



ARBORICULTURAL SURVEY REPORT

ON BEHALF OF

ARUP

FOR

OUTLINE APPLICATION FOR BUSINESS PARK, PARKWAY RAIL STATION AND PARK AND RIDE

AT

LAND TO THE SOUTH OF ST MELLONS BUSINESS PARK, ST MELLONS, CARDIFF

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REVISIONS:

Date	Rev	Description of revision	Initials
09/07/2018	-	First issue	IM



1. EXECUTIVE SUMMARY

- 1.1 The site is approximately 100 hectares of rural grazing pasture and haylage, scrub and boundary trees and hedges located within the Wentloog Levels. To the immediate north and east are the business parks and modern housing of St Mellons. The field and site boundaries are mostly marked by reens. Unmanaged and scrubby boundary groups of hawthorn, blackthorn and Goat willow, Crack willow and White willow are throughout the site, with Pedunculate oak a feature. A seasonal wet woodland of mature Goat willow and oak grows to the immediate south of the railway line. Along the west boundary, between Cypress Drive and Faendre Reen is a loose grouping of Pedunculate oak, Italian alder, Silver birch, Grey poplar, willows and Field maple which form a visual screen between the site and housing to the west.
- 1.2 Two A quality category Pedunculate oak trees have been identified. T21 oak is category A3; a veteran tree providing high ecological value. T31 is category A1; an emerging veteran tree of high value. Most trees and groups have been assigned the B quality category, with the majority of these being individual trees. T104 Goat willow, T114 oak and G67 Goat willow, Hawthorn, blackthorn, Pedunculate oak have been given quality category B3, as defects such as decay provide ecological value despite their impairing their condition. A similar total number of trees and groups and hedges have been assigned the C quality category, with the majority of these being groups. Four U quality trees were identified. Oaks T9 and T10 have severe crown dieback. T122 Goat willow is a fallen tree. T132 Crack willow has basal decay and cracked and collapsed stems.
- 1.3 Published guidance recommends that for veteran trees the root protection area (RPA) should ideally be a larger area than the standard RPA calculation that BS5837:2012 provides. The RPAs for the A-quality veteran oak T21 and emerging veteran oak T31 have therefore been amended to reflect this.
- 1.4 There appears to be ample opportunity within the site for development that retains trees or groups of trees with good current or future amenity value. In particular, the Pedunculate oak trees, which have the longest life expectancy, should be prioritised for retention, as well as the west boundary groups between Cypress Drive and Faendre Reen. Lower value trees and groups can be considered for removal, or management of boundary groups through pruning to reduce their size and spread.



1.5 When the design for the proposals has been finalised, an arboricultural impact assessment should be carried out in order to evaluate the direct and indirect effects of the proposals on the site's arboricultural resource. This should include an evaluation of tree retention in comparison to tree loss, recommendations for mitigation planting as may be necessary as well as a specification for tree pruning works that may be required.



2. INTRODUCTION

- 2.1 Barton Hyett Associates have been instructed by Arup to inspect the trees that could affect or be affected by a development proposal at the land known as 'Land to the south of St Mellons Business Park, St Mellons, Cardiff'; hereafter referred to as 'the site'. This report, in compliance with BS5837:2012 'Trees in relation to design, demolition and construction recommendations' is required to inform the layout and design of emerging development proposals.
- 2.2 The scope of my instruction was to visit the site and to survey relevant trees, hedges and shrub masses in accordance with BS5837:2012 'Trees in relation to design, demolition and construction recommendations' and to prepare the following information:
 - Tree survey summary report
 - Schedule of tree survey data
 - Tree survey plan: an updated topographical survey showing above and below ground arboricultural constraints



3. **REPORT LIMITATIONS**

- 3.1 My survey was a preliminary assessment undertaken from ground level and observations have been made solely from visual inspections for the purposes of assessment in terms relevant to planning and development. Only binoculars, mallet and a probe have been used to aid tree assessment. No invasive or non-invasive internal decay detection devices have been used in assessing tree condition.
- 3.2 The recommendations and conclusions in this report relate only to the conditions found on this site at the time of the site visit and inspection. The recommendations contained within this report are valid for a period of 12 months from the date of this report.
- 3.3 Any significant alteration to the site that may affect the trees that are present or have planning implications (level changes, additional tree works, post extreme weather events, hydrological changes) and will necessitate a re-assessment of the trees and the site.
- 3.4 This report is prepared for planning application purposes only and does not evaluate the degree of risk posed by trees.
- 3.5 Trees are living organisms as well as self-supporting dynamic structures. Their physiological and structural condition can change rapidly in response to a wide range of biotic/abiotic factors. They have the potential to fail structurally, without prior manifestation of any reasonably observable symptoms. It is therefore not possible to categorically state that any tree is 'safe'.
- 3.6 It is beyond the scope of this report to comment in relation to structural damage direct or indirect, existing or potential – that might be associated with vegetation growth, or vegetation-related soil subsidence or heave.
- 3.7 Any management recommendations set out within this report are of an advisory and preliminary nature only and relate to trees within the context of current site use. Any physical alterations to site conditions subsequent to the date of the site survey will have the potential to change/invalidate the findings and recommendations of this report.



4. DOCUMENTS AND INFORMATION PROVIDED

- 4.1 For the purposes of carrying out the assessment I have been provided with, and made reference to, the following information:
 - Site boundary plan ref: UD01 (P02)
 - Topographical survey plan ref: Cardiff Parkway, St Mellons 2D (Jan 2018)



5. DESCRIPTION OF SITE AND TREES

- 5.1 The site is located to the east of St Mellons; a district and suburb of southeastern Cardiff.
 - Nearby post code: CF3 0EY
 - Central grid ref: ST250810



Figure 1: aerial photo of the site with <u>approximate</u> boundary shown in red. (Source: Apple Maps, 2018).

5.2 The supplied topographical survey plan did not include all the fields to the south of the railway line so not all of this area was surveyed for trees.



Site description

- 5.3 The site is approximately 100 hectares of grazing pasture and haylage, scrub and boundary trees and hedges located within the Wentloog Levels. The levels are formed from tidal deposits and alluvium, and the water table is managed by an Internal Drainage Board through a system of reens and sluices. Reens and drainage ditches are a feature of the site.
- 5.4 The land is rural, but to the immediate north and east are the business parks and modern residential developments of St Mellons. The railway line and HV power lines and pylons crossing the site further reduce the rural character. The southern approximately one-third of the site is physically isolated from the north of the site by the railway line.
- 5.5 There is vehicular farm access to the site from Fortran Road to the north, Heol Las to the east, Wentloog Avenue to the south. There is further pedestrian access to the west part of the site from Cypress Drive. A footpath, St Mellons 4a#2 crosses the northern part of the site, running east-west.
- 5.6 Located within the Levels, the site is fairly flat, and at approximately 4.5 metres above mean sea level. The Severn Estuary is about 1.5 kilometres to the south, and so the site is exposed to winds from the southwest.
- 5.7 The field and site boundaries are mostly marked by the reens. Some of these are relatively free of trees and shrubs where they have been cleared and dredged. Others have unmanaged hedges and scrub along them. The reens physically isolate some fields from within the site, where no bridge crosses them.
- 5.8 The site is generally very visible from the north and east, but the flat topography means that visibility into the site from ground level is soon limited by hedges. Intervening agricultural land to the south greatly reduces visibility from the south. Vegetation along the west boundary with Cypress Drive limits visibility from the west.
- 5.9 The vegetation along the field boundaries include mature Pedunculate oak, Goat willow, Crack willow and White willow. Unmanaged and scrubby hedges of hawthorn, blackthorn and Goat willow are throughout the site. A seasonal wet woodland of mature Goat willow and oak grows to the immediate south of the railway line. Along the west boundary, between Cypress Drive and Faendre Reen is a loose grouping of Pedunculate oak, Italian alder, Silver birch,



Grey poplar, Willows and Field maple which form a visual screen between the site and housing

to the west.



6. STATUTORY PROTECTION

Statutory tree protection

- 6.1 Cardiff Council, the Local Planning Authority (LPA), confirmed by email on 2 July 2018 that none of the trees on site are currently protected by Tree Preservation Order (TPO). The site is not located within a Conservation Area. The following information is provided for advisory purposes only.
- 6.2 Notwithstanding specific exemptions and in general terms, a TPO prevents the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of protected trees or woodlands without the prior written consent of the LPA.
- 6.3 Penalties for contravention of a TPO tend to reflect the extent of damage caused but can, in the event of a tree being destroyed, result in a fine of up to £20,000 if convicted in a Magistrates' Court, or an unlimited fine is the matter is determined by the Crown Court.
- 6.4 Similarly, and again notwithstanding specific exemptions, it is an offence to carry out any works to a tree in a Conservation Area with a trunk diameter greater than 75mm diameter at 1.5 height without having first provided the LPA with 6 weeks written notification of intent to carry out the works.
- 6.5 On many non-residential sites (excluding specific exemptions) there is also a statutory restriction relating to tree felling that relates to quantities of timber that can be removed within set time periods. In basic terms, it is an offence to remove more than 5 cubic metres of timber in any one calendar quarter without having first obtained a felling licence from Natural Resources Wales.
- 6.6 Any proposed tree works that are planned to be carried out on site must be carried out in accordance with the statutory controls outlined.

Statutory Wildlife Protection

6.7 Although preliminary visual checks from ground level of likely wildlife habitats are made at the time of surveying, detailed ecological assessments of wildlife habitats are not made by the arboriculturist and fall outside of the scope for this report.



- 6.8 Trees which contain holes, splits, cracks and cavities could potentially provide a habitat for protected species such as bats in addition to birds and small mammals. It is advised that in some instances specialist ecological advice may be required. This may result in tree works being carried out following a detailed climbing inspection to the tree to ensure that protected species or their nests/roosts are not disturbed. If any are found, the site manager, site owner or consulting arboriculturist should be informed and appropriate action taken as recommended by the appointed Ecologist or Natural Resources Wales.
- 6.9 It is advised that tree/hedgerow works are carried out with the understanding that birds will generally nest in trees, hedges and shrubs between March and August. This time period only provides an indication of likely nesting times and as such diligence is required when undertaking tree works at *all* times.
- 6.10 Irrespective of the time of year, and other than any actions approved under General Licence, it is an offence to intentionally kill, injure or take any wild bird or to intentionally take, damage or destroy the nest or eggs of any wild bird. Ideally, tree operations should be avoided during the likely bird nesting period. However, any tree works should always only be carried out following a preliminary visual check of the vegetation.
- 6.11 For information, the Wildlife and Countryside Act 1981 (as amended), The Countryside and Rights of Way Act 2000 (as amended) and the Conservation of Habitat and Species Regulations 2010, form the basis of the statutory legislation for flora and fauna in Wales.
- 6.12 Any proposed tree works that are planned to be carried out on site must be carried out in accordance with any relevant statutory controls, outlined above.



7. ARBORICULTURAL SURVEY

<u>Site visit</u>

7.1 I visited the site with arboriculturist Paul Barton on 27th and 28th June 2018. The weather at the time of the visit was sunny, dry and hot; and visibility was good. All observations were made from ground level (aided by the Visual Tree Assessment method – Mattheck and Breloer, 1994) and all dimensions were measured unless otherwise stated as estimated in the survey schedules.

<u>Methodology</u>

- 7.2 As the application is for outline consent only, the tree survey was slightly less detailed than a full specification BS5837:2012 survey; the important details to enable master-planning were recorded, but details such as first branch height and crown clearance were not recorded.
- 7.3 The tree survey findings are recorded in the tree survey schedule at **APPENDIX 1** of this report.
- 7.4 Within the tree survey schedule, each surveyed tree (T), group (G) or hedgerow (H) on or adjacent to the site is given a reference number which refers to its position on the tree survey and constraints plan which can be found at **APPENDIX 2** of this report.



8. TREE SURVEY FINDINGS

8.1 A summary of the tree survey quality assessment findings that are relevant to the current proposals are shown in table form below:

		A - High quality trees whose retention is	B - Moderate quality trees whose retention is	C - Low quality trees which could be retained but should not significantly constrain the	U - Very poor quality trees that should be removed unless they have high conservation
	Total	most desirable.	desirable.	proposal.	value.
Trees	142	2	97	39	4
Groups	86	0	25	61	0
Hedgerows	8	0	1	7	0
Total	236	2	123	107	4

- 8.2 It can be seen that the greater majority of the arboricultural resource on the site have been identified as individual trees, with a smaller number of tree groups.
- 8.3 Two A quality category Pedunculate oak trees have been identified. T21 oak is category A3.It is a veteran tree providing high ecological value. T31 is category A1. It is an emerging veteran tree of high value.
- 8.4 Most trees and groups have been assigned the B quality category, with the majority of these being individual trees. Category B is a broad category which includes trees of moderate quality with a remaining life expectancy of at least 20 years, such as those downgraded from A because of impaired condition such that they are unlikely to be able to be retained beyond 40 years, OR trees lacking the special quality necessary to merit an A category. Of these, 17 trees, 23 groups and one hedge have been given a B2 quality category. This category recognizes that their quality comes largely from the landscape value of a tree or group, such as screening effect. rather than their value as individuals (which would otherwise might be assigned a lower category if assessed on individual tree condition alone).
- 8.5 T104 Goat willow, T114 oak and G67 Goat willow, Hawthorn, blackthorn, Pedunculate oak have been given quality category B3, as defects such as decay provide ecological value despite their impairing their condition.
- 8.6 A similar total number of trees and groups and hedges have been assigned the C quality category, with the majority of these being groups. These are unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories value; and/or trees offering low or only temporary/transient landscape benefits.



- 8.7 Four U quality trees were identified. Oaks T9 and T10 have severe crown dieback. T122 Goat willow is a fallen tree. T132 Crack willow has basal decay and cracked and collapsed stems.
- 8.8 Select photographs of the site are shown on the following pages:



Photoview 1: Photo in the large north field looking south at oak T42.





Photoview 2: Photo in the south of the site looking southwest at G24.



Photoview 3: Photo of veteran A3 quality oak T21 looking east.





Photoview 4: Photo of emerging veteran A1 quality oak T31 looking east.



Photoview 5: Photo looking north at part of B3 quality seasonal wet woodland group G21 Goat Willows, with individual Oaks T41-T43 within.





Photoview 6: Photo looking northeast along central access track, with G2 to right and G21 to left.



9. IDENTIFICATION OF PRELIMINARY TREE CONSTRAINTS

- 9.1 In accordance with BS5837:2012, below ground constraints, or root protection areas (RPAs), for the surveyed trees have been plotted onto the tree survey plan for the site. These are represented as a circle centred on the base of each tree stem with a radius of 12 times stem diameter measured at 1.5m above ground level.
- 9.2 With reference to BS5837:2012, a root protection area (RPA) is defined as "a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure should be treated as a priority". "The default position [when considering design layout in relation to RPAs] should be that structures are located outside the RPAs of trees to be retained".
- 9.3 When considering an appropriate RPA size for veteran trees, the advice of Read¹ and Lonsdale² is that there is often scope for providing a larger RPA than would normally be provided under BS5837:2012 (which is capped at 15m radius and 707m²). They recommend that for veteran trees the RPA should ideally extend in all directions from the tree stem to a distance equal to 15 times its diameter, or five metres beyond the canopy, whichever is the greater. Therefore, the RPAs for the A-quality veteran oak T21 and emerging veteran oak T31 have been amended to reflect this:
 - T21 oak, veteran tree (category A3): RPA radius 24m, RPA area 1,810m2
 - T31 oak, emerging veteran (category A1): RPA radius 22.5m, RPA area 1,591m2
- 9.4 BS5837:2012 states (4.6.2) that, "where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced." The BS goes on to state that, "modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution," and that any deviation from the original circular plot should take into account:

¹ Read, H. (2000). Veteran Trees: A guide to good management. English Nature, Peterborough.

² Lonsdale, D. (ed.) (2013). Ancient and other veteran trees: further guidance on management. The Tree Council, London.



- morphology and disposition of roots
- topography and drainage
- soil type and structure
- the likely tolerance of the tree to root damage/disturbance
- 9.5 Root systems can be damaged in a number of ways as follows:
 - Severance of a root will destroy all parts of the root beyond that point. The larger the root severed, the greater the impact on the tree. If roots are damaged close to the trunk, the anchorage and stability of the tree can be affected
 - The root bark protects the root from decay and is also essential for further root growth. If damage to the bark extends around the whole circumference, the root beyond that point will be killed
 - Soil compaction, which may occur from storage of material or passage of heavy equipment over the root area, can restrict and even prevent gaseous diffusion through the soil, and thereby asphyxiate the roots. The roots must have oxygen for survival, growth and effective functioning.
 - Lowering the soil level will strip out the mass of roots near the surface
 - Raising soil levels will have the same effect as soil compaction
 - Incorrect selection and application of herbicide
 - Spillage of oils or other harmful materials
- 9.6 Above ground constraints posed by trees describe the capacity for trees to have an overbearing or dominating effect on new developments; usually post occupancy. Typical above ground constraints include a number or combination of inconveniences including shading, branch spread, movement of trees during strong winds and so on. If not adequately considered, above ground constraints can lead to repeated requests to fell or heavily prune retained and protected trees.



- 9.7 There appears to be ample opportunity within the site for development that retains trees or groups of trees with good current or future amenity value. In particular, the Pedunculate oak trees, which have the longest life expectancy, should be prioritised for retention, as well as the west boundary groups between Cypress Drive and Faendre Reen. Lower value trees and groups can be considered for removal, or management of boundary groups through pruning to reduce their size and spread. It is expected that drainage engineering requirements will dictate tree retention to a large degree, as much of the tree resource is located along existing drainage channels.
- 9.8 The following is recommended to inform the next stages of the design/planning process, so that the existing tree resource can be shown to have been considered throughout the design process:
 - Arboricultural Impact Assessment in line with BS 5837:2012
 - Iterative site layout consultation with arboricultural input, to avoid conflicts with retained trees
 - Indicative tree retention/removal plan
 - Draft tree protection plan feasibility of outline apps
- 9.9 Together with:
 - A suitable Tree Protection Plan and Arboricultural Method Statement once the design is fixed at the advanced planning stage.



10. SUMMARY

- 10.1 The site is approximately 100 hectares of grazing pasture and haylage, scrub and boundary trees and hedges located within the Wentloog Levels. The land is rural, but to the immediate north and east are the business parks and modern housing of St Mellons. The railway line and HV power lines and pylons crossing the site further reduce the rural character. The field and site boundaries are mostly marked by the reens. Some of these are relatively free of trees and shrubs where they have been cleared and dredged. Others have unmanaged hedges and scrub along them. The agricultural field boundaries include mature Pedunculate oak, Goat willow, Crack willow and White willow.
- 10.2 Unmanaged and scrubby hedges of Hawthorn, blackthorn and Goat willow are throughout the site. A seasonal wet woodland of mature Goat willow and oak grows to the immediate south of the railway line. Along the west boundary, between Cypress Drive and Faendre Reen is a loose grouping of Pedunculate oak, Italian Alder, Silver Birch, Grey Poplar, Willows and Field Maple which form a visual screen between the site and housing to the west.
- 10.3 Two A quality category Pedunculate oak trees have been identified. T21 oak is category A3. It is a veteran tree providing high ecological value. T31 is category A1. It is an emerging veteran tree of high value. Most trees and groups have been assigned the B quality category, with the majority of these being individual trees. T104 Goat willow, T114 oak and G67 Goat willow, hawthorn, blackthorn, Pedunculate oak have been given quality category B3, as defects such as decay provide ecological value despite their impairing their condition. A similar total number of trees and groups and hedges have been assigned the C quality category, with the majority of these being groups. Four U quality trees were identified. Oaks T9 and T10 have severe crown dieback. T122 Goat willow is a fallen tree. T132 Crack willow has basal decay and cracked and collapsed stems.
- 10.4 Published guidance is that for veteran trees the RPA should ideally extend in all directions from the tree stem to a distance equal to 15 times its diameter, or five metres beyond the canopy, whichever is the greater. This is a larger area than the standard RPA calculation in BS5837:2012 provides. The RPAs for the A-quality veteran oak T21 and emerging veteran oak T31 have been amended to reflect this:
 - T21 oak, veteran tree (category A3): RPA radius 24m, RPA area 1,810m²
 - T31 oak, emerging veteran (category A1): RPA radius 22.5m, RPA area 1,591m²



- 10.5 Any future development proposals on the site should be designed with a view to the preliminary tree constraints that are illustrated on the Tree Survey Plan. Due consideration should be given to the appointment of a Project Arboriculturist with responsibility for input to ongoing review of layout, architectural, engineering and landscape drawings.
- 10.6 There appears to be ample opportunity within the site for development that retains trees or groups of trees with good current or future amenity value. In particular, the Pedunculate oak trees, which have the longest life expectancy, should be prioritised for retention, as well as the west boundary groups between Cypress Drive and Faendre Reen. Lower value trees and groups can be considered for removal, or management of boundary groups through pruning to reduce their size and spread. It is expected that drainage engineering requirements will dictate tree retention to a large degree, as much of the tree resource is located along existing drainage channels.
- 10.7 When the design for the proposals has been finalised, an arboricultural impact assessment should be carried out in order to evaluate the direct and indirect effects of the proposals on the site's arboricultural resource. This should include an evaluation of tree retention in comparison to tree loss, recommendations for mitigation planting as may be necessary as well as a specification for tree pruning works that may be required.
- 10.8 The tree survey data contained within this report may provide a baseline for future arboricultural risk assessments that may be required.



APPENDIX 1

TREE SURVEY METHODOLOGY AND SCHEDULE

CARDIFF PARKWAY, ST MELLONS

PROJECT NO: A.2581

SURVEYORS: I MONGER & P BARTON

INDIVID	JAL TREES		

Ref	Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown diam. (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m ²
T1	Pedunculate oak	11	600	16.0	EM	None	Squat crown form. Located in edge of drainage ditch.	Good	Good	40+	B1	7.2	163
Т2	Goat willow	8	350	8.0	SM	None	Suppressed on east side by adjacent oak.	Good	Fair	10+	C1	4.2	55
Т3	Pedunculate oak	7	200	7.0	Y	None	Young oak of fair form within boundary group.	Fair	Fair	40+	C1	2.4	18
Т4	Pedunculate oak	8	350	9.0	SM	None	Subordinate tree forming contiguous canopy with T5.	Fair	Good	40+	B2	4.2	55
Т5	Pedunculate oak	14	700	15.0	М	None	Located on ditch edge. Ivy on stem and lower branches.	Good	Good	40+	B1	8.4	222
Т6	Pedunculate oak	14	600	10.0	М	None	On southern ditch edge. Dense Ivy on stem and lower crown. Historic branch loss on north side.	Fair	Fair	40+	B1	7.2	163
Τ7	Pedunculate oak	14	1100	12.0	Μ	None	Cavitation of buttress roots in ditch edge. Squat crown form. Some large deadwood and woodpecker holes in structural branches.	Fair	Fair	40+	B1	13.2	547
Т8	Pedunculate oak	12.0	750	10.0	Μ	None	Located on southern ditch edge. Twin stems from 1.5m. Squat crown form.	Fair	Fair	40+	B1	9.0	255
Т9	Pedunculate oak	9.0	400	4.0	SM	None	Severe crown dieback.	Poor	Poor	<10	U	4.8	72
т10	Pedunculate oak	9.0	400	4.0	SM	None	Severe crown dieback.	Poor	Poor	<10	U	4.8	72



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown diam. (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
T11	Pedunculate oak	12.0	500	12.0	EM	None	Good form and condition.	Good	Good	40+	B1	6.0	113
T12	Pedunculate oak	12.0	450	10.0	EM	None	Good form and condition.	Good	Good	40+	B1	5.4	92
T13	Crack willow	10.0	500	5.0	SM	None	Multi-stemmed tree on ditch edge. Typical for species.	Fair	Fair	20+	B2	6.0	113
T14	Goat willow	7.0	300	8.0	SM	None	Multi-stemmed tree typical of species.	Good	Fair	10+	C2	3.6	41
T15	Goat willow	7.0	300	8.0	SM	None	Multi-stemmed tree typical of species.	Good	Fair	10+	C2	3.6	41
T16	Pedunculate oak	15.0	650	12.0	Μ	None	Attractive open-grown symmetrical form.	Good	Good	40+	B1	7.8	191
T17	Pedunculate oak	7.0	1000	8.0	М	None	Old storm damaged stump with small regenerating crown.	Good	Fair	20+	C1	12.0	452
T18	Pedunculate oak	15.0	1100	12.0	Μ	None	Old sub-stem loss wound at base. Minor deadwood as normal for age and species.	Good	Fair	40+	B1	13.2	547
T19	Pedunculate oak	14.0	800	16.0	М	None	Dense Ivy on stem and lower limbs prevents inspection of structural condition. Good crown vitality.	Good	Fair	40+	B1	9.6	290
T20	Pedunculate oak	13.0	700	12.0	М	None	Good form and condition.	Good	Good	40+	B1	8.4	222
T21	Pedunculate oak	12.0	1600	12.0	LM	Veteran	An old squat formed tree of large girth. Numerous large cavities in lower branch framework and large dead stubs. A high value tree which requires minimal disturbance in order to maintain its potential longevity.	Good	Fair	40+	A3	24.0	1810



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown diam. (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
T22	Pedunculate oak	10.0	500	12.0	EM	None	Two stemmed tree on ditch edge with hawthorn understorey. Fair.	Fair	Fair	40+	B2	6.0	113
T23	Common ash	13.0	500	10.0	EM	None	Located within G12 on ditch edge. Minor Ivy on stem. Fair form.	Good	Fair	20+	B1	6.0	113
T24	Pedunculate oak	11.0	550	10.0	EM	None	Squat hedgerow oak with moderate Ivy in crown.	Good	Good	40+	B1	6.6	137
T25	Pedunculate oak	13.0	600	14.0	Μ	None	Broad spreading crown form. Moderate deadwood.	Fair	Fair	40+	B1	7.2	163
T26	Pedunculate oak	11.0	600	10.0	EM	None	Two stemmed tree on ditch edge. Moderate Ivy.	Good	Fair	40+	B1	7.2	163
T27	Pedunculate oak	13.0	750	16.0	М	None	Slight lean to south over ditch. Minor Ivy cover. No significant defects.	Good	Good	40+	B1	9.0	255
T28	Hawthorn	4.0	100	3.0	SM	None	Small tree at foot of seasonal ditch.	Good	Good	20+	C1	1.3	5
T29	Pedunculate oak	11.0	650	11.0	EM	None	Good form and condition. Fused limbs in lower crown.	Good	Good	40+	B1	7.8	191
Т30	Pedunculate oak	12.0	500	10.0	EM	None	Fair form and condition.	Fair	Fair	40+	B1	6.0	113
T31	Pedunculate oak	16.0	1500	20.0	LM	Emerging veteran	Large girth; possibly a lapsed pollard. Crown not yet retrenching but some large deadwood.	Good	Fair	40+	A1	22.5	1591
T32	Pedunculate oak	17.0	900	20.0	Μ	None	Lapsed pollard form. No significant defects observed.	Good	Good	40+	B1	10.8	366



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown diam. (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
Т33	Crack willow	14.0	600	18.0	EM	None	Multi stemmed tree typical of species. Ivy to 8m.	Fair	Fair	20+	B1	7.2	163
Т34	Crack willow	8.0	300	6.0	SM	None	Suppressed, Ivy covered tree forming contiguous canopy with T35.	Fair	Fair	20+	C1	3.6	41
Т35	Crack willow	14.0	550	12.0	EM	None	Multiple stems, typical for species. No significant defects observed.	Fair	Fair	20+	B1	6.6	137
Т36	Pedunculate oak	15.0	600	18.0	М	None	Good form and condition. No significant defects observed.	Good	Good	40+	B1	7.2	163
Т37	Common alder	10.0	300	10.0	SM	None	Two stemmed tree adjacent river.	Good	Fair	20+	B1	3.6	41
Т38	Goat willow	6.0	500	8.0	Μ	None	Fallen tree but still alive.	Fair	Poor	10+	C1	6.0	113
Т39	Pedunculate oak	8.0	450	7.0	М	None	Storm damaged tree with small crown regenerating. Flared buttresses with cavity north side.	Fair	Fair	20+	C1	5.4	92
T40	Pedunculate oak	6.0	350	9.0	SM	None	Two stemmed from ground level. Low branching.	Good	Good	40+	B1	4.2	55
T41	Pedunculate oak	14.0	800	16.0	Μ	None	Numerous branch loss wounds and woodpecker holes. Growing on bank of ditch.	Fair	Fair	40+	B1	9.6	290
T42	Pedunculate oak	9.0	750	14.0	Μ	None	Significant landscape feature within field. Pronounced basal flare with brackets of Innonotus dryadeus indicate hollow stem. Dead branch stubs.	Fair	Fair	40+	B1	9.0	255
T43	Common alder	8.5	400	6.0	SM	None	Three stems from ground level.	Good	Good	40+	B1	4.8	72



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown diam. (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
T44	Common alder	8.0	450	8.0	SM	None	Three stems from ground level.	Good	Good	40+	B1	5.4	92
T45	Common alder	7.0	350	6.0	SM	None	Multiple stems. Overhangs river.	Good	Good	40+	B1	4.2	55
T46	Pedunculate oak	7.0	300	8.0	SM	None	Two stemmed. Forms contiguous canopy with adjacent willow.	Good	Good	40+	B1	3.6	41
T47	Goat willow	6.5	350	8.0	EM	None	Riverside tree forming contiguous canopy with adjacent oak.	Good	Good	40+	B1	4.2	55
T48	Goat willow	5.0	200	6.0	SM	None	Small shrubby form.	Good	Good	40+	B1	2.4	18
T49	Common alder	5.0	400	7.0	SM	None	Multi-stemmed small tree.	Good	Good	40+	B1	4.8	72
Т50	Common ash	7.0	350	8.0	SM	None	Multi-stemmed tree overhanging river.	Good	Good	40+	B1	4.2	55
T51	Common ash	10.0	400	12.0	SM	None	Good form and condition.	Good	Good	40+	B1	4.8	72
T52	Pedunculate oak	13.0	600	12.0	EM	None	lvy covered stem. Located within hawthorn edge on edge of drainage ditch.	Fair	Fair	40+	B1	7.2	163
Т53	Weeping willow	16.0	550	7.0	EM	None	No access to stem due to dense bramble. Ivy covered stem. Good crown vitality.	Good	Fair	20+	B1	6.6	137
T54	Crack willow	13.0	500	14.0	EM	None	Multiple stems. Within dense undergrowth which prevents inspection in detail.	Good	Fair	20+	B2	6.0	113



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown diam. (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
T55	Pedunculate oak	5.0	180	6.0	Y	None	Japanese knotweed growing under crown.	Good	Good	40+	B1	2.2	15
Т56	Pedunculate oak	6.0	150	6.0	Y	None	Obscured view from dense bramble.	Good	Good	40+	C1	1.8	10
T57	Pedunculate oak	8.0	250	8.0	Y	None	Good form and condition.	Good	Good	40+	B1	3.0	28
T58	Pedunculate oak	10.0	300	8.0	Y	None	Good form and condition.	Good	Good	40+	B1	3.6	41
Т59	Pedunculate oak	5.0	150	6.0	Y	None	Young small tree of good form and condition.	Good	Good	40+	C1	1.8	10
Т60	Pedunculate oak	5.0	150	6.0	Y	None	Young small tree of good form and condition.	Good	Good	40+	C1	1.8	10
T61	Pedunculate oak	4.0	100	5.0	Y	None	Young small tree of good form and condition.	Good	Good	40+	C1	1.3	5
T62	Goat willow	7.0	450	12.0	EM	None	Dense, multi-stemmed form.	Good	Fair	20+	B1	5.4	92
Т63	Pedunculate oak	4.0	100	5.0	Y	None	Young small tree of good form and condition.	Good	Good	40+	C1	1.3	5
Т64	Pedunculate oak	4.0	100	5.0	Y	None	Young small tree of good form and condition.	Good	Good	40+	C1	1.3	5
T65	Pedunculate oak	4.0	100	5.0	Y	None	Young small tree of good form and condition.	Good	Good	40+	C1	1.3	5



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown diam. (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
Т66	Pedunculate oak	13.0	550	10.0	EM	None	Slightly sparse crown. Within area of dense bramble and oak saplings.	Fair	Fair	20+	B1	6.6	137
T67	Pedunculate oak	14.0	1000	18.0	М	None	Broad spreading habit. Minor IVY to 8m. Borderline A/B category tree.	Good	Good	40+	B1	12.0	452
Т68	Pedunculate oak	3.5	100	6.0	Y	None	Young self sown tree.	Good	Good	40+	C1	1.3	5
Т69	Goat willow	5.0	300	8.0	SM	None	Multi-stemmed from coppice stool.	Good	Fair	20+	C1	3.6	41
T70	Pedunculate oak	2.5	90	3.0	Y	None	Young self sown tree.	Good	Good	40+	C1	1.1	4
T71	Pedunculate oak	5.0	150	6.0	Y	None	Young self sown tree.	Good	Good	40+	C1	1.8	10
T72	Pedunculate oak	5.0	150	6.0	Y	None	Young self sown tree.	Good	Good	40+	C1	1.8	10
T73	Pedunculate oak	3.5	100	4.0	Y	None	Young self sown tree.	Good	Good	40+	C1	1.3	5
T74	Pedunculate oak	3.5	90	3.5	Y	None	Young self sown tree.	Good	Good	40+	C1	1.1	4
T75	Goat willow	7.0	400	8.0	SM	None	Multi-stemmed tree on footpath edge overhanging river edge.	Good	Good	20+	B1	4.8	72
T76	Plum/Bullace	7.0	350	8.0	EM	None	Dense crowned tree on top of bund.	Good	Fair	10+	C1	4.2	55



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown diam. (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
T77	Pedunculate oak	4.5	120	6.0	Υ	None	Good form and condition.	Good	Good	40+	C1	1.5	7
T78	Goat willow	7.0	400	10.0	EM	None	Multi-stemmed from ground level. Several failed branches and bark damage to base.	Good	Fair	10+	C1	4.8	72
Т79	Crack willow	9.0	280	9.0	EM	None	Growing in ditch. Stem and crown weighted to northeast.	Good	Fair	20+	C1	3.3	35
Т80	Crack willow	8.5	400	10.0	EM	None	Two stems from ground. Stems and canopy weighted to south.	Good	Fair	20+	C1	4.8	72
T81	Goat willow	9.0	750	13.0	М	None	Leaning bole and tree has historically layered a subsided stem. Minor deadwood.	Good	Fair	40+	B2	9.0	255
T82	Goat willow	9.5	700	11.0	М	None	Multi-stemmed tree growing on edge of reen.	Good	Fair	40+	B2	8.4	222
Т83	Hawthorn	5.0	180	5.0	EM	None	Ownership unclear. Position estimated.	Good	Good	40+	B1	2.2	15
Т84	Pedunculate oak	10.0	560	12.0	EM	None	Stem base not accessible. Minor deadwood.	Good	Good	40+	B1	6.7	142
Т85	Pedunculate oak	10.0	600	14.0	М	None	Stem base not accessible. Position approximate. Deadwood. Low branching to west.	Good	Good	40+	B1	7.2	163
Т86	Pedunculate oak	11.0	580	13.0	М	None	Deadwood.	Good	Good	40+	B1	7.0	152
T87	Pedunculate oak	10.5	560	13.0	EM	None	Deadwood and branch fracture stubs.	Good	Good	40+	B1	6.7	142



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown diam. (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
T88	Pedunculate oak	8.0	480	9.0	EM	None	Two stems from ground. Tree suppressed by T9 to south and canopy contiguous with it. Branch to north has cracked at union with stem at 3.5m and subsided, with open fracture wound.	Good	Good	40+	B2	5.8	104
T89	Pedunculate oak	10.0	600	14.0	Μ	None	Minor deadwood and branch fracture wounds.	Good	Good	40+	B1	7.2	163
T90	Pedunculate oak	8.5	180	6.0	SM	None	Not on topo. Position approximate.	Good	Good	40+	B1	2.2	15
T91	Pedunculate oak	8.5	280	9.0	SM	None	Minor deadwood.	Good	Good	40+	B1	3.3	35
T92	Pedunculate oak	8.5	500	11.0	EM	None	Minor deadwood.	Good	Good	40+	B1	6.0	113
Т93	Pedunculate oak	8.5	330	8.0	EM	None	Minor deadwood.	Good	Good	40+	B1	3.9	49
T94	Pedunculate oak	9.0	300	9.0	EM	None	Minor deadwood.	Good	Good	40+	B1	3.6	41
T95	Pedunculate oak	9.0	300	8.0	EM	None	Minor deadwood.	Good	Good	40+	B1	3.6	41
Т96	Pedunculate oak	8.5	600	11.0	Μ	None	Two stems from near ground. Minor deadwood.	Good	Good	40+	B1	7.2	163
Т97	Pedunculate oak	9.5	950	16.0	Μ	None	Column of open decay from ground to 4.5m to east of stem. Possibly old lightening strike wound. Dieback in lowest branch adjacent to wound. Deadwood.	Fair	Fair	40+	B1	11.4	408
Т98	Crack willow	11.5	680	16.0	М	None	First 4m of stem lies horizontally on ground. Crown corrected. Deadwood. Crown dieback.	Fair	Fair	20+	B2	8.2	209



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown diam. (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
T99	Goat willow	4.0	400	8.0	Μ	None	Stem horizontal to ground due to root heave.	Good	Poor	20+	C1	4.8	72
T100	Pedunculate oak	7.5	400	9.0	EM	None	Two primary stems from ground. Crown weighted to east where suppressed by T23.	Good	Fair	40+	B2	4.8	72
T101	Pedunculate oak	12.0	750	16.0	Μ	None	Deadwood.	Good	Good	40+	B1	9.0	255
T102	Goat willow	5.0	350	5.0	EM	None	Three stems from near ground. Bark wounds. Subsided stems.	Fair	Poor	10+	C1	4.2	55
T103	Pedunculate oak	10.0	380	10.0	EM	None	Tree is supporting adjacent Goat willow stem.	Good	Fair	40+	B2	4.5	65
T104	Goat willow	11.0	750	16.0	LM	None	Three stems from ground. East stem has subsided onto ground. South stem leaning in adjacent oak. Decay cavities. Branch fractures. Deadwood. Wildlife habitat value.	Fair	Fair	20+	B3	9.0	255
T105	Crack willow	9.0	750	12.0	Μ	None	Root heave. Stem has subsided to southwest and is propped on branches. Deadwood. Branch fractures.	Good	Poor	20+	C1	9.0	255
T106	Common ash	7.0	230	5.0	SM	None	Position approximate.	Good	Good	40+	B1	2.8	24
T107	Pedunculate oak	8.5	500	10.0	EM	None	Two stems from 1m with included bark union. Deadwood.	Good	Fair	40+	B1	6.0	113
T108	Pedunculate oak	8.5	400	10.0	EM	None	Stem base not accessible.	Good	Good	40+	B1	4.8	72
T109	Pedunculate oak	7.0	350	8.0	EM	None	Stem and crown weighted to southwest. Deadwood.	Good	Good	40+	B1	4.2	55



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown diam. (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
T110	Pedunculate oak	6.0	300	7.0	SM	None	Minor deadwood.	Good	Good	40+	B1	3.6	41
T111	Goat willow	5.5	500	10.0	EM	None	Multi-stemmed from ground. Growing on ditch bank.	Good	Fair	20+	C1	6.0	113
T112	White willow	11.0	380	7.0	EM	None	Stem base not accessible.	Good	Good	40+	B1	4.5	65
T113	Pedunculate oak	8.5	660	4.0	Μ	None	Growing on bank of reen. Branch loss wounds and deadwood.	Good	Fair	40+	B1	7.9	197
T114	Pedunculate oak	8.5	730	8.0	М	None	Large stem loss wound and cavity from 1m to 4m north, with hollowing brown rot decay in stem. Deadwood. Habitat value.	Fair	Fair	20+	B3	8.8	241
T115	Common alder	10.0	450	8.0	EM	None	Position approximate. Stem base not accessible. Two stems from ground.	Good	Good	40+	B1	5.4	92
T116	Crack willow	5.0	800	6.0	М	None	Basal and stem decay. Both stems have collapsed but still live. One has collapsed to north and one to east.	Fair	Poor	10+	C1	9.6	290
T117	Hawthorn	4.5	280	3.5	М	None	Growing on field-side reen bank. Position approximate.	Fair	Fair	20+	C1	3.3	35
T118	Crack willow	9.5	700	13.0	М	None	Stem divides at 1m. Some minor bark loss. Deadwood. Minor crown dieback.	Good	Fair	20+	B2	8.4	222
T119	Pedunculate oak	12.0	420	9.0	EM	None	Position approximate. Tree is located in line with drainage ditch to south, and 11m south of railway boundary fence. Good form.	Good	Good	40+	B1	5.0	80
T120	Pedunculate oak	9.0	260	5.0	SM	None	Position approximate. Good form.	Good	Good	40+	B1	3.1	31



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown diam. (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
T121	Pedunculate oak	9.0	300	6.0	SM	None	Position approximate. Good form.	Good	Good	40+	B1	3.6	41
T122	Goat willow	4.0	350	4.5	Μ	None	Tree has fallen to southeast and laying on ground.	Fair	Poor	<10	U	4.2	55
T123	Goat willow	7.0	350	8.0	Μ	None	Two stems from ground. Tree stems and crown weighted to east. Deadwood.	Good	Fair	20+	C1	4.2	55
T124	Goat willow	6.0	350	8.0	Μ	None	Two primary stems from ground. Decay cavities. Torsional stem cracks. Deadwood.	Good	Poor	20+	C1	4.2	55
T125	Goat willow	7.0	500	12.0	Μ	None	Historical root-heave or laying of bole with corrected stem. Torsional branch crack. Deadwood.	Good	Fair	40+	B1	6.0	113
T126	Crack willow	8.0	780	12.0	М	None	Tree has subsided to south and propped by decaying branch stubs. Branch fractures and decay.	Good	Poor	20+	C1	9.4	275
T127	Goat willow	7.5	650	12.0	М	None	Two stems from ground. Secondary stem has collapsed to north. Lowest east branch in primary stem has hazard beam cavity near stem union and branch cracks elsewhere.	Good	Fair	20+	B2	7.8	191
T128	Goat willow	7.0	550	9.0	М	None	Multi-stemmed. Epicormic shoots on stems. Stem and branch torsional cracks.	Good	Fair	20+	B2	6.6	137
T129	Goat willow	7.0	300	6.0	EM	None	Epicormic shoots on stems. Deadwood.	Good	Fair	20+	B2	3.6	41
T130	Goat willow	7.0	320	6.0	EM	None	Multi-stemmed. Epicormic shoots on stems.	Good	Fair	20+	B2	3.8	46
T131	Goat willow	7.0	400	6.0	М	None	Stem and crown weighted to northeast. Deadwood.	Good	Fair	40+	B2	4.8	72



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown diam. (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²
T132	Crack willow	7.0	390	8.5	EM	None	Two primary stems 3m apart arising from fallen layered stem. Basal decay with perennial Ganoderma-like fungal brackets. North stem canopy has collapsed. Basal stem cracks above decay in south stem.	Fair	Poor	<10	U	4.7	69
T133	Goat willow	7.5	600	8.0	М	None	Offsite tree growing immediately north of railway boundary fence. Previously pruned back to North from railway. Branch removal wounds and stubs. Deadwood.	Good	Fair	40+	B2	7.2	163
T134	Pedunculate oak	6.0	250	5.0	SM	None	Position approximate.	Good	Good	40+	B1	3.0	28
T135	White willow	12.0	500	14.0	EM	None	Stem base not accessible.	Good	Good	40+	B1	6.0	113
T136	Pedunculate oak	8.0	600	8.0	EM	None	Asymmetric form weighted to east. Deadwood.	Fair	Fair	20+	B1	7.2	163
T137	Crack willow	10.0	500	14.0	EM	None	Position approximate. Dead stem on west side.	Fair	Fair	20+	C1	6.0	113
T138	White willow	8.0	400	9.0	EM	None	Dead stem to southeast.	Fair	Fair	20+	C1	4.8	72
T139	Hawthorn	4.0	200	5.0	М	None	Position approximate.	Good	Good	40+	B1	2.4	18
T140	Pedunculate oak	9.0	340	9.0	SM	None	Position approximate. Growing on south of reen.	Good	Good	40+	B1	4.1	52
T141	Crack willow	11.0	600	14.0	EM	None	Position approximate. Growing on west side of reen.	Good	Fair	20+	B1	7.2	163
T142	Crack willow	12.0	600	12.0	EM	None	Position approximate. Growing on east side of reen.	Good	Good	20+	B1	7.2	163



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

JUNE 2018

GROUPS OF TREES

Ref	Species	Height range (m)	No. of trees	Max stem diam (mm)	Avg. Canopy Height (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
G1	Goat willow	6-7	3	250	4.0	SM	None	Clump of self sown trees within drainage ditch.	Good	Fair	10+	C2	3.0
G2	Goat willow	5-6	2	250	4.0	SM	None	Clump of self sown trees within drainage ditch.	Good	Fair	10+	C2	3.0
G3	Goat willow, Common ash.	5-8	~30	300	5.0	SM	None	Linear belt of shrubby formed self sown trees along drainage ditch. One ash tree amongst goat willow.	Good	Fair	10+	C2	3.6
G4	Hawthorn, Blackthorn, Goat willow.	5-7	~50	150	3	SM	None	Linear belt of shrubby formed trees along drainage ditch.	Fair	Fair	10+	C2	1.8
G5	Goat willow, Common alder, English Elm.	5-8	10	200	4	SM	None	Predominantly goat willow with scattered Elm and alder. Several large gaps with dense Bramble. Elm likely to succumb to Dutch Elm disease within 10 years.	Fair	Fair	10+	C2	2.4
G6	English Elm, Hawthorn, Goat willow.	4-6	6	150	3	Y	None	One standing dead Elm within group.	Fair	Fair	10+	C2	1.8
G7	Goat willow, Hawthorn, alder.	4-6	~30	150	3	SM	None	Dense tree belt along both sides of drainage ditch forming informal hedgerow boundary. Dense Bramble understorey.	Fair	Fair	10+	C2	1.8
G8	Goat willow	6-8	2	400	5	М	None	Two trees forming a contiguous canopy. Dense hawthorn understorey.	Good	Fair	10+	B2	4.8
G9	Common alder, Goat willow, Hawthorn.	10	3	400	5	SM	None	Multi-stemmed trees overhanging river. Cohesive canopy feature.	Good	Fair	20+	B2	4.8
G10	Hawthorn	5-7	5	200	3	SM	None	Unmanaged boundary group with gaps.	Fair	Fair	10+	C2	2.4



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height range (m)	No. of trees	Max stem diam (mm)	Avg. Canopy Height (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
G11	Goat willow, Hawthorn, Blackthorn, Pedunculate oak.	5-8	~50	300	3	SM	None	Linear belt of trees along drainage ditch edges forming informal hedgerow.	Fair	Fair	20+	B2	3.6
G12	Goat willow, Hawthorn, Blackthorn.	4-10	~75	300	4	SM	None	Linear belt of mixed species and height trees along drainage ditch forming informal field boundary hedge.	Good	Fair	10+	C2	3.6
G13	Goat willow	8	2	400	5	EM	None	Small group between two oaks.	Good	Fair	20+	C2	4.8
G14	Goat willow, oak, Hawthorn.	5-9	10	300	4	SM	None	Linear belt of trees forming informal hedgerow.	Good	Fair	20+	C2	3.6
G15	Goat willow, Hawthorn.	5-9	15	300	4	SM	None	Linear belt of trees forming informal hedgerow with gaps.	Good	Fair	20+	C2	3.6
G16	Goat willow, Blackthorn, oak, Hawthorn.	4-8	~30	200	3	SM	None	Dense linear tree belt forming informal hedgerow. Several young oaks beginning to protrude above general canopy line.	Good	Fair	20+	B2	2.4
G17	Pedunculate oak	8-14	3	650	8	М	None	Three oaks with hawthorn understorey forming a contiguous canopy.	Good	Good	40+	B2	7.8
G18	Hawthorn, Pedunculate oak.	5-7	10	400	5	SM	None	Linear belt on north side of ditch.	Good	Fair	20+	B2	4.8
G19	Common alder, Hawthorn.	7-9	8	250	4	SM	None	Multi-stemmed trees with dense Bramble understorey.	Good	Fair	20+	B2	3.0
G20	Goat willow, Sycamore, Common ash	6-9	~80	150	3.5	Y	None	Linear belt of self sown trees along north side of track/path.	Fair	Fair	20+	C2	1.8
G21	Goat willow, Hawthorn, Blackthorn.	5-8	10	250	3	SM	None	Linear belt of varying height forming informal hedgerow. Prolific Bramble understorey.	Fair	Fair	10+	C2	3.0



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height range (m)	No. of trees	Max stem diam (mm)	Avg. Canopy Height (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
G22	Goat willow, White willow, Hawthorn, Blackthorn.	5-8	30	250	3	SM	None	Linear belt of varying height forming informal hedgerow. Prolific Bramble understorey.	Fair	Fair	10+	C2	3.0
G23	Goat willow, White willow, Hawthorn, Blackthorn.	5-8	30	250	3	SM	None	Linear belt of varying height forming informal hedgerow. Prolific Bramble understorey.	Fair	Fair	10+	C2	3.0
G24	Pedunculate oak, Goat willow .	6-9	7	600	5	SM	None	Roadside group overhangs highway.	Good	Fair	40+	B2	7.2
G25	Common alder	4.5	2	250	2.5	Y	None	Two small riverside trees.	Good	Good	40+	C2	3.0
G26	Common alder, Common ash.	6	3	400	5	SM	None	Closely spaced stems overhanging river.	Good	Good	20+	B2	4.8
G27	Goat willow	6	2	350	4	SM	None	Closely grown trees forming contiguous canopy.	Good	Fair	20+	C1	4.2
G28	Italian alder, Silver Birch.	10-14	~25	300	3	EM	None	Closely spaced, slender trees with dense ruderal vegetation understorey.	Good	Fair	20+	B2	3.6
G29	Italian alder, Common ash, Cherry Laurel.	12-18	~50	400	4	EM	None	Closely spaced with slender upright forms. Understorey of laurel.	Good	Fair	20+	B2	4.8
G30	Crack willow	10-15	2	700	8	М	None	No access to tree due to dense undergrowth.	Good	Fair	20+	B1	8.4
G31	Grey Poplar	15	4	450	8	EM	None	Prominent roadside trees. Branches touching lamp column need pruning back.	Good	Fair	20+	B2	5.4



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height range (m)	No. of trees	Max stem diam (mm)	Avg. Canopy Height (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
G32	Crack willow, Grey Poplar, Common ash, Sycamore, Goat willow, Hawthorn.	2-18	100+	500	5	EM	None	A large area of mixed tree species and ages between Cypress Drive and the Reen. Dense impenetrable ruderal vegetation prevents access to trees beyond roadside. Generally the trees are of limited merit as individuals but as a whole they form a significant landscape feature screening the site from the road and residential properties to the west.	Good	Fair	20+	B2	6.0
G33	Grey Poplar, Italian alder, Pedunculate oak, Goat willow, Field Maple.	5-15	~15	500	6	EM	None	Roadside group within dense ruderal vegetation. Dense Ivy on stems of poplars. One standing dead alder near lamp column.	Fair	Fair	20+	B2	6.0
G34	White willow, Crack willow, Goat willow, Field Maple, Common ash, Pedunculate oak, Hawthorn, Bullace.	4-15	~50	500	4	SM	None	Scattered tree cover in densely overgrown area between Cypress Drive roundabout and the Reen. No access due to dense ruderal vegetation. NOTE: Japanese knotweed present in clumps near road.	Good	Fair	20+	B2	6.0
G35	Pedunculate oak, Hawthorn, Holly.	5-10	~50	650	7	EM	None	Linear belt of small oak trees along post and wire fenced boundary to field. Hawthorn and holly understorey.	Good	Good	40+	B2	7.8
G36	Goat willow	6-8	10	300	4	SM	None	Clumps of dense multi-stemmed trees in seasonally wet area.	Good	Fair	10+	C2	3.6
G37	Pedunculate oak, Goat willow.	3-6	6	200	3	Y	None	Scattered group of small trees. Good condition but low visual importance.	Good	Good	40+	C2	2.4
G38	Goat willow	6-9	10	450	6	SM	None	Clump of dense multi-stemmed trees.	Good	Fair	20+	B2	5.4
G39	Hawthorn, Blackthorn, oak.	6-8	5	300	4	SM	None	Dense thorn scrub with young oak saplings.	Good	Fair	20+	C2	3.6



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height range (m)	No. of trees	Max stem diam (mm)	Avg. Canopy Height (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
G40	Blackthorn	4	20	100	4	SM	None	Dense scrub.	Good	Good	20+	C2	1.3
G41	Goat willow, oak.	4-8	15	350	4	EM	None	Dense multi-stemmed trees in seasonally wet area.	Good	Fair	20+	C2	4.2
G42	White willow	12-18	3	750	8	М	None	One tree is leaning strongly and has a stem resting on the branch of an adjacent tree; possibly uprooted but hung up over path. Access to stems obscured by dense vegetation.	Good	Poor	10+	C2	9.0
G43	Goat willow, Pedunculate oak .	7-10	~12	500	5	EM	None	Dense linear belt amongst Blackthorn and Bramble understorey.	Good	Fair	20+	B2	6.0
G44	Goat willow, Common alder, Common ash.	6-8	~10	300	4	SM	None	Dense group in tall ruderal vegetation near bund.	Good	Fair	20+	B2	3.6
G45	Pedunculate oak, Goat willow.	9-11	~8	500	6	EM	None	Several good quality oaks. Located beyond dense Bramble which obscured full inspection.	Good	Good	40+	B2	6.0
G46	Blackthorn, Goat willow.	6	2	200	3	SM	None	Two small trees forming cohesive canopy.	Good	Fair	10+	C2	2.4
G47	Blackthorn, Goat willow, Hawthorn.	4 - 6.5	~60	350	3	EM	None	Scrubby unmanaged boundary group with gaps. Some individual trees surveyed separately.	Good	Fair	20+	C2	4.2
G48	Goat willow, Pedunculate oak, Hawthorn, Blackthorn, Elder.	4 - 7	~30	300	3	EM	None	Scrubby unmanaged boundary group. Some leaning and lopped stems.	Good	Fair	20+	C2	3.6
G49	Goat willow, Hawthorn, Blackthorn, Common ash.	4 - 7.5	~80	450	4	EM	None	Unmanaged boundary group. Bark squirrel or browsing damage to some stems. Deadwood.	Good	Fair	20+	B2	5.4



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height range (m)	No. of trees	Max stem diam (mm)	Avg. Canopy Height (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
G50	Blackthorn, Hawthorn, Goat willow.	3 - 5	~30	200	2	SM	None	Scrubby unmanaged boundary group with significant gaps.	Good	Good	20+	C2	2.4
G51	Goat willow, Blackthorn, Hawthorn.	3 - 6	~60	300	4	EM	None	Scrubby unmanaged boundary group.	Good	Good	20+	C2	3.6
G52	Goat willow, Blackthorn, Hawthorn.	3 - 6	~50	280	3	EM	None	Scrubby unmanaged boundary group with gaps at southern end.	Good	Good	40+	C2	3.3
G53	Goat willow, Crack willow, Hawthorn, Blackthorn.	3 - 7	~30	300	3	EM	None	Scrubby unmanaged boundary group.	Good	Good	20+	C2	3.6
G54	Goat willow	4 - 5	3	400	5	М	None	Stems have subsided due to root heave and either rest on ground or are nearly horizontal.	Good	Fair	20+	C1	4.8
G55	Blackthorn, Hawthorn, Goat willow.	3 - 6	~50	250	2	SM	None	Unmanaged boundary group and understorey.	Good	Fair	20+	C2	3.0
G56	Goat willow, Hawthorn, Blackthorn, Pedunculate oak.	3 - 8	~50	300	3	EM	None	Unmanaged boundary group.	Good	Good	20+	C2	3.6
G57	Goat willow, Blackthorn, Hawthorn.	3 - 8	~30	300	3.5	EM	None	Unmanaged boundary group.	Good	Good	20+	C2	3.6
G58	Goat willow, Hawthorn.	6 - 7	3	450	8	М	None	Largest Goat willow has two stems from ground. Minor deadwood.	Good	Fair	40+	B2	5.4
G59	Hawthorn, Common alder, Blackthorn, Goat willow, Common ash.	3 - 6	~60	250	3	SM	None	Unmanaged scrub group. Most trees multi- stemmed.	Good	Good	40+	B2	3.0



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height range (m)	No. of trees	Max stem diam (mm)	Avg. Canopy Height (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
G60	Common alder	3 - 4	14	150	1.5	Y	None	Self-set succession growth.	Good	Good	40+	C1	1.8
G61	Goat willow, Common alder.	4 -4.5	4	150	2	Υ	None	Multi-stemmed.	Good	Good	40+	C1	1.8
G62	Goat willow, Hawthorn.	2.5 - 4	9	150	2	Y	None	Multi-stemmed group with gaps growing along drainage ditch.	Good	Good	40+	C1	1.8
G63	Pedunculate oak, Hawthorn.	4 - 6	5	220	2.5	SM	None	Growing between highway and reen.	Good	Fair	40+	C2	2.6
G64	Blackthorn, Hawthorn.	2 - 3	6	150	2	SM	None	Scattered scrub and shrubs growing along reen. Bramble.	Fair	Fair	20+	C2	1.8
G65	Hawthorn, Blackthorn.	2.5 - 3.5	20	280	2	EM	None	Scattered unmanaged remnant hedge shrubs growing along reen. Bramble.	Good	Fair	20+	C2	3.3
G66	Hawthorn, Blackthorn, Goat willow.	2.5 - 3.5	18	200	2	EM	None	Scattered unmanaged boundary group with Bramble.	Fair	Fair	20+	C2	2.4
G67	Goat willow, Hawthorn, Blackthorn, Pedunculate oak.	3 - 7	~80	700	6	Μ	None	Unmanaged seasonal wetland group of mature Goat willow with scrub of Hawthorn and Blackthorn. Most Goat willows have root heave with fallen/leaning stems, decay cavities and stem/branch fractures and deadwood. Some in state of collapse. Some Goat willows growing on or immediately north of railway boundary fence line. Habitat value.	Good	Poor	40+	В3	8.4
G68	Goat willow, Hawthorn.	3.5 - 7.5	15	400	4	EM	None	Unmanaged scrubby boundary group.	Good	Good	40+	C2	4.8
G69	Goat willow, Hawthorn, Blackthorn.	3 - 6	~60	350	2	М	None	Unmanaged scrubby boundary group with gaps and Bramble. Dieback in some Hawthorn.	Fair	Fair	20+	C2	4.2



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height range (m)	No. of trees	Max stem diam (mm)	Avg. Canopy Height (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
G70	Hawthorn, Blackthorn, Goat willow.	2.5 - 4	38	250	2.5	EM	None	Unmanaged scrubby boundary group with Bramble. Dieback in some Hawthorns.	Good	Fair	20+	C2	3.0
G71	Hawthorn, Blackthorn, Goat willow.	3 - 5.5	~40	260	2.5	EM	None	Unmanaged scrubby boundary group with gaps and Bramble. Dieback in some Hawthorns.	Good	Good	20+	C2	3.1
G72	Hawthorn, Blackthorn, Goat willow.	3 - 5	~50	280	2.5	EM	None	Unmanaged scrubby boundary group. Dieback in some Hawthorns and Goat willows. Gaps and Bramble.	Fair	Fair	20+	C2	3.3
G73	Hawthorn, Goat willow, Blackthorn.	3 - 4	13	200	2	EM	None	Scattered group of shrubs growing along railway boundary line, but mostly to south of it.	Fair	Good	20+	C2	2.4
G74	Blackthorn	3	4	150	2	EM	None	Scrub group.	Good	Fair	20+	C2	1.8
G75	Hawthorn	3.5 - 4	3	180	2	EM	None	Offsite group growing immediately to north of railway boundary fence. Crown-lifted.	Good	Good	40+	C2	2.2
G76	Hawthorn, Blackthorn.	3 - 4	~40	150	1.5	EM	None	Unmanaged scrubby boundary group with gaps. Dieback in Hawthorns.	Fair	Good	20+	C2	1.8
G77	Hawthorn, Blackthorn, Goat willow.	3 - 4	~30	150	1.5	EM	None	Unmanaged boundary group with gaps.	Fair	Good	20+	C2	1.8
G78	Hawthorn, Blackthorn, Goat willow.	3 - 4.5	~30	250	2	М	None	Unmanaged scrubby boundary group with gaps. Dieback in some Hawthorns.	Fair	Good	20+	C2	3.0
G79	Hawthorn, Goat willow, Blackthorn.	3 - 5	~40	300	3	EM	None	Unmanaged scrubby boundary group with gaps.	Good	Good	40+	C2	3.6
G80	Hawthorn, Goat willow, Blackthorn.	3 - 7	~40	350	3	EM	None	Unmanaged scrubby boundary group with gaps and Bramble.	Good	Good	20+	C2	4.2



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

Ref	Species	Height range (m)	No. of trees	Max stem diam (mm)	Avg. Canopy Height (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
G81	Goat willow	5	2	300	4	EM	None	Position approximate.	Good	Good	40+	C2	3.6
G82	Hawthorn, Blackthorn, Goat willow.	4 - 6	~30	200	3	EM	None	Unmanaged scrubby boundary group with gaps and Bramble.	Good	Good	20+	C2	2.4
G83	Hawthorn, Blackthorn, Goat willow.	3 - 4.5	18	200	2	EM	None	Scattered boundary group with gaps.	Good	Good	20+	C2	2.4
G84	Hawthorn, Blackthorn, Elder.	2.5 - 4	14	150	2	EM	None	Unmanaged scrubby boundary group.	Fair	Good	20+	C2	1.8
G85	Hawthorn, Blackthorn.	Unmanage d boundary group growing on south side of reen.	8	200	2	EM	None	Dieback in Hawthorns.	Fair	Good	20+	C2	2.4
G86	Hawthorn, Blackthorn.	2.5 - 6	15	200	2.5	Μ	None	Unmanaged boundary group. Dieback in some Hawthorns.	Fair	Good	20+	C2	2.4



CARDIFF PARKWAY, ST MELLONS

SURVEYORS: I MONGER & P BARTON

JUNE 2018

HEDGES

Ref	Species	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Life Stage	General Observations	Health & vitality	Struct. cond.
H1	Hawthorn, Blackthorn.	3	5	75	Y	Dense unmanaged hedgerow along ditch.	Good	Good
H2	Hawthorn	3	5	100	SM	Unmanaged continuous hedge line along ditch.	Good	Fair
Н3	Blackthorn, oak.	4	7	80	SM	Dense, unmanaged hedgerow containing two young oak trees.	Fair	Fair
H4	Hawthorn	4	8	150	SM	Unmanaged hedgerow becoming overwhelmed by Bramble.	Fair	Fair
H5	Hawthorn	2.5	3.0	90	SM	Managed by trimming on field side. Some gaps.	Fair	Fair
H6	Hawthorn, Goat willow, Elder.	4.0	5.0	150	EM	Unmanaged field boundary with prolific Bramble.	Good	Fair
H7	Hawthorn	3.0	3.0	120	EM	Unmanaged boundary with Bramble	Good	Good
H8	Hawthorn, Blackthorn.	3.0	4.0	180	EM	Unmanaged hedge. Dieback in some Hawthorn.	Fair	Good



Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
10+	C2	1.0
20+	C2	1.3
20+	C2	1.0
10+	C2	1.8
20+	B2	1.1
40+	C2	1.8
40+	C2	1.5
40+	C2	2.2

- The tree survey was carried out with reference to the methodology set out in BS5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.
- Trees were surveyed individually or as groups where it was considered that they had grown together to form cohesive arboricultural features either aerodynamically (trees that provide companion shelter), visually (eq avenues or screens) or culturally (including for biodiversity). However, where it was considered that there was an arboricultural need to differentiate between attributes trees within groups/woodlands were also surveyed as individuals
- The full tree survey findings are recorded in the following tree survey schedule.
- Within the tree survey schedule, each surveyed TREE (T), GROUP (G), HEDGEROW (H), WOODLAND (W) or SHRUB MASS on or adjacent to the site is given a reference number which refers to its position on the tree survey and constraints plan.
- TREE SPECIES are listed by common name.

The **DIMENSIONS** taken are:

- STEM DIAMETER (in millimetres), obtained from the girth estimated at approx.1.5m. For multistemmed trees the notional diameter may be estimated on the basis of the average stem size x the number of stems. (A notional diameter may be estimated where measurement is not possible.)
- HEIGHT, are estimated in metres. They are recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- The CROWN DIAMETER are the average diameter from canopy edge to canopy edge in metres.

LIFE STAGE is defined as follows:

- Young: normally stake dependent, establishing trees. Should be growing fast, usually Υ primarily increasing in height more than spread, but as yet making limited impact upon the landscape.
- SM <u>Semi-mature</u>: Established young trees, normally of good vigour and still increasing in height, but beginning to spread laterally. Beginning to make an impact upon the local landscape & environment. Semi-Mature (still capable of being transplanted without preparation, up to 30cm girth and not yet sexually mature).
- EM Early-mature: Not yet having reached 75% of expected mature size. Established young trees, normally of good vigour and still increasing in height, but beginning to spread laterally. Beginning to make an impact upon the local landscape & environment.
- Mature: Well-established trees, still growing with some vigour, but tending to fill out and increase Μ spread. Bark may be beginning to crack & fissure. In the middle half of their safe, useful life expectancies.

- LM Late-Mature: In full maturity but possibly beyond mature and in a state of natural decline). Still retaining some vigour but any growth is slowing.
- А Ancient: A tree that has passed beyond maturity and is old./aged compared with other trees of the same species. Typically having a very wide trunk and a small canopy.

PHYSIOLOGICAL CONDITION (HEALTH & VITALITY):

Essentially a snapshot of the general health of the tree based upon its general appearance, its apparent vigour and the presence or absence of symptoms associated with poor health, physiological stress etc. (Fungal infections may be recorded here but decay giving rise to structural weakness would be recorded under 'Structural Condition' - see next parameter):

Good:	No significant health issues.
Fair:	indications of slight stress or minor disease (e
	or of epicormic shoot growth)
Poor:	Significant stress or disease noted; larger are
Dead:	(or Moribund)

STRUCTURAL CONDITION:

Defects affecting the structural stability of the tree, including decay, significant dead wood, root-plate instability or significant damage to structural roots, weak forks (e.g. those where bark is included between the members) etc. Classified as: No obvious structural defects: basically sound Good: Fair: Minor, potential or incipient defects Significant defect(s) likely to lead to actual failure in the medium to long-term Poor: Dead: (or Moribund)

REMAINING USEFUL LIFE EXPECTANCY:

An estimate of the length of time in years that a tree might be expected to continue to make a useful contribution to the locality at an acceptable level of risk (based on an assumption of continued routine maintenance)

- less than 10 years
- 10+ years
- 20+ years
- 40+ years



(e.g. the presence of minor dieback/deadwood

eas of dieback than above

SPECIAL IMPORTANCE:

Trees that are particularly notable as high value trees such as ancient, veteran or emerging veteran trees (i.e. trees that have some characteristics of veterans but are not yet considered to have achieved full veteran status). Such trees may be regarded as the principal arboricultural features of a site, and pose a significant constraint to potential development.

QUALITY CATEGORY:

Trees are classed as category U, A, B or C, based on criteria given in BS5837:2012; summary definitions as follows (see BS5837 for further details). Categories A, B and C are further characterised by the use of sub-categories, which attempt to identify what aspect of the tree is the main source of its perceived value:

- (1) arboricultural qualities
- (2) landscape qualities, and
- (3) cultural, historic or ecological/conservation qualities.

Examples of these qualities for each of the three categories are given below, although these are indicative only.

Note: This is NOT a health and safety classification; the classification does not take into account any requirement for remedial tree care or ongoing maintenance apart from that which may affect the trees' general suitability for retention.

CATEGORY U: UNSUITABLE:

Trees likely to prove to be unsuitable for retention for longer than 10 years should any significant increase in site usage arise as a result of development.

E.g. dead or moribund trees; those at risk of collapse or in terminal decline; trees that will be left unstable by other essential works such as the removal of nearby category U trees; trees infected by pathogens that could materially affect other trees; low quality trees that are suppressing better specimens

(Category U trees may have conservation values that it might be desirable to preserve. It may also include trees that should be removed irrespective of any development proposals.)

HIGH QUALITY: CATEGORY A:

Trees or groups whose retention should be given a particularly high priority within the design process. Normally with an expected useful life expectancy of at least 40 years.

- A1: Notably fine specimens; rare or unusual specimens; essential component trees within groups, semi-formal or formal plantings (e.g. dominant trees within an avenue etc.)
- A2: Trees, groups or woodlands of particular visual importance as landscape features.

A3: Trees, groups or woodlands of particular significance by virtue of their conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture.)

CATEGORY B: MODERATE QUALITY:

Trees or groups of some importance with a likely useful life expectancy in excess of 20 years. Their retention would be highly desirable; selective removal of certain individuals may be acceptable, but only after full consideration of all alternative courses of action.

- B1: Fair quality but not exceptional; good specimens showing some impairment (e.g. remediable defects, minor storm damage or poor past management.)
- B2: Acceptable trees situated such as to have little visual impact within the wider locality. Also numbers of trees, perhaps in groups or woodlands, whose value as landscape features is greater collectively than would warrant as individuals (such that the selective removal of an individual would not impact greatly upon the trees' overall, collective value).
- B3: Trees, groups or woodlands with clearly identifiable conservation or other cultural benefits.

CATEGORY C: **MINOR VALUE:**

Trees or groups of rather low quality, although potentially capable of retention for at least approx. 10 years. Also small trees with stems below 15cm diameter. Potentially retainable, but not of sufficient value to be regarded as a significant planning constraint. C1: Unremarkable trees of very limited merit or of significantly impaired condition.

- C2: Trees offering only low or short-term landscape benefits; also secondary specimens within groups or woodlands whose loss would not significantly diminish their landscape value.
- C3: Trees with extremely limited conservation or other cultural benefit.





APPENDIX 2

TREE SURVEY PLAN



	6.6 6 2.2	137 113 15	B1 B2 B1	KEY BS 5837 : 2012 Categories
	1.8 3 3.6 1.8	28 41 10	B1 B1 C1	Tree Category A - High Quality
	1.8 1.3 5.4 1.3	10 5 92 5	C1 B1 C1 C1	A Category - Hedgerow, Group, Woodland
	1.3 1.3 6.6	5 5 137	C1 C1 B1	Tree Category B - Moderate Quality B Category - Hedgerow, Group, Woodland
	1.3 3.6 1.1	5 41 4	C1 C1 C1 C1	Tree Category C - Low Quality
	1.8 1.8 1.3	10 10 5	C1 C1 C1	C Category - Hedgerow, Group, Woodland
	1.1 4.8 4.2 1.5	4 72 55 7	C1 B1 C1 C1	U Category - Hedgerow, Group, Woodland
	4.8 3.3 4.8	72 35 72	C1 C1 C1 C1	Root Protection Area to BS 5837:2012
	9 8.4 2.2	255 222 15	B2 B2 B1	Shrub Mass / Offsite Tree / OOS (Out of scope)
	6.7 7.2 7 6.7	142 163 152 142	B1 B1 B1 B1	Veteran Tree
	5.8 7.2 2.2	104 163 15	B2 B1 B1	
	3.3 6 3.9 3.6	35 113 49 41	B1 B1 B1 B1	
	3.6 7.2 11.4	41 163 408	B1 B1 B1 B1	SHFET 1
	8.2 4.8 4.8	209 72 72 255	B2 C1 B2 B1	
	4.2 4.5 9	55 65 255	C1 B2 B3	
	9 2.8 6	255 24 113 72	C1 B1 B1	
	4.8 4.2 3.6 6	72 55 41 113	B1 B1 B1 C1	
	4.5 7.9 8.8	65 197 241	B1 B1 B3	
	5.4 9.6 3.3 8.4	92 290 35 222	B1 C1 C1 B2	
	5 3.1 3.6	80 31 41	B1 B1 B1	
	4.2 4.2 4.2	55 55 55	U C1 C1 B1	
	9.4 7.8 6.6	275 191 137	C1 B2 B2	
	3.6 3.8 4.8	41 46 72	B2 B2 B2	No contraction of the second sec
	n/a 7.2 3 6	n/a 163 28 113	U B2 B1 B1	
	7.2 6 4.8	163 113 72	B1 C1 C1	
	2.4 4.1 7.2 7.2	18 52 163	B1 B1 B1 B1	
	3 3 3.6	n/a n/a n/a	C2 C2 C2 C2	
	1.8 2.4 1.8	n/a n/a n/a	C2 C2 C2 C2	
n	1.8 4.8 4.8 2.4	n/a n/a n/a n/a	62 B2 B2 C2	
adunculate Oak.	3.6 3.6 4.8	n/a n/a n/a	B2 C2 C2	
m.	3.6 3.6 2.4 7.8	n/a n/a n/a	C2 C2 B2 B2	
1	4.8 3 1.8	n/a n/a n/a	B2 B2 B2 C2	
Blackthorn. Blackthorn.	3 3 3	n/a n/a n/a	C2 C2 C2	
	7.2 3 4.8 4.2	n/a n/a n/a n/a	B2 C2 B2 C1	
urel.	3.6 4.8 8.4	n/a n/a n/a	B2 B2 B1	
Ash, Sycamore, Goat Willow, Hawthorn. e Oak, Goat Willow, Field Maple. w Field Maple Common Ash Partunculate Oak, Hawthorn, Bullace.	5.4 6 6	n/a n/a n/a	B2 B2 B2 B2	
w, reid maple, common Asir, reduncalate Cak, nawmon, bulace.	7.8 3.6 2.4	n/a n/a n/a	B2 B2 C2 C2	
	5.4 3.6 1.3	n/a n/a n/a	B2 C2 C2	
n Ash.	4.2 9 6 3.6	n/a n/a n/a n/a	C2 C2 B2 B2	
	6 2.4 4.2	n/a n/a n/a	B2 C2 C2	
om, siacknom, Elder.	3.6 5.4 2.4 3.6	n/a n/a n/a n/a	C2 B2 C2 C2	
Blackthorn.	3.3 3.6 4.8	n/a n/a n/a	C2 C2 C1	
adunculate Oak.	3 3.6 3.6	n/a n/a n/a	C2 C2 C2	
, Goat Willow, Common Ash.	3 1.8 1.8	n/a n/a n/a	B2 C1 C1	
	1.8 2.6 1.8	n/a n/a n/a	C1 C2 C2	
adunculate Oak.	3.3 2.4 8.4 4.8	n/a n/a n/a n/a	C2 C2 B3 C2	
	4.2 3 3.1	n/a n/a n/a	C2 C2 C2	
	3.3 2.4 1.8 2.2	n/a n/a n/a	C2 C2 C2 C2	
	1.8 1.8 3	n/a n/a n/a	C2 C2 C2 C2	
	3.6 4.2 3.6	n/a n/a n/a	C2 C2 C2 C2	
	2.4 1.8 2.4	n/a n/a n/a	C2 C2 C2 C2	
	2.4 1 1.3	n/a n/a n/a	C2 C2 C2 C2	
	1.8 1.1 1.8	n/a n/a n/a	C2 B2 C2	Note: The original of this drawing was produced in colour -
	1.5 2.2	n/a n/a	C2 C2	a monochrome copy should not be relied upon.
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				PROJECT TITLE St Mollop's Dertwey (A 2504)
				St Mellon S Parkway (A.2581)
				DRAWING TITLE Tree Survey & Constraints
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G64 C2			``````````````````````````````````````	
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