	EM	8	250	1	0	3	3	3	3	10+	Fair	Fair. Mixed species hedge along bank beside ditch. Mostly Hawthorn 4-8m with several larger Ash, Oak and Beech trees. Some Ash dieback. Several collapsed Willow stools. No recent management.	Coppice weaker/selected stems.	3	C2
Н	6	Fraxinus excelsior (Ash) Crataegus monogyna (Hawthorn)	М	8	350	1	0	3	3	3	3	10+	Fair/Poor	Fair. Short section of remnant farm hedgerow, apparently truncated by newer road layout. Early symptoms of Ash Dieback Disease amongst the Ash.	Monitor tree condition to track progress of disease.	4.2	C2
Н	7	Crataegus monogyna (Hawthorn)	EM	8	200	1	0	2	2	2	2	10+	Fair	Fair. Hedgerow planting along roadside verge outside boundary fence of farm. Good screening to motorway.	Clip to control height and encourage denser growth.	2.4	C2
Н	8	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash)	M	6	300	1	0	3	3	3	3	10+	Fair/Poor	Fair. Long length of farm hedgerow. Hawthorn understorey with numerous taller emergent Ash trees from old coppice stools. Cut back under ESB powerlines. Symptoms of Ash Dieback Disease widespread throughout Ash trees along hedge.	Monitor tree condition to track progress of disease.	3.6	C2

**Tree Survey Report** 

															nerbata i roject, i		
														P.		Tree S	urvey
H	9	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash) Sambucus nigra (Elder)	M	8	433	3	0	3	3	3	3	10+	Fair/Poor	patchy with some gaps. Cut back below ESB (4-8m) along northern half, with taller Ash coppice stools making up southern part of hedge.  Symptoms of Ash Dieback Disease widespread  M	oppice weaker/selected tems./ nfill with new planting where appropriate. Monitor tree condition to rack progress of dispase.	5.2	C2
Н	10	Fraxinus excelsior (Ash) Crataegus monogyna (Hawthorn) Euonymus europaeus (Spindle) Corylus avellana (Hazel) Quercus robur (Common Oak) Populus tremula (Aspen) Fagus sylvatica (Beech)	М	6	300	1	0	3	3	3	3	10+	Fair/Poor	following drainage ditch. Some gaps in understorey. Some larger Oak and Ash trees; veteran Oak and older Aspen at western end of hedge both suffering from decay but of	oppice weaker/selected tems.  Monitor tree condition to rack progress of disease.  If with new planting where appropriate.	3.6	C2
Н	11	Fraxinus excelsior (Ash) Crataegus monogyna (Hawthorn) Ulmus glabra (Wych Elm) Sambucus nigra (Elder) Salix caprea (Goat Willow)	M	6	300	1	0	3	3	3	3	10+	Fair/Poor	fragmented in places. Follows drainage ditch.  Symptoms of Ash Dieback Disease widespread throughout Ash trees along hedge.  Symptoms of Ash Dieback Disease widespread photographic places are provided by the provided provided by the provided prov	oppice weaker/selected tems. Ifill gaps with new lanting. Monitor tree condition to rack progress of disease.	3.6	C2

Tree Survey and Arboricultural Impact Assessment Report

															<b>'</b>		
Н	12	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash) Populus tremula (Aspen) Fagus sylvatica (Beech)	М	8	300	1	0	3	3	3	3	10+	Fair/Poor	Fair/Poor. Old hedge along ditch. Hawthorn understorey 4-8m tall. Some gaps. Symptoms of Ash Dieback Disease widespread throughout Ash trees along hedge.	Coppice weaker/selected stems.  Infill gaps with new planting.  Monitor tree condition to track progress of disease.	3.6	C2
Н	13	Crataegus monogyna (Hawthorn) Fagus sylvatica (Beech) Fraxinus excelsior (Ash) Salix fragilis (Crack Willow) Prunus avium (Wild Cherry) Sambucus nigra (Elder) Malus domestica (Apple) Alnus glutinosa (Common Alder)	М	8	300	1	0	3	3	3	3	10+	Fair/Poor	Fair/Poor. Old hedge along drainage ditch with mostly sporadic Hawthorn understorey. Long line of large mature trees (mostly Beech) form main canopy. Several Beech trees weakened by decay. Symptoms of Ash Dieback Disease widespread throughout Ash trees along hedge.	Coppice weaker/selected stems. Infill gaps with new planting. Monitor tree condition to track progress of disease.	3.6	C2
Н	14	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash) Ulmus glabra (Wych Elm)	М	6	300	1	0	3	3	3	3	10+	Fair/Poor	Fair. Mixed hedge, mostly lower Hawthorn bushes with taller Ash to south and Elm to north. Some dead Elm stems. Symptoms of Ash Dieback Disease widespread throughout Ash trees along hedge.	Coppice weaker/selected stems. Infill gaps with new planting. Monitor tree condition to track progress of disease.	3.6	C2

**Tree Survey Report** 

																	Survey
														•	TK.	11663	our ve y
Н	15	Fraxinus excelsior (Ash) Crataegus monogyna (Hawthorn) Corylus avellana (Hazel) Prunus avium (Wild Cherry) Quercus petraea (Sessile Oak)	М	8	300	1	0	3	3	3	3	10+	Fair/Poor	Fair. Mixed hedge on bank following drainage ditch. Symptoms of Ash Dieback Disease widespread throughout Ash trees along hedge.	Coppice weaker/selected stems. Infill gaps with new planting. Monitor tree condition to track progress of disease.	3.6	C2
Н	16	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash) Acer pseudoplatanus (Sycamore)	M	8	300	1	0	3	3	3	3	10+	Fair/Poor	Fair. Thick Ivy growth on tree stem. Unable to inspect stem due to undergrowth. Symptoms of Ash Dieback Disease widespread throughout Ash trees along hedge.	Coppice weaker/selected stems. Infill gaps with new planting. Monitor tree condition to track progress of disease.	3.6	C2
Н	17	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash)	М	8	300	1	0	3	3	3	3	10+	Fair/Poor	Fair. Cut lower under ESB wires. Symptoms of Ash Dieback Disease widespread throughout Ash trees along hedge.	Coppice weaker/selected stems. Infill gaps with new planting. Monitor tree condition to track progress of disease.	3.6	C2
Н	18	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash)	М	8	300	1	0	3	3	3	3	10+	Fair/Poor	Fair. Symptoms of Ash Dieback Disease widespread throughout Ash trees along hedge.	Coppice weaker/selected stems. Infill gaps with new planting. Monitor tree condition to track progress of disease.	3.6	C2
Н	19	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash)	М	7	300	1	0	3	3	3	3	10+	Fair/Poor	Fair. Mostly Hawthorn 4-7m tall. Cut lower underneath ESB cables. Lower growth restricted by Sheep browsing.	Coppice weaker/selected stems. Infill gaps with new planting. Fence off to prevent browsing.	3.6	C2

37

# 11 SCHEDULE OF TREES & HEDGES TO BE REMOVED

Туре	No.	Species	Age	ERC	Phys Cond	Cat
		Individual Trees To Be	Remove	ed		
Т	813	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	814	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	815	Populus tremula (Aspen)	OM	<10	Fair	U
Т	816	Populus tremula (Aspen)	М	20+	Good	B2
Т	817	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	818	Populus tremula (Aspen)	М	20+	Good	B2
Т	819	Fraxinus excelsior (Ash)	EM	<10	Poor	U
Т	820	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	821	Fagus sylvatica (Beech)	М	20+	Fair	B2
Т	822	Quercus robur (Common Oak)	EM	40+	Fair	A1
Т	823	Fraxinus excelsior (Ash)	SM	10	Poor	C2
Т	824	Fraxinus excelsior (Ash)	SM	10	Poor	C2
Т	825	Fraxinus excelsior (Ash)	SM	10	Poor	C2
Т	826	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	827	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	828	Fraxinus excelsior (Ash)	М	10	Poor	C2
T	829	Fraxinus excelsior (Ash)	М	<10	Poor	U
Т	830	Fraxinus excelsior (Ash)	М	<10	Poor	U
Т	831	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	832	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	833	Fraxinus excelsior (Ash)	М	<10	Poor	U
T	834	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	835	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	842	Fagus sylvatica (Beech)	М	<10	Fair	U
T	852	Fagus sylvatica (Beech)	М	20+	Fair	B2
Т	853	Fagus sylvatica (Beech)	М	20+	Fair	B2
Т	854	Alnus glutinosa (Common Alder)	М	10+	Fair	C2
T	855	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	856	Fagus sylvatica (Beech)	М	20+	Fair	B2
T	857	Fraxinus excelsior (Ash)	EM	<10	Poor	U
Т	858	Fraxinus excelsior (Ash)	EM	<10	Poor	U
T	859	Fraxinus excelsior (Ash)	М	<10	Poor	U
T	860	Fraxinus excelsior (Ash)	M	<10	Poor	U
T	861	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	862	Fagus sylvatica (Beech)	M	20+	Fair	B2
T	863	Alnus glutinosa (Common Alder)	M	10+	Fair	C2
T	864	Fagus sylvatica (Beech)	M	20+	Fair	B2
Т	865	Quercus robur (Common Oak)	EM	20+	Good	B2
T	866	Fraxinus excelsior (Ash)	EM	<10	Poor	U
T	867	Fagus sylvatica (Beech)	М	20+	Fair	B2
T	868	Fagus sylvatica (Beech)	EM	10+	Fair	C2
T	869	Prunus avium (Wild Cherry)	М	<10	Poor	U
T	870	Fagus sylvatica (Beech)	M	20+	Fair	B2
T	871	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	872	Prunus avium (Wild Cherry)	M	20+	Fair	B2
T	873	Fraxinus excelsior (Ash)	EM	10	Poor	C2
T	874	Fagus sylvatica (Beech)	M	20+	Fair	B2
T	875	Fraxinus excelsior (Ash)	EM	10	Poor	C2
T	876	Fraxinus excelsior (Ash)	EM	10	Poor	C2
T	877	Prunus avium (Wild Cherry)	M	20+	Fair	C2
T	878	Salix fragilis (Crack Willow)	М	20+	Fair	B2

PECENED. 1308 POR

Tree	Survey	Report
1100	3 a	11CPOIC

Т	879	Ulmus glabra (Wych Elm)	EM	10+	Fair	C2
Т	880	Malus domestica (Apple)	М	20+	Fair	В2
Т	881	Salix fragilis (Crack Willow)	М	10+	Fair	C2
Т	882	Salix fragilis (Crack Willow)	М	10+	Fair	C2
Т	883	Populus tremula (Aspen)	EM	20+	Good	В2
Т	884	Populus tremula (Aspen)	М	20+	Good	В2
Т	885	Fraxinus excelsior (Ash)	SM	10	Poor	C2
Т	886	Populus tremula (Aspen)	М	20+	Fair	B2
Т	887	Populus tremula (Aspen)	OM	10+	Fair	C2
Т	889	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	890	Fagus sylvatica (Beech)	EM	20+	Fair	В2
Т	891	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	892	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	893	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	894	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	895	Fraxinus excelsior (Ash)	М	10	Poor	C2
T	896	Fraxinus excelsior (Ash)	EM	10	Poor	C2
T	897	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	901	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	902	Fraxinus excelsior (Ash)	M	10	Poor	C2
<u>'</u> Т	903	Fraxinus excelsior (Ash)	M	10	Poor	C2
	904	Fraxinus excelsior (Ash)	EM	10	Poor	C2
T T	904	Fraxinus excelsior (Ash)	M	<10	Poor	U
<u>'</u> T			EM		Poor	
	906	Fraxinus excelsior (Ash)		10		C2
T	907	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	908	Quercus robur (Common Oak)	M	40+	Fair	A2
Т	909	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	910	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	911	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	912	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	913	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	914	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	915	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	916	Malus domestica (Apple)	М	20+	Fair	В2
Т	917	Quercus robur (Common Oak)	М	40+	Fair	A2
Т	918	Fraxinus excelsior (Ash)	EM	<10	Poor	U
T	919	Quercus robur (Common	V	40+	Fair	A2
-		Oak)	-			
Т	888	Fraxinus excelsior (Ash)	EM	<10	Poor	U
Т	920	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	921	Fraxinus excelsior (Ash)	М	10	Poor	U
Т	922	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	923	Fraxinus excelsior (Ash)	М	<10	Poor	U
Т	924	Fraxinus excelsior (Ash)	М	10	Poor	C2
T	926	Fraxinus excelsior (Ash)	М	10	Poor	C2
T	927	Fagus sylvatica (Beech)	EM	20+	Fair	B2
T	928	Fraxinus excelsior (Ash)	EM	10	Poor	C2
T	929	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	930	Salix caprea (Goat Willow)	M	<10	Poor	U
T	931	Fagus sylvatica (Beech)	EM	10+	Fair	C2
T	942	Fraxinus excelsior (Ash)	EM	10	Poor	C2
_ ' 	943	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	943	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	944	Fraxinus excelsior (Ash)				
		` ′	M	10	Poor	C2
T	946	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	947	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	948	Fraxinus excelsior (Ash)	EM	10	Poor	C2
T	949	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	950	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	951	Fraxinus excelsior (Ash)	M	<10	Poor	U



Т	952	Fraxinus excelsior (Ash)	EM	<10	Poor	U
Т	953	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	954	Fraxinus excelsior (Ash)	М	10	Poor	C2
T	955	Fraxinus excelsior (Ash)	М	10	Poor	C2
T	956	Fraxinus excelsior (Ash)	M	10	Poor	C2
<u>.</u> Т	957	Fraxinus excelsior (Ash)	EM	10	Poor	C2
<u>'</u>	958	Fraxinus excelsior (Ash)	EM	10	Poor	C2
		` '				
T	959	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	960	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	961	Fraxinus excelsior (Ash)	M	10	Poor	C2
T	962	Fraxinus excelsior (Ash)	M	10	Poor	C2
Т	963	Acer pseudoplatanus (Sycamore)	M	20+	Fair	B2
Т	964	Fraxinus excelsior (Ash)	М	<10	Poor	U
Т	965	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	966	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	967	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	968	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	969	Fraxinus excelsior (Ash)	М	10	Poor	C2
T	970	Fraxinus excelsior (Ash)	M	10	Poor	C2
<u>'</u>	971	Fraxinus excelsior (Ash)	M	10	Poor	C2
		` ′	M		Poor	C2
	972	Fraxinus excelsior (Ash)		10		
T	973	Fraxinus excelsior (Ash)	M	<10	Poor	U
T	974	Fraxinus excelsior (Ash)	М	10	Poor	C2
T	975	Fraxinus excelsior (Ash)	M	10	Poor	C2
Т	976	Pyrus communis (Common Pear)	M	20+	Fair	B2
Т	977	Fraxinus excelsior (Ash)	M	<10	Poor	U
Т	978	Fagus sylvatica (Beech)	М	20+	Good	В2
T	979	Quercus robur (Common Oak)	М	20+	Fair	B2
Т	980	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	981	Fraxinus excelsior (Ash)	EM	<10	Poor	U
Т	982	Fraxinus excelsior (Ash)	EM	10+	Poor	C2
T	983	Pyrus communis (Common Pear)	М	10+	Fair	C2
Т	984	Fraxinus excelsior (Ash)	EM	10	Poor	C2
T	985	Fraxinus excelsior (Ash)	EM	10	Poor	C2
<u>.</u> Т	986	Fraxinus excelsior (Ash)	SM	10	Poor	C2
	987	Fraxinus excelsior (Ash)			Poor	
T T	988	Quercus petraea (Sessile	M	10 40+	Good	C2 A2
		Oak)				
Т	989	Fraxinus excelsior (Ash)	M	10	Poor	C2
Т	990	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	991	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	992	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	993	Fraxinus excelsior (Ash)	EM	10	Poor	C2
T	994	Fraxinus excelsior (Ash)	SM	10	Poor	C2
T	995	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Т	996	Fraxinus excelsior (Ash)	SM	10	Poor	C2
T	997	Fraxinus excelsior (Ash)	М	10	Poor	C2
T	998	Fraxinus excelsior (Ash)	М	10	Poor	C2
Т	999	Fraxinus excelsior (Ash)	М	<10	Poor	U
Т	1000	Fraxinus excelsior (Ash)	М	10	Poor	C2
T	1001	Fraxinus excelsior (Ash)	М	10	Poor	C2
T	1018	Quercus petraea (Sessile Oak)	SM	10+	Good	C2
Т	1019	Aesculus hippocastanum (Horse Chestnut)	SM	10+	Fair	C2
Т	1020	Fraxinus excelsior (Ash)	M	10	Poor	C2
<u>'</u> T		Acer pseudoplatanus				
	1021	(Sycamore)	EM	20+	Fair	B2
Т	1034	Fraxinus excelsior (Ash)	EM	<10	Poor	U

PRCENED. 7308 ROX

Hedges and Tree Groups Completely Removed						
G	3	Chamaecyparis lawsoniana (Lawson Cypress)	EM	10+	Fair	C2
G	4	Malus domestica (Apple)	М	10+	Fair	C2
G	5	Cedrus atlantica 'Glauca' (Blue Cedar)	EM	20+	Good	B2
G	8	Fraxinus excelsior (Ash)	EM	10	Poor	C2
Н	1	Crataegus monogyna (Hawthorn) Fagus sylvatica (Beech) Castanea sativa (Sweet Chestnut) Pinus sylvestris (Scots Pine) Fraxinus excelsior (Ash)	EM	20+	Fair	B2
Н	2	Crataegus monogyna (Hawthorn)	EM	10+	Good	C2
Н	3	Fagus sylvatica (Beech)	SM	10+	Good	C2
Н	12	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash) Populus tremula (Aspen) Fagus sylvatica (Beech)	M	10+	Fair/Poor	C2
Н	14	Crataegus monogyna (Hawthorn)Fraxinus excelsior (Ash)Ulmus glabra (Wych Elm)	М	10+	Fair/Poor	C2
Н	19	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash)	М	10+	Fair/Poor	C2
		Hedges and Tree Groups Part	tially Re	moved		
G	1	Acer campestre (Field	EM	10+	Good	B2
		Betula pendula (Silver Birch) Quercus ilex (Holm Oak) Pinus radiata (Monterey Pine) Pinus sylvestris (Scots Pine) Fraxinus excelsior (Ash) Fagus sylvatica (Beech) Salix caprea (Goat Willow) Crataegus monogyna (Hawthorn)				
Н	4	Crataegus monogyna (Hawthorn)	EM	10+	Good	C2
Н	5	(Hawthorn)  Corylus avellana (Hazel) EM 10+ Fair Crataegus monogyna (Hawthorn) Fagus sylvatica (Beech) Fraxinus excelsior (Ash) Malus domestica (Apple) Quercus robur (Common Oak) Salix caprea (Goat Willow)			C2	
Н	8	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash)	M	10+	Fair/Poor	C2
Н	9	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash) Sambucus nigra (Elder)	M	10+	Fair/Poor	C2
Н	10	Fraxinus excelsior (Ash) Crataegus monogyna (Hawthorn) Euonymus europaeus (Spindle) Corylus avellana (Hazel) Quercus robur (Common Oak) Populus tremula (Aspen) Fagus sylvatica (Beech)	M	10+	Fair/Poor	C2



Н	11	Fraxinus excelsior (Ash) Crataegus monogyna (Hawthorn) Ulmus glabra (Wych Elm) Sambucus nigra (Elder) Salix caprea (Goat Willow)	M	10+	Fair/Poor	C2
Н	13	Crataegus monogyna (Hawthorn) Fagus sylvatica (Beech) Fraxinus excelsior (Ash) Salix fragilis (Crack Willow) Prunus avium (Wild Cherry) Sambucus nigra (Elder) Malus domestica (Apple) Alnus glutinosa (Common Alder)	M	10+	Fair/Poor	C2
Н	15	Fraxinus excelsior (Ash) Crataegus monogyna (Hawthorn) Corylus avellana (Hazel) Prunus avium (Wild Cherry) Quercus petraea (Sessile Oak)	М	10+	Fair/Poor	C2
Н	16	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash) Acer pseudoplatanus (Sycamore)	M	10+	Fair/Poor	C2

PRICENED. 73/08/2024

### Herbata Project, Naas, Co. Kildare

**Tree Survey Report** 

PRICEINED. 7300 2024

## **Brady Shipman Martin**

#### **DUBLIN**

Mountpleasant Business Centre Mountpleasant Ave Upper Rathmines Dublin 6

+353 1 208 1900

#### CORK

Penrose Wharf Business Centre Penrose Wharf Cork

+353 21 242 5620

mail@brady shipman martin.com

www.bradyshipmanmartin.com

# Appendix 11.4 Photomontages

PRICENED. 7300RODA

THIS PAGE IS INTENTIONALLY BLANK

PRICEINED. 73/08/2024





 Camera
 NIKON D600
 Easting
 686113
 Title:

 Date
 20:10:22 14.10
 Northing
 720386

 View height
 1.65 m AGL
 Direction
 150°

 Field of View
 60°
 Distance
 550 m

VP01 Oberston Road Existing View Appendix Drawn by: PM

Projection: IRENET 95 Checked: A McK

Data Source: RPS 2023 Job Ref: NI 2615

Status: Issued Date: July 2023

Herbata Data Centre Jigginstown, Naas

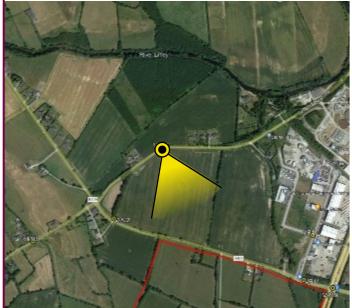
Tripod location

Herbata Ltd

Making Complex Easy
Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ | 028 9066 7914

Client:





Camera	NIKON D600	Easting	686113	Tit
Date	20:10:22 14.10	Northing	720386	
View height	1.65 m AGL	Direction	150°	
Field of View	60°	Distance	550 m	



Appendix Drawn by: PM
Projection: IRENET 95 Checked: A McK
Data Source: RPS 2023 Job Ref: NI 2615
Status: Issued Date: July 2023

VP01

Oberston Road

Phase 1 Outline

Herbata Data Centre Jigginstown, Naas

Herbata Ltd

Client:







Easting

Northing

Direction

Distance

686113

720386

150°

550 m

NIKON D600

1.65 m AGL

20:10:22 14.10

Camera

View height

Field of View

Date

Viewpoint location

VP01 Oberston Road Phase 1 Montage - Year 1



Appendix Drawn by: PM Projection: IRENET 95 Checked: A McK
Data Source: RPS 2023 Job Ref: NI 2615
Status: Issued Date: July 2023

Tripod location

Herbata Data Centre Jigginstown, Naas

Herbata Ltd

Making Complex Easy
Elmwood House, 74 Boucher Road
BELFAST, BT12 6RZ | 028 9066 7914





Camera	NIKON D600	Easting	686113	Tit
Date	20:10:22 14.10	Northing	720386	
View height	1.65 m AGL	Direction	150°	
Field of View	60°	Distance	550 m	



Appendix Projection: IRENET 95 A McK Data Source: RPS 2023 Job Ref: NI 2615 Issued Date: July 2023

Herbata Data Centre Jigginstown, Naas

Herbata Ltd

Client:



VP01 Oberston Road Phases 1 - 3 Outline





NIKON D600 Camera Easting 686113 Date 20:10:22 14.10 720386 Northing View height 1.65 m AGL Direction 150° Field of View 550 m Distance

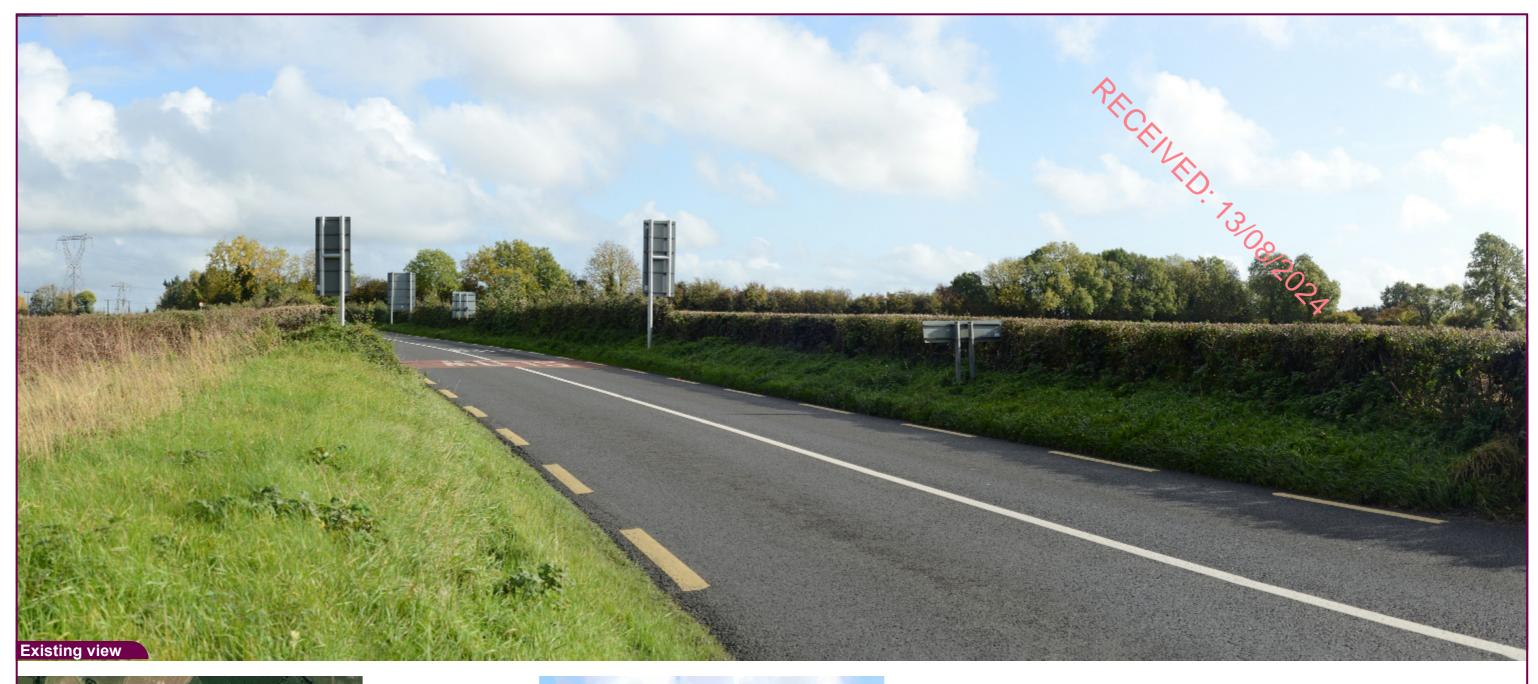
VP01 Oberston Road Phases 1-3 Montage - Year 10

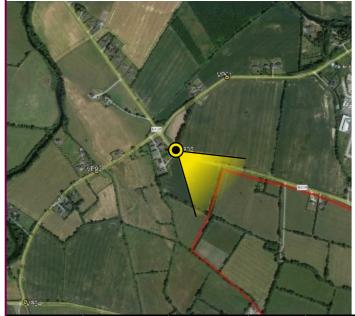
Appendix	Drawn by:	PM	Project:
Projection: IRENET 95	Checked:	A McK	
Data Source: RPS 2023	Job Ref:	NI 2615	
Status: Issued	Date:	July 2023	

Herbata Data Centre Jigginstown, Naas

Tripod location







 Camera
 NIKON D600
 Easting
 685911
 Title

 Date
 20:10:22 13.50
 Northing
 720085

 View height
 1.65 m AGL
 Direction
 115°

 Field of View
 60°
 Distance
 210 m

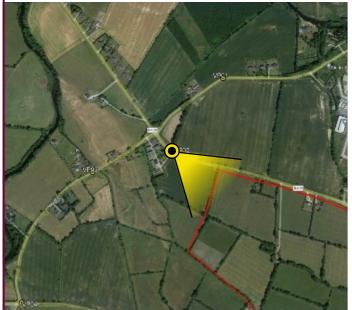
VP02 R409 Existing View Appendix Drawn by: PM
Projection: IRENET 95 Checked: A McK
Data Source: RPS 2023 Job Ref: NI 2615
Status: Issued Date: July 2023

Herbata Data Centre Jigginstown, Naas

Tripod location







			POP	
Camera	NIKON D600	Easting	685911	Title:
Date	20:10:22 13.50	Northing	720085	
View height	1.65 m AGL	Direction	115°	
Field of View	60°	Distance	210 m	



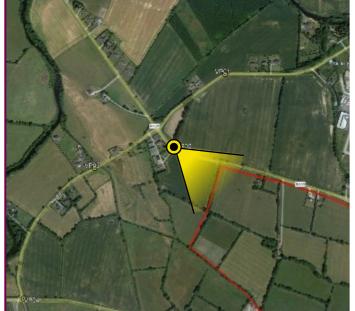
VP02 R409 Phase 1 Outline Appendix Drawn by: PM
Projection: IRENET 95 Checked: A McK
Data Source: RPS 2023 Job Ref: NI 2615
Status: Issued Date: July 2023

Herbata Data Centre Jigginstown, Naas Client:

Herbata Ltd

| Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | Herbata Ltd | H





Camera NIKON D600 Easting 685911 20:10:22 13.50 720085 Northing View height 1.65 m AGL Direction 115° Field of View 210 m Distance

VP02 R409 Phase 1 Montage - Year 1

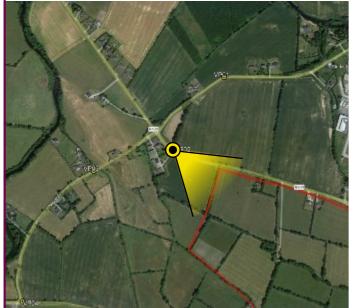
Appendix	Drawn by:	PM
Projection: IRENET 95	Checked:	A McK
Data Source: RPS 2023	Job Ref:	NI 2615
Status: Issued	Date:	July 2023

Tripod location

Herbata Data Centre Jigginstown, Naas







 Camera
 NIKON D600
 Easting
 685911
 Title:

 Date
 20:10:22 13.50
 Northing
 720085

 View height
 1.65 m AGL
 Direction
 115°

 Field of View
 60°
 Distance
 210 m



VP02 R409 Phases 1 - 3 Outline Appendix Drawn by: PM
Projection: IRENET 95 Checked: A McK
Data Source: RPS 2023 Job Ref: NI 2615
Status: Issued Date: July 2023

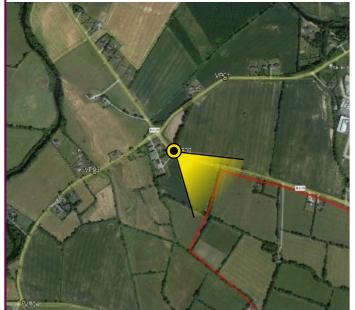
Herbata Data Centre Jigginstown, Naas

Herbata Ltd

Client:







Tripod location

Camera NIKON D600 Easting 685911 VP02 20:10:22 13.50 720085 Northing R409 View height 1.65 m AGL Direction 115° Phases 1-3 Montage - Year 10 Field of View Distance 210 m

Viewpoint location

Appendix Drawn by: PM

Projection: IRENET 95 Checked: A McK

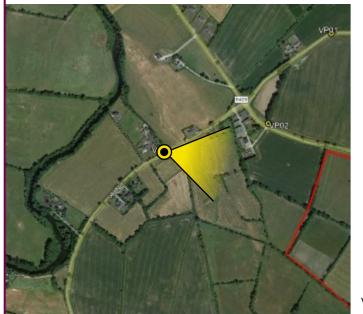
Data Source: RPS 2023 Job Ref: NI 2615

Status: Issued Date: July 2023

Herbata Data Centre Jigginstown, Naas







 Camera
 NIKON D600
 Easting
 685571
 Title

 Date
 20:10:22 13.10
 Northing
 719982

 View height
 1.65 m AGL
 Direction
 90°

 Field of View
 60°
 Distance
 510 m

VP03 Newhall Road Existing View

Appendix Drawn by: PM
Projection: IRENET 95 Checked: A McK
Data Source: RPS 2023 Job Ref: NI 2615
Status: Issued Date: July 2023

Herl Jig

Project:

Tripod location

Herbata Data Centre Jigginstown, Naas Client:







 Camera
 NIKON D600
 Easting
 685571
 Title:

 Date
 20:10:22 13.10
 Northing
 719982

 View height
 1.65 m AGL
 Direction
 90°

 Field of View
 60°
 Distance
 510 m

VP03

Newhall Road

Phase 1 Outline



Appendix Drawn by: PM

Projection: IRENET 95 Checked: A McK

Data Source: RPS 2023 Job Ref: NI 2615

Status: Issued Date: July 2023

Earthworks

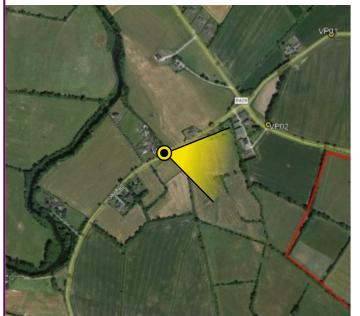
Client:

Buildings/structures

Herbata Data Centre Jigginstown, Naas







Camera NIKON D600 Easting 685571 Date 20:10:22 13.10 719982 Northing View height 1.65 m AGL Direction 90° Field of View 510 m Distance

VP03 Newhall Road Phase 1 Montage - Year 1

	Appendix	Drawn by:	PM	Project:
Projection: IRENET 95		Checked:	A McK	
	Data Source: RPS 2023	Job Ref:	NI 2615	
	Status: Issued	Date:	July 2023	

Herbata Data Centre

Jigginstown, Naas

Tripod location







 Camera
 NIKON D600
 Easting
 685571
 Titles

 Date
 20:10:22 13.10
 Northing
 719982

 View height
 1.65 m AGL
 Direction
 90°

 Field of View
 60°
 Distance
 510 m

VP03

Newhall Road

Phases 1 - 3 Outline



Appendix Drawn by: PM Projection: IRENET 95 Checked: A McK
Data Source: RPS 2023 Job Ref: NI 2615
Status: Issued Date: July 2023

Earthworks

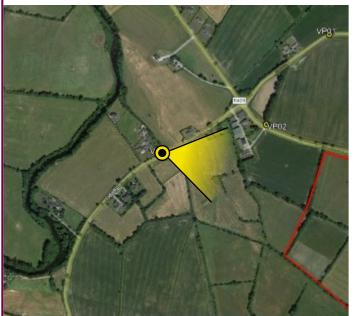
Client:

Buildings/structures

Herbata Data Centre Jigginstown, Naas







Project:

Viewpoint location

Camera NIKON D600 Easting 685571 Date 20:10:22 13.10 719982 Northing View height 1.65 m AGL Direction 90° Field of View 510 m Distance

VP03 Newhall Road Phases 1-3 Montage - Year 10

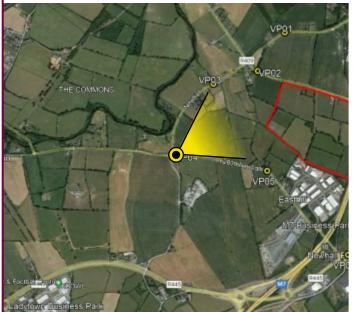
Appendix	Drawn by:	PM
Projection: IRENET 95	Checked:	A McK
Data Source: RPS 2023	Job Ref:	NI 2615
Status: Issued	Date:	July 2023

Herbata Data Centre Jigginstown, Naas

Tripod location

Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ | 028 9066 7914





 Camera
 NIKON D600
 Easting
 685282
 Tit

 Date
 20:10:22 12.55
 Northing
 719427

 View height
 1.65 m AGL
 Direction
 72°

 Field of View
 60°
 Distance
 750 m

VP04 L2030 /Newhall Junction Existing View

Appendix	Drawn by:	PM
Projection: IRENET 95	Checked:	A McK
Data Source: RPS 2023	Job Ref:	NI 2615
Status: Issued	Date:	July 2023

Herbata Data Centre Jigginstown, Naas

Tripod location

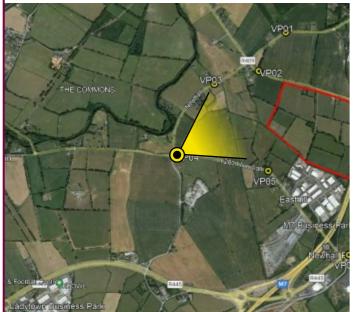
Client: Herbata Ltd

ta Ltd

Making Complex Easy

Elmwood House, 74 Boucher Road BELFAST, BT12 GRZ | 028 9066 7914





 Camera
 NIKON D600
 Easting
 685282

 Date
 20:10:22 12.55
 Northing
 719427

 View height
 1.65 m AGL
 Direction
 72°

 Field of View
 60°
 Distance
 750 m

VP04 L2030 /Newhall Junction Phase 1 Outline



Appendix Drawn by: PM

Projection: IRENET 95 Checked: A McK

Data Source: RPS 2023 Job Ref: NI 2615

Status: Issued Date: July 2023

Herbata Data Centre Jigginstown, Naas **.** . . . . . .

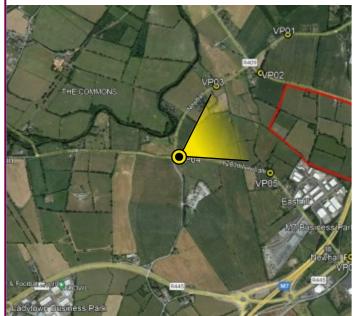
Client:

Earthworks

Buildings/structures







Easting

Northing

Direction

Distance

685282

719427

72°

750 m

NIKON D600

1.65 m AGL

20:10:22 12.55

Date

View height

Field of View

Tripod location

Buildings/structures

VP04 L2030 /Newhall Junction Phase 1 Montage - Year 1

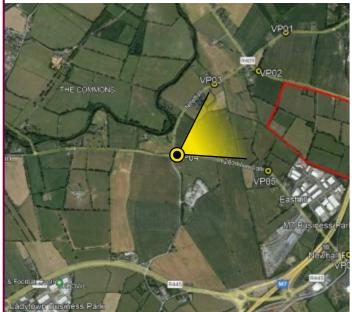
Viewpoint location

Appendix Drawn by: PM
Projection: IRENET 95 Checked: A McK
Data Source: RPS 2023 Job Ref: NI 2615
Status: Issued Date: July 2023

Herbata Data Centre Jigginstown, Naas







 Camera
 NIKON D600
 Easting
 685282

 Date
 20:10:22 12.55
 Northing
 719427

 View height
 1.65 m AGL
 Direction
 72°

 Field of View
 60°
 Distance
 750 m

VP04 L2030 /Newhall Junction Phases 1 - 3 Outline



Appendix Drawn by: PM

Projection: IRENET 95 Checked: A McK

Data Source: RPS 2023 Job Ref: NI 2615

Status: Issued Date: July 2023

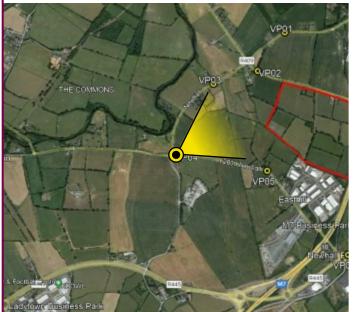
Herbata Data Centre Jigginstown, Naas Earthworks

Client:

Buildings/structures







NIKON D600 Easting 685282 20:10:22 12.55 719427 Northing View height 1.65 m AGL Direction 72° Field of View 750 m Distance

VP04 L2030 /Newhall Junction Phases 1-3 Montage - Year 10

Appendix	Drawn by:	PM
Projection: IRENET 95	Checked:	A McK
Data Source: RPS 2023	Job Ref:	NI 2615
Status: Issued	Date:	July 2023

Tripod location

Herbata Data Centre Jigginstown, Naas

Client:

