

# Advanced Technology Campus Green Infrastructure Statement edp8160\_r003b

QA: EWi/MDu\_CTi/CTi\_040424

## 1 INTRODUCTION

- 1.1 This Green Infrastructure Statement has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of Cardiff and Vale College (hereafter referred to as 'the Applicant') in relation to a proposed development at Advanced Technology Campus (hereafter referred to as 'the Site').
- 1.2 EDP is an independent environmental planning consultancy with offices in Cardiff, Cirencester and Cheltenham. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website ([www.edp-uk.co.uk](http://www.edp-uk.co.uk)).
- 1.3 The proposals concern construction of a new educational campus for Cardiff and Vale College including landscaping, related infrastructure and engineering works. The Landscape Illustrative Masterplan is provided at **Appendix EDP 1** to this document whilst a Planting Strategy is provided at **Appendix EDP 2**.
- 1.4 In the advent of updates to Chapter 6 of Planning Policy Wales (PPW)<sup>1</sup>, a Green Infrastructure Statement is required for submission alongside the planning application. This document identifies how Green Infrastructure has been incorporated into the landscape design for the Site (provided at **Appendices EDP 1** and **2**) and provides the relevant avoidance, mitigation and/or compensation measures incorporated into the design to ensure the continued functioning of Green Infrastructure assets both within and adjacent to the Site.

### Site Context

- 1.5 The Site is centred at Ordnance Survey Grid Reference (OSGR) ST 07429 67656. The Local Planning Authority (LPA) is Vale of Glamorgan Council (VoGC). The Site measures approximately 3.7 hectares (ha) and is located in the town of Rhoose, within the district of Barry. The Site comprises greenfield land and overlaps with two arable fields. A third field in the south of the Site comprises poor semi-improved grassland, which is subject to much

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<sup>1</sup> Revisions to PPW Chapter 6 came into effect on 18 October 2023 following issue of ministerial letter reference MA/JJ/2512/23 to all Local Planning Authorities by the Welsh Government. Revised Chapter 6 can be found here: <https://www.gov.wales/addressing-nature-emergency-through-planning-system-update-chapter-6-planning-policy-wales> (Accessed 13 March 2024).

scrub encroachment from relict hedgerow field boundaries. The eastern boundary of the Site is delineated by a linear strip of broadleaved woodland and tree line, while the southern boundary encompasses amenity grassland comprising the verge of an adjacent road.

- 1.6 Land to the north and east of the Site predominantly comprises arable farmland with field boundaries defined by hedgerows and woodland. Land to the south/south-west is associated with Cardiff Airport and Business Park, with the town of Rhoose located south of the airport.
- 1.7 Overall, however, the Site and agricultural fields immediately adjacent to the north are enclosed by existing development and main roads. Port Road lies directly adjacent to the eastern boundary, whilst the A4226 travels east to west c.240m north of the Site.

## 2 ECOLOGY AND GREEN INFRASTRUCTURE BASELINE

2.1 To establish the ecological baseline of the Site, a desk-study and Extended Phase 1 Habitat survey was undertaken during May 2023 alongside/ followed by further detailed surveys in respect of bats, [REDACTED] and common reptiles.

2.2 The Site comprises three fields (F1–F3), two of which are arable grassland whilst the third is characteristic of a poor semi-improved grassland sward, albeit with much bramble (*Rubus fruticosus* agg.) scrub encroaching from field margins. Such habitats are predominantly considered to be of negligible ecological importance, albeit with potential to support protected/notable species. The internal field boundaries are delineated by native hedgerows and/or woodland, which are considered to be of local level importance and further provide suitable breeding, foraging and/or hibernation opportunities for protected and notable species including a breeding bird assemblage, roosting/foraging/commuting bats, [REDACTED], common reptiles and amphibians and notable mammal species such as European hedgehog (*Erinaceus europaeus*), polecat (*Mustela putorius*) and brown hare (*Lepus europaeus*) as well as facilitating their dispersal across the Site and offsite habitats. Direct connectivity to suitable habitat in the wider landscape is, however, interrupted by the presence of main roads and existing development including Port Road to the east, the A4226 to the north and Cardiff Airport to the south and south-west, which are also likely to preclude presence of significant assemblages of protected/notable species. Further detailed surveys noted the following:

- One tree (T1 as numbered within the Ecological Appraisal (report ref: edp8160\_r001)) with low suitability for roosting bats was identified within the Site whilst one tree adjacent to the Site (T2) was considered to have high suitability to support roosting bats;
- A total of seven bat species/species groups (*Myotis* and long-eared bat species were not identified to species level), were confirmed to be present foraging and/or commuting within the Site during the transect and/or automated detector surveys. Activity was dominated by common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) bats whilst *Myotis* sp. and noctule (*Nyctalus noctula*) were occasionally recorded, and serotine (*Eptesicus serotinus*) and lesser horseshoe

(*Rhinolophus hipposideros*) bats rarely recorded. Overall, an assemblage was considered to be of Local level importance;

- No evidence of [REDACTED] was recorded during the Extended Phase 1 Habitat survey nor during the course of further site visits although the Site provides suitable habitat for this species; and
- No common reptiles were identified onsite during the course of detailed reptile refugia surveys.

2.3 Of further pertinence, no part of the Site is covered by any statutory or non-statutory designations, although there are three internationally important designations within 10km of the site and six nationally important designations within 2km of the site, in addition to several parcels of Restored Ancient Woodland (RAW) and ancient semi-natural woodland (ASNW) (the closest c.336m south-east of the Site), which contribute to the wider Green Infrastructure network at the local and county level. Overall, the following valued ecology and/or resources were identified within the zone of influence of the Site, in the context of the development proposals:

- Severn Estuary Special Protection Area (SPA) and Ramsar Site located off-site, 8.9km to the east;
- Barry Woodland Site of Special Scientific Interest (SSSI) located 708m north-east encompassing large areas of woodland which, alongside an extensive network of ASNW and RAW Sites is considered to a key Green Infrastructure asset likely to play a role at a county level;
- Non-statutory designations including: North of Blackton Farm Site of Importance for Nature Conservation (SINC), Church Hill Wood SINC and Land South of Curnix Farm SINC, each with potential hydrological connectivity to the Site; and West of Old Rectory SINC, South-west of Church Farm SINC and Porthkerry SINC, loosely connected to the Site via public rights of ways (PRoW) with such designations being publicly accessible. Several of these designations overlap with ASNW/RAW sites and also the River Weycock and its riparian zone, which are important in maintaining Green Infrastructure connectivity across the local landscape;
- Native hedgerows, trees and broadleaved semi-natural woodland with potential to support protected/notable species and of further value in maintaining ecological connectivity between the Site and offsite habitats immediately adjacent. Ecological connectivity to the wider landscape is, however, limited by the presence of main carriageways and Cardiff Airport. The quality of such features has been further assessed in accordance with BS 5837 with the results provided within an Arboricultural Survey report prepared by Arbtech (October 2023);
- Suitable habitat for a roosting/foraging/commuting bat assemblage of local level importance;
- Suitable habitat for breeding birds; and

- Suitable habitat for [REDACTED] common reptiles, amphibians and notable mammals.

### **3 DEVELOPMENT PROPOSALS AND GREEN INFRASTRUCTURE STRATEGY**

3.1 In respect of the ecological/Green Infrastructure resource present within and adjacent to the Site, the proposed development has been designed to retain and protect the valued resources listed above as far as possible whilst ensuring connectivity (where existing) with Green Infrastructure assets identified in the wider landscape is maintained, alongside delivering net benefits to biodiversity in accordance with Chapter 6 of PPW. This is achieved through adoption of a stepwise approach, which ensures that any adverse environmental effects are firstly avoided, then minimised, mitigated, and as a last resort, compensated for, with enhancement secured by delivering biodiversity benefits onsite, over and above that required to mitigate or compensate for any negative impact. Proposed habitat protection and creation features, and the benefits they provide to the Green Infrastructure network, include:

- The retention of c.0.06ha/72% of woodland habitat/mature tree planting along the eastern boundary of the Site maintaining a vegetated corridor along this boundary for the continued dispersal of protected/notable species north-south. This will be combined with the inclusion of new ecotone planting along the retained woodland edge with new development, compensating for habitat loss whilst strengthening this boundary and reducing edge effects. This will be implemented alongside the long-term management of this habitat, adoption practices aimed at promoting the structural and botanical diversity of the woodland, enhancing the resilience of this habitat to climatic changes;
- The retention of dense scrub habitat along the western boundary of the Site combined with supplementary planting with a more diverse species mix and management measures to control overdominance of bramble;
- Retention of trees T1-T6 (as numbered within the Arboriculture Survey report prepared by Arbtech in October 2023);
- The implementation of a sustainable drainage strategy to include rain gardens and a swale to manage surface water runoff from new development. In addition to ensuring impacts upon the Severn Estuary Ramsar Site/SPA and other non-statutory designations/aquatic habitats in the wider landscape are avoided, such features can provide multi-functional benefits. Native planting within such features will enhance the landscape amenity value of the Site whilst also providing foraging opportunities for invertebrates and delivering benefits to climate regulation, adaptation and resilience; and
- The provision of new tree, hedgerow and shrub planting to compensate for loss of habitats, particularly woodland habitat and hedgerows of Local importance. New habitat features will include:
  - Provision of c.444m of new hedgerow planting in association with the northern boundary of the Site and the western boundary with proposed car parking and

Multi Use Games Area (MUGA) as well as hedgerow planting around the sprinkler tank system, compensating for loss of hedgerow habitats whilst ensuring habitat connectivity within the Site to offsite habitat is maintained along these boundaries;

- The planting of hedgerows to the frontage of the new building and formal landscaped areas. Although ornamental and managed for visual amenity, hedgerows remain of potential value as a foraging resource and cover for protected/notable species (namely birds and invertebrates) whilst softening the edges of built development and providing visual amenity benefits to campus users;
- The provision of new tree planting along the southern boundary of the Site with specimen tree planting also provided throughout the built development (circa 130 planted standards), compensating for proposed losses at a minimum ratio of 3 trees to every 1 lost whilst also maintaining nesting habitat for a bird assemblage and contributing to climate regulation and soil stabilisation;
- The provision of a pedestrian access route to the Site at its north-west corner, either side of which will be planted with cherry (*Prunus* sp.), providing a visually attractive entry into the Site, with such vegetation also of value as a nectar/fruitletting resource for invertebrates and birds;
- The provision of meadow grassland planting across the north-western corner of the Site, compensating for the loss of species-poor grassland of negligible value. Such habitat can be managed in the long-term through a sensitive hay cut regime, aimed at promoting a structurally and botanically diverse grassland sward, thus delivering biodiversity benefits;
- The inclusion of grassland habitat around the edges of the new building and car parking areas. Whilst such areas are to be managed for amenity, grassland will still provide foraging opportunities to protected/notable species such as [REDACTED] and European hedgehog whilst further integrating Green Infrastructure within the built development footprint; and
- The provision of habitat features including dead wood and hibernacula for invertebrates with inclusion of bird nest and bat roost boxes within the fabric of new buildings to increase nesting/roosting provision across the Site for these species groups, seeking to maintain/increase populations of such species within the local area.

3.2 Overall, proposed development will result in the reduction of available semi-natural habitat across the Site, with subsequent impacts upon the existing Green Infrastructure resource. Such habitat losses are, however, largely confined to arable land and species-poor scrub and grassland, exhibiting limited botanical structural diversity, with such losses not considered significant. However, there will be required removal of valued habitats including loss of internal hedgerow features and erosion of woodland along the eastern boundary of the Site, which provides suitable habitats for protected/notable species and are also of importance in maintaining connectivity between the Site and habitats/Green Infrastructure

habitats in the wider landscape. Such existing connectivity is, however, limited by Cardiff Airport to the south and the road network in the immediate landscape.

- 3.3 Inherent within the Illustrative Landscape Masterplan is the retention of circa 72% of the eastern boundary woodland and scrub vegetation within the north-western corner of the Site, combined with their enhancement through supplementary planting and long-term management. Management will be aimed at controlling undesirable species and promoting structural and botanical diversity, future proofing these Green Infrastructure assets and ensuring ecological connectivity between the Site and offsite habitats can be maintained. This will be combined with the delivery of new landscape features to compensate for habitat losses including new hedgerow planting along the boundaries of the Site to maintain habitat connectivity; provision of informal open space comprising meadow flower and shrub planting; native tree planting throughout development to compensate for losses and herbaceous planting in association with sustainable drainage features. Such planting is proposed to comprise a diverse mix of native and non-native species with benefits to wildlife, to provide/enhance opportunities for wildlife post-development and thus deliver benefits to biodiversity.
- 3.4 Overall, therefore, and subject to implementation of the above measures, it is considered that that the scheme is capable of maintaining and integrating Green Infrastructure within the development design, whilst delivering benefits to biodiversity as well as visual amenity, connectivity and ecosystem resilience.

**Appendix EDP 1**  
**Landscape Illustrative Masterplan**  
**(Ares Landscape Architects, VG0101-ALA-00-XX-DR-L-00001, Rev P08,**  
**02 April 2024)**





**Note**  
 1. Do not scale from this drawing  
 2. To be read in conjunction with Project Risk Register REF: XXX  
 3. To be read in conjunction with all other Landscape Architect's drawings

- KEY**
- (A) Entrance Plaza to Building
  - (B) Social Space
  - (C) Car Park  
- 294 standard parking spaces (inc. 32no. as EVCPs and 14 Accessible Parking Spaces)
  - (D) Service area for workshop students
  - (E) 2 Court MUGA
  - (F) Meadow Planting and Habitat Area
  - (G) Sprinkler Tank System
  - (H) Air Source Heat Plump
  - (I) Bin Store
  - (J) Swale with Hedgerow and tree planting
  - (K) Cycle Parking (Double Stacked)  
- Total 284 long stay bicycle spaces
  - (L) Pick up / Drop off / Delivery bay
  - (M) Access through car park to MUGA
  - (N) Retaining Wall
  - (O) Access controlled vehicular entrance
  - (P) External HV Unit
  - (Q) Motorcycle parking  
10 spaces
  - (R) Motor Vehicle Workshop parking spaces  
8 spaces
  - (S) New native buffer planting
  - (T) External digging area
  - (U) Cherry Tree Walk  
Pedestrian access route
  - (V) Dust extractor
  - (W) External Battery
  - (X) External Gas Bottle Stores
  - (Y) External Storage Containers
  - (Z) Mini-Bus Parking

ID	RISK	MITIGATION	DATE MITIGATED
<b>RESIDUAL PROJECT RISKS</b>			

DATE	REV	DESCRIPTION OF REVISION	DRAWN BY	APPROVED BY
02/04/2024	P08	Issued for Planning	MDS	MH
<b>REVISIONS</b>				

STATUS  
**A2 - Authorised and Accepted as Planning Application Submission**

**ares**  
 LANDSCAPE ARCHITECTS

Ares Landscape Architects LTD  
 Gatecrasher,  
 51 Eyre Lane  
 Sheffield  
 S1 4RB  
 t: 0114 276 2000  
 e: hello@aresdesign.co.uk  
 w: ares.eu.com

CLIENT:  
**Cardiff and Vale College**

PROJECT TITLE:  
**Advanced Technology Centre**

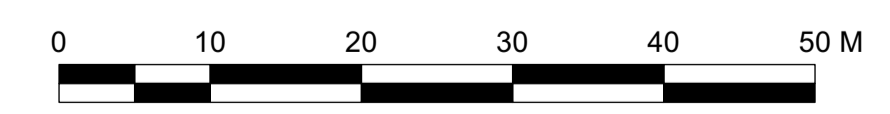
DRAWING TITLE:  
**Landscape Illustrative Masterplan**

DRAWING SCALE: 1:500  
 PAPER SIZE: A1

DRAWN BY: MDS  
 APPROVED BY: HT

DRAWN DATE: 15/06/2022  
 ALA PROJECT CODE: ALAT23

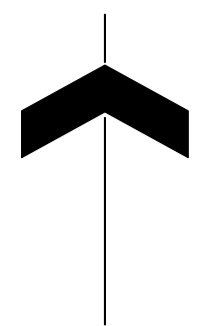
DRAWING NUMBER: **VG0101-ALA-00-XX-DR-L-00001**  
 STATUS: **A2**  
 REVISION: **P08**





**Appendix EDP 2**  
**Planting Strategy**  
**(Ares Landscape Architects, VG0101, ALA-XX-DR-L-00010, Rev P05,**  
**02 April 2024)**

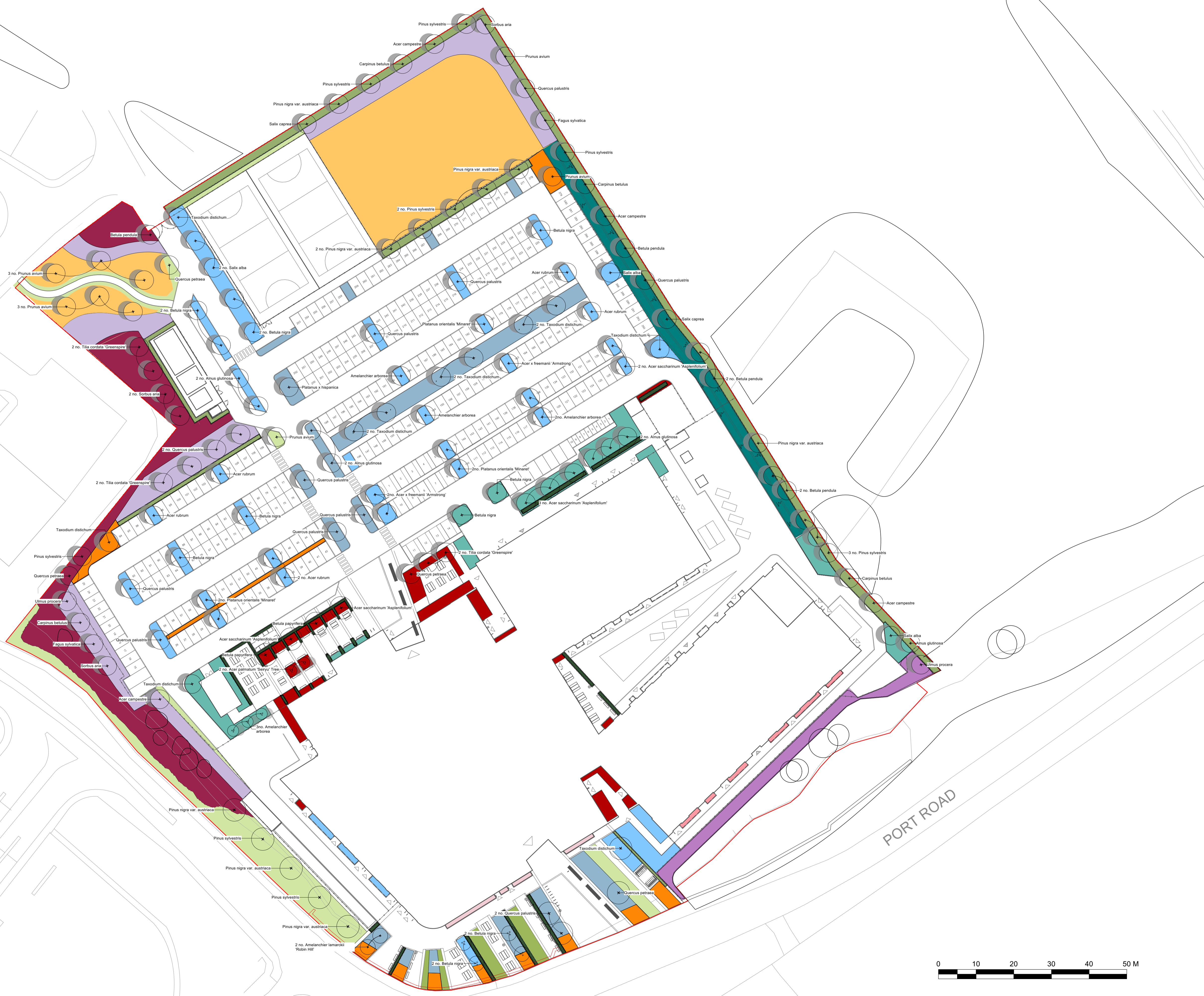




**Note**  
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**KEY**

- Existing Trees
- Proposed Tree
- Proposed Multi-stem Tree
- Grass Seed
- Turf
- Wildflower Meadow Planting
- Amenity Planting - Full/Partial Sun
- Amenity Planting - Shade Tolerant
- Rain Garden - Full Sun
- Rain garden - Partial Sun
- Rain Garden - Shade Tolerant
- Swale Planting
- Ornamental Mix - Shade Tolerant
- Ornamental Mix - Full/Partial Sun
- Naturalistic Woodland Edge & Meadow Planting - Sun/shade Medium and smaller shrubs and herbaceous
- Naturalistic Woodland Edge & Meadow Planting - Shade Medium and smaller shrubs and herbaceous
- Naturalistic Woodland Buffer Planting Taller whips and shrubs
- Green Roof To specialists specification
- Native Hedgerow
- Formal Hedge Planting



ID	RISK	MITIGATION	DATE MITIGATED
<b>RESIDUAL PROJECT RISKS</b>			

DATE	REV	DESCRIPTION OF REVISION	DRAWN BY	APPROVED BY
02/04/2024	P05	Issued for Planning	MDS	MH

**REVISIONS**

STATUS  
**A2 - Authorised and Accepted as Planning Application Submission**

**ares**  
 LANDSCAPE ARCHITECTS

Ares Landscape Architects LTD  
 Gatecrasher,  
 51 Eyre Lane  
 Sheffield  
 S1 4RB  
 t: 0114 276 2000  
 e: hello@aresdesign.co.uk  
 w: ares.eu.com

CLIENT:  
**Cardiff and Vale College**

PROJECT TITLE:  
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**Planting Strategy**

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