TIM MOYA ASSOCIATES

Arboricultural Impact Assessment Report

for planning purposes

Reading Station Shopping Park

January 2020

190314-PD-11a

Project	190314-PD-11a – Reading Station Shopping Park
Report Type	Planning
Checked by	Tim Moya
Date Checked	27/01/2020

CONTENTS PAGE

1 INTRODUCTION

Instruction

1.1 This Arboricultural Impact Assessment (AIA) has been instructed by Ramboll on behalf of the Applicant in order to provide an assessment of the likely impact on trees and vegetation associated with 'the Proposed Development' at Reading Station Shopping Park, 'the Application Site'.

Author

1.2 This report has been prepared by Edward Cleverdon. Edward is a senior arboricultural consultant dealing with trees in relation to all forms of human activity including the built environment. Edward is a professional member of the Arboricultural Association, an associate member of the Institute of Chartered Foresters, graduated with a BSc (hons) degree in Arboriculture from The University of Central Lancashire, is a LANTRA qualified professional tree inspector; and a registered user of Quantified Tree Risk Assessment.

Proposed development

1.3 The 'Proposed Development' at Reading Station Shopping Park within the jurisdiction of Reading Borough Council (the 'LPA') is for outline planning permission with the details of access, appearance, landscaping, layout and scale reserved for later determination.

1.4 Demolition and redevelopment to comprise: up to 115,000 square metres in one or more land uses including: Residential (Class C3); Offices (Use Class B1(a); development in Use Classes A1, A2, A3 (retail), A4 (public house), A5 (take away), C1 (hotel), D1 and D2 (community and leisure); car parking; provision of new plant and renewable energy equipment; creation of servicing areas and provision of associated services, including waste, refuse, cycle storage, and lighting; and for the laying out of the buildings; routes and open spaces within the development; and all associated works and operations including but not limited to: demolition; earthworks; provision of attenuation infrastructure; engineering operations.

1.5 All development works and operations to be in accordance with the approved Development Parameters Schedule and Plans.

Scope

1.6 This report has been provided to assist all parties involved in the planning process and has been prepared following a survey of the trees and other vegetation which may be impacted by development of the site in accordance with *British Standard 5837 - Trees in relation to design demolition and construction - Recommendations (2012)1*, hereafter referred to as BS5837.

1.7 The site was initially surveyed on the 21st May 2019. This report provides an assessment of the trees and the impact of proposed development as indicated within the Development Parameters (Schedule and Plans) for the site. Our assessment of the proposed impact of development is based on maximum development within the development parameters areas as well as the potential for hard landscaping, access and parking that may impact on existing trees within landscape areas.

1.8 The survey is an assessment in accordance with BS5837 and is not an assessment of the health and safety of trees and no recommendations for tree works have been provided unless required for development reasons. However, any trees identified as a current risk to health and safety have been highlighted in the tree works schedule at Appendix B, where appropriate.

2 THE APPLICATION SITE

Background information

2.1 The application sites immediate boundaries are defined by the following:

- Vastern Road (A329) to the north, beyond which are residential units and a Scottish and Southern Energy (SSE) office unit;
- Trooper Potts Way to the east, beyond which is Reading Railway Station car park;
- Network Rail Thames Valley Area Site Office to the south, beyond which is Reading Railway Station and railway lines; and
- Caversham Road to the west, beyond which are a range of commercial, residential and industrial units.

Image 1: aerial photograph of the site (Google images) to demonstrate the context of the immediate area and vegetation on site. Image is orientated north and not to scale.

2.2 The surrounding environment of the application site is characterised by urban development with a fragmented mixture of commercial, industrial and residential uses.

2.3 The application site extends to approximately 1.77 hectares (ha), occupied by pavilion style commercial units (including an Aldi, The Range, TGI Fridays, Mothercare, Majestic Wine) and associated surface car parking. The units are low rise, approximately two storeys high. There are approximately 280 existing car parking spaces on-site.

2.4 Trees and significant vegetation on the site are mostly confined to perimeter boundaries with Vastern and Caversham Road with some internal shrubs and small trees. Within the local area trees and vegetation are relatively limited with individual specimen trees placed strategically along lines of infrastructure and between residential and commercial development.

2.5 The majority of vegetation and green space within the wider context is located further to the north and east along the River Thames within parks and surrounding marinas.

Image 2: aerial photograph of the site in wider context (Google images) with built development surrounding the site and green spaces to the north and east. Image is orientated north and not to scale.

3 THE MATERIAL CONSIDERATIONS - PLANNING POLICY

National planning policy

3.1 Planning policy at national level is set out in the government's *National Planning Policy Framework* (NPPF)[1] that was revised in February 2019 and is supported by the ten characteristics of good development within the *National Design Guide* (NDG)[2] that was published in October 2019. The NPPF sets out overarching planning policy and at its core is a presumption in favour of sustainable development. Sustainable development is defined in the NPPF at paragraphs 7 & 8 as having economic, social, and environmental strands that are interdependent, and in these areas planning should meet "*the needs of the present without compromising the ability of future generations to meet their own needs*". In developing upon the principle of sustainable development, the NDG states that "*a well-designed place is unlikely to be achieved by focusing only on the appearance, materials and detailing of buildings*" and that "*it comes about through making the right choices at all levels*", which includes but is not limited to making the right choices for the built form and the landscape.

3.2 One key facet of sustainable development is ensuring that Green Infrastructure (GI) is sufficiently considered, in the context of development. The NPPF defines GI as a "*network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities*" - this includes trees - and makes explicit reference to the appropriate provisioning of GI at the following paragraphs:

- **Paragraph 91** - "*Planning [...] decisions should aim to achieve healthy, inclusive and safe places which [...] enable and support healthy lifestyles [...] for example through the provision of safe and accessible green infrastructure*";
- **Paragraph 150** - "*New development should be planned for in ways that [...] avoid increased vulnerability to the range of impacts arising from climate change [...] including through the planning of green infrastructure"*;
- **Paragraph 170** - "*Planning [...] decisions should contribute to and enhance the natural and local environment by [...] recognising the intrinsic character and beauty of [...] trees*";
- **Paragraph 175** - "*development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists*"; and
- **Paragraph 181** - "*Planning [...] decisions should [... take] into account opportunities to improve air quality or mitigate impacts [...], such as through traffic and travel management, and green infrastructure provision and enhancement*."

1 - HMCLG. (2019) National Planning Policy Framework. UK: HMSO.
2 - HMCLG. (2019) National Design Guide. UK: HMSO.

3.3 The National Design Guide (NDG) defines green infrastructure (GI) in the same manner as the NPPF, and specifies various policies underpinning the ten characteristics of good place-making that developments shall adhere to so that GI is appropriately provisioned, which include but are not necessarily limited to:

- **C1: Understand and relate well to the site, its local and wider context** - "*Well-designed new development responds positively to the features of the site itself and the surrounding context beyond the site boundary. It enhances positive qualities and improves negative ones*";
- **H2: Well-related to external amenity and public spaces** - "*External spaces are designed to respond to local character, as appropriate solutions will vary by the context, for example whether it is a town centre or suburb*";
- **M2: A clear structure and hierarchy of connected streets** - "*Well-designed streets create attractive public spaces with character, through their layout, landscape, including street trees, lighting, street furniture and materials*";
- **N3: Support rich and varied biodiversity** - "*Well-designed developments include site-specific enhancements to achieve biodiversity net gains at neighbourhood, street and household level. Green corridors can be used to extend and enhance existing ecosystems. Existing areas of valuable biodiversity are protected and enhanced. Priority is given to rare or critical habitats and species*"; and
- **R3: Maximise resilience** - "*Well-designed public and open spaces incorporate planting, structures and water for comfort. They create shade and shelter for their users, improve air quality and mitigate the effects of pollution. Deciduous trees provide shade to buildings, helping to manage solar gain when needed in summer months. These landscape features also contribute to reducing the heat island' effect whereby the temperatures in built up areas are significantly higher than outside them*".

3.4 To summarise, at national level the NPPF makes it clear that existing and prospective GI must be appropriately valued and considered (in a balanced and reasonable manner), as part of the planning and development process - this includes trees, which are a key facet of GI, in addition to GI within new safe and welcoming places within the public realm within urban centres.

Local planning policy

3.5 Planning policy at the local level is set out in Reading Borough Council's Core Strategy[3] and Local Plan[4] (the 'LDP'). Within the LDP, there are various policies that are relevant to Green Infrastructure in the context of this proposed development, which are detailed below:

- CS 38 of the core strategy and EN 14 of the draft local plan require proposed development to protect important trees and provide new tree planting within development schemes: "*Individual trees, groups of trees, hedges and woodlands will be protected from damage or removal where they are of importance, and Readings vegetation cover will be extended. New development shall make provision for tree planting within the application site, particularly on the street frontage, or off-site in appropriate situations, to improve the level of tree coverage within the Borough, to maintain and enhance the character and appearance of the area in which a site is located, to provide for biodiversity and to contribute to measures to reduce carbon and adapt to climate change*"
- CC3 requires proposed development to consider future climate change including tree retention and tree planting: " [the council will support the] *Use of trees and other planting, where appropriate as part of a landscape scheme, to provide shading of amenity areas, buildings and streets and to help to connect habitat, designed with plants that are carefully selected, managed and adaptable to meet the predicted changed climatic conditions*".
- CC1 requires proposed development to consider the overarching policy of sustainable development and design presented in the NPPF: "*A positive approach to considering development proposals will be taken that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework*".
- CC7 requires landscape to be a consideration of design: " [the council will support development that is] *visually attractive as a result of good high quality built forms and spaces, the inclusion of public art and appropriate materials and landscaping".*
- *EN12 requires proposed development to consider the im*pact on biodiversity and green infrastructure: "*On all sites, development should not result in a net loss of biodiversity and geodiversity, and should provide a net gain for biodiversity wherever possible"*

3 - Reading Borough Council. 2008. Core Strategy.
4 - Reading Borough Council. 2017. Draft Local Plan.

4 THE MATERIAL CONSIDERATIONS - TREES

Statutory protection

4.1 Awaiting TPO details

4.2 The site is not within a conservation area.

Distribution

4.3 Significant trees are confined to the boundaries of the site, adjacent to Vastern and Caversham Roads. These include the Norway maple trees T7 - T12 which include 3 trees of moderate amenity value and collectively form a landscape feature on Vastern Road; and the London plane and Norway maple trees T16 - T18 of moderate to high amenity value which collectively form a significant landscape feature on Caversham Road.

4.4 Internal trees and vegetation include the Norway maple tree T1 which has been significantly reduced and crown lifted in order to manage separation between the tree and adjacent buildings, the apple trees T2 - T5 which form a central area of vegetation with limited growth potential; and the whitebeam trees T6 and T13 in failing condition unsuitable for retention.

Photo 1: image of the Norway maple tree T1 significantly crown reduced and lifted within a constrained environment.

Photo 2: image of the apple trees T2 to T5 with limited growth potential.

Photo 3: image of the whitebeam tree T13 in failing condition.

Photo 4: image of the London plane tree T16 providing amenity benefits to Caversham Road.

Photo 5: image of the London plane tree T17 close to the corner of Caversham Road and Vastern Road with high amenity value.

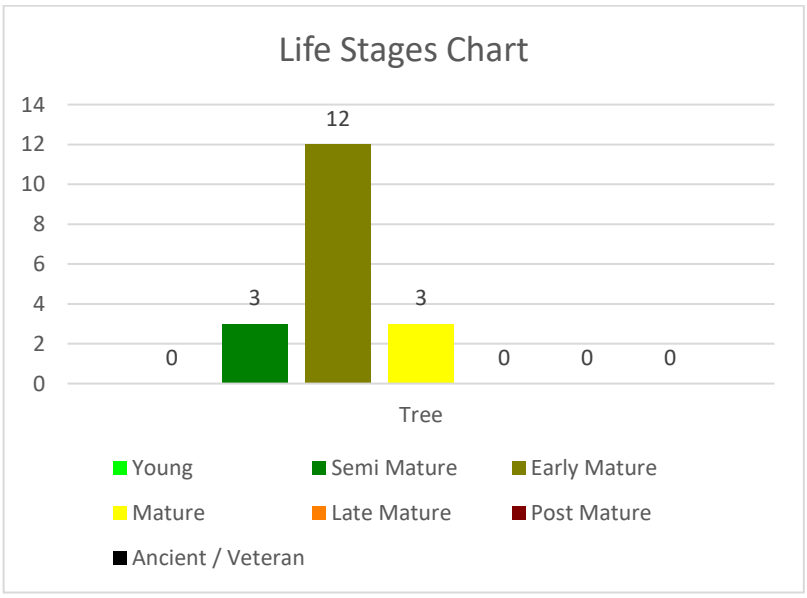
Photo 6: image of the Norway maple tree T18 providing amenity benefits on the corner of Caversham Road and Vastern Road.

Photo 7: Norway maple trees T7 and T8 providing amenity benefits to Vastern Road.

Photo 8: image of trees T9 - T12 collectively forming a landscape feature on Vastern Road.

Age

4.5 The majority of trees are within the early-mature stage of development, having been planted during establishment of the site. Individual specimens have grown on to varying heights and crown spreads based on species and environmental factors but the diversity of age class across the site is relatively limited.



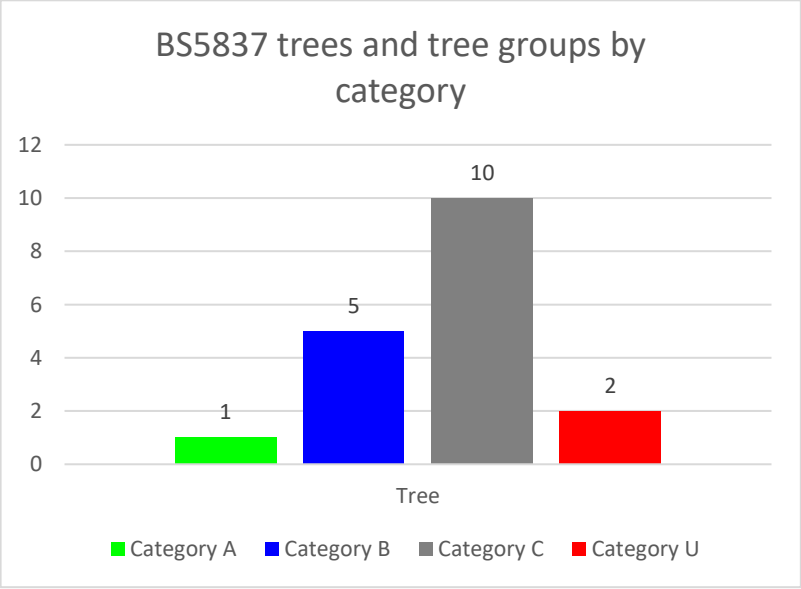
Condition

4.6 The physiological and structural condition of the trees varies across the site based on species, location and growing conditions. Trees to the west of the site, notably T16 to T18, where afforded ample room for growth have thrived; while trees on Vastern Road, where available rooting environment is constrained by the built form of the car park, vary significantly based on respective growing conditions.

BS5837 categorisation

4.7 The categorisation of the trees in relation to BS5837 trend in line with the environmental factors influencing growth and condition. The most significant trees T16 - T18, category A and B trees, are located to the west of the site; while trees T8, T9 and T12 present trees of moderate amenity value (category B) on Vastern Road.

4.8 The remaining trees across the site are of low amenity value or unretainable (category C and U) based on condition or historic management. Of the category C trees, T7 and T11 on Vastern Road are of notable public value given their contribution to the street scene but impaired condition and minor structural issues.



5 ARBORICULTURAL IMPACT ASSESSMENT

5.1 The arboricultural impacts as associated with the proposed development is based on the potential for maximised development within the parameter areas. Appropriate measures to address and manage / mitigate the identified impacts are discussed alongside the analysis and within the report appendices.

5.2 This report considers the potential for landscape provision that may mitigate for tree removals and building separation to justify tree retention which may be controlled as part of reserved matters application.

Tree removals

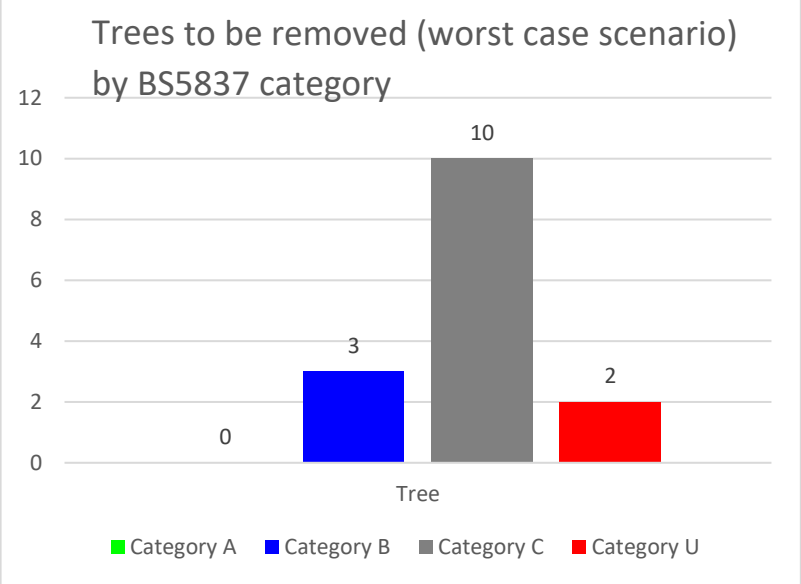
5.3 The exact layout of the proposed development will be determined at reserved matters stage, as such the exact number of tree removals is not presently known. However, the worse case, based on the maximum building footprint being delivered, would require the loss of 15 trees including 3 B category trees, 10 C category trees and 2 U category trees.

5.4 The maximum extent of Plot A has been designed to facilitate the retention of T17 and T18, while surface changes only are propsoed within the root protection area of T16 is beyond the influence of built development.

5.5 The most significant trees on the site (T16 - T18) can be retained with limited impact on the landscape amenity value of Caversham Road; however should trees T8, T9, T11 and T12 need to be removed this will have an impact on the Vastern Road street scene which would be mitigated with new landscaping secured as part of a reserved matters or detailed planning application.

5.6 The removal of trees within internal locations of the site, or with limited prominence on Vastern Road such as T1 - T6, T10, T13 - T15, will have a limited impact on the character and appearance of the area; the mitigation for which may be secured as part of a reserved matters or detailed planning application.

5.7 An assessment of the indicative landscaping scheme suggests there are significant opportunities to re-plant across the site and within Vastern Road both to mitigate for the loss of amenity to the street scene and increase green infrastructure across the site.



Retained tree juxtaposition and future growth

5.8 Retained tree T16 has been historically managed for highways clearance over the access road and will not require significant pruning beyond existing management to facilitate the development.

5.9 Retained trees T17 and T18 over sail the existing building on their eastern side and have not been historically managed with reduced crowns. The location of the boundary for Plot A lies along the edge of the existing crown extents and requires consideration for future crown growth. Both London plane and Norway maple species are tolerant of pruning and the form of the trees will allow approximately 1.5m crown reduction of the eastern aspect of the tree canopies to suitable growth points, as such there is no concern raised regarding the maximum western extent of development proposed in Plot A.

Photo 9: T17 with indicative 1.5m pruning line (red).

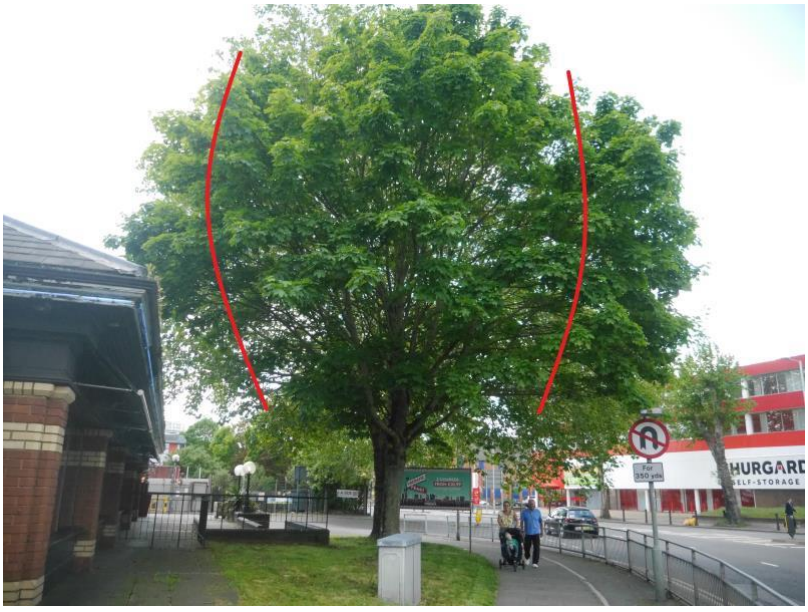


Photo 10: with indicative 1.5m pruning line (red).

Demolition activities

5.10 Demolition of the footings and hard surfacing associated with the existing building adjacent to T17 and T18 will require methodology to protect and retain significant roots which may be secured by condition or as part of a reserved matters or detailed planning application.

Construction activities

5.11 Construction of the main built elements within Plot A are likely to be within the outline of the existing building footings, the extent of which and construction methodology used may be secured by condition or within a reserved matters or detailed planning application.

Hard surface installation

5.12 Refurbishment or alterations to the existing access road will require any excavations to keep to the existing sub-base depth within in the root protection area of T16. Given that the existing road has been constructed to withstand a high volume of traffic it is unlikely this will present any significant constraint on highway design or engineering.

5.13 Refurbishment of the existing hard surface within the root protection areas of T17 and T18 will require the same consideration and there are several low impact engineering solutions to pedestrian walkways within root protection areas.

5.14 The soft surfaced area beneath the T17 and T18 is beyond the developable area of Plot A but may incorporate new hard surfacing, the suitability of which and methodology of installing without impacting on roots may be secured within a reserved matters or detailed planning application.

6 CONCLUSIONS

Arboricultural impacts

6.1 The majority of potential tree removals from within the site are of relatively low amenity value. The impact on the character and appearance of the area after removal of the internal trees will be negligible and the mitigation for the loss of green infrastructure may be balanced over a short space of time with new planting.

6.2 The removal of significant trees on the boundary with Vastern Road, if required, would result in a loss of visual amenity from the street scene, the mitigation for which will require quantification and commitment as part of a condition discharge or reserved matters or detailed application. There are significant opportunities to plant along Vastern Road and increase tree numbers to improve canopy cover and enhance the character and appearance of the area over time.

6.3 T16 may continue to be managed to facilitate vehicle access beneath the canopy without additional pruning. Trees T17 and T18 may require crown reduction of the eastern aspect of the canopy to maintain a suitable juxtaposition between the trees and proposed buildings.

6.4 The trees (T17 and T18) may be reduced by 1.5m without significantly altering form and will not require pruning beyond suitable growth points. The location of the Plot A building can be achieved within the maximum extent proposed while maintaining a suitable juxtaposition with the retained trees

6.5 The demolition and construction of surfaces and buildings within the RPA of T16 - T18 will require consideration within future planning submissions however given the presence of existing footings and hard surfacing within the developable area there is unlikely to be any significant impact on the trees where appropriate design and methodology are incorporated.

Green Infrastructure opportunities

6.6 The indicative landscape plan demonstrates that there are significant opportunities for the establishment of a large number of new trees. The provision of high quality trees located in positions where they will be able to grow to maturity both across the site and on Vastern Road has the potential to increase tree numbers on the site and mitigate for tree losses in the short to medium term. Over the long term, new tree planting has the potential to significantly enhance the amenities of the property and contribute to the character and appearance of the local area.

Planning policy

6.7 Compliance with Core Strategy policy CS38 and emerging Local Plan policy EN14 requires new development to protect important trees and make provision for new tree planting to enhance the character and appearance of the area and contribute to bio-diversity. The proposed development recognises the value of trees T16 - T18 and affords separation from Plot A which may be further secured when considering building design and construction methodology within a reserved matters or detailed planning application. The indicative landscape scheme demonstrates the potential for new planting to increase tree numbers both across the site and on Vastern Road which will enhance the character and appearance of the area and contribute to biodiversity.

6.8 Policy CC3 of the Local Plan requires new development to consider future climate change including tree retention and planting while EN12 requires a net gain in biodiversity where possible. As with policies CS38 and EN14 the indicative landscape plan demonstrates there are significant opportunities to increase tree numbers and future canopy cover on the site, which may be seen as a benefit of the development and secured as part of future planning applications.

6.9 Policies CC1 in relation to sustainable development and CC7 would be better scrutinised within future planning applications; however, the proposed development does provide an indicative landscape plan which demonstrates the feasibility of sustainable development and landscape design.

6.10 The proposed development has considered the retention of significant trees through the positioning of developable areas in relation to the retention of trees T16 - T18; and where there are tree losses, has demonstrated the feasibility of tree planting and landscape enhancements both on the site and Vastern Road.

6.11 The development therefore presents a position from which tree retention and landscape mitigation will be designed by the landscaping architect within a more detailed scheme, providing an opportunity to enhance the character of the area and increase biodiversity.

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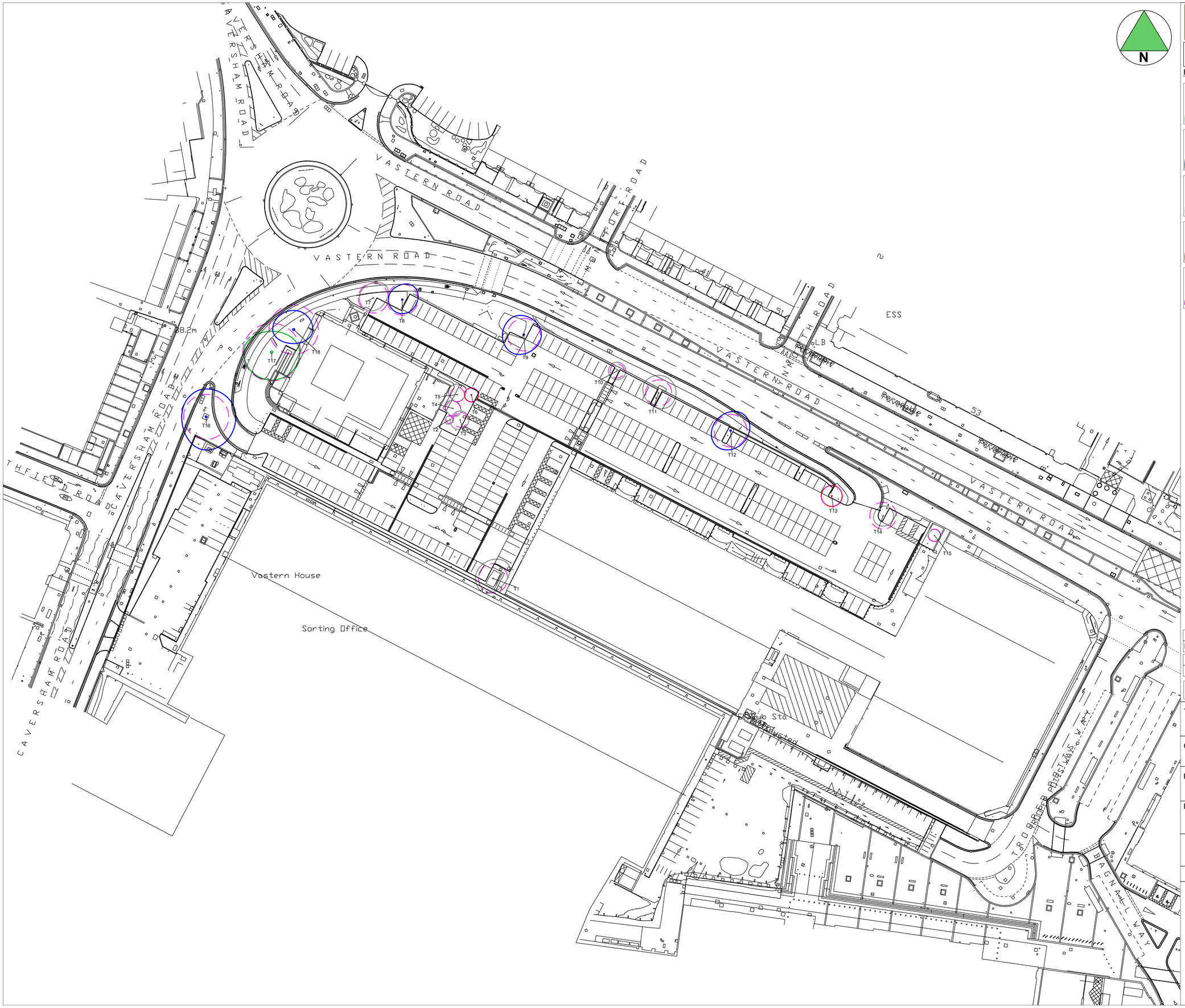
APPENDIX A - Plans

- 190314-P-10 Tree Survey
- 190314-P- 11 Proposed



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BS 5837:2012 TREE RETENTION CATEGORIES

Category A
Trees of high quality with an estimated remaining life expectancy of at least 40 years.

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

Category C
Trees of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm.

Category U
Those in such a condition that the tree cannot realistically be retained as living trees in the context of the current land use for longer that 10 years.

BS5837 Root Protection Areas
Precautionary areas within which tree roots and soil structure must be protected. All works within these areas will require special methods of work

REV	DATE	DESCRIPTION	DRAWN
-	xx.xx.xx	-	xx

Base Drawing

0 5m 10m 20m 30m 40m 50m

Title
Tree Survey

Client
Ramboll Environ UK Ltd

Project
Reading Station Shopping Park

Date	Drawn by	Checked by
May 2019	HR	-

Drawing No	Rev	Scale
190314-P-10	-	1:500@A1

DO NOT SCALE Use only figured dimensions

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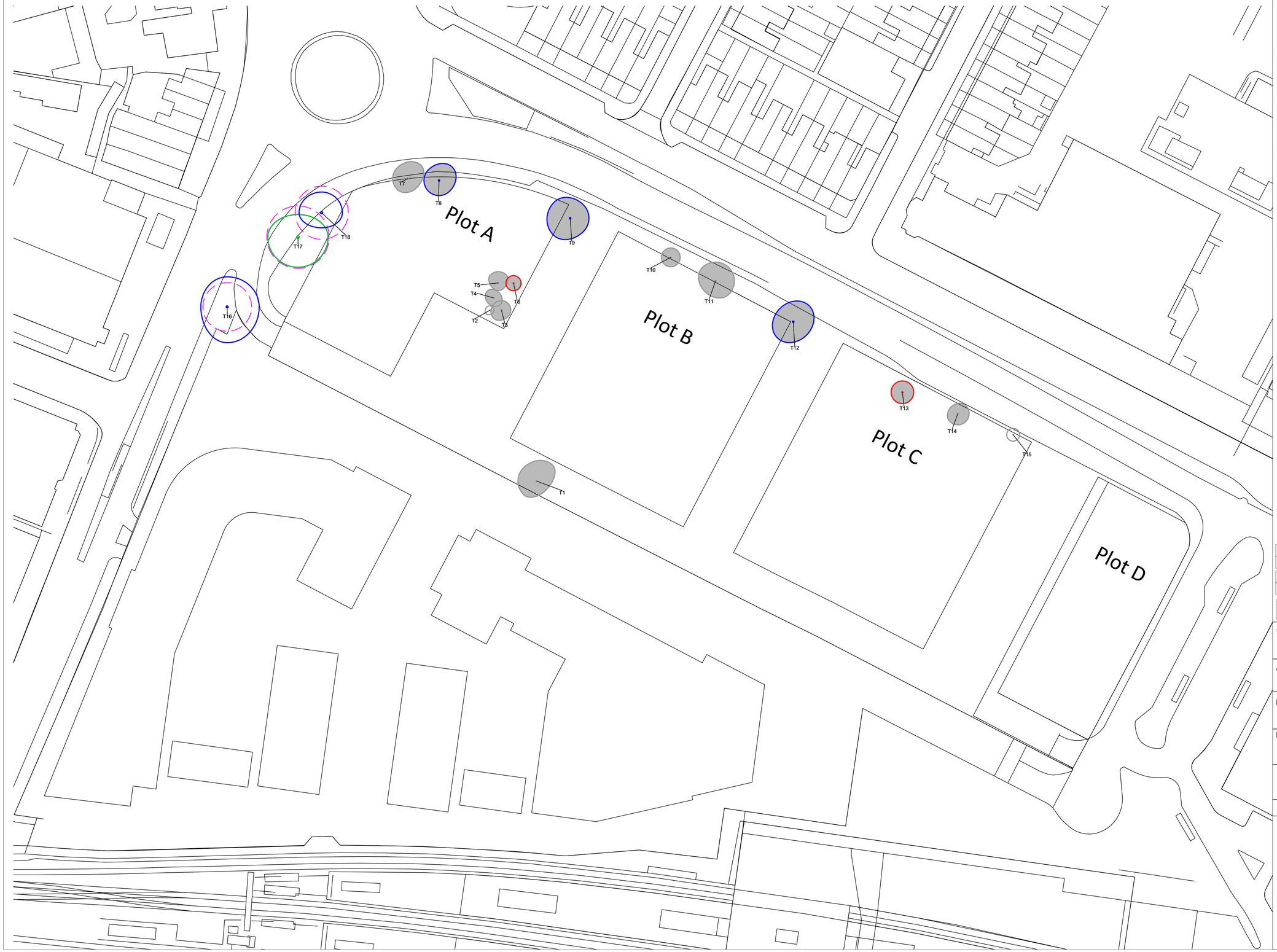
arboriculture ecology landscape innovation



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BS5837 Root Protection Areas
Precautionary areas within which tree roots and soil structure must be protected. All works within these areas will require special methods of work.

Trees to be removed shown shaded grey

REV	DATE	DESCRIPTION	DRAWN
-	xx.xx.xx	-	xx

Base Drawing

0 5m 10m 20m 30m 40m 50m

Title
Proposed Layout and Tree Removals

Client
Ramboll Environ UK Ltd

Project
Reading Station Shopping Park

Date	Drawn by	Checked by
December 2019	HR	-
Drawing No	**Rev**	**Scale**
190314-P-11	-	1:500@A1

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APPENDIX B - Schedules

- 190314-PD-10 Tree Schedule
- 190314-PD-12 Tree Work Schedule

190314-PD-10-Tree schedule (BS5837)

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190314 - Reading Station Shopping Park

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T1	1	Acer platanoides (Norway Maple)	9.0	35	1		6.0		3.4		5.0		5.0	5.0		Late Mature	Structural condition Poor. Physiological condition Fair. Crown lifted. Poor past pruning. Suppressed from. Congested crown. Weak unions.	21/05/2019	55.4	4.2	0-10	C2
Tree T2	1	Malus sp. (Apple sp.)	4.0	9	1		1.0		1.0		1.5		1.2	2.0		Semi Mature	Structural condition Fair. Physiological condition Poor. suppressed form and condition.	21/05/2019	3.7	1.1	0-10	C2
Tree T3	1	Malus sp. (Apple sp.)	7.0	18	1		2.5		2.5		3.0		2.5	2.0		Early Mature	Structural condition Fair. Physiological condition Good. Dominant tree in group.	21/05/2019	14.7	2.2		C1
Tree T4	1	Malus sp. (Apple sp.)	6.0	18	1		2.0		2.5		2.0		2.5	2.0		Early Mature	Structural condition Fair. Physiological condition Good.	21/05/2019	14.7	2.2	10-20	C1
Tree T5	1	Malus sp. (Apple sp.)	5.0	17	1		3.0		2.0		2.0		3.0	2.0		Early Mature	Structural condition Fair. Physiological condition Fair. Crown weight North East.	21/05/2019	13.1	2.0	10-20	C2
Tree T6	1	Sorbus aucuparia (Rowan/Mountain Ash)	5.0	17	1	2.0		2.0		2.0		2.0		2.0		Semi Mature	Structural condition Poor. Physiological condition Poor. Decline - Evident / observed.	21/05/2019	13.1	2.0	0-10	U
Tree T7	1	Acer platanoides (Norway Maple)	10.0	36	1		5.0		3.4		4.0		4.0	3.0		Early Mature	Structural condition Fair. Physiological condition Fair. Significant surface root south west. Low crown break. Unlikely to have 20+ ULE	21/05/2019	58.6	4.3	10-20	C1
Tree T8	1	Acer platanoides (Norway Maple)	12.0	37	1		5.0		4.0		4.0		4.0	2.0		Early Mature	Structural condition Good. Physiological condition Good. Form - Good crown structure. Significant surface roots.	21/05/2019	61.9	4.4	20-40	B2

Stem green Estimated value
Stem AVE Average stem diameter for tree groups
Stem COM Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

190314 - Reading Station Shopping Park

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T9		Acer platanoides (Norway Maple)	11.0	39	1		5.0		5.0		6.3		6.0	3.0		Early Mature	Structural condition Good. Physiological condition Good. Form - Good crown structure.	21/05/2019	68.8	4.7	20-40	B2
Tree T10	1	Acer platanoides (Norway Maple)	7.0	17	1		2.5		2.5		2.5		2.5	3.0		Early Mature	Structural condition Fair. Physiological condition Fair. Raised surface roots.	21/05/2019	13.1	2.0	10-20	C2
Tree T11	1	Acer platanoides (Norway Maple)	10.0	31	1		5.0		5.0		4.0		5.0	2.0		Early Mature	Structural condition Fair. Physiological condition Fair. Thinning crown and eccentric limb development. Large limbs removed to crown lift south west. Low crown break.	21/05/2019	43.5	3.7	10-20	C2
Climber C12	1	Acer platanoides (Norway Maple)	11.0	39	1		6.0		5.0		6.0		5.0	3.0		Mature	Structural condition Good. Physiological condition Good. Fork - Suspected structurally sound. Reaction wood / Adaptive growth - Stem / stems. Stems - Co-dominant.	21/05/2019	68.8	4.7	20-40	B2
Tree T13	1	Sorbus aucuparia (Rowan/Mountain Ash)	5.0	25	1		3.0		3.0		3.0		3.0	2.0		Mature	Structural condition Poor. Physiological condition Poor. Decline - Evident / observed. Bark peeling. Shed limbs. Fractured unions.	21/05/2019	28.3	3.0	0-10	U
Tree T14	1	Alnus glutinosa (Common Alder)	6.0	32	1		3.0		3.0		3.0		2.5	2.0		Mature	Structural condition Poor. Physiological condition Poor. Root environment - Restricted. Congested stem unions.	21/05/2019	46.3	3.8	0-10	C2
Tree T15	1	Sorbus aucuparia (Rowan/Mountain Ash)	5.0	15	1	1.7		1.7		1.7		1.7		2.0		Semi Mature	Structural condition Fair. Physiological condition Fair.	21/05/2019	10.2	1.8	10-20	C2
Tree T16	1	Platanus x hispanica (London Plane)	15.0	54	1	8.0		8.5		9.5		7.0		3.0		Early Mature	Structural condition Good. Physiological condition Good. Prominent focal tree. Congested crown and eccentric growth.	21/05/2019	131.9	6.5	20-40	B1

Stem green Estimated value
Stem AVE Average stem diameter for tree groups
Stem COM Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

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190314 - Reading Station Shopping Park

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T17	1	Platanus x hispanica (London Plane)	16.0	69	1	6.0		8.0		8.0		8.0		3.0		Mature	Structural condition Good. Physiological condition Good. Form - Good crown structure. Prominent focal High value tree.	21/05/2019	215.4	8.3	40+	A2
Tree T18	1	Acer platanoides (Norway Maple)	11.0	59	1	5.5		5.5		4.0		6.0		4.0		Mature	Structural condition Fair. Physiological condition Good. Crown break 3 - 4m	21/05/2019	157.5	7.1	20-40	B2

Stem green Estimated value
Stem AVE Average stem diameter for tree groups
Stem COM Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Summary table with retention category

	Climber	Tree	Total
A2	0	1	1
B1	0	1	1
B2	1	3	4
C1	0	3	3
C2	0	7	7
U	0	2	2
Total	1	17	18

Summary table with life stage

	Climber	Tree	Total
Early Mature	0	9	9
Late Mature	0	1	1
Mature	1	4	5
Semi Mature	0	3	3
Total	1	17	18

Table 1 of BS5837 (2012) Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see note)				
Category U Those 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	* 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) * Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline * Trees infected with pathogens of significance to 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			RED
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Tree that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).	Trees, groups or woodlands of particular visual importance as arboricutural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).	GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (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.	Trees present in numbers, usually growing 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.	Trees with material conservation or other cultural value.	BLUE
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	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.	GREY

190314-PD-12 - Planning Tree Works Schedule

Reading Station Shopping Park

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ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T1	1 *Acer platanoides* Norway Maple	C2	To facilitate development Fell - Ground level.	Proposed
T2	1 *Malus sp.* Apple sp.	C2	To facilitate development Fell - Ground level.	Proposed
T3	1 *Malus sp.* Apple sp.	C1	To facilitate development Fell - Ground level.	Proposed
T4	1 *Malus sp.* Apple sp.	C1	To facilitate development Fell - Ground level.	Proposed
T5	1 *Malus sp.* Apple sp.	C2	To facilitate development Fell - Ground level.	Proposed
T6	1 *Sorbus aucuparia* Rowan/Mountain Ash	U	To facilitate development Fell - Ground level.	Proposed
T7	1 *Acer platanoides* Norway Maple	C1	To facilitate development Fell - Ground level.	Proposed
T8	1 *Acer platanoides* Norway Maple	B2	To facilitate development Fell - Ground level.	Proposed
T9	1 *Acer platanoides* Norway Maple	B2	To facilitate development Fell - Ground level.	Proposed
T10	1 *Acer platanoides* Norway Maple	C2	To facilitate development Fell - Ground level.	Proposed
T11	1 *Acer platanoides* Norway Maple	C2	To facilitate development Fell - Ground level.	Proposed
T12	1 *Acer platanoides* Norway Maple	B2	To facilitate development Fell - Ground level.	Proposed
T13	1 *Sorbus aucuparia* Rowan/Mountain Ash	U	To facilitate development Fell - Ground level.	Proposed
T14	1 *Alnus glutinosa* Common Alder	C2	To facilitate development Fell - Ground level.	Proposed
T15	1 *Sorbus aucuparia* Rowan/Mountain Ash	C2	To facilitate development Fell - Ground level.	Proposed

Tree work analysis (trees and trees in groups)

	To facilitate development	Total
Fell - Ground level	15	15
Total	15	15

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