

Austin-Smith:Lord

Pencoed Campus Masterplan

Design Report Bridgend College Rev. 02 June 2022



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Cardiff Bristol Glasgow Liverpool London

one Dunleavy Drive, Cardiff, CF11 0SN

+44 (0)29 2022 5208 cardiff@austinsmithlord.com www.austinsmithlord.com

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Austin-Smith:Lord LLP

1.0 INTRODUCTION & BROAD VISION FOR THE SITE

INTRODUCTION

Austin-Smith:Lord have been appointed to develop an initial site strategy layout for the residential development of land adjacent to Bridgend College's Pencoed Campus which has been submitted as a candidate site in the Local Development Plan. This document responds to Bridgend County Borough Council (BCBC)'s request that a masterplan and land-use framework is provided to inform Stage 2 of its Candidate Site Assessment.

Since this Design Report was originally published, more is known about the site and its constraints whilst important policy and guidance has been adopted and is emerging. The Design Report seeks to respond to this.

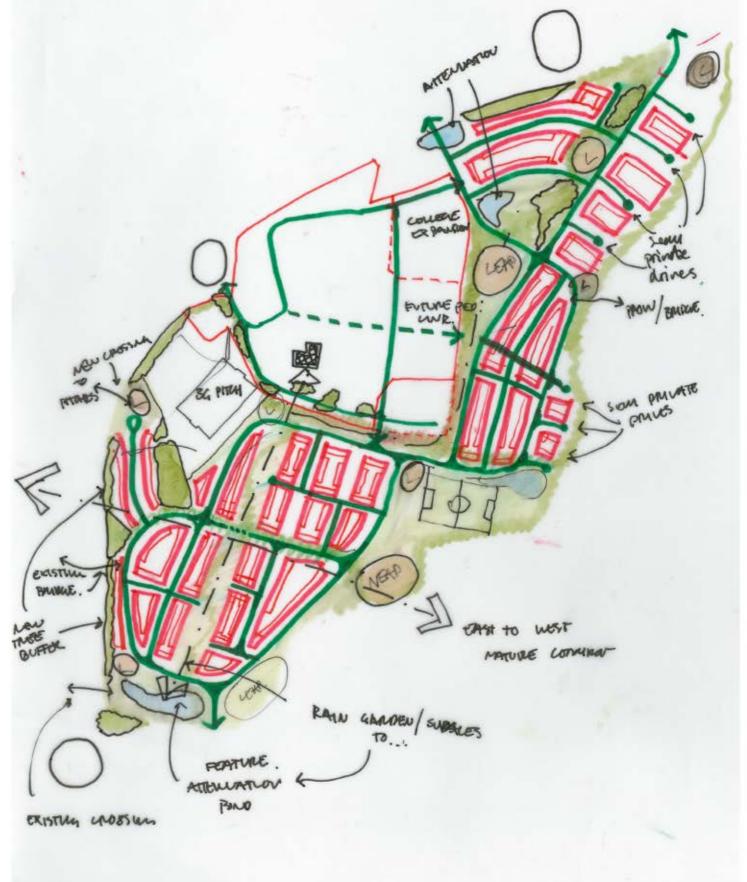
The purpose of this report is to provide some more certainty on the likely capacity of the site; to show how a primary school could be delivered on the site and to establish how high quality design and place making principles will be embedded in the emerging masterplan for this important and attractive site.

VISION

The vision is to vision is to create a high quality and sustainable development with a strong identity and sense of place, contributing to the delivery of housing needs within Bridgend County Borough Council.

In particular the masterplan will incorporate principles of plackemaking to help create a community that is well connected and integrated with the local community. The site is well located for a sustainable development that is well integrated into its semi-rural setting. Sustainable principles are at the forefront of the design, with SUDs strategies and orientation and form considered from the outset.

Connectivity and active travel strategies are promoted with pedestrian links to local employment opportunities such as the Pencoed technology Park and town centre incorporated into the masterplan.



Early sketch masterplan layout

2.0 CONSTRAINTS PLAN

Sewer (3m Easment zone) assumed to be diverted as part of development
PROW
Site Boundary

Existing woodland area

Flood risk area (Zone 3 as NRW's draft Flood Map for Planning)

Existing main entrance to Campus

HIGH PRESSURE GAS PIPE

12m easement

PADHI 21m outer zone - (Consultation distance) PADHI 15m middle zone - (less than 10% of develepment permitted in zone) PADHI 30m inner zone - (no buildings permitted in zone) PADHI 15m middle zone - (less than 10% of develepment permitted in zone) PADHI 21m outer zone - (Consultation distance)

PADHI PIPELINE:

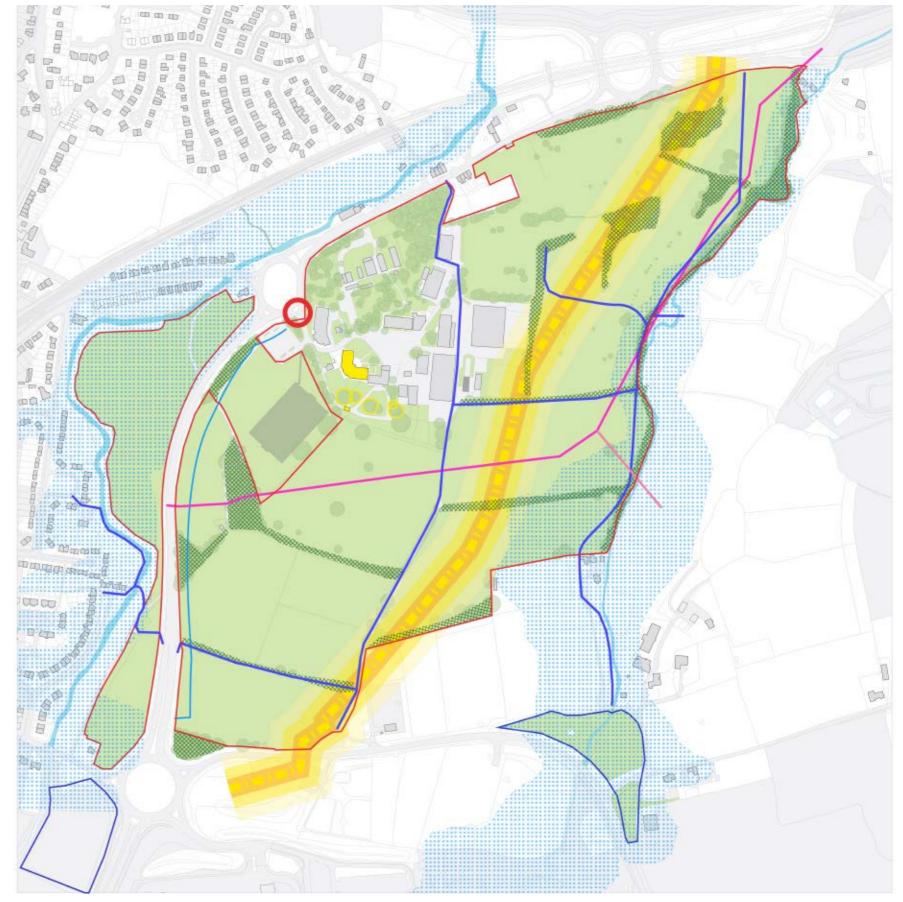
- · All houses to lie within the outer consultation zone.
- No buildings within inner or middle zones only parks/ equipped play areas and POS.
- · Access roads can straddle the outer/middle zones.
- Approximate line of pipeline only no cad data available for its location.
- Minimal Road crossings over the pipe easement zone.

FLOOD RISK

Draft revised Development Advice Maps and Technical Advice Note 15 have been published by Welsh Government and Natural Resources Wales. These show a greater proportion of the site at flood risk. Originally due to come into force in December 2021, their publication has been delayed until June 2023. The Design Report reflects the emerging flood risk maps save for an area of Flood Zone 2 which is subject to challenge

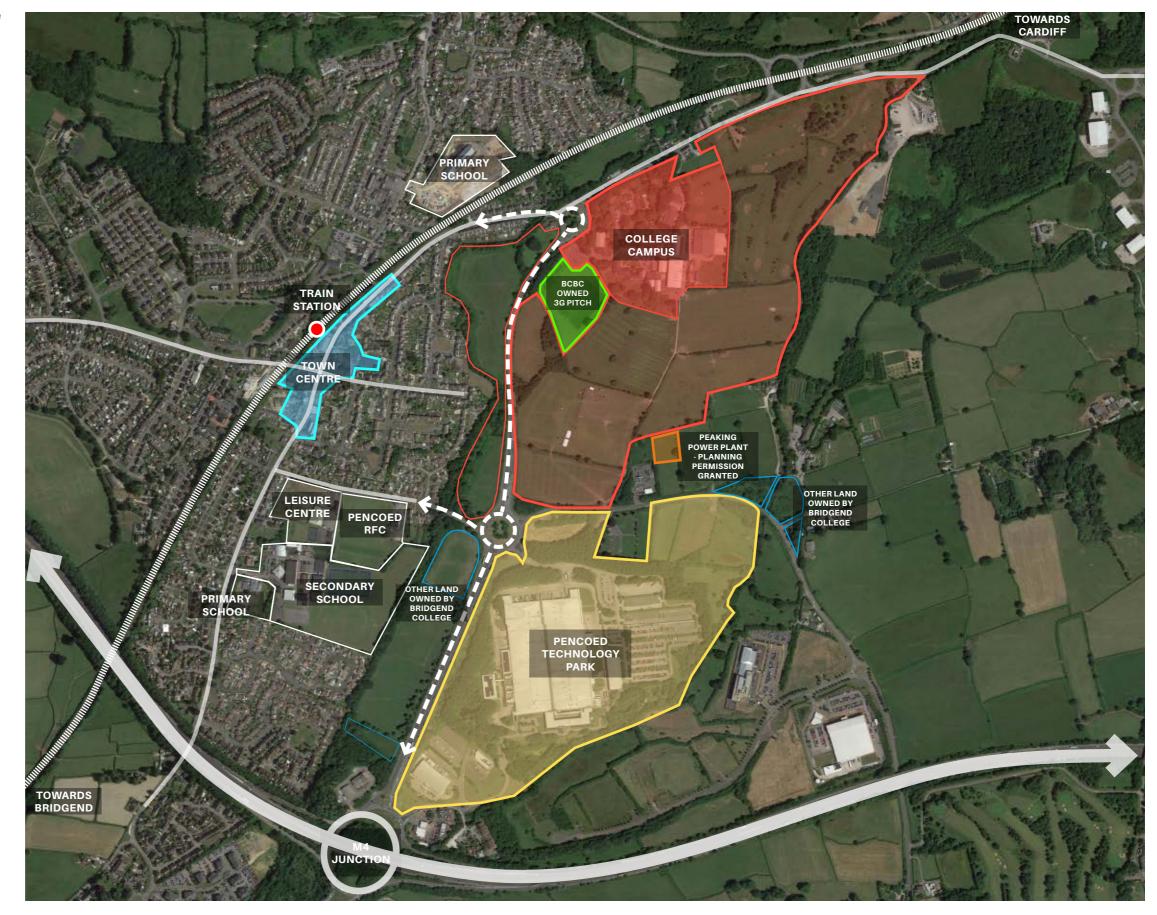
LLANHARAN BY-PASS

Rhondda Cynon Taf County Borough Council is promoting a scheme for the Llanharan by-pass which will run along the A473 to the north of the site. The scheme shows an attenuation pond located on a portion at the north of the site. Whilst the site does not benefit from planning permission, it has been subject to Pre-Application Consultation.



3.0 LAND USE PLAN

- Located close to local employment opportunities at the adjacent Pencoed Technology Park and Town Centre. Potential for significant green public open space Good links to the M4
- •
- •
- Good links to existing public transport ; existing bus stops at the college and proximity to Pencoed train . station



4.0 LINKS TO PUBLIC TRANSPORT & ACTIVE TRAVEL

- •
- .
- Close proximity to Train Station Existing Bus Stops outside college Pedestrian links to existing Public Rights of Ways and footpaths
- Pedestrian routes to nearby Town Centre



5.0 INDICATIVE MASTERPLAN LAYOUT

The indicative masterplan layout has been developed to check the capacity of the site.

The homes are arranged in clusters with a perimeter of houses of wide frontages to create a strong street presence and identity. This is contrasted with more intimate and dense mews type houses to each core of the clusters. The edges of the masterplan are home to larger detached house typologies.

The building heights are generally limited to 2/2.5 storeys in keeping with a semi-rural landscape. A row of 3 storey apartment buildings are located on the eastern end of the site to help create a strong boundary to the A473 road.

PRIMARY SCHOOL

Following guidance from BB101: 1FE + Nursery: 250 Pupils 1.25Ha gross site area 1450m2 GIA

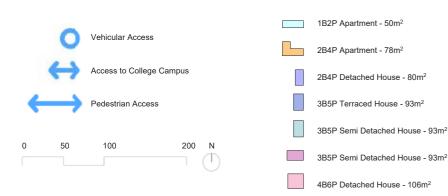
This is considered proportionate and appropriate for a development of this scale

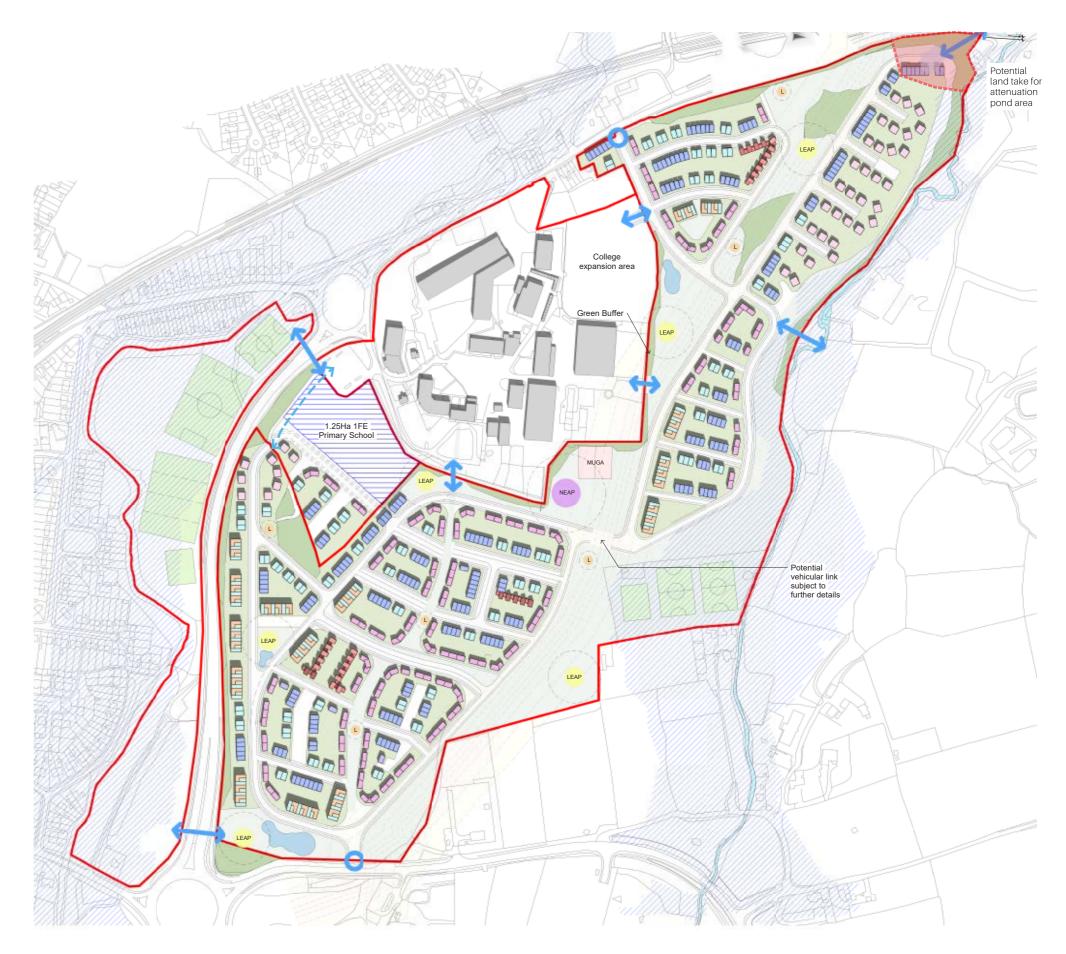
SCHOOL LOCATION

The layout shows land owned by BCBC incorporated into the site and used as the location of the Primary School. The layout provides **804 homes** in a mix of 1,2,3 and 4 Bed homes with a mix of apartments, terraces, semi-detached and detached properties.

An area of land has been indicated on the North East corner of the site that could be used as an attenuation pond to facilitate development of the proposed Western Masterplan for the Llanharran Bypass. This would result in a loss of 8 units bringing the total number of units down to **796 homes**.

The existing 3G Pitch would be relocated to land opposite the A473.





6.0 URBAN DESIGN PLAN

The layout promotes outdoor play and aims to improve the health and wellbeing of the local community.

The masterplan creates a network of green public open spaces which are overlooked by properties to create safe places for people to use.

Active frontages to streets and clear distinction between public and private space.

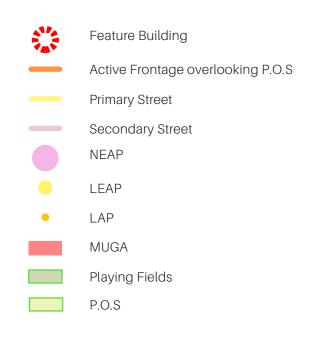
Potential for primary school to be a focal point for the community with out of hours community use of facilities.

Equipped play areas within the site.

Additional outdoor pitches provided on the site adjacent to the A473, within a flood zone.

Outdoor Play:

- Fields in trust assumptions on size/population of development (800 units, average 2.5 people per house, 2000 population)
- Estimated number of equipped play areas and outdoor sport and play fields 6.7Ha
- Equipped play areas kept within the site to avoid children crossing the busy A473
- Playing fields located in site over the A473 in flood zone



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7.0 MOVEMENT, STREET HIERARCHY & CAR PARKING

Active travel promoted - car journeys reduced as much as possible:

- Use of public transport encouraged proximity to train station, potential for future bus routes and pedestrian routes to Pencoed town centre enhanced
- Pedestrian movement given priority across the site.
- Cycle route along main green corridor
- Primary School and community facilities located on the site
- House typologies with room for home offices/ coworking cafe to encourage home working

Access points to the college campus to promote integration and connectivity with the existing local community.

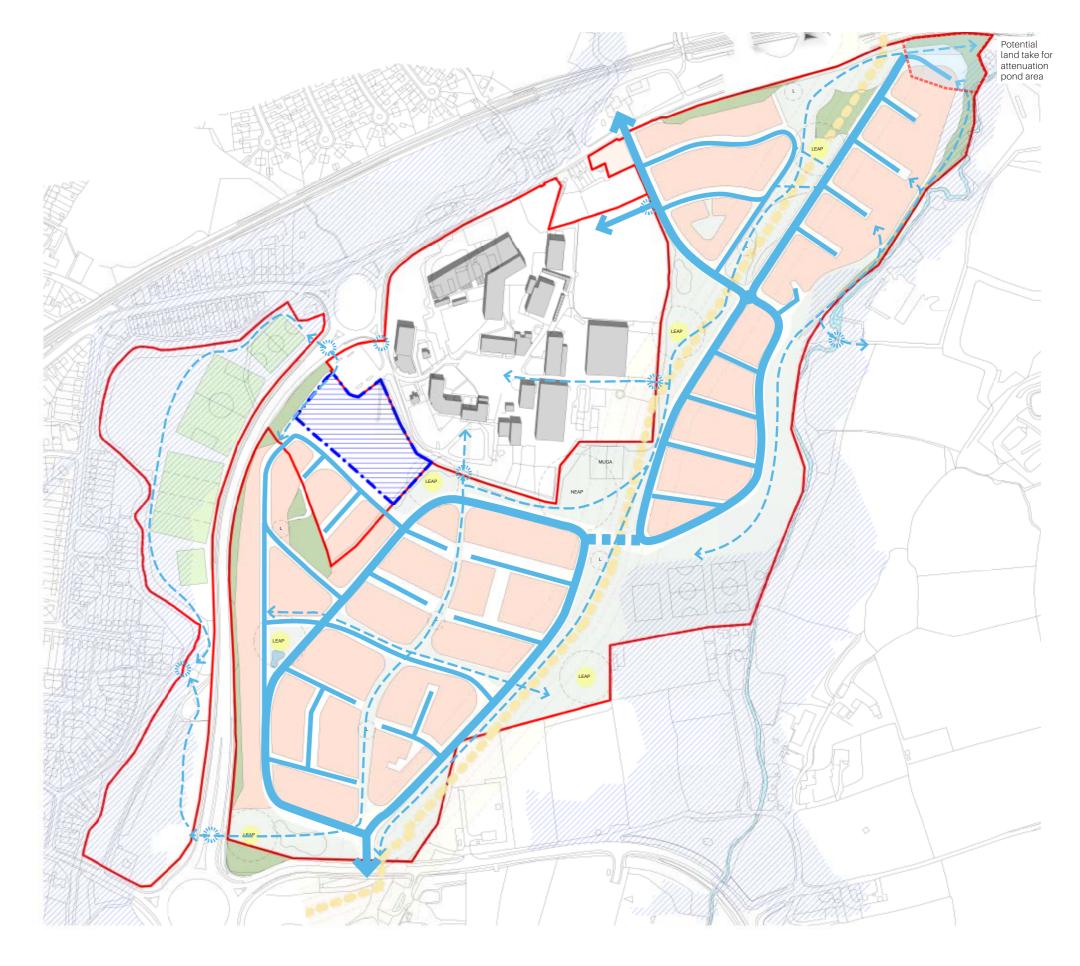
Main vehicular movement on a loop around the development. Streets designed to be wide enough to allow for potential future bus routes (should it be a requirement).

A mixture of car parking on drives, street parking and parking courts to be provided in each cluster. Car parking spaces per home to be agreed with BCBC according to appropriate standards.



Pedestrian Route

Primary Vehicular Route Secondary Vehicular Route Access Point



8.0 GREEN INFRASTRUCTURE & SUDS

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SUDS STRATEGY

- Streets wide enough to accommodate swales
- Feature attenuation ponds/lakes provided at gateways into development to create a sense of arrival
- Site falls to the south •
- Central rain garden/drainage feature/P.O.S & new pedestrian route to Tregoes House

ECOLOGY

- Existing woodland areas retained where possible.
- Existing Hedgerows assumed to be mostly of low quality/ecological value and are removed/relocated. East to west nature corridor created – a network of green
- spaces throughout the masterplan.
- North to south tree belt to the east of the site enhanced. •
- Diverse range of habitats provided attenuation ponds/ reed beds, Rain Gardens, Hedgerows and, Woodland •



9.0 SUSTAINABILITY

The design process is guided by the requirements of the Wellbeing and FutureGenerations Act and Planning Policy Wales Edition 10.

Masterplan layout orientated to favour house types with an North - South orientation to maximise solar potential.

Potential areas for Zero Carbon and Passivhaus Homes.

- Energy efficient building design;
- Specifying low water use fittings;
- The efficient use of materials and identifying where waste can be avoided through good design;
- Re-using existing materials and resources on site;
- Using materials that have environmental performance declarations;
- Using materials that have a high recycled content;
- Using materials that do not create poor indoor air quality;
- Using off-site construction for key components;
- Re-using excavated material on site rather than sending it to a waste facility; and
- Reducing waste materials generated on site





10.0 INDICATIVE PHASING PLAN

The proposed layout shows 803 dwellings across 19.76 Ha resulting in an overall density of **40.6 dph**.

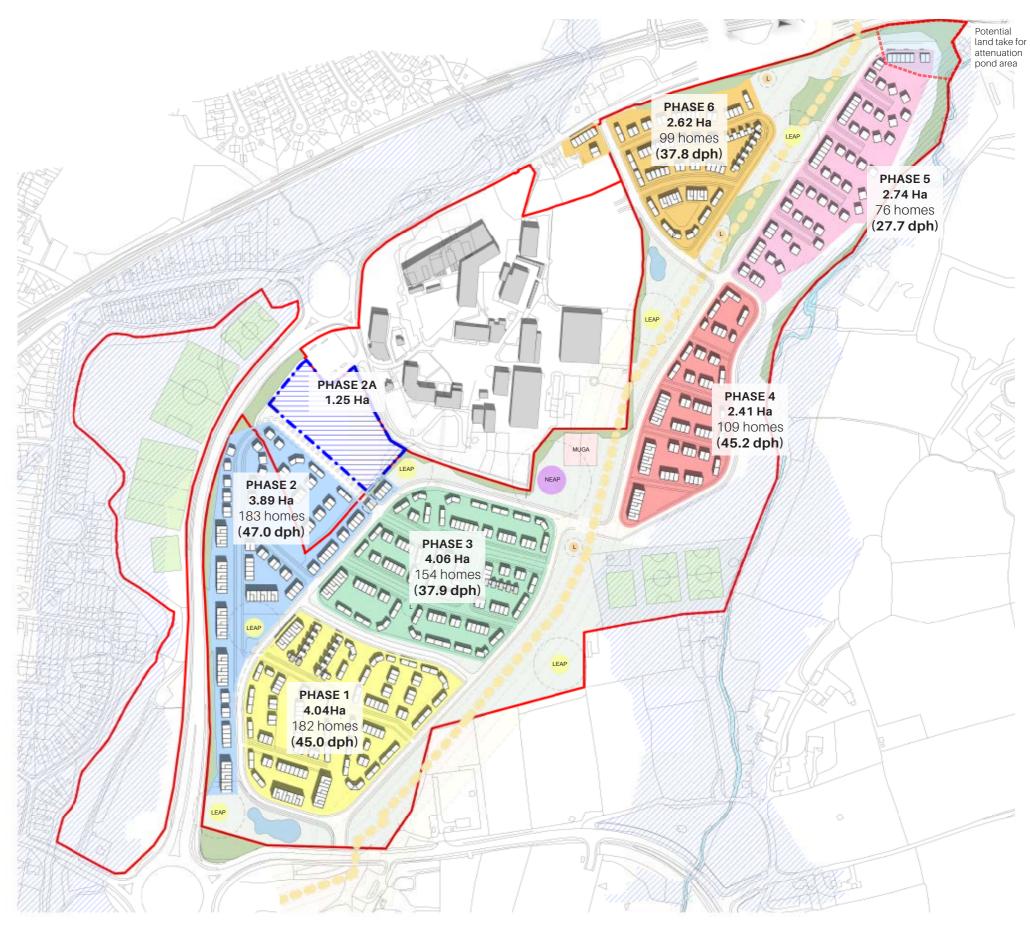
The original layout had achieved 770 dwellings over a total area of 21.83 Ha resulting in an overall density of 35.3 dph.

The updated site constraints have reduced the amount of developable area and the new layout has a greater capacity than the original scheme. This has been achieved by increasing density where possible whilst maintaining the key features and principles that were set out in the original layout.

In keeping with the original design intent, areas of higher density are arranged along the west of the site, closer to the existing town centre and local facilites. Towards the east of the site the densities begin to reduce as the site becomes more rural in character.

The previous layout included tightly packed series of terraces and semi detatched dwellings that were arranged to maintain a minimum 21m privacy overlooking distance. Density has been increased across the whole site with the introduction of courtyard house typologies that enable higher densities whilst respecting privacy and minimum overlooking distances. In addition to this, the amount of walk up apartments across the site has also been increased.

The typologies employed in the layout are sensitive to the existing context surrounding Pencoed and have been arranged efficiently on the site whilst also allowing for the creation of high quality public open spaces. To further increase density across the site would involve increasing height and adding more appartments into the mix, which would be at odds with the semi-rural setting of the site.





Bristol

40 Berkeley Square Bristol BS8 1HP

+44 (0)117 239 0500 bristol@austinsmithlord.com

Cardiff

one Dunleavy Drive Cardiff CF11 0SN

+44 (0)2920 225 208 cardiff@austinsmithlord.com

Glasgow

296 St Vincent Street Glasgow G2 5RU

+44 (0)141 223 8500 glasgow@austinsmithlord.com

Liverpool

Port of Liverpool Building, Pier Head Liverpool L3 1BY

> +44 (0)151 227 1083 liverpool@austinsmithlord.com

London

154-158 Shoreditch High Street London E1 6HU

+44 (0)203 0920 333 london@austinsmithlord.com

www.austinsmithlord.com