

ENVIRONMENTAL STATEMENT: 6.3 APPENDIX 10-3: ARBORICULUTRAL IMPACT ASSESSMENT

ECARBONISATION

Cory Decarbonisation Project PINS Reference: EN010128

March 2024 Revision A

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations (2009) - Regulation 5(2)(a)



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CORY

1. INTRODUCTION

- 1.1.1. WSP has been commissioned by Cory Environmental Holdings Limited (hereafter referred to as the Applicant) to prepare an Arboricultural Impact Assessment (AIA) for the Cory Decarbonisation Project, to be located at Norman Road, Belvedere in the London Borough of Bexley (LBB; National Grid Reference/NGR 549572, 180512). The following figures are available in this Environmental Statement (ES):
 - Figure 1-1: Site Boundary Location Plan (Volume 2); and
 - Figure 1-2: Satellite Imagery of the Site Boundary Plan (Volume 2).
- 1.1.2. The Applicant intends to construct and operate the Proposed Scheme to be linked with the River Thames. It comprises of the following key components, which are described below, and further detail is provided within **Chapter 2: Site and Proposed Scheme Description (Volume 1)**:
 - The Carbon Capture Facility (including its associated Supporting Plant and Ancillary Infrastructure): the construction of infrastructure to capture a minimum of 95% of carbon dioxide (CO₂) emissions from Riverside 1 and 95% of CO₂ emissions from Riverside 2 once operational, which is equivalent to approximately 1.3Mt CO₂ per year. The Carbon Capture Facility will be one of the largest carbon capture projects in the UK.
 - The Proposed Jetty: a new and dedicated export structure within the River Thames as required to export the CO₂ captured as part of the Carbon Capture Facility.
 - The Mitigation and Enhancement Area: land identified as part of the **Outline LaBARDS (Document Reference 7.9)** to provide improved access to open land, habitat mitigation, compensation and enhancement (including forming part of the drainage system and Biodiversity Net Gain delivery proposed for the Proposed Scheme) and planting. The Mitigation and Enhancement Area provides the opportunity to improve access to outdoor space and to extend the area managed as the Crossness LNR.
 - Temporary Construction Compounds: areas to be used during the construction phases for activities including, but not limited to office space, warehouses, workshops, open air storage and car parking, as shown on the Works Plans (Document Reference 2.3). These include the core Temporary Construction Compound, the western Temporary Construction Compound and the Proposed Jetty Temporary Construction Compound.
 - Utilities Connections and Site Access Works: The undergrounding of utilities required for the Proposed Scheme in Norman Road and the creation of new, or the improvement of existing, access points to the Carbon Capture Facility from Norman Road.



1.1.3. Together, the Carbon Capture Facility (including its associated Supporting Plant and Ancillary Infrastructure), the Proposed Jetty, the Mitigation and Enhancement Area, the Temporary Construction Compounds and the Utilities Connections and Site Access Works are referred to as the 'Proposed Scheme'. The land upon which the Proposed Scheme is to be located is referred to as the 'Site' and the edge of this land referred to as the 'Site Boundary'. The Site Boundary represents the Order Limits for the Proposed Scheme as shown on the **Works Plans (Document Reference 2.3)**.

1.2. PURPOSE OF REPORT

- 1.2.1. This AIA has been developed as an appendix to **Chapter 10: Townscape and Visual** (Volume 1).
- 1.2.2. The purpose of this report is to identify all trees which may be affected by the Proposed Scheme, to assess the impact of the Proposed Scheme upon those trees and to recommend such protection measures as are necessary to ensure the health of retained trees.
- 1.2.3. This AIA and associated figures do not include a detailed assessment of the Mitigation and Enhancement Area as the arboricultural features in this location are not anticipated to be impacted by the construction of the Proposed Scheme.
- 1.2.4. The scope and level of detail included within this AIA is commensurate with that required for the consideration of arboricultural features as part of the Proposed Scheme.
- 1.2.5. Information provided complies with the requirements of BS 5837:2012 Trees in Relation to Design, Demolition and Construction Recommendations¹, and includes reference to the following:
 - a BS 5837:2012¹ walkover survey;
 - an arboricultural desk study;
 - an impact assessment; and
 - an Outline Arboricultural Method Statement (AMS).
- 1.2.6. BS 5837:2012¹ does not provide explicit parameters for measuring the sensitivity of arboricultural features nor does it provide a methodology for the classification of effects. However, it does provide guidance on how to assess the quality of an arboricultural feature and further recommends an evaluation of impacts, both direct and indirect. Impacts should be defined as an assessment of arboricultural removals and identification of matters to be addressed within an AMS.



1.3. RELEVANT LEGISLATION, POLICY AND GUIDANCE

1.3.1. This AIA has been compiled with reference to the following legislation, policy and guidance:

LEGISLATION

- Town and Country Planning (Tree Preservation) (England) Regulations 2012²; and
- Forestry Act 1967³.

POLICY

- National Planning Policy Framework (NPPF) 2023⁴; and
- The Bexley Local Plan 2023 (adopted 26 April 2023)⁵.

GUIDANCE

• BS 5837: 2012¹.



2. METHODOLOGY

2.1. SITE AND ARBORICULTURAL STUDY AREA

- 2.1.1. The arboricultural Study Area (hereafter referred to as 'Study Area') covers the extents of the Site Boundary plus an additional 15m (excluding the Mitigation and Enhancement Area). The purpose of this 15m beyond the Site Boundary is to ensure compliance with BS 5837:2012¹ which recommends that all arboricultural features whose Root Protection Areas (RPAs) and crowns may be impacted are identified and surveyed. BS 5837:2012¹ has a maximum RPA radius of 15m, hence the extent of the Study Area.
- 2.1.2. Trees located on opposite sides of adjoining roads (for example the access road to the Asda Belvedere Distribution Centre), but within the 15m buffer have not been included within this assessment report as they are sufficiently far away not to be impacted by the Proposed Scheme.

2.2. WALKOVER SURVEY

- 2.2.1. A walkover survey of trees within the Study Area was undertaken on 8th and 9th February 2023. The survey was undertaken to comply with BS 5837:2012¹ and details of the method used are presented in **Annex A**.
- 2.2.2. Where access to vegetation was restricted, stem diameters have been estimated as indicated by the 'e' suffix in the Arboricultural Survey Schedule of **Annex B**.

2.3. DESK STUDY

- 2.3.1. A desk study was undertaken in November 2023 to identify specific statutory and nonstatutory arboricultural constraints which may apply to arboricultural features within the Study Area. The desk study methodology, as outlined in **Annex A**, was undertaken to establish the following statutory and non-statutory arboricultural constraints:
 - Tree Preservation Orders (TPOs);
 - Conservation Areas;
 - Traditional Orchards;
 - Ancient Woodland; and
 - Ancient or Veteran Trees.



3. ARBORICULTURAL SURVEY FINDINGS

3.1. WALKOVER SURVEY FINDINGS

3.1.1. An arboricultural survey schedule detailing information about trees in the Study Area is presented in **Annex B**. **Table 3-1** summarises the number of trees surveyed and their tree quality categories. The locations of arboricultural features are shown in **Figure 10-1: Tree Removals and Protection Plan (Volume 2)**.

BS5837 Category	Quality	Tree	Group	Totals
Α	High	0	0	0
В	Moderate	10	12	22
C	Low	33	3	36
U	Unsuitable	1	1	2
Totals		44	16	60

Table 3-1: Summary of Tree Quality Categories

- 3.1.2. Along the southern boundary of the Site is a band of trees collectively assessed as moderate quality which offer an element of screening between A2016 Picardy Manorway/Eastern Way and the Site. The eastern boundary of the Site contains managed grass verges with individual and groups of trees of moderate quality.
- 3.1.3. Most of the Site contains sporadic low quality trees primarily to the east. Tree group G14 and tree T29 were dead and assessed as very low quality.

3.2. DESK STUDY FINDINGS

- 3.2.1. The desk study found no TPOs or Conservation Areas within the Study Area.
- 3.2.2. The desk study also found no records of Ancient or Veteran Trees, Traditional Orchards, or Ancient Woodland within the Study Area.



4. ARBORICULTURAL IMPACT ASSESSMENT

4.1. SCOPE OF ASSESSMENT

- 4.1.1. The scope of this AIA has been established with reference to BS 5837:2012¹. The scope of assessment is to evaluate the effects of the Proposed Scheme on arboricultural features and, where necessary, recommend additional mitigation measures.
- 4.1.2. The assessment includes specific reference to the effects of tree loss and other potentially damaging activities which could foreseeably occur in the vicinity of retained trees. Further reference is made concerning recommendations for mitigation, including those matters which require inclusion within an AMS.

4.2. **ASSUMPTIONS**

- 4.2.1. This AIA report has been compiled on the basis of the following assumptions:
 - all construction activities will be confined to within the Site Boundary of the Proposed Scheme;
 - all crane oversailing activities will be undertaken with a banksman to prevent damage to trees located outside of the Site;
 - all construction activities will be excluded from Construction Exclusion Zones identified on Figure 10-1: Tree Removals and Protection Plan (Volume 2);
 - existing areas of hard surfacing will remain in situ or be utilised for construction access, site compounds and material storage as noted in this AIA;
 - no excavation into unmade ground will be required within the RPAs of retained trees; and
 - no arboricultural features within the Mitigation and Enhancement Area will be impacted by the Proposed Scheme.

4.3. ARBORICULTURAL FEATURES TO BE REMOVED

4.3.1. The Proposed Scheme in relation to arboricultural features is shown in Figure 10-1: Tree Removals and Protection Plan (Volume 2). The Proposed Scheme would result in the removal of 12 low quality trees and one very low quality tree and summarised in Table 4-1.

BS5837 Quality	Category	Tree	Totals	
High	А	0	0	
Moderate	В	0	0	
Low	С	12	12	

Table 4-1: Summary of Tree Removals



BS5837 Quality	Category	Tree	Totals	
Unsuitable	U	1	1	
Totals		13	13	

4.4. ARBORICULTURAL FEATURES TO BE PRUNED

4.4.1. Tree works are not anticipated for the Proposed Scheme, however, should they be required, all tree works must comply with British Standard 3998:2010 Tree Work – Recommendations⁶ and should therefore be carried out by skilled tree surgery contractors. A full AMS will be prepared as an appendix to the full CoCP(s) and should cover the duration of construction activities with appropriate levels of arboricultural supervision where work is near trees. The longer term management of trees within the Site is described within the **Outline LaBARDS (Document Reference 7.9)**. Requirements of the **Draft DCO (Document Reference 3.1)** will ensure that the measures identified to mitigate the effects of the construction phase are included in the full CoCP(s) and full LaBARDS(s) to be prepared for the Proposed Scheme by the Contractor(s) prior to the construction phase commencing.

4.5. IMPACTS ON RETAINED ARBORICULTURAL FEATURES

4.5.1. Other arboricultural impacts are activities which have the potential, if uncontrolled, to cause damage to arboricultural features that are retained. Implementation of the recommended mitigatory measures (tree protection fencing and monitoring and other measures outlined in **Annex C**) will be sufficient to ensure that arboricultural features can be retained without significant loss of value or a notable reduction in health or longevity.

ABOVE GROUND IMPACTS

- 4.5.2. During construction activities there is potential for the stem and branches of retained arboricultural features to be damaged by the contractor making physical contact. Such damage can reduce vitality and cause decline in health.
- 4.5.3. To prevent above ground damage to arboricultural features a Construction Exclusion Zone should be established. An AMS should cover the duration of construction activities with appropriate levels of arboricultural supervision where work is near trees.

BELOW GROUND IMPACTS

4.5.4. During demolition and construction work there is potential for soil compaction and root damage caused by contractors. This could cause loss of vitality and decline in health with a reduction in quality of tree and potential instability or death of trees.



- 4.5.5. To prevent below ground damage to arboricultural features a Construction Exclusion Zone should be established within an AMS for the duration of demolition and construction which is demarcated by a tree protection fence. Where access only is required then temporary ground protection measures could be installed to prevent soil compaction and root damage.
- 4.5.6. The indicative RPAs are based on a symmetrical circle and are shown in **Figure 10-1: Tree Removals and Protection Plan (Volume 2)**. For groups of trees the RPA is based on a distance from the plotted group extent which represents tree stem locations. These RPAs are indicative, and the shape can be adjusted by an arboriculturist to ensure that sufficient area, and therefore soil volume, is protected.
- 4.5.7. The indicative RPAs used for design are based on a symmetrical circle and are shown in **Figure 10-1: Tree Removals and Protection Plan (Volume 2)**Annex C. The shape of RPAs can be adjusted to ensure that sufficient area, and therefore soil volume is protected.
- 4.5.8. Through implementing appropriate tree protection measures, all retained trees can be kept without detrimental impact on them.
- 4.5.9. Details of the mitigation measures set out in this report are identified on **Figure 10-1**: **Tree Removals and Protection Plan (Volume 2)** showing the indicative positioning of protection fencing, this should be viewed in conjunction with the outline AMS.

4.6. COMPENSATION PLANTING

4.6.1. A number of trees will be planted to compensate for removed trees whilst seeking opportunities to enhance biodiversity. Tree planting is included in the landscape design, details of which are reported separately to this report in the **Design** Approach Document (Document Reference 5.6). The Outline LaBARDS (Document Reference 7.9) describes the long term management and maintenance measures for the landscaping.

4.7. ARBORICULTURAL METHOD STATEMENT

- 4.7.1. An Outline AMS is included in **Annex C**. The Outline AMS adopts a precautionary approach to tree protection and addresses activities which have the potential to cause damage to retained trees.
- 4.7.2. The Outline AMS addresses, in principle, the tree protection required to protect retained arboricultural features from construction activities.
- 4.7.3. It is recommended that the Outline AMS be viewed as a 'living document'. A full AMS will be prepared as an appendix to the full CoCP(s) and should cover the duration of construction activities with appropriate levels of arboricultural supervision where work is near trees.



5. SUMMARY AND CONCLUSIONS

- 5.1.1. An arboricultural walkover survey of the Study Area was undertaken on 8 and 9 February 2023. The arboricultural survey was undertaken in accordance with BS 5837:2012¹ and arboricultural features were plotted using topographical survey information and aerial imagery.
- 5.1.2. The desk study confirmed no record of TPOs, Conservation Areas, Ancient/Veteran Trees, Traditional Orchards or Ancient Woodland within the arboricultural Study Area.
- 5.1.3. A total of 60 arboricultural features, consisting of 44 individual trees and 16 tree groups were surveyed in the Study Area. In total, 22 arboricultural features were assessed to be moderate quality, 36 features were low quality and two features were very low quality.
- 5.1.4. The Proposed Scheme would result in the removal of 12 low quality trees and one very low quality tree. The extent of potential tree loss is indicated in **Figure 10-1: Tree Removals and Protection Plan (Volume 2)**.
- 5.1.5. The Proposed Scheme includes a landscape design, details of which are reported separately to this report in the **Outline LaBARDS (Document Reference 7.9)** which also describes the long term management and maintenance measures for the landscaping.
- 5.1.6. All other arboricultural features can be retained and protected through the construction and operation of the Proposed Scheme. Principles for tree protection are set out in the Outline AMS, presented in **Annex C** which includes the use of tree protection fencing where appropriate.



6. LIMITATIONS

- 6.1.1. Provisional TPO may be made whenever a local planning authority deems it appropriate with only those persons interested in the land served with a copy of the Order. Any reference to the presence of a TPO is only valid on the date at which the desk study search was undertaken. In instances where works unspecified in this report are to be undertaken, and which may impact trees, a further search for the presence of TPO should be carried out prior to commencement.
- 6.1.2. Trees are dynamic organisms which are influenced by a variety of environmental variables and whose health and condition can rapidly change. Any recommendations made within this report are valid for a period of 24 months from the date of survey, when any site conditions change or pruning or other works unspecified in the report are carried out to, or affecting, the subject trees, whichever is the sooner.
- 6.1.3. This report does not constitute a health and safety survey. Where concerns for tree health and safety exist then necessary and appropriate tree inspections should be carried out.
- 6.1.4. Assessment of statutory and non-statutory constraints have been carried out using publicly accessible third party information.
- 6.1.5. Where the location of arboricultural features is not recorded in topographic surveys they have been indicatively plotted using aerial imagery relative to other site features. The accompanying Figure 10-1: Tree Removals and Protection Plan (Volume 2) therefore has features plotted with approximate locations only which could have an error of up to 5m.



7. **REFERENCES**

¹ British Standards Institution. (2012). 'BS 5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations.'

² Secretary of State for Communities and Local Government. (2012). 'Town and Country Planning (Tree Preservation) (England) Regulations 2012'.

³ Great Britian. Forestry Act 1967. London Stationery Office.

⁴ Department for Levelling Up, Housing and Communities. (2023). 'National Planning Policy Framework'. Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2

⁵ London Borough of Bexley. (2023). 'The Bexley Local Plan 2023'. Available at: https://www.bexley.gov.uk/sites/default/files/2023-07/bexley-local-plan-adopted-26-april-2023.pdf

⁶ British Standards Institution. (2010). 'BS 3998:2010 Trees Work – Recommendations'.

⁷ London Borough of Bexley. (2023). 'Tree Preservation Orders'. Available at: <u>https://www.bexley.gov.uk/services/planning-and-building-control/trees-and-hedges/questions-about-trees-and-hedges</u>.

⁸ London Borough of Bexley (2023). 'Local Plan Policies Map'. Available at: <u>https://www.arcgis.com/apps/instant/sidebar/index.html?appid=47d8febb1093429f964</u> <u>cf6500d0c691e</u>

⁹ DEFRA. (2023). 'Multi Agency Geographic Information for the Countryside'. Available at: <u>https://magic.defra.gov.uk/MagicMap.aspx</u>.

¹⁰ Ancient Tree Inventory. (2023). 'Ancient Tree Inventory'. Available at:





ARBORICULTURAL SURVEY METHODOLOGY

ARBORICULTURAL SURVEY METHODOLOGY

METHOD OF BASELINE DATA COLLECTION

Baseline data collection has been undertaken with reference to BS 5837:2012¹ and has been undertaken using the following data sources:

- a walkover survey of all arboricultural features within the Study Area; and
- an arboricultural desk study.

WALKOVER SURVEY

A walkover survey was undertaken on 8 and 9 February 2023 with aerial imagery and topographic survey used as base mapping.

The walkover survey was undertaken in accordance with the following criteria:

- arboricultural features have been recorded as tree groups or linear areas where this has been deemed appropriate. Tree groups have been recorded on the basis that they form distinct arboricultural features either aerodynamically, visually or because they contain trees of similar cultural and biodiversity value. Wooded areas are recorded where larger expanses of trees exist and included features which may otherwise be referred to as copses, spinneys or shelterbelts. Linear groups are specifically tree groups which are formed of a single line of trees;
- trees have been visually inspected from ground level only;
- no tissue samples were taken nor was any internal investigation of the subject trees undertaken;
- tree heights and crown spreads have been estimated to the nearest 1m;
- notes have been recorded where they relate to the quality of the arboricultural feature;
- management recommendations have been provided where work is necessary for the abatement of a hazard which presents a high level of risk to persons or property. Such management recommendations have been communicated to the tree owner/manager separately from this report;
- stem diameters have been measured in accordance with Appendix C of BS 5837;
- diameters of single stem trees on level ground have been measured at 1.5m above ground level. The diameters of other commonly encountered stems have been measured as per the guidance. The combined stem diameters for multi-stemmed trees have been calculated in accordance with BS 5837:2012¹, Paragraph 4.6.1; and
- by default, RPA is calculated as an area equivalent to a circle with a radius 12 times the stem diameter and is capped at a distance of 15m.

DESK STUDY

The desk study for the Proposed Scheme was undertaken on 9th November 2023.

CORY

The desk study reviewed existing arboricultural information available in the public domain. The desk-study has considered the following sources:

- TPO The London Borough of Bexley (LBB) is responsible for implementing any legal controls imposed through TPO within the Study Area. Information on the location of TPO is accessible on the LBB website⁷;
- Conservation Area LBB is responsible for implementing any legal controls imposed through conservation areas within the Study Area. The location of conservation areas is information publicly accessible on the LBB website⁸;
- Ancient Woodland The potential presence of ancient woodland within the Study Area was checked using the web based Multi Agency Geographic Information for the Countryside (MAGIC) map database which was accessed on 9th November 2023⁹; and
- Ancient and Veteran Trees The potential presence of Ancient and Veteran Trees within the Study Area was checked using the Woodland Trust's Ancient Tree Inventory¹⁰.

QUALITY ASSESSMENT

The quality of arboricultural features has been determined in accordance with Table 1 of BS 5837:2012¹, a copy of which is provided in **Figure A-1: BS 5837:2012 – Cascade Chart for Tree Quality Assessment**. The purpose of the quality assessment is to enable informed decisions to be made regarding the removal and retention of arboricultural features in the context of development. For an arboricultural feature to be included within a particular quality category it should accord with the description provided.

The quality of each arboricultural feature is defined based on its subcategory. Subcategories carry equal weight, do not influence retention priority and are simply included to indicate the primary value associated with each surveyed item. Subcategories 1, 2 and 3 are intended to reflect arboricultural, landscape and cultural values, respectively.

The quality and subcategory assigned to each arboricultural feature are identified within the Arboricultural Survey Schedule included in **Annex B**.



Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			
Trees unsuitable for retention	(see Note)			
Category U	 Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) 			
Those in such a condition that they cannot realistically				
be retained as living trees in	• Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline			
the context of the current land use for longer than 10 years	 Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality 			
	NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.			
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for rete	ention			
Category A	Trees that are particularly good	Trees, groups or woodlands of particular	Trees, groups or woodlands	See Table 2
Trees of high quality with an estimated remaining life expectancy of at least 40 years	examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	visual importance as arboricultural and/or landscape features	of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	
Category B	Trees that might be included in	Trees present in numbers, usually growing	Trees with material	See Table 2
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	conservation or other cultural value	
Category C	Unremarkable trees of very limited	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	merit or such impaired condition that they do not qualify in higher categories			

Figure A-1: BS 5837:2012 – Cascade Chart for Tree Quality Assessment

CORY

NOTES AND LIMITATIONS

Arboricultural survey data has been collected based on a walkover survey undertaken at a particular point in time (8 and 9 February 2023).

Only defects visible from the ground have been noted and each individual feature may not have been inspected closely due to access difficulties, the presence of dense ivy, other vegetation or safety constraints. Safety related features have not been recorded on the basis that the arboricultural features will be subject to a normal programme of tree hazard assessment and only those features which materially affect the quality of the feature or pose a real and immediate safety concern have been recorded.

Arboricultural survey data is typically valid for a period of two years unless otherwise stated. Significant environmental events (such as extreme weather conditions) or changes to the Site may render it invalid within a shorter timescale.

Records held on the Ancient Tree Inventory are collected on a voluntary basis, therefore the absence of records does not demonstrate the absence of Ancient or Veteran Trees but may simply indicate a gap in recording coverage.

Whilst arboricultural surveys are not seasonally limited it is the case that certain pests and diseases may be more or less evident at different times of the year. This is especially true of certain wood decaying fungi such as the Giant Polypore (*Meripilus giganteus*) where fruiting bodies are short lived, and the early stages of root decay may not result in other identifiable symptoms. Walkover survey data is therefore based upon observations made at the time of the site visit and may be subject to change should further or more detailed inspections be undertaken.

The survey has only been undertaken from land within the Applicant's ownership, from public land or from areas where formal access has been arranged.

The position of arboricultural features not recorded on a topographical survey has been estimated using aerial photography. The position and extent of these features should be regarded as approximate only.



Annex B

ARBORICULTURAL SURVEY SCHEDULE



SURVEY SCHEDULE EXPLANATORY NOTES

REFERENCE ABBREVIATIONS

- T Tree
- G Group

MEASUREMENTS

Height is estimated to provide a relative indication of tree size.

Stem Diameter are in accordance with BS 5837:2012¹ Paragraph 4.6.1, Appendix C. Abbreviations used:

- e estimated
- Crown spread for individual trees and groups was estimated in the four cardinal points.
- LCH lowest canopy height. It is an estimate of the lowest point of foliage above ground level of the tree indicating the clearance below the tree.
- LBH lowest branch height. It is the height above ground level of the first branch union with the main stem of the tree.

ASSESSMENTS

Life stage:

- Y Young
- SM Semi-mature
- EM Early Mature
- M Mature
- V Veteran

Physiological condition:

- G Good
- F Fair
- P Poor
- D Dead

Structural condition:

- G Good
- F Fair
- P Poor
- U Unstable

ERC - Estimated remaining contribution: <10 years, 10+ years, 20+ years or 40+ years.

BS 5837:2012¹ Category: A, B, C or U with subcategory recorded as 1, 2 or 3.



RPA Radius is the radius of a circular Root Protection Area associated with the tree as measured from the centre of the stem. For arboricultural features, where more than one stem diameter is recorded the RPA radius is calculated using the largest dimension. Unless otherwise noted the RPA for groups is based on the equivalent RPA for the largest tree in that group.



Annex C

OUTLINE ARBORICULTURAL METHOD STATEMENT

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OUTLINE ARBORICULTURAL METHOD STATEMENT

INTRODUCTION

This Outline AMS describes arboricultural protection measures to protect retained trees as part of the Proposed Scheme. An Outline AMS is a dynamic document that shall be reviewed prior to the issuing of any tender documentation. It shall be revised to accommodate any design amendments or known construction methodologies and must be read in conjunction with the Tree Removals and Protection Plan included within **Figure 10-1: Tree Removals and Protection Plan (Volume 2)**.

TREE PROTECTION FENCING

Tree protection fencing shall be fit for the purpose of excluding construction activity and appropriate for the degree and proximity of work taking place. An example of the type of tree protection fencing taken from BS 5837:2012¹ which may be required is included in **Figure A-2: Example of Appropriate Tree Protection Fencing** below.



Figure A-2: Example of Appropriate Tree Protection Fencing

CORY

Tree protection fencing will be used to prevent access to the RPAs of retained trees and this will form the Construction Exclusion Zones. In all instances the following shall be adhered to:

- tree protection fencing shall be erected prior to any works onsite including site clearance, groundwork or the importation of plant and materials;
- tree protection fencing shall be erected in accordance with the layout shown on the Figure 10-1: Tree Removals and Protection Plan (Volume 2);
- all weather notices will be attached (at eye level) to the tree protection fencing at suitable intervals and shall include suitably sized informative text stating "Tree Protection Fencing, Construction Exclusion Zone – No Access";
- once erected, tree protection fencing shall remain in situ until construction activities are complete;
- no construction activities, storage of materials or pedestrian or vehicular access shall take place within the Construction Exclusion Zones; and
- regular daily checks will be carried out by an appointed person to ensure that all tree protection fencing is still in place and functioning; any damage will be rectified without delay.

MONITORING

- Once protection measures have been installed, and prior to the commencement of the development, a site inspection should be undertaken by the Proposed Scheme's Arboricultural Clerk of Works. This is to confirm that all protection measures have been installed in accordance with Figure 10-1: Tree Removals and Protection Plan (Volume 2) and the AMS.
- It is recommended that arboricultural monitoring and supervision activities are recorded in writing.
- On completion of the Proposed Scheme a general survey of the trees is recommended to identify any remedial action necessary as a result of the works.
- If any arboricultural issues arise during the Proposed Scheme, then the site manager should immediately contact the Arboricultural Clerk of Works for advice on how to proceed.



DECARBONISATION

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