

# ADDENDUM TO AIA FOR CARDIFF PARK AND RIDE EAST

PREPARED BY DELTA SIMONS LTD



Prepared for Delta Simonds Ltd

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Appendix 1 – Proposed Design

Appendix 2 – Assessment of Tree Losses

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## **1. Terms of Reference**

- 1.1 The aim of this Addendum is to update the preliminary Arboricultural Impact Assessment (AIA) produced by Delta Simons Ltd and includes an assessment of tree losses following the production of an Illustrative design for the site.

## **2. The Preliminary AIA**

- 2.1 This report should be read in conjunction with the Delta Simons AIA. The AIA gives the survey findings in tabular form. The schedule contains all the information specified in section 4.4.2.5 of the British Standard.
- 2.2 The trees were last surveyed on 26 July 2021 they were not climbed, but surveyed from ground level.
- 2.3 The details recorded during the tree survey were collected independently of any development proposals, and the categorisation of the quality and amenity value of the trees is made purely on arboricultural grounds.
- 2.4 No assessment of the soil was included report. The British Standard states that a soil assessment should be carried out by a competent person to establish the structure, clay content and potential for volume change of the soil. However, a separate soil assessment has been produced for the site and submitted as part of the planning application.
- 2.5 The AIA also includes a Tree Constraints Plan (TCP) which was prepared to advise the design team.

## **3. The Site Context**

- 3.1 The site extends to 17 ha and includes the existing park and ride surrounded by woodland and open ground. It is situated to the south of Eastern Avenue (A48) and the River Rhymney to the south. A total of 12 individual trees, 22 tree groups and 15 woodland groups were included in the AIA. Groups contain trees forming continuous features or clusters with similar characteristics were present.
- 3.2 The site includes an area of ancient woodland close to the A48 and there are two further blocks of ancient woodland to the south of the river. These will be protected and restored. All woodland and open ground around the site is included in a 25-year Woodland Management Plan prepared by A. T. Coombes Associates Ltd on behalf of Delta Simons Ltd which will be submitted as a separate document but should also be read in conjunction with this Addendum

## **4. The Impact of the Proposed Design**

- 4.1 The design to be submitted for outline planning permission includes 8 industrial/retail units, a park and ride area and a new bridge over the river.
- 4.2 The AIA Tree Constraints Plan has grouped many of the trees on site as groups as prescribed in BS5837:2012. Based on the Illustrative design shown in Appendix 2, an estimate of the tree losses



has been prepared and forms Appendix 3. In summary 158 B category, 24 C category Trees will need to be removed for development purposes. This equates with a loss of woodland Area (Outside Retained Ancient Woodland) of 2.3 ha.

- 4.2.1 The default position should be that any new buildings will remain outside the RPA of retained trees.
- 4.2.2 If it becomes necessary to carry out construction within the RPA of any retained trees, the British Standard does allow for the use of special foundations, such as piles or mini-piles, together with suspended or rafted floors that are placed at or above ground level. However, in the context of a pre-development survey attempts must be made to avoid positioning buildings within the RPA or crown spreads of trees, especially on a site that is largely free of tree constraints. Any specialist foundations required must be designed by a suitably experienced engineer, and approved by the Consulting Arboriculturalist prior to their use. These techniques must only be used if placement of the building within the RPA is unavoidable.
- 4.2.3 Construction should take place outside the current or predicted ultimate crown spreads to avoid damage to the trees or the new buildings during construction, and to avoid conflict between the future users of the building and the trees.
- 4.2.4 Shading is not considered a significant constraint in the context of these commercial buildings

### **4.3 Site Access and Paths, Hard Surfaces and Driveways**

- 4.3.1 If a new road or footpath is to be put in place within RPA of retained trees where there is no existing surface, it must be formed using a No-Dig method, with the road surface placed above ground level on a cellular confinement system such as Geocell, Cellweb or similar that will spread the weight to prevent compaction. Such a system must be designed by a suitably experienced engineer and in conjunction with the Consulting Arboriculturalist to ensure that there is no damage to the tree roots. This No Dig surface must not be within 500mm of the stem of a retained tree, and must have a permeable top surface.
- 4.3.2 No more than 20% of the RPA of retained trees can be covered by a hard surface.

### **4.4 Services and Soakaway**

- 4.4.1 Service runs should be routed to avoid the RPAs of trees. If this is not possible, special techniques must be employed to place the services within the RPA of the trees. The British Standard suggests a range of trenchless methods suitable for various applications including microtunnelling, surface launched directional drilling, Pipe ramming and Impact Moleing/thrust boring. It is important common ducts should be used where it is not possible to avoid the RPA. Further guidance on installing underground services adjacent to trees can be found in the NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Volume 4 Issue 2). This document outlines a number of techniques that may be used for trenching near trees, including trenchless techniques, discontinuous trenching and hand digging.
- 4.4.2 Drainage channels or swales must not be excavated within the RPA of retained trees.

- 4.4.3 It will be necessary to prepare detailed plans for any services that run through the RPA of retained trees. This should be produced in conjunction with an arboriculturist, and include allowance for the space needed for access for the installations, and the levels across the proposed area.
- 4.4.4 Any above-ground apparatus including CCTV cameras and lighting should also be positioned to avoid the need for any regular or detrimental pruning to the trees. Minor facilitative pruning is acceptable. However positions that require repetitive and significant tree work must be avoided.

#### **4.5 Tree Protection Measures**

- 4.5.1 The specification for temporary protective barriers and any other tree protection measures will be outlined in the Arboricultural Method Statement and Tree Protection Plan which will be produced in the context of a full Arboricultural Impact Assessment; these specifications will be required once detailed design proposals become available. No construction related work of any kind will take place until the appropriate tree protection methods are installed.
- 4.5.2 It may also be necessary to provide access for construction traffic on currently unprotected ground within the RPA of retained trees. If this is the case, temporary ground protection must be put in place. This temporary ground protection will be specified according to BS5837:2012 and further details will be included within the Arboricultural Method Statement.

### **5. Tree Management and Remedial Planting**

- 5.1 The 25-year Woodland Management Plan for the site takes up much of the none developed area of the site and the emphasis will be on improving the ancient woodland, and maintaining the open areas which provide ecotones between woodland and grassland habitats. Hence the scope for new tree planting will be limited. To help remediate the losses it is proposed plant or fund the establishment of 2.3ha (2538 trees) of new native woodland on an alternative site in the local area. This will be in addition to tree planting around the development area in the separate Landscape Plan for the site.
- 5.2 Over the 25-year plan period there will be an annual programme of thinning coppicing and enrichment planting of native trees with 245 trees planted each year. In year 1 of the plan 865 m of native hedging will be planted using 3460 native woody shrubs.

### **6. Further Arboricultural Input into the Design Process, Construction and Aftercare**

- 6.1 This AIA will need to be revised to include a Tree Protection Plan (TPP), Arboricultural Method Statement (AMS) and Timetable for the Implementation of Tree Protection Works at the reserve matters stage of the planning process when detailed construction drawings are available.

## **7. Permissions and Constraints**

- 7.1 Some of the trees on site are subject to a Tree Preservation Order. Therefore written permission must be obtained from the Local Authority prior to commencing any work that may affect the condition of the protected trees, including any ground works adjacent to them.
- 7.2 This is a rural site and, as such, will be subject to the Felling Licence Regulations administered by the Natural Resources Wales. This restricts felling to 5m<sup>3</sup> per calendar quarter, and 2m<sup>3</sup> if the timber is sold.
- 7.3 To assist the planning process the LPA should be provided with a copy of this report and invited to comment on tree protection issues.
- 7.4 When dealing with developments close to trees, special attention should be paid to related legislation ensuring that the Wildlife and Countryside Act (1994), Conservation of Habitats and Species Regulations (2010) and the Countryside Rights of Way Act (2000) are adhered to. It must be ensured that nesting birds and protected species such as bats and reptiles are considered and protected.

## **8. Conclusions**

- 8.1 This addendum quantifies both the tree losses and loss of woodland and open ground
- 8.2 The tree losses are estimated as 158 B category, 24 C category trees with some associated shrub mass. The area of woodland and open ground to be lost to development is 2.03 ha.
- 8.3 All retained trees can be provided with proper protection as set out in BS5837:2012
- 8.4 The tree losses will be remediated as follows:
- Planting or funding the planting of 2.3 ha of new native woodland in the local area. This will involve planting at least 2530 new trees.
  - New tree planting in the immediate vicinity of the development in the context of a separate Landscape Plan.
  - Implementation of a 25-year Woodland Management Plan to preserve and protect the woodland and open areas surrounding the site. This will include, over the 25 years of the plan, planting 6125 native broadleaved trees and 865 m of traditional native hedging.
- 8.5 From an arboricultural point of view the project will require substantial tree losses. However, the proposed remedial planting, even without taking the landscape planting into consideration, represents a significant contribution to the local landscape and biodiversity. Perhaps assuring the long-term future of the ancient and other woodland around the site and the associated wildlife habitats is the most important benefit that will accrue from the development.

- 8.6 It may be necessary for a condition to secure a revised Arboricultural Impact Assessment, together with a Tree Protection Plan and Arboricultural Method Statement to provide trees with full protection whilst constructions works are being completed.

**Andrew Coombes NDF, MSc (Arb & Urban For), PDArb (RFS), FICFor, MArborA**  
**A.T. Coombes Associates Ltd**  
**26 August 2022**





**SITE AREA KEY:**

	PARK AND RIDE	27,511m <sup>2</sup> / 6.79 acres
	B2/B8	46,107m <sup>2</sup> / 11.3 acres
	DRIVE THRU'S	3,965m <sup>2</sup> / 0.98 acres
	TRADE COUNTERS	9,110m <sup>2</sup> / 2.25 acres

To be read in conjunction with drawings:  
7528 20 043 - Proposed Rights of Way  
7528 20 029 - Landscape Impact Plan

— Site Boundary - 23 ha  
- - Footpaths

<b>PLOT 3c - B2/B8</b>	Site Area = 1,788m <sup>2</sup> / 0.44 acres
	GF Footprint = 682m <sup>2</sup>
	Height to eaves = 5.5m
<b>PLOT 3d - B2/B8</b>	Site Area = 1,257m <sup>2</sup> / 0.31 acres
	GF Footprint = 442m <sup>2</sup>
	Height to eaves = 5.5m
<b>PLOT 3e - B2/B8</b>	Site Area = 1,089m <sup>2</sup> / 0.26 acres
	GF Footprint = 442m <sup>2</sup>
	Height to eaves = 5.5m
<b>PLOT 4 - B2/B8</b>	Site Area = 21,902m <sup>2</sup> / 5.41 acres
	GF Footprint = 10,900m <sup>2</sup>
	First Floor Offices = 845m <sup>2</sup>
	Height to eaves = 12m
<b>PLOT 5 - TRADE COUNTERS</b>	Site Area = 9,110m <sup>2</sup> / 2.25 acres
	GF Footprint = 4,625m <sup>2</sup>
	Height to eaves = 8m
<b>PLOT 6 - B2/B8</b>	Site Area = 9,318m <sup>2</sup> / 2.30 acres
<b>PLOT 6a - B2/B8</b>	Site Area = 2,019m <sup>2</sup> / 0.49 acres
	GF Footprint = 195m <sup>2</sup>
	First Floor Offices = 290m <sup>2</sup>
	Height to eaves = 5.5m
<b>PLOT 2 - DRIVE THRU</b>	Site Area = 1,928m <sup>2</sup> / 0.47 acres
	GF Footprint = 215m <sup>2</sup>
	Height to eaves = 4m
<b>PLOT 3a - B2/B8</b>	Site Area = 1,102m <sup>2</sup> / 0.27 acres
	GF Footprint = 389m <sup>2</sup>
	Height to eaves = 5.5m
<b>PLOT 3b - B2/B8</b>	Site Area = 1,541m <sup>2</sup> / 0.38 acres
	GF Footprint = 682m <sup>2</sup>
	Height to eaves = 5.5m
<b>PLOT 6b - B2/B8</b>	Site Area = 1,600m <sup>2</sup>
	GF Footprint = 1,600m <sup>2</sup>
	First Floor Offices = 290m <sup>2</sup>
	Height to eaves = 10m
<b>PLOT 7 - PARK AND RIDE</b>	Site Area = 27,511m <sup>2</sup> / 6.9 acres
<b>PLOT 8 - B2/B8</b>	Site Area = 8,102m <sup>2</sup> / 2.0 acres
	GF Footprint = 1,430m <sup>2</sup>
	Mezzanine = 520m <sup>2</sup>
	Height to eaves = 8m

3	18.07.2022	JEB	Diverted watercourse moved by separate dwg. Plot 4 chartered adjacent to ancient woodland to achieve 30m margin.	-
2	18.07.2022	JEB	Diverted watercourse indicated.	-
1	04.07.2022	JEB	Terrace / seating areas added adjacent Plot 3a.	-
Rev	Date	By	Description	Chkd

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Project:  
**Curtis Hall**  
Cardiff Park & Ride East  
Drawing Title:  
**Indicative Site Layout**

Date: 29.06.2022 Scale: 1:2500 Drawn By: JEB  
Revision: P3 Media: A3 Checked By:

Drawing Status:

**DRAFT**

Drawing No.  
**7528 MEIN-XX-XX-DR-A-SL\_20 067**

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50m SCALE 1:2500



Plot Number	Tree group	Total area (m2)	Area Retained (m2)	Area to be (m2)	Total Individual tree losses	Tree Species	BS5837 Category
1	N/A	N/A	N/A	N/A	2	LP AH	B2
2	N/A	N/A	N/A	N/A	1	ALD	C2
3a,b, c, d and e	WG12	1330.8	0.0	1330.8	11	AH GW	B2
	TG12	873.5	284.2	589.3	6	SB ALD POK	B2
4	WG9	9771.9	1691.2	4444.4	31	POK SB HAZ SYC	B2
	WG4	9026.7	5459.3	3567.4	22	HAZ AH FM CW	B2
	WG8	1315.0	1184.1	130.8	4	POK SB HAZ AH	B2
	TG7	504.2	0.0	504.2	3	SB HAZ WCH	B2
5	TG3	1336.9	630.2	706.6	3	HAZ ALD	B2
	TG4	2191.8	1018.7	1173.2	9	ALD SB HAZ	B2
	WG4	6923.2	5459.3	1463.9	15	AH HAZ FM CW	B2
6a and b	WG1	3670.0	3404.1	265.8	1	ALD SB	B2
	WG5	2291.4	2190.5	100.9	3	AH HAZ ALD	B2
	TG3	2279.0	630.2	1648.8	7	HAZ ALD	B2
	WG6	2509.0	1930.0	579.0	4	AH ALD OK CW	B2
	TG4	1800.8	1018.7	782.1	4	ALD SB HAZ	B2
7	TG18	302.6	0.0	302.6	16	SB	C2
	TG11	108.6	0.0	108.6	5	ALD	C2
	WG9	9771.9	1691.2	3636.3	16	SB OK HAZ SYC	B2
	TG10	558.9	506.7	52.2	4	SB HAZ CH	B2
8a and b	WG12	4397.2	4197.3	199.9	4	AH GW	B2
	TG20	2780.8	947.5	1833.3	5	AH	B2
	WG13	4708.8	4511.3	197.5	4	HAZ SB	B2
	TG23	1477.3	1437.7	39.6	2	AH CH SB HAZ	C2
			<b>Total</b>	<b>23657.3</b>	<b>182</b>		

Summary: BS5837:2012 B category Trees 158, C Category Trees 24 and Woodland Area (Outside Retained Ancient Woodland) 2.3 ha