

4.04 Landscape Design
Biodiversity Strategy

Biodiversity

The Biodiversity strategy for NSCC Education Centre aims to increase ecosystem productivity, supporting a larger number of plant species than currently exists on site and can be reasonably accommodated.

Biodiversity protects freshwater resources, promotes soils formation and protection, provides for nutrient storage and recycling, helps break down pollutants, contributes to climate stability, provides more food and medicinal resources, along with creating an environment for recreation and dwelling that ensures we enjoy good health and well-being.

Biodiversity Net Gain

The project proposal will need to provide BNG improvement on the site for at least 30 years

Biodiversity net gain is a demonstrable gain in biodiversity assets as a result of a development project that may or may not cause biodiversity loss, but where the final output is an overall net gain. Net gain outcomes will be embedded throughout the CHATIC landscape proposals.

The biodiversity of the proposed landscape will to be reflected within the green infrastructure network. Our approach to habitat creation and biodiversity enhancement for the proposed building and public realm is to use nature based solutions to tackle the climate change impacts, such as flooding events and heat waves, as well as tackling socio-environmental challenges such as poor air quality, biodiversity loss and human health and well-being. The Masterplan has been developed taking account the recommendations from the SWECO, Preliminary Ecological Appraisal and incorporating the following biodiversity strategy:

- SuD’S - to alleviate storm water run-off and provide filtration through green and blue infrastructure.
- Plant species are to be predominantly native and where practicable of local provenance to optimise biodiversity of the development area.
- Carefully selecting planting to respond to the conditions including pollinating, flower rich perennial planting to attract butterflies and bees.

- Green/brown roofs providing habitats and attenuation of rainwater.
- Multi-functional green infrastructure delivering biodiversity, amenity, aesthetic and drainage benefits and forming continuous corridors for wildlife.

Conceptual Approach to Biodiversity

- The following measures should be considered as part of the biodiversity net gain strategy:
- Bird and bat boxes (integrated into the walls of buildings and on suitable trees), including features for house sparrows, starlings, swifts and house martins;
- Biodiversity-focussed SuD’S;
- Green roofs and Brown roofs with a range of substrates;
- Rough or natural stone walls with holes for invertebrates and small birds;
- Species-rich hedgerows (at least 6 woody locally characteristic native species);
- Habitat creation for locally relevant habitat types and species;
- Native and locally characteristic tree planting, including street trees;
- Nectar rich native planting;
- Native wild flower planting, e.g. different types of meadow, including shade-tolerant species alongside hedgerows and in woodlands, general purpose mixes along roadside verges and flowering lawns in amenity areas;
- Native spring bulb planting, e.g. Snowdrop, Wild garlic, Wild daffodil, English bluebells and Wood anemone;
- Planting pollinator-friendly shrubs;
- Architectural features that provide nesting or roosting locations, e.g. ornamental slit holes, stone ledges and wooden cladding;
- Habitat creation that targets locally important species with isolated habitat patches;
- Retention/creation of deadwood habitats, e.g. tree stumps as part of natural play areas;



SUDs and rain garden planting



Architectural features that provide nesting or roosting locations, e.g. ornamental slit holes, stone ledges and wooden cladding;



Extensive Green Roof

4.05 Landscape Design
Hard Landscape Strategy Surrounding Proposed Habitats



4.06 Landscape Design
Soft Landscape Strategy Surrounding Proposed Habitats



4.07 Landscape Design

Landscape Palette Surrounding Proposed Habitats

The following images have been selected to convey the overall look and feel of the external furniture and hard landscape palette for the Orangutan area and visitor routes as part of the NSCC development.



Elevated areas for smaller children to view over standoff's



Rustic Timber bench seating



Composite Timber decking / boardwalk



Rockwork and boulders used in the landscape



Themed timber lighting coloumns and bollards



Self Binding Gravel for key visitor pathways



Moveable painted timber stools



Play Bark - for Play Structures



Concrete surfaces with various imprints and textures

4.08 Landscape Design
Tree Strategy

- Existing Trees retained and protected
- Proposed Native Species
- Proposed Ornamental Species



4.09 Landscape Design
Planting Palette Surrounding Proposed Habitats

The following images have been selected to convey the overall look and feel of the initial soft landscape palette for the Orangutan habitats and visitor routes as part of the NSCC development.



Magnolia macrophylla



Trachycarpus fortunei



Gunnera macrophylla



Musa basjoo



Laurus nobilis



Farfugium japonicum giganteum



Salix purpurea



Eucalyptus rostrata



Chimonobambusa tumidissinoda



Leycesteria formosa



Meadow Mix



Fatsia japonica



Alnus cordata



Miscanthus sinensis



Molinia caerulea



Paulownia tomentosa



Iris pseudacorus



Cynara cardunculus



Wachendorfia thyrsiflora



Catalpa bignonioides



Liriodendron tulipifera

5.00

Design Proposals

5.01 Design Proposals
NSCC Proposed Plans - Ground Floor

Zone Key	
	Bedroom
	Bedroom (Accessible)
	Research
	Breakout
	Campus Admissions Office
	Classrooms
	Laundry
	Lecture Theatre
	Plant / Risers
	Reception / Site Security
	Sanitary Facilities
	Stores

