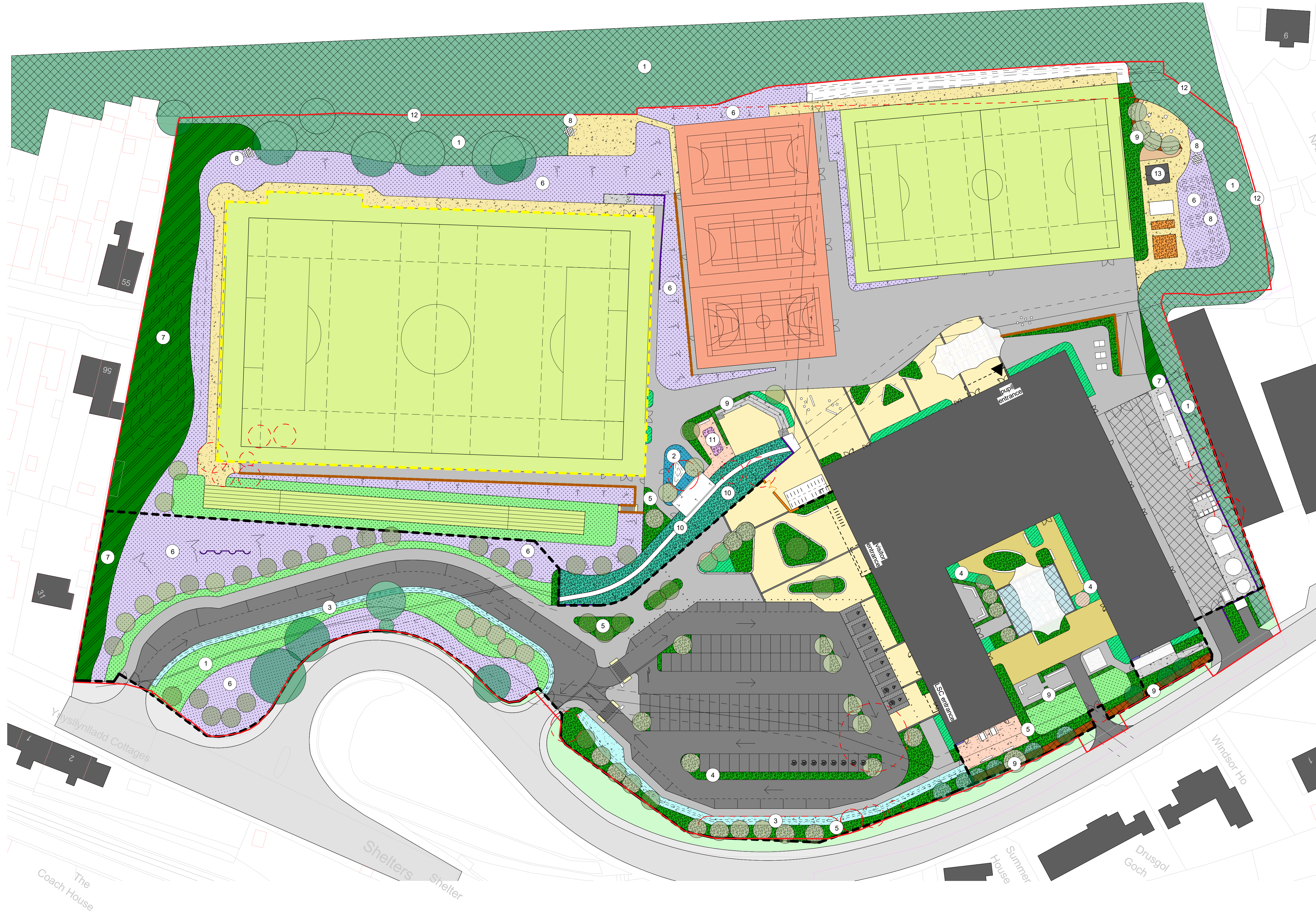
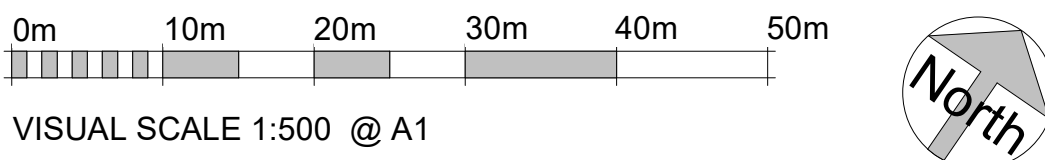




- KEY**
- Existing trees to be retained
 - Proposed trees to be retained
 - Proposed trees to rain gardens
 - Existing vegetation to be retained
 - Amenity grass
 - Species rich wildflower meadow
 - Ornamental planting
 - Sensory garden planting
 - Rain garden planting
 - Swales planting
 - Bioretention planting to attenuation basin and open water channel
 - Formal hedge planting
 - Native hedge mix planting

- NOTES**
- 1 **TREES**
Existing trees to the perimeter of the site have been retained where possible to maintain ecological continuity and visual integration. These mature specimens contribute to the site's green infrastructure and offer valuable roosting habitats, especially for bats, as identified in the accompanying ecological appraisal.
Proposed enhancements include the installation of bat and bird boxes on retained trees and on suitable elevations of new buildings to support urban wildlife.
- 2 **ATTENUATION POND**
The attenuation pond serves dual purposes; stormwater management and the creation of a high-value aquatic habitat. Marginal and aquatic species have been selected to thrive under variable hydrological conditions, supporting wetland biodiversity year-round.
The surrounding vegetated margins contribute significantly to habitat heterogeneity, providing shelter and foraging grounds for amphibians, birds, and invertebrates.
- 3 **SWALES**
Swales form an integral part of the sustainable drainage strategy, managing surface water runoff while enhancing the ecological value of the landscape. These shallow, vegetated channels slow the flow of rainwater, allowing infiltration and improving water quality through natural filtration processes.
Planted with a mix of resilient grasses and native wetland species, the swales will provide additional foraging and shelter opportunities for invertebrates, amphibians, and small mammals.
- 4 **RAIN GARDENS**
Apart from their drainage functionality, rain gardens surrounding the proposed school building will create pockets of biodiversity planting that support local wildlife and enhance the ecological value of the site. These planted depressions offer a rich mix of structure and seasonal interest, drawing in pollinators, birds, and invertebrates.
Species have been carefully selected for their ability to thrive in varying moisture conditions, contributing to planting that is both resilient and habitat rich. Ferns such as *Deschampsia* and *Veronicastrum* add a lush, woodland character, while *Carex*, *Ajuga*, and *Mecanthus* introduce contrasting textures and subtle colour shifts through the seasons.
- 5 **ORNAMENTAL SHRUBS**
The ornamental shrub palette balances aesthetic appeal with biodiversity function. Evergreen species provide year-round structure and winter habitat, while flowering shrubs support near-needing insects throughout their active seasons.
Pollinator-friendly species are prioritised, contributing to the site's biodiversity value throughout the year.
- 6 **WILDFLOWER MEADOWS**
Species-rich grassland meadows connect existing woodlands and structural habitats, enhancing ecological permeability across the site. Semi-improved neutral grassland is proposed around the whole site, wrapping around the sports pitches and creating into other areas. This provides consistent connectivity between all these areas and also to the existing woodland to the north.
Annual cutting regimes will be tailored to promote floristic diversity and support reptile microhabitats.
- 7 **UNDERSTOREY PLANTING**
Native understorey planting creates an additional biodiversity buffer along the eastern and south boundaries of the site. Indicative species include *Cornus monogyna* (hawthorn), which is known to support a wide range of wildlife including insects, birds, and small mammals.
Along the western boundary, a layered planting scheme of hawthorn and *Prunus spinosa* (blackthorn), beneath intermittent native tree species, forms a natural enclosure for the development and reinforces green corridors connecting to the meadow to the south-west.
- 8 **WILDLIFE HABITATS**
Habitat features such as log piles, rubble refuges, insect hotels, and deadwood zones are sensitively integrated to target saproxylic invertebrates, amphibians, and ground-nesting insects.
Rubble piles, identified as having potential for amphibian hibernation, will be created at suitable locations of the site using site-won materials.
A butterfly bank is proposed to enhance habitat diversity and support a range of invertebrates, particularly pollinating species such as butterflies and solitary bees. Created as a free-draining, south-facing earth mound with low nutrient soils, the bank replicates conditions found in naturally species-rich grasslands.
- 9 **HEDGEROWS**
Proposed native hedgerows along the south boundary act as vital ecological corridors, connecting habitats and supporting a wide range of wildlife. Species such as hawthorn, blackthorn, hazel, and field maple provide food sources, shelter, and nesting opportunities for birds, insects, and small mammals.
These linear features also offer movement routes for foraging bats and other nocturnal species, particularly when managed to maintain structural diversity. Hedgerows contribute significantly to biodiversity net gain targets and landscape integration.
- 10 **OPEN WATER CHANNEL**
The existing open water channel running through the site is retained and enhanced as a key ecological and educational feature. Open channels provide dynamic aquatic habitats and serve as wildlife corridors, supporting aquatic invertebrates, amphibians, and birds, while also contributing to the site's overall drainage strategy.
The open channel also offers opportunities for outdoor learning—encouraging ecological awareness and engagement with natural processes such as water cycles, plant growth, and seasonal changes. Cop pallets containing native plant species are positioned around the waterline to create a seamless transition from land to water.
The banks are to be planted with a range of native marginal and riparian species which stabilise the banks and enhance habitat diversity. Selective clearing and management will maintain flow and encourage light penetration, supporting a healthy aquatic ecosystem.
- 11 **SENSORY GARDEN**
The sensory garden creates an engaging, inclusive space that encourages interaction with nature through sight, sound, scent, and touch. Planting has been selected to stimulate the senses year-round, while also supporting pollinators and increasing site biodiversity.
Fragrant species such as *Lavandula angustifolia* (lavender), *Salvia officinalis* (sage), and *Thymus vulgaris* (thyme) offer aromatic interest and attract bees and butterflies. Tactile plants and ornamental grasses provide soft textures, while colourful blooms offer vibrant visual appeal.
- 12 **FENCING**
Wildlife-permeable fencing with regular ground-level gaps ensures habitat connectivity for hedgehogs, amphibians, and other small terrestrial species.
- 13 **BAT HOUSE**
A purpose-built bat house is incorporated to provide secure roosting spaces for local bat species, enhancing on-site ecological value. Positioned near key foraging habitats and orientated for optimal microclimate conditions, it offers crevice-style refuges for day and transitional roosting. Surrounding dark corridors and native planting support safe movement and minimise disturbance.

Rev	Description	Drawn	Checked	Date Issued
P1	Issued for RLC	GC		25.04.25
P2	Minor updates to entrance area and cycle shelters sizes.	GC		02.05.25
P3	Issued for Planning	GC		02.07.25
P4	Bat house added to forest school area.	GC		12.12.25



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Drawn	GC	Austin-Smith-Lord Ltd Architects Designers Planners Landscape Architects 18 Park Place Cardiff CF10 3DQ t +44 (0)2920 225 208 e cardiff@austinsmithlord.com
Date	OCT 25	
Scale @ A1	1 : 500	
Status	S2	Drawings and models covered by Austin-Smith-Lord Ltd BIM using Autodesk Revit

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Project Llangatwg Comprehensive School			
Description Biodiversity Enhancement			
Job No.	Drawing No.	Revision	P4
324012	26CC07-ASL-30-XX-D-L-1008		