

**Arboricultural Impact Assessment for the  
Cardiff Arena Quarter Site  
and  
Tree Survey for the Cardiff Arena Quarter and the Atlantic Wharf,  
Butetown Masterplan Area**

**Prepared for Robertson Construction Group**



A trading name of RG Consultancy Ltd

**Prepared by  
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Our Ref 0621-9047 Rev1  
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Tree Condition Survey  
Tree Survey Plans - Sheets 1 and 2

\*Tree Removals Plan prepared by The Urbanists  
(Submitted separately)

## 1.0 **Introduction**

- 1.1 This Arboricultural Implication Assessment has been prepared by Ruskins Tree Consultancy a trading name of R G Consultancy Limited to inform the hybrid planning application for the redevelopment of Atlantic Wharf, Butetown Masterplan and Cardiff Arena Quarter Site, Cardiff.
- 1.2 The hybrid planning application is for a detailed application for the development of the Cardiff Arena and Hotel Site and an outline application for the wider masterplan site. The Arena and hotel would sit within the 'Arena Quarter' and forms the full element of the hybrid planning application. A detailed description of the proposed development is presented in the Planning Statement but in summary full planning permission is sought for the Arena Quarter comprising:
- A 15,000 seat capacity indoor Arena and associated service yard.
  - A 182 bed hotel and associated car park.
  - An Arena Plaza.
  - Pedestrian, cycle and vehicular accesses.
  - Vehicular drop off points.
  - Hard and soft landscaping and drainage
- 1.3 The outline planning permission with all matters reserved is sought for a leisure led mixed use masterplan including residential dwellings, hotel, employment, leisure, public realm and car parking and associated infrastructure of the land to the south of the Arena Quarter.
- 1.4 To inform the proposed redevelopment of this site we have undertaken a Tree Condition Survey. The scope of the arboricultural assessment of the tree resource was to visit the site and to survey relevant trees, groups, and hedges in accordance with BS5837:2012 '*Trees in relation to design, demolition and construction – recommendations.*' The tree condition survey has been circulated to the design team and has been updated to reflect the tree removals that are proposed as part of the development known as the 'Arena Quarter'. (See Appendix 1).
- 1.5 The tree survey extends south from the Areen Quarter to include the land to the South of Hemingway Road and to the north of the A4232 underpass, the majority of this part of the site is within the existing Red Dragon retail and leisure development, the wider masterplan site includes some land south of the underpass but this land has not been included in the tree survey.
- 1.6 We have been provided with a copy of the proposed layout plan for the Arena Quarter and a tree removals plan has been prepared for this part of the site by The Urbanists. We have been instructed to prepare an Arboricultural Impact Assessment on the impact of proposed development on the existing arboricultural resource. Urbanists
- 1.7 The proposed landscaping associated with the detailed planning application has been prepared by The Urbanists.

## **2.0 Report Limitations**

- 2.1 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, both with and without prior manifestation of any reasonably observable symptoms.
- 2.2 This report is prepared for the planning application purposes only and does not evaluate the degree of risk posed by trees.
- 2.3 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.
- 2.4 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.
- 2.5 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.
- 2.6 Findings relate to the condition of the trees as found at the time of survey.
- 2.7 The findings and recommendations of this report are limited to a period of 24 months from the date of this report. In the event of any changes in the rooting environment of the trees including excavation works, waterlogging or removal of any underground structures /services the condition of the trees should be reviewed.
- 2.8 After extreme weather events or if any large branch failure, storm damage, structural failure, or symptoms of disease or decay including fungi are observed then we recommend that the condition of the trees should be reviewed.

## **3.0 Statutory Tree Protection**

- 3.1 We have not been informed that any of the on-site vegetation is subject to statutory protection
- 3.2 Prior to any treeworks or vegetation clearance works being undertaken the presence of statutory protection, the status of any relevant planning conditions and ownership of vegetation should be confirmed.
- 3.3 Prior to any treeworks or vegetation clearance being undertaken the possible presence of nesting birds or protected species needs to be considered and if necessary specific ecological advice should be sought from the project ecologists. Nesting birds and protected species (including bats and their roosts) are protected from disturbance under 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.

#### **4.0 Planning Policy**

4.1 The applicable planning policy is summarised as follows:

- Cardiff Local Development Plan 2006 – 2026 (Adopted January 2016).
- Future Wales: The National Plan 2040 (February 2021); and
- Planning Policy Wales (Edition 11, February 2021).
- Green Infrastructure Supplementary Planning Guidance (SPG) which includes the ‘Trees and Development Technical Guidance Note’ (November 2017)

#### **4.2 Trees and Planning Policies**

Section 197 of the Town & Country Planning Act 1990 (Ref. 2) states that it: - *‘...shall be the duty of the local planning authority to ensure, whenever it is appropriate, that in granting planning permission for any development adequate provision is made, by the imposition of conditions, for the preservation or planting of trees’.*

Planning Policy Wales adds that: - *‘Trees, woodlands and hedgerows are of great importance, both as wildlife habitats and in terms of their contribution to landscape character and beauty. They also play a role in tackling climate change by trapping carbon and can provide a sustainable energy source. Local planning authorities should seek to protect trees, groups of trees and areas of woodland where they have natural heritage value or contribute to the character or amenity of a particular locality. Ancient and semi-natural woodlands are irreplaceable habitats of high biodiversity value which should be protected from development that would result in significant damage’, and: - ‘...planning authorities should, as appropriate, make full use of their powers to protect and plant trees to maintain and improve the appearance of the countryside and built up areas’.*

Key policy 15 of the Cardiff Local Development Plan advises that new trees and shrubs be provided by developers wherever possible, and that: - *‘Carbon sinks act as a means of off-setting carbon emissions by natural means. Trees and soils act as substantial reservoirs of carbon, sequestering atmospheric carbon, and contributing substantially to soils, which accrete carbon faster under tree cover than other Draft Trees and Development Technical Guidance Note June 2017 6 forms of vegetation. This stored carbon will usually be emitted as a greenhouse gas if trees are removed or damaged...’, and: - ‘As far as practicable, trees should be retained and protected, and land kept as functioning vegetated soil open to the fall of organic matter, with new trees and shrubs provided by developers wherever possible. Where trees and shrubs cannot be surrounded by open soil, hard surfaces should not be used unless there is an overriding need, and areas that are not needed for pedestrian or vehicle use should be retained for soft landscape. Cardiff’s open spaces, trees and soils play a crucial role in mitigating the effects of climate change at the local level. Open vegetated soils absorb rainfall and runoff’.*

Detailed policy EN8 Trees, Woodland and Hedgerows states that: - *‘Development will not be permitted that would cause unacceptable harm to trees, woodlands and hedgerows of significant public amenity, natural or cultural heritage value, or that contribute significantly to mitigating the effects of climate change’.*

With regard to new planting, EN8 advises that: - *‘Where trees are lost, new planting will be sought that is provided with sufficient usable soil volume, aeration and irrigation to support healthy long term growth’, and: - ‘Proposals that create spaces for larger tree species to grow to maturity will be favoured over proposals for scattered smaller trees’.*

The Infill Sites Supplementary Planning Guidance (2011) (Ref. 6) states that: - *‘New trees and landscaping will be encouraged on development sites, even when there is no loss of existing trees...’*, and: - *‘Any new landscaping should incorporate species that will provide long term benefits to visual amenity, biodiversity and to minimising the effects of climate change. The planting of species that are considered well adapted to climate regimes likely to prevail in the near future will be supported’.*

The Planning Obligations Supplementary Planning Guidance (SPG), which relates to policy KP7 (Planning Obligations) sets out the Council’s approach to planning obligations when considering applications for development in Cardiff. It also sets out the mechanisms for securing survey, assessment, mitigation, compensation and enhancement of Cardiff’s tree resource as part of the Green Infrastructure of the City.

## **5.0 Site Description**

- 5.1 The site is described in detail within the planning application, in summary the proposed Arena Quarter site which is subject to the detailed planning application sits between Cardiff County Hall to the east and residential development to the north and west on a piece of land currently utilised as surface parking for County Hall. The southern boundary to the site encompasses Hemingway Road to the boundary with the existing Travelodge which is to be replaced as part of the project. Part of Silurian Park to the north west and a strip of land to the northern side of County Hall forms part of the Arena and Hotel site.
- 5.2 It is envisaged as part of the wider masterplan that the Red Dragon Centre to the southern side of Hemingway Road and County Hall will eventually be removed to make way for a future masterplan that will connect the anchor Arena Quarter development with the Bay and Atlantic wharf by means of significant new public realm and piazza.
- 5.3 The tree survey includes the Arena Quarter and extends south from the Arena Quarter to include the land to the South of Hemingway Road and to the north of the A4232 underpass. The majority of this part of the site is within the existing Red Dragon retail and leisure development, the wider masterplan site includes some land south of the underpass but this land has not been included in the tree survey.

## 6.0 The Tree Resource

6.1 The tree survey identified 367 individual trees, 11 groups of trees and shrubs including 2 hedges, and 2 regrowing poplar stumps across the wider site.

6.2 A summary of the tree species distribution s for the whole site is shown in the graph below and can be seen on the Tree Survey Plan.

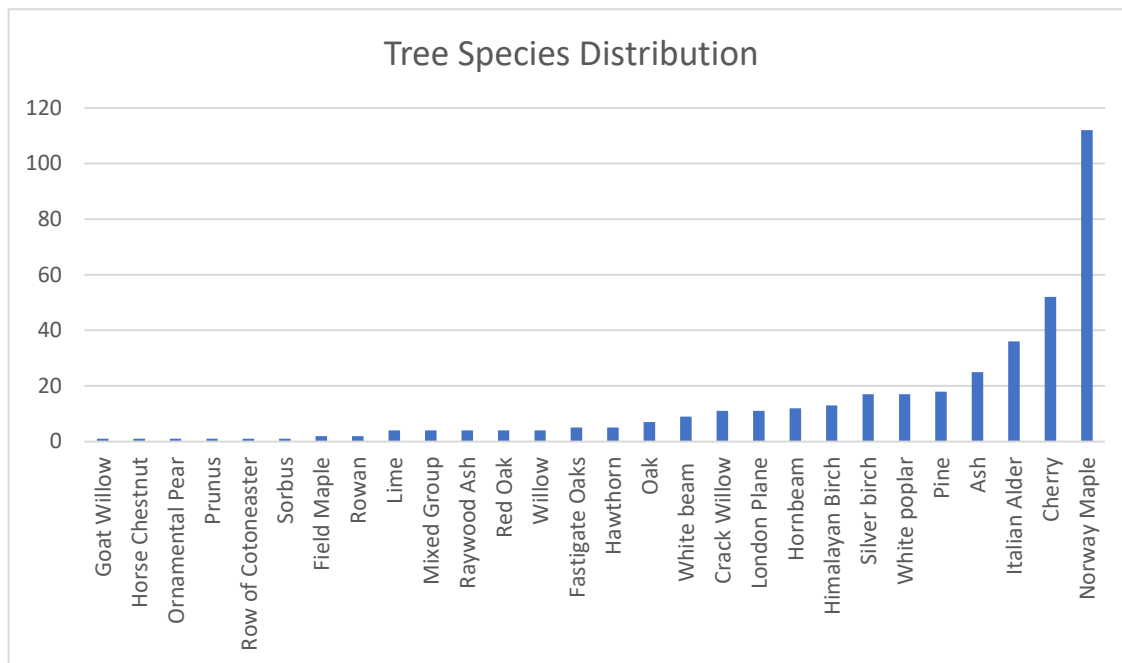


Table 1

6.3 Whilst there is a relatively wide species mix with 28 tree species growing within the survey area, it should be noted that 17 of the tree species are represented by less than 10 trees. The tree species within the site are dominated by Norway maples which make up almost 25% of the tree resource with Cherries making up 12.5% of the tree resource. The cherries and Norway maples dominate the planting within the Red Dragon Car Park. The County Hall site planting is dominated by Norway maples, white poplars, and ash.

6.4 The tree resource within the proposed Arena Quarter consists predominately of the tree planting associated with the County Hall development. This includes mixed trees planted on bunds within and around the boundary of the car parking area and on earth banks to the western and southern side of the County Hall building. In addition to the individual trees surveyed the Arena Quarter includes two groups of trees within Silurian Park both growing bunds and one narrow linear group along the northern side of the service road that runs to the northern boundary of the County Hall Site, there is a group of trees to the southern side of the car parking area to the northern side of Hemingway Road.

6.5 The British Standards Institute published 'BS5837:2012 Trees in relation to design, demolition and construction – Recommendations' gives recommendations and guidance on the principles to be applied where development is proposed, the standard provides guidance on how to assess the value and quality of trees and to decide which trees are appropriate for retention. The BS5837 Categories referred to in this report are described in detail in the Tree Survey in Appendix 1.

6.6 In summary the quality of the trees resource is assessed, and the trees are divided into 4 categories based a number of factors including their condition, remaining life-expectancy, landscape, arboricultural and cultural/conservation value.

6.7 The BS 5837 (2012) categories are shown below:

- Category U: Those in such a poor condition that they cannot realistically be retained
- Category A: Trees of high quality
- Category B: Trees of moderate quality
- Category C: Trees of low quality

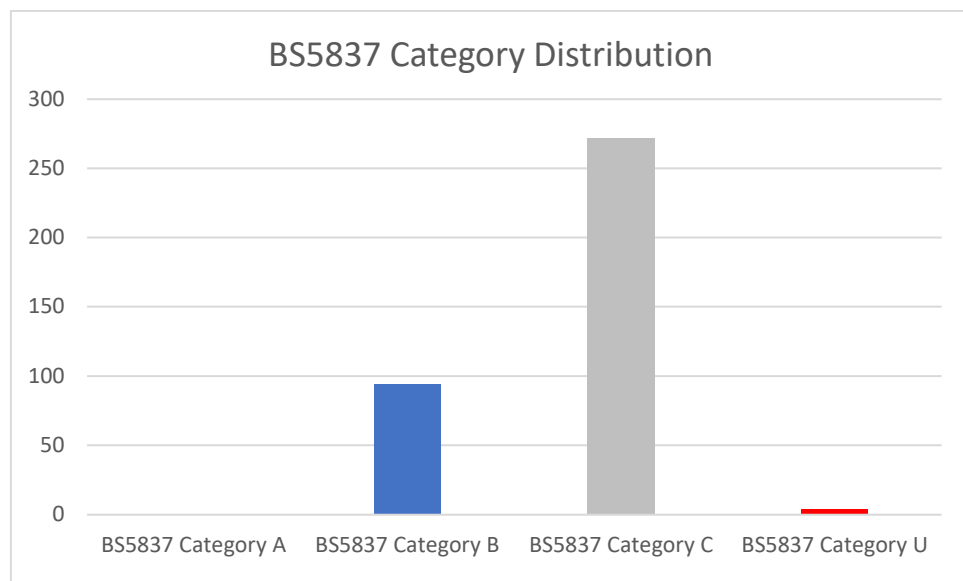


Table 2

6.8 The tree resource consists predominately of BS5837 Category 'C' trees which make up almost 70% of the tree resource with almost 30% of the trees qualifying as BS5837 Category 'B' trees. There are no trees which are considered to merit designation as Category 'A' trees and only 4 Category 'U' trees.

6.9 The quality of the majority of the individual trees is considered generally to be average to poor due to a number of factors including lack of management, poor nursery selection and lack of formative pruning, lack of any new planting and possibly poor growing conditions. For details on the individual trees please see the tree condition survey attached in Appendix 1.

6.10 The Arena Quarter site was comprehensively redeveloped circa 1980, having previously been part of the East Bute Dock Facility. The engineering works and landscaping associated with the existing development involved creation of numerous raised earth bunds to be boundary of the car parking area and sloping banks around the County Hall building. The creation of earth bunds, with the importing and compacting of soil does not create optimum conditions for subsequent tree growth. These areas were then planted with a relatively limited selection of tree species



- 6.11 The trees growing within the proposed Arena Quarter site have an amenity value within the locality mainly derived from their group value. The majority of the trees are contemporary with the County Hall development, the tree resource has been subject to very limited management with no additional planting undertaken since the original landscaping was completed.
- 6.12 The poplar trees growing within the County Hall car parking landscaping are amongst the largest trees on site and consequently have some visual amenity value within the local landscape. However due to their relatively fast rate of growth and species characteristics poplar trees are prone to limb or complete structural failure and as their size increases and their vigour declines, the risk of structural failure increases. There are two apparently windblow regrowing poplar stumps which are testament to these characteristics.
- 6.13 Retaining and managing mature poplar trees within areas of high public access is problematic, pruning which might serve to reduce the risk of limb failure results in relatively weakly attached regrowth and decay within pruning wounds, which requires regular cyclical removal of the regrowth. The long-term future of the poplar trees growing within this site regardless of any development is considered to be problematic.
- 6.14 The majority of the trees growing within the Red Dragon Centre Car Park are growing within small square planters or narrow landscape strips within the tarmac car park, the rooting environment for these trees is sub-optimal and the majority of the trees have been brutally pruned with heavy reductions leaving a small canopy formed by juvenile growth. This management may have been undertaken to allow for CCTV surveillance of the car parking area.
- 6.15 This type of planting and management will have a significant impact on their health and longevity. Some of the trees growing in the narrow strips of open ground have astro-turf covering the open ground and this will also impact on their growing conditions and health. Many of the trees have wounds on the trunks and many trees are struggling to become established.
- 6.16 The London planes growing within the terraced hard landscaping to the eastern side of County Hall have metal grilles around the lower trunk. These grilles have not been removed and have become occluded within the trunk by the radial growth of the lower trunk. The long-term future of this damage is equivocal, but it has impacted on the growth of these trees and is likely to compromise their potential to reach their optimum size and may also impact on their structural integrity.
- 6.17 There are a number of ash trees on site growing around the County Hall with symptoms of Ash Dieback Disease. This disease is going to impact on the safe remaining life-expectancies of these trees and regardless of any proposed development the removal of the ash trees within the next decade or so is very likely to be necessary.

**7.0 Arboricultural Impact Assessment**

7.1 There are 145 individual trees and five groups of trees growing within Arena Quarter part of the site. The groups of trees are to the northern boundary of the County Hall site, to the north-western part of the Arenan Site Silurian Park and to the southern side of the County Hall Car Parking area.

7.2 The scale of the proposed redevelopment of the Arena Quarter part of this site impacts on the potential to retain trees growing in this area. The trees to be removed to allow the proposed Arena development are identified within the Tree Condition Survey and shown on the Tree Removals Plan prepared by The Urbanists.

	Total Number of Tree to be removed	BS Cat 'A'	BS Cat 'B'	BS Cat 'C'	BS Cat 'U'
<b>Trees to be removed</b> To facilitate the Arena Development	98 Trees 3 Groups of Trees 1 group of Cotoneaster shrubs	N/a	31 Trees	67 Trees, 3 Groups of Trees 1 group of Cotoneaster shrubs	N/A

Table 3

7.3 The trees to be removed to allow for the proposed Arenan Quarter development consist of thirty one BS5837 'B' category trees (moderate quality) and sixty seven BS5837 'C' category trees (low quality) and three groups of trees, two regrowing stumps and one group of Cotoneaster shrubs, all BS5837 'C' category. There are no BS5837 Category A (high-quality) trees to be removed as part of this development. In addition to the trees shown above there are two regrowing poplar stumps ST1 and ST2 being removed.

7.4 The trees to be removed are identified on the Tree Removals Plan prepared by The Urbanists for the Arena Quarter and within the Tree Condition Survey.

7.5 Many of the trees to be removed are growing on raised earth bunds around the County Hall car parking area and on raised bunds to the southern side of Silurian Park, attempting to retain these bunds within any comprehensive redevelopment of the site would be problematic and removing the bunds results in the removal of trees growing on them. The removal of these trees is necessary to facilitate the proposed development.

7.6 The principle of removing trees to allow for an appropriate layout subject to appropriate new tree planting is supported in all the relevant planning policies and in BS5837 (2012). 'Trees in relation to design, demolition and construction – Recommendations' which states that:

*5.1.1 The constraints imposed by trees, both above and below ground (see Note to 5.2.1) should inform the site layout design, although it is recognized that the competing needs of development mean that trees are only one factor requiring consideration. Certain trees are of such importance and sensitivity as to be major constraints on development or to justify its substantial modification.*

- 7.7 In my opinion none of the trees to be removed are of considered to be of *'such importance or sensitivity to be major constraints on development or justify its substantial modification'*.
- 7.8 It should be noted that Tree Removals for the wider masterplan area, including for the County Hall demolition and redevelopment and for the wider masterplan area have not been identified within this report. With regard to the scale of the proposed development it is foreseeable that the majority of the existing tree resource is to be removed.
- 7.9 It is worth noting that BS5837 (2012) acknowledges that a number of often competing factors including the retention/removal of trees need to be considered when the design process for the proposed development is being undertaken.
- 7.10 The tree planting strategy for this planning application has been prepared by The Urbanists. The proposed new planting will serve to mitigate some of the impact of the proposed tree removals. This planting will aim to enhance the quality, landscape, and amenity value of the tree resource across the site, whilst protecting valuable ecological habitats, increasing the bio-diversity value of the wider area.
- 7.11 The proposed new tree planting will be planted in suitably specified and prepared planting pits with sufficient soil volume to ensure their long-term future and with appropriate maintenance to assist with their establishment.
- 7.12 All proposed tree planting will be subject to ongoing management to ensure the trees become successfully established.

## 8.0 Conclusion

8.1 The British Standard BS5837:2012 contains clear and current recommendations for a best practice approach to the assessment of trees on development sites. This redevelopment project has followed this guidance by:

- Assessing the quality of the trees and considering the benefits and constraints to development of the site in relation to the quality of the tree resource.
- Seeking arboricultural advice to inform the layout and design of the proposed development.

8.2 The quality of the on-site trees within the Arena Quarter and is generally average to poor and whilst the trees have some merit particularly when considered as part of formal and informal groups it is my opinion, they are not of sufficient quality to be considered to be a constraint in terms of the proposed comprehensive redevelopment of the Arena Quarter site.

8.3 The majority of the trees to be removed to facilitate the Arena Quarter Development are growing on raised earth bunds around the County Hall car parking area and on raised bunds within Silurian Park. Attempting to retain these bunds within any comprehensive redevelopment of the site would be problematic and removing the bunds results in the removal of trees growing on them. The removal of these trees is necessary to facilitate the proposed development .

8.4 With regard to the size, quality, and amenity value of the trees to be removed, when considered in conjunction with the landscaping proposals, and the wider social and economic benefits associated with the proposed redevelopment of this site, it is my opinion that the level of tree removals is justified.

8.5 This opinion is supported by BS5837:2012 which states '*.....it is recognized that the competing needs of development mean that trees are only one factor requiring consideration. Certain trees are of such importance and sensitivity as to be major constraints on development or to justify its substantial modification.*'

8.6 The proposed landscaping scheme has been prepared by The Urbanists, the proposed planting will serve to reduce the impact of the proposed tree removals and the proposed landscaping will in my opinion serve to provide a high-quality environment for future visitors.

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August 2021

## **Appendix 1**

### **Tree Condition Survey Tree Survey Plans - Sheets 1 and 2**

**\*Tree Removals Plan prepared by The  
Urbanists (submitted separately)**

## **Tree Survey for the Cardiff Arena Quarter Site and the Atlantic Wharf, Butetown Masterplan Area**

**Prepared for Robertson Construction Group**



**RUSKINS**  
TREE CONSULTANCY

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Our Ref 0621-9047 Rev1  
August 2021**

## **Tree Survey for the Cardiff Arena Quarter Site and the Atlantic Wharf, Butetown Masterplan Area**

### **1.0 Introduction**

This survey has been undertaken following instructions received from Turner and Townsend, we have been asked to assess the condition of trees located within and close to the boundary of the site. The site was visited on a number of occasions in June and July 2021 and an assessment of the trees' condition was made in accordance with BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations'.

This survey has been updated to identify the trees to be removed to allow for the proposed Arena Quarter Development

### **2.0 Survey Methodology**

We have surveyed all the individual trees and groups of trees located within and close to the boundary of the site. The objective of the survey is to collect tree data relevant to the proposed redevelopment of the site and to categorise individual trees or tree groups in accordance with BS 5837 (2012) 'Trees in relation to design, demolition and construction – Recommendations' based on their condition, quality and future potential.

The purpose of the categories within BS5837 2012, is not to determine whether retention of trees is desirable, *'The purpose of the tree categorization method, which should be applied by an arboriculturist, is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of development occurring.'* (BS5837 2012 Section 4.5.2). This survey should therefore be regarded as an initial appraisal and observations, assessments or recommendations relating to tree protection zones, remedial tree works, protective fencing, foundation design, material specification are beyond the scope of this report.

The location of the trees and tree groups are shown on the attached drawing. A detailed inspection with respect to decay, defects and hazard is not included.

TABLE 1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
ST1	Poplar Stump	2	m/s	m/s	2	2	2	2	M	P	P	40+	A regrowing stump of a recently felled possibly windblown poplar tree growing on the grass raised bund to the eastern boundary of the car parking area.	Remove to allow for the proposed development	C1
ST2	Poplar Stump	2	400	m/s	1	2	1	2	M	P	P	40+	A regrowing stump of a recently felled possibly windblown poplar tree growing on the grass raised bund to the eastern boundary of the car parking area.	Remove to allow for the proposed development	C1
T3	White Poplar	16	530	1	6	10	12	7	M	A	A	40+	A mature tree growing on the grass bund to the western boundary of the car parking area.	Remove to allow for the proposed development	B2
<p><b>Note 1.</b> The poplar trees growing within this site are amongst the largest trees on site and consequently have some visual amenity value within the local landscape. However due to their relatively fast rate of growth and species characteristics poplar trees are prone to limb or complete structural failure and as their size increases and their vigour declines, the risk of structural failure increases. Managing mature poplar trees within areas of high public access is problematic, pruning which might serve to reduce the risk of limb failure results in relatively weakly attached regrowth and decay within pruning wounds, which requires regular cyclical removal of the regrowth. The long-term future of the poplar trees growing within this site regardless of any development is considered to be problematic.</p>															
<p><b>Note 2.</b> The site was comprehensively redeveloped circa 1980, having previously been part of the East Bute Dock Facility. The current development consists predominately of the County Hall office building and associated car parking and service roads. The engineering works and landscaping associated with the existing development involved creation of numerous raised earth bunds to be boundary of the car parking area and sloping banks around the County Hall Building. These areas were then planted with a relatively limited selection of tree species, the creation of earth bunds, with the importing and compacting of soil does not create optimum conditions for subsequent tree growth. In addition attempting to retain trees growing on raised bunds within any comprehensive redevelopment of the site will be problematic, the constraint in terms of existing and proposed levels and impact on trees will be difficult to address. Therefore with regard to its location the potential for retention of this tree within this re-developed site is considered to be very low.</p>															
T4	White Poplar	16	440	1	8	6	6	8	M	A/P	A	40+	As per T3. See Notes 1 and 2. This tree is leaning south with exposed structural roots.	Remove to allow for the proposed development	B2
T5	White Poplar	18	490	1	10	11	5	8	M	A	A	40+	As per T3. See Notes 1 and 2.	Remove to allow for the proposed development	B2
T6	Hornbeam	7	160	1	3	3	3	3	SM	A	A	40+	A semi-mature tree growing on the grass bund to the western boundary of the car parking area. Minor basal damage. See Note 2	Remove to allow for the proposed development	C2
T7	Hornbeam	9	240	1	7	6	4	5	SM	A	A	40+	As per T6. See Note 2 Hanging damaged limb	Remove to allow for the proposed development	C2
T8	Lime	11	390	1	6	6	6	5	SM	A	A	40+	As per T6. See Note 2.	Remove to allow for the proposed development	C2



Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T9	Norway Maple	10	340	m/s	5	4	5	4	EM	A	A	40+	An early-mature ornamental tree growing on the grass bund to the western boundary of the car parking area. See Note 2.	Remove to allow for the proposed development	C2
T10	Norway Maple	11	300	1	6	5	5	5	EM	A	A	40+	As per T9. See Note 2.	Remove to allow for the proposed development	C2
T11	Norway Maple	11	260	1	6	5	5	5	EM	A	A	40+	As per T9. See Note 2. Leaning south.	Remove to allow for the proposed development	C2
T12	Norway Maple	13	370	1	6	6	6	6	EM	A	A	40+	As per T9. See Note 2.	Remove to allow for the proposed development	C2
T13	Norway Maple	8	200	1	2	4	4	4	SM	A	A	40+	As per T9. See Note 2. This tree has been crown lifted.	Remove to allow for the proposed development	C1
T14	White Poplar	16	360	1	8	8	8	8	M	A	A	40+	As per T3. See Notes 1 and 2. This tree has a relatively sparse canopy with some dieback and deadwood.	Remove to allow for the proposed development	C2
T15	White Poplar	18	270	1	6	8	4	2	M	A	A	40+	As per T3. See Notes 1 and 2.	Remove to allow for the proposed development	B2
T16	Hornbeam	9	250	1	3	5	5	5	SM	A	A	40+	A semi-mature tree growing on the grass bund to the western boundary of the car parking area. See Note 2	Remove to allow for the proposed development	C2
T17	Hornbeam	10	230	1	4	4	4	4	SM	A	A	40+	A semi-mature tree growing within a narrow landscape segment between two car parking areas. See Note 2	Remove to allow for the proposed development	C2
T18	Maritime Pine	12	250*	1	2	3	3	2	SM	A	A	40+	A semi-mature tree growing on the grass bund to the western boundary of the car parking area. See Note 2	Remove to allow for the proposed development	C2
T19	Whitebeam	8	230	1	4	5	2	2	M	A	A	20-39	A mature ornamental tree growing on the grass bund to the western boundary of the car parking area. See Note 2	Remove to allow for the proposed development	C2
T20	Whitebeam	8	240	1	3	5	3	4	M	A	A	20-39	A mature ornamental tree growing on the grass bund to the western boundary of the car parking area. See Note 2	Remove to allow for the proposed development	C2
T21	Whitebeam	8	300	1	4	5	4	4	M	A	A	20-39	A mature ornamental tree growing on the grass bund to the western boundary of the car parking area. See Note 2	Remove to allow for the proposed development	C2

Arboricultural Impact Assessment for the Cardiff Arena and Hotel Site and Tree Survey for the Cardiff Arena and Hotel Site and the Atlantic Wharf, Butetown Masterplan Area.

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T22	Hornbeam	9	220	1	2	3	5	4	SM	A	A	40+	A semi-mature tree growing on the grass bund to the western boundary of the car parking area. See Note 2	Remove to allow for the proposed development	C2
T23	Hornbeam	10	150	1	3	3	3	3	SM	A	A	40+	A semi-mature tree growing on the grass bund to the western boundary of the car parking area. See Note 2	Remove to allow for the proposed development	C2
T24	Norway Maple	13	290	1	4	5	5	5	EM	A	A	40+	An early-mature ornamental tree growing on the grass bund to the western boundary of the car parking area. See Note 2.	Remove to allow for the proposed development	C2
T25	Norway Maple	14	340	1	5	6	4	5	EM	A	A	40+	An early-mature ornamental tree growing on the grass bund to the western boundary of the car parking area. See Note 2.	Remove to allow for the proposed development	C2
T26	Whitebeam	9	240	1	5	2	4	4	M	A	A	20-39	A mature ornamental tree growing on the grass bund to the western boundary of the car parking area. See Note 2	Remove to allow for the proposed development	C2
T27	Whitebeam	8	220	1	1	3	3	3	M	A	A	20-39	A mature ornamental tree growing on the grass bund to the western boundary of the car parking area. See Note 2	Remove to allow for the proposed development	C2
T28	White Poplar	10	380	1	4	1	4	6	M	A	A	40+	As per T3. See Notes 1 and 2.	Remove to allow for the proposed development	B2
T29	White Poplar	12	310	1	5	6	4	4	M	A	A	40+	As per T3. See Notes 1 and 2.	Remove to allow for the proposed development	B2
T30	Italian Alder	18	370	1	5	5	5	5	EM	A	A	40+	An early-mature tree growing within the planted area to the far (western) side of Schooner Way. This tree is growing within a dense group of maples and Prunus.	No Works	B2
T31	White Poplar	8	100	1	2	4	3	1	SM	A	A	40+	A semi-mature poplar growing on the bund to the western side of the car parking area. See Notes 1 and 2.	Remove to allow for the proposed development	B2
T32	White Poplar	8	150	1	3	3	3	3	SM	A	A	40+	As per T32. See Notes 1 and 2.	Remove to allow for the proposed development	B2
T33	Hawthorn	6	150	1	3	3	3	2	SM	A	A	40+	A semi-mature tree growing within a narrow landscape segment between two car parking areas. See Note 2.	Remove to allow for the proposed development	C2
T34	Hawthorn	8	150, 150	2	5	6	5	2	SM	A	A	40+	A semi-mature tree growing within a narrow landscape segment between two car parking areas. See Note 2.	Remove to allow for the proposed development	C2

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T35	White Poplar	15	430	1	7	4	8	10	SM	A	A	40+	A semi-mature poplar growing within the grass verge to the north-western side of the car parking area. See Notes 1 and 2. Due to its proximity to G36 this tree is leaning to the west with an unblanced canopy and a low lateral branch over the grass verge.	Remove to allow for the proposed development	B2
G36	Row of Cotoneaster	8	150	m/s	3	3	3	8	M	A	A	20-39	A row of multi-stemmed shrubs growing to the north-western side of the car parking area.	Remove to allow for the proposed development	
T37	Hornbeam	9	150, 150	2	4	3	4	4	SM	A	A	40+	A semi-mature tree growing within the narrow landscape segment on a raised bund between the car parking areas. See Note 2.	Remove to allow for the proposed development	C2
T38	Hornbeam	9	150, 100	2	3	5	5	1	SM	A	A	40+	A semi-mature tree growing within the narrow landscape segment on a raised bund between the car parking areas. See Note 2.	Remove to allow for the proposed development	C2
T39	Maritime Pine	8	150	1	2	2	2	3	SM	A	A	40+	A semi-mature tree growing within the narrow landscape segment on a raised bund between the car parking areas. See Note 2.	Remove to allow for the proposed development	C2
T40	Hornbeam	9	150, 100	2	4	4	4	3	SM	A	A	40+	A semi-mature tree growing within the narrow landscape segment on a raised bund between the car parking areas. See Note 2.	Remove to allow for the proposed development	C2
T41	Cherry	10	470	1	7	8	7	8	M	A	A	40+	A mature ornamental tree growing within the grass verge to the north-western side of the car parking area. This tree is in close proximity to the barriered service road access from Schooner Way. This tree has been crown-lifted over the roadway.	Remove to allow for the proposed development	B2
T42	Ash	11	270	1	6	5	5	5	SM	A/P	A/P	10-19	A semi-mature tree growing on the bund to the northern side of the car parking area. This tree has some limited dieback which may be early symptoms of Ash Dieback Disease. Ash Dieback Disease is likely to impact on the longevity and structural integrity of the ash trees growing within this site. See Note 2 and Note 3 below.	Remove to allow for the proposed development	C1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
<p><b>Note 3 Ash Dieback Disease</b></p> <p>First confirmed in the UK in 2012, ash dieback (also known as Chalara or Chalara ash dieback) is a disease of ash trees caused by a fungus called <i>Hymenoscyphus fraxineus</i> (formerly known as <i>Chalara fraxinea</i>). This disease has spread quickly and is now affecting ash trees and woodlands across the UK, leading to the death of thousands of trees. Ash dieback has already caused widespread damage in continental Europe. There is no cure for ash dieback, but some ash trees can tolerate or resist infection. Investigating this natural resistance could be the best way to secure the future of the UK's ash trees.</p> <p>Ash dieback is a disease that affects ash (<i>Fraxinus</i>) trees, caused by a fungus called <i>Hymenoscyphus fraxineus</i>. The fungus has two stages to its lifecycle - a sexual stage, which helps the fungus spread, and an asexual stage, which is what grows on the tree and causes damage. The fungus blocks water transport in the tree, leading to lesions in the bark, leaf loss and the dieback of the crown. The main symptoms of ash dieback are:</p> <ul style="list-style-type: none"> <li>• Dead branches</li> <li>• Blackening of leaves, which often hang on the tree.</li> <li>• Discoloured stems, often with a diamond-shaped lesion where a leaf was attached.</li> <li>• Trees may eventually drop limbs, collapse, or fall.</li> </ul> <p>The symptoms are often easier to spot in mid-late summer when a healthy ash should be in full leaf. It becomes much harder in autumn when leaves are naturally changing colour and falling. Once a tree is infected the disease is usually fatal - but a limited number of trees may be tolerant or resistant to infection. Mature ash trees infected by ash dieback may survive for several years but often succumb to a secondary attack by other pests or pathogens, including honey fungus, which can cause butt or root rot and lead to the tree falling. As the disease progresses it makes the main branches and stem brittle and prone to partial or complete failure.</p>															
T43	Ash	13	460	1	7	7	8	7	SM	A/P	A/P	10-19	See T42, See Notes 2 and 3.	Remove to allow for the proposed development	C1
T44	Hornbeam	10	260	1	5	4	5	5	SM	A	A	40+	A semi-mature tree growing within the narrow landscape segment on a raised bund between the car parking areas. See Note 2.	Remove to allow for the proposed development	C2
T45	Hornbeam	9	190	1	2	3	3	3	SM	A	A	40+	A semi-mature tree growing within the narrow landscape segment on a raised bund between the car parking areas. See Note 2.	Remove to allow for the proposed development	C2
T46	Pine	8	190	1	2	2	2	2	SM	A	A	40+	A semi-mature tree growing within the narrow landscape segment on a raised bund between the car parking areas. See Note 2.	Remove to allow for the proposed development	C2
T47	Crack Willow	11	150	m/s	5	6	4	6	M	A	A	40+	A multi-stemmed willow growing within the landscape strip to the northern side of County Hall.	No Works	C2

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
G48	Mixed Group	6-10 max	max 400	1	5	5	5	5	EM	A	A	40+	A mixed group growing within the landscape strip to the northern side of County Hall. This group includes cotoneaster, hawthorn, laurel, Prunus, gorse, dogwood, maples, and alders which have been surveyed separately. As a group this vegetation forms an effective screen between the County Hall site and the Schooner Way residential development to the north.	No Works	B2
T49	Norway Maple	8	240	1	3	2	4	3	EM	A	A	20-39	An early-mature tree growing within an area of hardstanding in close proximity to the northern elevation of the County Hall.	Remove to allow for the proposed development	C1
T50	Norway Maple	8	230	1	3	2	3	3	EM	A	A	20-39	An early-mature tree growing within an area of hardstanding in close proximity to the northern elevation of the County Hall.	Remove to allow for the proposed development	C1
T51	Ornamental Pear	10	320	1	4	4	4	4	M	A	A	20-39	A mature ornamental tree growing in close proximity to a 2m high brick-built wall to the north-western corner of County Hall.	Remove to allow for the proposed development	C1
T52	Norway Maple	6	180	1	2	2	3	2	EM	A	A	20-39	An early-mature tree growing within an area of hardstanding in close proximity to the north-western corner of the County Hall.	Remove to allow for the proposed development	C1
T53	Norway Maple	6	260	1	4	3	3	3	EM	A	A	20-39	An early-mature tree growing within an area of hardstanding in close proximity to the north-western corner of the County Hall. This tree has dieback and deadwood and is in decline which is attributable to its sub-optimum rooting environment	Remove to allow for the proposed development	C1
T54	London Plane	10	400	1	6	6	6	6	SM	A	A	40+	A semi-mature tree growing within an area of hardstanding in close proximity to the north-western corner of the County Hall.	Remove to allow for the proposed development	C1
T55	Cherry	4	160	1	2	2	2	4	M	A	A	20-39	One of a row of 4 mature ornamental trees growing in a grass verge between the car park and the western side of the County Hall. These trees have a limited potential for further growth and relatively short remaining life-expectancy.	Remove to allow for the proposed development	C1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T56	Cherry	6	210	1	3	3	3	3	M	A	A	20-39	As Per T55	Remove to allow for the proposed development	C1
T57	Cherry	5	170	17	3	4	2	3	M	A	A	20-39	As Per T55	Remove to allow for the proposed development	C1
T58	Cherry	7	230	1	4	4	4	4	M	A	A	20-39	As Per T55	Remove to allow for the proposed development	C1
T59	Norway Maple	13	410	1	6	7	5	7	EM	A	A	40+	A mature tree growing on the raised earth bank close to the western side of the County Hall. T59-T64 form an informal group which serve to screen part of County Hall. Due to the species mix which includes ash and horse chestnut the long-term future of this group of trees is compromised. See Note 3 on Ash Dieback Disease.	No Works	B2
T60	Norway Maple	13	380	1	5	6	5	5	EM	A	A	40+	See T59	No Works	B2
T61	Ash	15	230	1	4	3	3	5	EM	A/P	A	10-19	See T59. A suppressed unblanced canopy. See Note 3 on Ash Dieback Disease.	No Works	C2
T62	Ash	15	280	1	1	3	1	2	EM	P	P	10-19	See T59. This tree is 90% dead. See Note 3 on Ash Dieback Disease.	No Works	C2
T63	Ash	15	330	1	3	2	4	6	EM	A	A	10-19	See T59 See Note 3 on Ash Dieback Disease.	No Works	C2
T64	Horse Chestnut	15	400	1	4	6	5	4	EM	A	A	10-19	See T59	No Works	C2
T65	Ash	6	190	1	4	3	4	3	SM	A	A	10-19	A semi-mature tree growing on the lower part of the raised earth bank close to the western side of the County Hall. T65-T81 form an informal linear group between the south easter corner of County Hall and the service road and car park. Due to the number of ashes the long-term future of this group of trees is compromised. P89	No Works	C2
T66	Ash	7	170	1	4	3	3	3	SM	A	A	10-19	See T65 See Note 3 on Ash Dieback Disease.	No Works	C2
T67	Ash	8	170	1	3	3	2	2	SM	A	A	10-19	See T65 See Note 3 on Ash Dieback Disease.	No Works	C2

## Arboricultural Impact Assessment for the Cardiff Arena and Hotel Site and Tree Survey for the Cardiff Arena and Hotel Site and the Atlantic Wharf, Butetown Masterplan Area.

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T68	Ash	12	260	1	5	4	5	6	SM	A	A	10-19	See T65 See Note 3 on Ash Dieback Disease.	No Works	C2
T69	Ash	7	210	1	4	4	5	4	SM	A	A	10-19	See T65 See Note 3 on Ash Dieback Disease.	No Works	C2
T70	Ash	10	260	1	4	4	5	5	SM	A	A	10-19	See T65 See Note 3 on Ash Dieback Disease.	No Works	C2
T71	Cherry	7	300	1	5	6	5	6	M	A	A	20-39	A mature ornamental tree growing on the lower part of the raised earth bank close to the western side of the County Hall. T65-T74 form an informal linear group between County Hall and the service road and car park. The cherry trees within this group have a limited potential for further growth and relatively short remaining life-expectancy.	No Works	C2
T72	Cherry	6	300	1	5	5	5	6	M	A	A	20-39	See T71	No Works	C2
T73	Cherry	7	330	1	4	6	5	6	M	A	A	20-39	See T71	No Works	C2
T74	Cherry	8	360	1	5	6	5	6	M	A	A	20-39	See T71. This tree contains a nest box.	No Works	C2
T75	Ash	13	360	1	5	5	7	6	SM	A	A	10-19	See T65 See Note 3 on Ash Dieback Disease. This tree has limited dieback and deadwood.	No Works	C2
T76	Ash	13	270	1	3	3	5	4	SM	A	A	10-19	See T65 See Note 3 on Ash Dieback Disease. This tree has significant dieback and deadwood.	No Works	C2
T77	Ash	15	420	1	6	6	8	6	SM	A	A	10-19	See T65 See Note 3 on Ash Dieback Disease. This tree has significant dieback.	No Works	C2
T78	Cherry	18	360	1	5	6	6	5	M	A	A	20-39	See T71	No Works	C2
T79	Ash	11	270	1	4	3	4	3	SM	A	A	10-19	See T65 See Note 3 on Ash Dieback Disease.	No Works	C2
T80	Ash	9	150	1	4	3	3	2	SM	A	A	10-19	See T65 See Note 3 on Ash Dieback Disease.	No Works	C2
T81	Ash	6	130	1	3	3	4	3	SM	A	A	10-19	See T65 See Note 3 on Ash Dieback Disease.	No Works	C2
G82	Beech Hedge	9	100	m/s	4	4	4	4	SM	A	A	40+	An unmanaged beech hedge growing to the southern side of the County Hall.	No Works	C2

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T83	Cherry	12	450	1	8	8	7	7	M	A	A	20-39	A mature ornamental tree growing on the raised earth bund between the car park and the southern side of the County Hall. This tree has a limited potential for further growth and relatively short remaining life-expectancy.	No Works	C2
T84	Cherry	10	430	1	6	6	7	5	M	A	A	20-39	As per T83	No Works	C2
T85	Cherry	10	310	1	6	6	6	6	M	A	A	20-39	As per T83	No Works	C2
T86	Ash	9	200	1	3	3	3	3	SM	A	A	10-19	A small self-set sapling. See Note 3 on Ash Dieback Disease.	No Works	C1
T87	London Plane	17	490	1	6	8	7	6	EM	A/P	A/P	20-39	An early-mature tree growing on a hardstanding terrace area to the western side of County Hall, with Bute East Dock to the western side. The London planes in this area have metal tree-grills at the base of the trunk, unfortunately the grills have not been removed as the trees have grown these have become occluded in the lower trunk. The long-term future of this damage is equivocal but is likely to compromise their potential to reach their optimum size and may also impact on their structural integrity. This tree has been subject to some past management by crown lifting.	No Works	B2
T88	London Plane	13	310	1	5	6	5	6	EM	A/P	A/P	20-39	As per T87	No Works	B2
T89	London Plane	17	680	1	7	8	6	7	EM	A/P	A/P	20-39	As per T87	No Works	B2
T90	London Plane	17	610	1	6	7	8	6	EM	A/P	A/P	20-39	As per T87	No Works	B2
T91	Ash	13	290	1	5	5	4	4	SM	A	A	10-19	A semi-mature tree growing on a grass bank to the southern side of the County Hall. The trees T91-T100 form an informal group between the car park and the walkway terrace area to the western side of Bute Dock East. Due to the number of ashes the long-term future of this group of trees is compromised. See Note 3 on Ash Dieback Disease.	No Works	C2



Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T92	Goat Willow	8	320	m/s	3	5	4	1	M	A	A	10-19	A mature suppressed tree growing on a grass bank to the southern side of the County Hall. See T91	No Works	C2
G93	Beech Hedge	2	100	m/s	2	2	2	2	SM	A	A	10-19	A semi-mature managed hedge growing to the south-eastern corner of the County Hall.	No Works	C2
T94	Norway Maple	11	200, 240	2	3	5	3	4	M	A	A	10-19	A mature twin-stemmed ornamental tree growing on a grass bank to the southern side of the County Hall. See T91	No Works	C2
T95	Prunus	5	120	1	1	2	3	3	M	A	A	10-19	A mature ornamental tree growing on a grass bank to the southern side of the County Hall. See T91	No Works	C2
T96	Norway Maple	12	150 x 6	6	3	4	3	4	M	A	A	10-19	A mature multi-stemmed ornamental tree growing on a grass bank to the southern side of the County Hall. See T91	Remove to allow for the proposed development	C2
T97	Ash	11	150 x 5	5	3	4	3	3	SM	A	A	10-19	A mature multi-stemmed ornamental tree growing on a grass bank to the southern side of the County Hall. See T91 See Note 3 on Ash Dieback Disease.	Remove to allow for the proposed development	C2
T98	Ash	11	100 x 3, 150	4	2	3	4	3	SN	A	A	10-19	A mature multi-stemmed ornamental tree growing on a grass bank to the southern side of the County Hall. See T91 See Note 3 on Ash Dieback Disease.	Remove to allow for the proposed development	C2
T99	Norway Maple	12	260	1	5	6	4	5	M	A	A	10-19	A mature ornamental tree growing on a grass bank to the southern side of the County Hall. See T91	Remove to allow for the proposed development	C2
T100	Norway Maple	10	320	1	4	5	5	6	M	A	A	10-19	A mature ornamental tree growing on a grass bank to the southern side of the County Hall. See T91	Remove to allow for the proposed development	C2
T101	Norway Maple	10	280	1	5	5	5	6	SM	A	A	40+	The trees T101-105 form an informal group growing in a small area of open ground to the western side of Bute Dock East.	Remove to allow for the proposed development	C2
T102	Italian Alder	10	270	1	3	3	3	3	SM	A	A	40+	The trees T101-105 form an informal group growing in a small area of open ground to the western side of Bute Dock East.	Remove to allow for the proposed development	C2
T103	Italian Alder	12	190	1	3	3	1	2	SM	A	A	40+	The trees T101-105 form an informal group growing in a small area of open ground to the western side of Bute Dock East.	Remove to allow for the proposed development	C2

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T104	Italian Alder	12	190	1	3	3	3	2	SM	A	A	40+	The trees T101-105 form an informal group growing in a small area of open ground to the western side of Bute Dock East.	Remove to allow for the proposed development	C2
T105	Italian Alder	12	210	1	2	3	3	3	SM	A	A	40+	The trees T101-105 form an informal group growing in a small area of open ground to the western side of Bute Dock East.	Remove to allow for the proposed development	C2
T106	Silver Birch	8	140	1	2	3	2	2	SM	A	A	20-39	A small ornamental tree growing close to the southern boundary of the site.	Remove to allow for the proposed development	C1
T107	Norway Maple	8	180	1	2	3	3	3	SM	A	A	10-19	T107-T115 form a small informal group of ash and Norway maple growing on a grass bund to the north eastern side of the roundabout to the southern side of County Hall. The trees appear to have struggled to become established and are in variable condition with a number of trees (T107-T111) showing signs of declining vigour with deadwood and dieback.	No Works	C1
T108	Norway Maple	8	150	1	2	2	3	3	SM	A	A	10-19	See T107	No Works	C1
T109	Norway Maple	5	160	1	1	2	2	1	SM	A	A	10-19	See T107	No Works	C1
T110	Norway Maple	4	120	1	1	1	1	1	SM	A	A	10-19	See T107	No Works	C1
T111	Ash	9	150	1	3	3	3	3	SM	A	A	10-19	See T107	No Works	C1
T112	Norway Maple	8	200	1	4	3	4	3	SM	A	A	10-19	See T107	No Works	C1
T113	Norway Maple	9	200	1	3	2	3	2	SM	A	A	10-19	See T107	No Works	C1
T114	Norway Maple	9	190	1	3	3	3	3	SM	A	A	10-19	See T107	No Works	C1
T115	Ash	11	200	1	3	4	3	3	SM	A	A	10-19	See T107, unbalanced canopy, this tree has a been pruned to clear the flagpole to the western side.	No Works	C1
T116	Norway Maple	12	260	1	5	5	5	3	SM	A	A	10-19	T115-T119 form a small informal group of Norway maple growing on a grass bund to the eastern side of the roundabout to the southern side of County Hall	No Works	C1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T117	Norway Maple	9	160	1	1	3	3	1	SM	A	A	10-19	See T115	No Works	C1
T118	Norway Maple	11	210	1	4	1	1	3	SM	A	A	10-19	See T115	No Works	C1
T119	Norway Maple	11	220	1	3	3	4	3	SM	A	A	10-19	See T115	No Works	C1
T120	White Poplar	15	430	1	9	8	7	7	M	A	A	40+	A mature tree growing on the grass verge to the eastern side of the entrance driveway. See Notes 1 and 2.	No Works	B2
T121	Italian Alder	15	240	1	3	3	2	3	EM	A	A	40+	A mature tree growing on the grass verge to the eastern side of the entrance driveway. T121 and T122 are growing in close proximity to each other and have formed a single canopy.	No Works	B2
T122	Italian Alder	16	290	1	2	4	4	3	EM	A	A	40+	A mature tree growing on the grass verge to the eastern side of the entrance driveway. T121 and T122 are growing in close proximity to each other and have formed a single canopy.	No Works	B2
T123	Norway Maple	8	240	1	4	5	4	5	EM	A	A	40+	An early-mature ornamental tree growing on the grass bund to the eastern boundary of the car parking area. See Note 2.	No Works	C2
T124	Norway Maple	9	210	1	3	3	3	3	EM	A	A	40+	An early-mature ornamental tree growing on the grass bund to the eastern boundary of the car parking area. See Note 2.	No Works	C2
T125	Norway Maple	12	350	1	4	5	4	5	EM	A	A	40+	An early-mature ornamental tree growing on the grass bund to the eastern boundary of the car parking area. See Note 2.	No Works	C2
T126	White Poplar	17	550	1	10	10	9	10	M	A	A	40+	A mature tree growing on the grass bund to the eastern side of the car parking area. See Notes 1 and 2.	No Works	B2
T127	White Poplar	18	510	1	10	8	10	8	M	A	A	40+	A mature tree growing on the grass bund to the eastern side of the car parking area. See Notes 1 and 2.	No Works	B2

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T128	Italian Alder	18	500	1	5	5	5	5	M	A	A	40+	A mature tree growing on the grass bund on a narrow segment of open ground within the car parking area. See Note 2.	No Works	B2
T129	Hornbeam	9	310	1	6	5	6	4	SM	A	A	40+	A semi-mature ornamental tree growing on the grass bund to the eastern boundary of the car parking area. See Note 2.	No Works	C2
T130	White Poplar	20	600	1	11	10	10	10	M	A	A	40+	A mature tree growing on the grass bund to the southern side of the car parking area. See Notes 1 and 2.	Remove to allow for the proposed development	B2
T131	Whitebeam	7	200	1	3	3	3	3	M	A	A	40+	A mature ornamental tree growing on the grass bund on a narrow segment of open ground within the car parking area. See Note 2.	No Works	B2
T132	White Poplar	18	600	1	9	11	10	9	M	A	A	40+	A mature tree growing on the grass bund to the eastern side of the car parking area. See Notes 1 and 2.	Remove to allow for the proposed development	B2
T133	Whitebeam	7	200	1	3	3	3	3	M	A	A	40+	A mature ornamental tree growing on the grass bund on a narrow segment of open ground within the car parking area. See Note 2.	Remove to allow for the proposed development	B2
T134	White Willow	12	350	1	7	6	5	5	M	A	A	40+	A mature tree growing on the grass bund on a narrow segment of open ground within the car parking area. This tree has been reduced and has a canopy formed by the juvenile regrowth. See Note 2.	Remove to allow for the proposed development	C2
T135	Cherry	9	250	1	3	5	6	5	M	A	A	40+	A mature tree growing on the grass bund to the southern side of the car parking area. See Note 2.	Remove to allow for the proposed development	C2
T136	Italian Alder	7	150	1	2	2	2	2	SM	A	A	40+	A semi-mature tree growing on the bund to the southern side of the car parking area, to the north of the bus Shelter on Hemingway Road. See Note 2.	Remove to allow for the proposed development	C2
T137	Hawthorn	7	150, 150	2	3	3	4	3	M	A	A	40+	A mature tree growing on the bund to the southern side of the car parking area, to the north of the bus Shelter on Hemingway Road. See Note 2.	Remove to allow for the proposed development	C2
T138	Italian Alder	6	150	1	3	2	2	3	SM	A	A	40+	A semi-mature tree growing on the bund to the southern side of the car parking area, to the north of the bus Shelter on Hemingway Road. See Note 2.	Remove to allow for the proposed development	C2

Arboricultural Impact Assessment for the Cardiff Arena and Hotel Site and Tree Survey for the Cardiff Arena and Hotel Site and the Atlantic Wharf, Butetown Masterplan Area.

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T139	Whitebeam	8	180	1	4	3	2	3	SM	A	A	40+	A semi-mature tree growing on the bund to the southern side of the car parking area. This tree is growing within the scrubby area G144	Remove to allow for the proposed development	C2
T140	Cherry	10	200	1	4	5	4	5	EM	A	A	40+	An early-mature tree growing on the bund to the southern side of the car parking area.	Remove to allow for the proposed development	C2
T141	Willow	16	800	1	7	6	5	5	M	A	A	40+	A mature tree growing to the southern side of the car parking area, to the northern side of Hemingway Road. This tree has been heavily reduced and has canopy formed by the juvenile regrowth.	Remove to allow for the proposed development	B2
T142	Willow	16	650	1	6	5	5	7	M	A	A	40+	A mature tree growing to the southern side of the car parking area, to the northern side of Hemingway Road. This tree has been heavily reduced and has canopy formed by the juvenile regrowth.	Remove to allow for the proposed development	B2
T143	Cherry	12	300	1	5	3	3	6	M	A	A	40+	A mature tree growing to the southern side of the car parking area, to the northern side of Hemingway Road. This tree has been heavily reduced and has canopy formed by the juvenile regrowth.	Remove to allow for the proposed development	B2
144	Cherry	8	200	1	4	5	5	5	M	A	A	40+	A mature tree growing on the grass bund to the southern side of the car parking area. See Note 2.	Remove to allow for the proposed development	C2
G145	Cherry	8	200	m/s	5	5	3	5	M	A	A	40+	A scrubby group of trees growing on the earth bund along the southern boundary of the car parking area	Remove to allow for the proposed development	C2
T146	White Poplar	17	450	1	10	9	10	8	M	A	A	40+	A mature tree growing on the grass bund to the southern side of the car parking area. See Notes 1 and 2.	Remove to allow for the proposed development	B2
T147	Norway Maple	8	240*	1	4	4	4	4	SM	A	A	40+	A semi-mature tree growing within the pedestrian area to the western side of the Travel Lodge hotel. T147-T162 are a formal planting consisting of 3 rows of trees, the rows are inconsistent in terms of number of trees in each row and spacing between trees. The trees T147-T153 on the southern-most row and to the western end are growing within dense shrub beds.	No Works	B2
T148	Norway Maple	8	210	1	3	3	3	2	SM	A	A	40+	As per T147	No Works	B2

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T149	Norway Maple	10	220*	1	5	4	4	3	SM	A	A	40+	As per T147	No Works	B2
T150	Norway Maple	9	220	1	4	4	4	3	SM	A	A	40+	As per T147	No Works	B2
T151	Norway Maple	9	230	1	4	4	3	4	SM	A	A	40+	As per T147	No Works	B2
T152	Norway Maple	11	240	1	4	4	4	4	SM	A	A	40+	As per T147	No Works	B2
T153	Norway Maple	9	240	1	3	3	4	3	SM	A	A	40+	As per T147	No Works	B2
T154	Norway Maple	10	200	1	3	3	4	3	SM	A	A	40+	As per T147	No Works	B2
T155	Norway Maple	12	260	1	3	3	3	3	SM	A	A	40+	As per T147	Remove to allow for the proposed development	B2
T156	Norway Maple	10	240	1	4	3	3	3	SM	A	A	40+	As per T147	Remove to allow for the proposed development	B2
T157	Norway Maple	9	280	1	4	4	4	4	SM	A	A	40+	As per T147	Remove to allow for the proposed development	B2
T158	Norway Maple	8	300	1	3	3	3	3	SM	A	A	40+	As per T147	Remove to allow for the proposed development	B2
T159	Norway Maple	8	220	1	3	3	3	3	SM	A	A	40+	As per T147	Remove to allow for the proposed development	B2
T160	Norway Maple	7	180	1	2	3	3	2	SM	A	A	40+	As per T147	Remove to allow for the proposed development	B2
T161	Norway Maple	10	280	1	4	4	4	3	SM	A	A	40+	As per T147	Remove to allow for the proposed development	B2
T162	Norway Maple	10	240	1	3	3	3	3	SM	A	A	40+	As per T147	Remove to allow for the proposed development	B2
T163	Pine	13	420	1	2	4	5	3	SM	A	A	40+	A semi-mature tree growing within a small landscape area to the eastern side of the Travel Lodge Hotel, to the southern side of Hemingway Road, to the northern edge of the Red Dragon Centre Car Parking area	Remove to allow for the proposed development	B2

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T164	Pine	13	470	1	3	2	5	4	SM	A	A	40+	As per T163	Remove to allow for the proposed development	B2
T165	Pine	16	400	1	5	5	3	4	SM	A	A	40+	As per T163	Remove to allow for the proposed development	B2
T166	Raywood Ash	9	220	1	5	5	5	5	EM	A	A	40+	An early-mature tree growing within a narrow strip of open ground to the southern side of Hemingway Road, to the northern edge of the Red Dragon Centre Parking area. Raywood Ash are prone to develop weak forks and commonly suffer from branch failure, consequently they are considered unsuitable trees to be allowed to mature in this location. Management can be undertaken to reduce the risk of branch failure, but this will require regular cyclical management and will impact on the appearance of the trees.	Remove to allow for the proposed development	C1
T167	Raywood Ash	8	240	1	5	5	5	5	EM	A	A	40+	As per T166	Remove to allow for the proposed development	C1
G168	Fastigate Oaks x 5	6	150	1	1	1	1	1	SM	A	A	40+	A short row of 5 semi-mature fastigate oaks.	No Works	C1
T169	Raywood Ash	10	260	1	5	5	5	4	EM	A	A	40+	As per T166	Remove to allow for the proposed development	C1
T170	Maritime Pine	12	320	1	2	3	4	3	SM	A	A	40+	A semi-mature tree growing within a small landscape area to the southern side of Hemingway Road, to the north-eastern corner of the Red Dragon Centre Car Parking area.	Remove to allow for the proposed development	B2
T171	Maritime Pine	12	320	1	3	4	4	4	SM	A	A	40+	As per T171	Remove to allow for the proposed development	B2
T172	Maritime Pine	13	300	1	4	5	3	4	SM	A	A	40+	As per T171	Remove to allow for the proposed development	B2
T173	Raywood Ash	11	250	1	6	3	4	5	EM	A	A	40+	As per T166	Remove to allow for the proposed development	C1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T174	Maritime Pine	4	100 x 3		2	1	2	1	SM	A	A	40+	A semi-mature, multi-stemmed tree growing within a narrow landscape strip to the western side of the access road for the Red Dragon Centre Car Parking area.	No Works	C2
T175	Maritime Pine	8	270	1	2	2	2	2	SM	A	A	40+	A semi-mature tree growing within a narrow landscape strip to the western side of the access road for the Red Dragon Centre Car Parking area.	No Works	C2
T176	Maritime Pine	8	300, 270	2	4	4	4	3	SM	A	A	40+	A semi-mature twin-stemmed tree growing within a narrow landscape strip to the western side of the access road for the Red Dragon Centre Car Parking area.	No Works	C2
T177	Red Oak	7	100	1	3	4	3	3	SM	A	A	40+	A semi-mature tree growing within a narrow landscape strip to the western side of the access road for the Red Dragon Centre Car Parking area.	No Works	C2
T178	Red Oak	3	80	1	2	2	2	2	SM	A	A	40+	A semi-mature tree growing within a narrow landscape strip to the western side of the access road for the Red Dragon Centre Car Parking area.	No Works	C2
T179	Red Oak	6	160	1	4	4	4	2	SM	A	A	40+	A semi-mature tree growing within a narrow landscape strip to the western side of the access road for the Red Dragon Centre Car Parking area.	No Works	C2
T180	Red Oak	6	120	1	3	4	3	4	SM	A	A	40+	A semi-mature tree growing within a narrow landscape strip to the western side of the access road for the Red Dragon Centre Car Parking area.	No Works	C2
T181	Rowan	5	180	1	2	3	3	2	EM	A	A	20-39	A small ornamental tree growing within the roundabout on Hemingway Road	No Works	C2
T182	Willow	8	300, 300	m/s	5	5	5	5	M	A	A	40+	A mature multi-stemmed tree growing within the roundabout on Hemingway Road	No Works	B2
T183	Willow	15	500, 400	m/s	5	7	8	6	M	A	A	40+	A mature multi-stemmed tree growing within the roundabout on Hemingway Road, a lower limb has been removed leaving a wound on the lower trunk.	No Works	B2
T184	Cherry	16	510	1	6	7	6	5	M	A	A	40+	A mature ornamental tree growing within the roundabout on Hemingway Road	No Works	B2



Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T185	Cherry	12	470	1	5	6	6	6	M	A	A	40+	A mature ornamental tree growing within the roundabout on Hemingway Road	No Works	B2
T186	Hawthorn	6	150	1	2	2	2	2	M	A	A	40+	A small mature tree growing to the north eastern side of the roundabout junction on Hemingway Road	No Works	C1
T187	Hawthorn	6	180	1	3	3	3	3	M	A	A	40+	A small mature tree growing to the north eastern side of the roundabout junction on Hemingway Road	No Works	C1
G188	Mixed Group	10	200	m/s	4	4	4	4	EM	A	A	40+	A densely planted mixed group of unmanaged trees growing to the western side of Schooner Way to the western side of the entrance to Silurian Park. This group are planted on an earth bund which runs parallel to the northern side of the highway and along the western boundary of the park. This group includes silver birches, willows, alders, ash, laurel and cotoneaster.	No Works	B2
G189	Mixed Group	10	200	m/s	4	4	4	4	EM	A	A	40+	A densely planted mixed group of unmanaged trees growing to the northern side of Schooner Way, to the western side of the entrance to Silurian Park. This group are planted on an earth bund which runs parallel to the western side of the highway. This group includes silver birches, willows, alders, field maples, Scots pines, cherries, holm oak, oak, hazel, damsons, laurel and cotoneaster.	No Works	B2
T190	London Plane	12	320	1	6	6	6	6	EM	A/P	A/P	20-39	An early-mature tree growing on a hardstanding terrace area to the western side of County Hall, with Bute East Dock to the western side. The London planes in this area have metal tree-grills at the base of the trunk, unfortunately the grills have not been removed as the trees have grown these have become occluded in the lower trunk. The long-term future of this damage is equivocal but is likely to compromise their potential to reach their optimum size and may also impact on their structural integrity. This tree has been subject to some past management by crown lifting.	No Works	B2
T191	London Plane	11	340	1	5	5	5	5	EM	A/P	A/P	20-39	As per T190	No Works	B2

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T192	London Plane	10	250	1	5	5	5	3	EM	A/P	A/P	20-39	As per T190	No Works	B2
T193	London Plane	8	300	1	5	5	5	5	EM	A/P	A/P	20-39	As per T190	No Works	B2
T194	London Plane	7	180	1	4	4	4	4	EM	A/P	A/P	20-39	As per T190	No Works	B2
T195	London Plane	6	150	1	3	3	3	3	EM	A/P	A/P	20-39	As per T190	No Works	B2
T196	Rowan	5	100	1	1	1	1	1	M	A	A	20-39	A small ornamental tree	No Works	C1
T197	Field Maple	8	110	1	2	3	3	3	SM	A	A	40+	A semi-mature tree growing within a small landscape area to the northern side of County Hall	No Works	C1
T198	Italian Alder	18	350, 300	2	4	4	4	4	EM	A	A	20-39	An early-mature twin stemmed tree growing within the group of trees G48 to the boundary to the northern side of the County Hall building.	No Works	C1
T199	Norway Maple	12	300	1	4	4	4	4	EM	A	A	20-39	An early-mature tree growing within an area of hardstanding in close proximity to the northern elevation of the County Hall.	No Works	C1
T200	Norway Maple	12	280	1	3	6	5	5	EM	A	A	20-39	An early-mature tree growing within an area of hardstanding in close proximity to the northern elevation of the County Hall.	No Works	C1
T201	Norway Maple	12	280	1	3	6	5	5	EM	A	A	20-39	An early-mature tree growing within an area of hardstanding in close proximity to the northern elevation of the County Hall.	No Works	C1
T202	Italian Alder	15	350	2	4	4	4	4	EM	A	A	20-39	An early-mature twin stemmed tree growing within the group of trees G48 to the boundary to the northern side of the County Hall building.	No Works	B3
T203	Italian Alder	14	350	2	4	4	4	4	EM	A	A	20-39	An early-mature tree growing within the group of trees G48 close to the site boundary to the northern side of the County Hall building.	No Works	B3
T204	Italian Alder	14	300	2	4	4	4	4	EM	A	A	20-39	An early-mature tree growing within the group of trees G48 close to the site boundary to the northern side of the County Hall building.	No Works	B3

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T205	Italian Alder	14	300	m/s	4	4	4	4	EM	A	A	20-39	An early-mature multi-stemmed tree growing within the group of trees G48 to the site boundary to the northern side of the County Hall building.	No Works	B3
T206	Cherry	10	240	1	4	5	5	5	EM	A	A	20-39	An early-mature tree growing within the group of trees G48 close to the site boundary to the northern side of the County Hall building.	No Works	C1
T207	Silver birch	5	100	1	1.5	1	1	1	Y	A	A	20-39	A small young recently planted tree planted as part of the landscaping works for the Schooner Drive residential development	No Works	C1
T208	Silver birch	4	80	1	1.5	1	1	1	Y	A	A	20-39	A small young recently planted tree planted as part of the landscaping works for the Schooner Drive residential development	No Works	C1
T209	Pine	3	80	m/s	0.5	0.5	0.5	0.5	Y	A	A	20-39	A small young recently planted tree planted as part of the landscaping works for the Schooner Drive residential development	No Works	C1
T210	Italian Alder	3	60	1	1	1	1	1	Y	A	A	20-39	A small young recently planted tree planted as part of the landscaping works for the Schooner Drive residential development	No Works	C1
T211	Silver birch	5	70	1	1.5	1	1	1.5	Y	A	A	20-39	A small young recently planted tree planted as part of the landscaping works for the Schooner Drive residential development	No Works	C1
T212	Italian Alder	5	70	1	1	1	1	1	Y	A	A	20-39	A small young recently planted tree planted as part of the landscaping works for the Schooner Drive residential development	No Works	C1
T213	Italian Alder	4	70	1	0.5	0.5	0.5	0.5	Y	P	P	20-39	A small young recently planted tree planted as part of the landscaping works for the Schooner Drive residential development. This tree is struggling to become established with dieback in the canopy.	No Works	C1
T214	Italian Alder	5	70	1	0.5	0.5	0.5	0.5	Y	P	P	20-39	A small young recently planted tree planted as part of the landscaping works for the Schooner Drive residential development This tree is struggling to become established with dieback in the canopy.	No Works	C1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T215	Silver birch	5	70	1	1.5	1.5	1.5	1.5	Y	A	A	20-39	A small young recently planted tree planted as part of the landscaping works for the Schooner Drive residential development	No Works	C1
T216	Silver birch	4	70	1	1.5	1.5	1.5	1.5	Y	A	A	20-39	A small young recently planted tree planted as part of the landscaping works for the Schooner Drive residential development	No Works	C1
T217	Italian Alder	3	40	1	0.5	0.5	0.5	0.5	Y	P	P	20-39	A small young recently planted tree planted as part of the landscaping works for the Schooner Drive residential development. This tree is struggling to become established with dieback in the canopy.	No Works	C1
T218	Whitebeam	9	180	1	4	5	5	5	EM	A	A	20-39	An early-mature ornamental tree growing within a planted strip to the western side of Schooner Drive.	No Works	C1
T219	Himalayan Birch	9	200	m/s	3	3	4	3	SM	A	A	20-39	A semi-mature ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T220	Himalayan Birch	10	220	4	5	4	4	4	SM	A	A	20-39	A semi-mature ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T221	Silver Birch	12	180	1	2	3	2	1	SM	A	A	20-39	A semi-mature ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T222	Silver Birch	11	180	1	1	2	4	2	SM	A	A	20-39	A semi-mature ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T223	Silver Birch	6	120	1	2	1	3	2	SM	A	A	20-39	A semi-mature ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T224	Silver Birch	12	220	1	4	4	4	3	SM	A	A	20-39	A semi-mature ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T225	Himalayan Birch	8	110	1	3	3	3	3	SM	A	A	20-39	A semi-mature ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T226	Himalayan Birch	8	220	1	4	3	3	3	SM	A	A	20-39	A semi-mature ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T227	Himalayan Birch	8	200	1	4	4	3	4	SM	A	A	20-39	A semi-mature ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T228	Himalayan Birch	4	50	m/s	1	1	1	1	Y	A	A	20-39	A young ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T229	Himalayan Birch	6	90	m/s	2	2	2	2	Y	A	A	20-39	A young ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T230	Himalayan Birch	6	90	m/s	2	2	2	2	Y	A	A	20-39	A young ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T231	Silver birch	11	200	1	3	5	3	3	SM	A	A	20-39	A semi-mature ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T232	Silver birch	12	200	1	3	3	3	3	SM	A	A	20-39	A semi-mature ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T233	Silver birch	12	200	1	3	3	3	2	SM	A	A	20-39	A semi-mature ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T234	Italian Alder	12	200	1	3	3	3	3	SM	A	A	20-39	A semi-mature ornamental tree growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
G235	Scots Pine x 2	11	200	1	3	3	3	3	SM	A	A	20-39	2 semi-mature trees growing within the landscaped area to the western side of Schooner Drive.	No Works	C3
T236	Cherry	4	260	1	1	1	1	1	M	P	P	0-9	A planted tree growing within the Red Dragon Centre Car Parking area.	No Works	C1

**Note 4: Red Dragon Centre Car Parking area**

The majority of the trees growing within the Red Dragon Centre Car Parking area are growing within small square planters within the tarmac car park, the rooting environment for these trees is sub-optimal and the majority of the tree have been they have been brutally pruned with heavy reductions leaving a small canopy formed by juvenile growth. This management may have been undertaken to allow for CCTV surveillance of the car parking area. This type of planting and management will have a significant impact on their health and longevity. Some of the trees growing in the longer narrow strips of open ground have astro-turf covering the open ground and this will also impact on their growing conditions and health. Many of the trees have wounds on the trunks and many trees are struggling to become established.

T237	Cherry	4	300	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T238	Cherry	4	340	1	1	1	1	1	M	P	P	0-9	As per T236. This tree is declining	No Works	C1
T239	Cherry	4	290	1	0.5	0.5	0.5	0.5	M	P	P	Dead	A dead tree. See T236	Remove dead	U
T240	Sorbus	4	230	1	1	1	1	1	M	P	P	Dead	A dead tree. See T236	Remove dead	U

Arboricultural Impact Assessment for the Cardiff Arena and Hotel Site and Tree Survey for the Cardiff Arena and Hotel Site and the Atlantic Wharf, Butetown Masterplan Area.

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T241	Cherry	4	270	1	1	1	1	1	M	P	P	0-9	As per T236. Large wound on stem	No Works	C1
T242	Cherry	4	260	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T243	Cherry	3.5	260	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T244	Cherry	4	180	1	0.5	0.5	0.5	0.5	M	P	P	0-9	As per T236	No Works	C1
T245	Cherry	4	210	1	0.5	1	1	0.5	M	P	P	0-9	As per T236	No Works	C1
T246	Cherry	4	310	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T247	Cherry	4	260	1	1	1	1	1	M	P	P	0-9	As per T236. Large wound on stem	No Works	C1
T248	Cherry	4	260	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T249	Cherry	4	260	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T250	Cherry	4	250	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T251	Cherry	4	260	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T252	Norway maple	4	120	1	1	1	1	1	SM	A	A	0-9	As per T236	No Works	C1
T253	Norway maple	5	190	1	1	1	1	1	SM	A	A	0-9	As per T236	No Works	C1
T254	Norway maple	5	260	1	1.5	1.5	1.5	1.5	SM	A	A	0-9	As per T236	No Works	C1
T255	Norway maple	5	160	1	1	1	1	1	SM	A	A	0-9	As per T236	No Works	C1
T256	Norway maple	5	180	1	1	1	1	1	SM	A	A	0-9	As per T236	No Works	C1
T257	Norway maple	5	150	1	1	1	1	1	SM	A	A	0-9	As per T236	No Works	C1
T258	Norway maple	4	130	1	1	1	1	1	SM	A	A	0-9	As per T236	No Works	C1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T259	Norway maple	4	120	1	1	1	1	1	SM	A	A	0-9	As per T236	No Works	C1
T260	Norway maple	5	200	1	1	1	1	1	SM	A	A	0-9	As per T236	No Works	C1
T261	Norway maple	5	180	1	1	1	1	1	SM	A	A	0-9	As per T236	No Works	C1
T262	Norway maple	5	210	1	1	1	1	1	SM	A	A	0-9	As per T236	No Works	C1
T263	Norway maple	4	180	1	1	1	1	1	SM	A	A	0-9	As per T236	No Works	C1
T264	Cherry	4	200	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T265	Cherry	4	270	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T266	Cherry	4	250	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T267	Cherry	4	250	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T268	Pine	5	200	1	1	1	1	1	SM	A	A	20-39	A semi-mature growing within a narrow landscape strip to the western side of the access road for the Red Dragon Car Parking area.	No Works	C1
T269	Pine	5	200	1	1	1	1	1	SM	A	A	20-39	As per T267	No Works	C1
T270	Pine	4	160	1	1	1	1	1	SM	A	A	20-39	As per T267	No Works	C1
T271	Norway maple	4	90	1	1.5	1.5	1.5	1.5	SM	A	A	20-39	A semi-mature growing within a narrow landscape strip within the Red Dragon Car Parking area. T270 is a recently planted staked tree.	No Works	C1
T272	Italian Alder	4	190	1	1.5	1.5	1.5	1.5	SM	A	A	20-39	A semi-mature growing within a narrow landscape strip within the Red Dragon Car Parking area. These trees have been managed at a restricted size but are more tolerant of their growing location than the cherries in the adjacent car parking area.	No Works	C1
T273	Italian Alder	4	200	1	1.5	1.5	1.5	1.5	SM	A	A	20-39	As per T271	No Works	C1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T274	Italian Alder	6	220	1	3	3	3	3	SM	A	A	20-39	As per T271	No Works	C1
T275	Italian Alder	6	220	1	4	3	4	4	SM	A	A	20-39	As per T271	No Works	C1
T276	Italian Alder	4	260	1	4	4	4	4	SM	A	A	20-39	As per T271	No Works	C1
T277	Italian Alder	4	190	1	3	3	4	3	SM	A	A	20-39	As per T271	No Works	C1
T278	Italian Alder	4	280	1	4	4	4	4	M	A	A	20-39	As per T271	No Works	C1
T279	Italian Alder	4	280	1	4	4	4	4	M	A	A	20-39	As per T271	No Works	C1
T280	Italian Alder	4	280	1	3	4	4	4	M	A	A	20-39	As per T271	No Works	C1
T281	Italian Alder	4	270	1	3	4	4	4	M	A	A	20-39	As per T271	No Works	C1
T282	Italian Alder	4	300	1	4	4	4	4	SM	A	A	20-39	As per T271	No Works	C1
T283	Norway maple	5	150	1	1	1	1	1	M	A	A/P	0-9	A semi-mature growing within a narrow landscape strip within the Red Dragon Car Parking area. These trees are struggling to establish and have a limited potential for further growth due to their growing location but are more tolerant of their growing location than the cherries in the adjacent car parking area.	No Works	C1
T284	Norway maple	5	150	1	1	1	1	1	M	A	A/P	0-9	As per T282	No Works	C1
T285	Cherry	4	260	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T286	Cherry	3	320	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T287	Cherry	3.5	240	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T288	Norway maple	5	140	1	1	1	1	1	M	A	A/P	0-9	As per T282	No Works	C1



Arboricultural Impact Assessment for the Cardiff Arena and Hotel Site and Tree Survey for the Cardiff Arena and Hotel Site and the Atlantic Wharf, Butetown Masterplan Area.

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T289	Norway maple	4	140	1	1	1	1	1	M	A	A/P	0-9	As per T282	No Works	C1
T290	Norway maple	5.5	160	1	1	1	1	1	M	A	A/P	0-9	As per T282	No Works	C1
T291	Norway maple	5	150	1	1	1	1	1	M	A	A/P	0-9	As per T282	No Works	C1
T292	Cherry	4	270	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T293	Cherry	4	320	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T294	Cherry	4	340	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T295	Norway maple	5	170	1	1	1	1	1	M	A	A/P	0-9	As per T282	No Works	C1
T296	Norway maple	5	210	1	1	1	1	1	M	A	A/P	0-9	As per T282	No Works	C1
T297	Cherry	4	240	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T298	Cherry	4	290	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T299	Cherry	4	310	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T300	Norway maple	4	130	1	1	1	1	1	M	A	A/P	0-9	As per T282	No Works	C1
T301	Norway maple	5	140	1	1	1	1	1	M	A	A/P	0-9	As per T282	No Works	C1
T302	Norway maple	4	120	1	1	1	1	1	M	A	A/P	0-9	As per T282	No Works	C1
T303	Norway maple	5	140	1	1	1	1	1	M	A	A/P	0-9	As per T282	No Works	C1
T304	Cherry	4	270	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T305	Cherry	4	250	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1
T306	Cherry	4	170	1	1	1	1	1	M	P	P	0-9	As per T236	No Works	C1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T307	Himalayan Birch	6	330	m/s	4	5	5	5	SM	A	A	20-39	A multi-stemmed ornamental tree growing within the grass verge to the southern side of the Red Dragon Car Parking area.	No Works	B3
T308	Himalayan Birch	6	280	m/s	4	4	3	3	SM	A	A	20-39	As per T306	No Works	B3
T309	Himalayan Birch	6	450	m/s	5	4	4	4	SM	A	A	20-39	As per T306	No Works	B3
T310	Himalayan Birch	5	300	m/s	4	4	3	4	SM	A	A	20-39	As per T306	No Works	B3
T311	Himalayan Birch	6	250	m/s	4	4	4	4	SM	A	A	20-39	As per T306	No Works	B3
T312	Himalayan Birch	5	250	m/s	3	3	3	3	SM	A	A	20-39	As per T306	No Works	B3
T313	Silver birch	6	300	m/s	3	5	3	3	SM	A	A	20-39	As per T306	No Works	B3
T314	Himalayan Birch	2	100	m/s	0.5	0.5	0.5	0.5	Y	A	A	20-39	As per T306	No Works	B3
T315	Himalayan Birch	5	280	m/s	4	4	4	4	SM	A	A	20-39	As per T306	No Works	B3
T316	Silver birch	4	250	m/s	3	3	3	3	SM	A	A	20-39	As per T306	No Works	B3
T317	Himalayan Birch	4	250	m/s	3	3	3	3	SM	A	A	20-39	As per T306	No Works	B3
T318	Himalayan Birch	4	250	m/s	3	3	3	3	SM	A	A	20-39	As per T306	No Works	B3
T319	Himalayan Birch	5	200	m/s	3	4	3	3	SM	A	A	20-39	As per T306	No Works	B3
T320	Himalayan Birch	5	200	m/s	3	3	3	3	SM	A	A	20-39	As per T306	No Works	B3
T321	Himalayan Birch	5	200	m/s	4	4	4	4	SM	A	A	20-39	As per T306	No Works	B3
T322	Lime	5	120	1	2	1	1	1	SM	P	P	0-9	As per T236 Wound on stem	No Works	C1
T323	Lime	5	120	1	2	2	2	1	SM	P	P	0-9	As per T236 Wound on stem	No Works	C1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T324	Italian Alder	5	140	1	1	2	2	1	SM	P	P	0-9	As per T236 Wound on stem	No Works	C1
T325	Lime	4	100	1	1	1	1	1	SM	P	P	0-9	As per T236, dying extensive decay on stem	No Works	U
T326	Italian Alder	5	190	1	2	2	1	1	SM	P	P	0-9	As per T236	No Works	C1
T327	Field Maple	3	100	1	1	1	1	1	SM	P	P	0-9	As per T236	No Works	C1
T328	Italian Alder	5	200	1	1.5	1.5	1.5	1.5	SM	P	P	0-9	As per T236	No Works	C1
T329	Norway maple	5	150	1	2	2	2	2	SM	A	A/P	0-9	A semi-mature growing within a narrow landscape strip within the Red Dragon Car Parking area. These trees are struggling to establish and have a limited potential for further growth due to their growing location but are more tolerant of their growing location than the cherries in the adjacent car parking area. This tree is 30% dead	No Works	C1
T330	Norway maple	5	160	1	2	2	2	2	SM	A	A/P	0-9	As per T328	No Works	C1
T331	Norway maple	5	160	1	2	2	2	2	SM	A	A/P	0-9	As per T328	No Works	C1
T332	Norway maple	5	160	1	1	2	2	2	SM	A	A/P	0-9	As per T328	No Works	C1
T333	Norway maple	6	250	1	2.5	2.5	2.5	2.5	SM	A	A/P	0-9	As per T328	No Works	C1
T334	Norway maple	6	170	1	2	2	2.5	2.5	SM	A	A/P	10-19	A semi-mature growing within a landscape strip within the Red Dragon Car Parking area. T333-T341 form an informal linear group dividing 2 parts of the car parking area	No Works	C1
T335	Silver birch	9	160	1	2	2	2	2	SM	A	A	10-19	As per T333	No Works	C1
T336	Silver birch	9	150	1	2	2	2	2	SM	A	A	10-19	As per T333	No Works	C1
T337	Norway maple	5	160	1	2	2	2	2	SM	A	A	10-19	As per T333	No Works	C1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T338	Oak	5	110	1	1	2	2	1	SM	A	A	20-39	As per T333	No Works	C1
T339	Oak	6	120	1	1.5	1.5	1.5	1.5	SM	A	A	20-39	As per T333	No Works	C1
T340	Norway maple	5	150	1	3	3	3	2	SM	A	A	10-19	As per T333	No Works	C1
T341	Oak	7	150	1	2	2	2	2	SM	A	A	20-39	As per T333	No Works	C1
T342	Norway maple	4	140	1	2	2	2	1	SM	A	A	10-19	As per T333	No Works	C1
T343	Oak	4	90	1	2	1	1	1	SM	A	A	20-39	As per T333	No Works	C1
T344	Oak	5	150	1	3	3	3	1.5	SM	A	A	20-39	As per T333	No Works	C1
T345	Norway maple	6	160	1	1	2	3	2	SM	A	A/P	10-19	A semi-mature growing within a small planter within a Car Parking area. This tree has a wound on the lower stem	No Works	C1
T346	Norway maple	7	170	1	1	2	3	3	SM	A	A/P	10-19	As per T344 Sparse canopy	No Works	C1
T347	Norway maple	5	120	1	1.5	1.5	1.5	1.5	SM	A	A/P	10-19	As per T344	No Works	C1
T348	Norway maple	6	140	1	1.5	2	2	2	SM	A	A/P	10-19	As per T344 Sparse canopy	No Works	C1
T349	Oak	6	160	1	3	3	3	3	SM	A	A	20-39	A semi-mature tree growing within a small area of open ground within a Car Parking area.	No Works	C1
T350	Oak	8	190	1	3	4	3	3	SM	A	A	20-39	A semi-mature tree growing within a small area of open ground within a Car Parking area.	No Works	C1
T351	Ash	6	80	1	1	1	1	1	Y	P	P	0-9	A young ash growing within the group G358 to the northern side of the service road	No Works	C1
T352	Ash	5	90	1	1	1	1	1	Y	P	P	0-9	A young ash growing within the group G358 to the northern side of the service road. Significant dieback	No Works	U
T353	Norway maple	8	130	1	2	3	2	1	SM	A	A	0-9	A poor quality semi-mature tree growing within a small area of open ground within a Car Parking area.	No Works	C1

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T354	Norway maple	4	140	1	1	1	1	1	SM	P	P	0-9	A semi-mature tree growing within a small area of open ground within a Car Parking area.	No Works	C1
T355	Norway maple	4	100	1	1	1	1	1	SM	P	P	0-9	A semi-mature tree growing within a small area of open ground within a Car Parking area.	No Works	C1
T356	Norway maple	4	100	1	1	1	1	1	SM	P	P	0-9	A semi-mature tree growing within a small area of open ground within a Car Parking area.	No Works	C1
T357	Norway maple	5	100	1	1	1	1	1	SM	P	P	0-9	A semi-mature tree growing within a small area of open ground within a Car Parking area.	No Works	C1
T358	Norway maple	5	100	1	1	1	1	1	SM	P	P	0-9	A semi-mature tree growing within a small area of open ground within a Car Parking area.	No Works	C1
G359	Mixed Group	8	150	1	3	3	3	3	SM	A	A	40+	A densely planted mixed group of unmanaged trees growing to the northern side of Hemingway Roadside to the southern side of the dual carriage access road This group This group includes poplars, Norway maples, pines, hornbeam, willow, Italian Alder, ash, Raywood Ash Whitebeam laurel and cotoneaster.	No Works	B3
T360	Pine	9	250	1	3	3	3	3	SM	A	A	20-39	A semi-mature tree growing within a small area of open ground close to the northern side of a building. The canopy overhangs the roofline of the building.	No Works	C1
G361	Group of Himalayan Birch	6	50	m/s	2	2	2	2	SM	A	A	20-39	A dense planting of young ornamental birch trees growing within the landscaped area south-western corner of the site.	No Works	B3
G362	Maples	3	100	1	1	1	1	1	SM	A	A	20-39	A formal planting of maple trees growing within the hard landscaped area south-western corner of the site.	No Works	C3
T363	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	A semi-mature tree growing within the pedestrian area to the eastern side of Lloyd George Ave. This single row of 12 trees are planted centrally within a pedestrian walkway that runs to the western boundary of the Arena Quarter Site.	No Works	B2
T364	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2
T365	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of Stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
T366	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2
T367	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2
T368	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2
T369	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2
T370	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2
T371	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2
T372	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2
T373	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2
T374	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2
T375	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	A semi-mature tree growing within the landscape strip to the eastern side of Lloyd George Ave. This single row of 5 trees are to the western boundary of the Arena Quarter Site.	No Works	B2
T376	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2
T377	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2
T378	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2
T379	Norway Maple	7	240*	1	3	3	3	3	SM	A	A	40+	As per T363	No Works	B2

**Table 2 Cascade chart for tree quality assessment**

Trees unsuitable for retention (See Note)				
Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
<p><b>Category U</b> 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.</p>	<ul style="list-style-type: none"> <li>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)</li> <li>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</li> <li>Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality.</li> </ul> <p>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</p>			<b>Red</b>
Trees to be considered for retention				
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
<p><b>Category A</b> Trees of high quality with an estimated remaining life expectancy of at least 40 years</p>	Trees 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 arboricultural and/or landscape features	Trees, groups or woodlands See Table 2 of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	<b>Green</b>
<p><b>Category B</b> Trees of moderate quality with an estimated remaining life expectancy of at least 20 years</p>	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	<b>Blue</b>
<p><b>Category C</b> 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</p>	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	<b>Grey</b>

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**KEY**

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	Age Class	Form	Condition	ER CY	Description	Proposed Works	BS Cat
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**Tree No.** Tree number identified on copy of Tree Survey Drawing

**Species:** Common/English name

**Hgt (m)** Height of tree (measured to nearest whole metre)

**Dia at 1.5m (mm)** Diameter of stem/trunk in mm measured at 1.5 metres above ground level (or immediately above the root flare for multi-stemmed trees).

**No. of stems** Number of stems

**Crown Spread** Maximum branch extent measured at the four compass points

**Age Class:**

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

**Form:**

- Good
- Average
- Poor
- Dead

**Condition:**

- Good
- Average
- Poor
- Dead

**ERCY:** Estimated Remaining Contribution in Years

**BS Category:** See Table 1 Cascade chart for tree quality assessment  
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