

# Austin-Smith:Lord

St. Illtyds Catholic High School

Green Infrastructure and Landscape Ecological Management Plan

MACE Group

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# 01 Introduction

# 01.1 Introduction

This report sets out the Green Infrastructure and Landscape Ecological Management Plan (GLEMP) associated with the proposed development at St. Illtyds Catholic High School, Cardiff, CF3 1XQ.

This report has been prepared by Austin-Smith:Lord for Mace on behalf of Cardiff Caerdydd in support of the Planning application.

Specifically, the document sets out and identifies how the landscape proposals and associated mitigation have been developed to support Green Infrastructure and Ecology within the local context.

The landscape proposals and GLEMP report have been developed in conjunction with ArbTS and Wildlife Ecology providing Arboricultural and Ecology advice to support the green infrastructure and ecology strategy.

The GLEMP makes reference to current Planning guidance and publications prepared by Cardiff Caerdydd.



## 01.2 Site Development

The site is located on Newport Road in the residential area of Rumney, east Cardiff. Several major green spaces are located within the surrounding area, including Trowbridge Meadow, Howardian Local Nature Reserve and Fishpond Wood.

While dense residential areas associated with Rumney, Llanrumney, Trowbridge and St Mellons are heavily built-up, many significant blocks of mature woodland and open green spaces are in close proximity of the site. The major green corridor associated with the A48 and Rhymney River, for example, is located approximately 1.15km north-west of the site, with several green corridors connecting to adjacent residential areas.

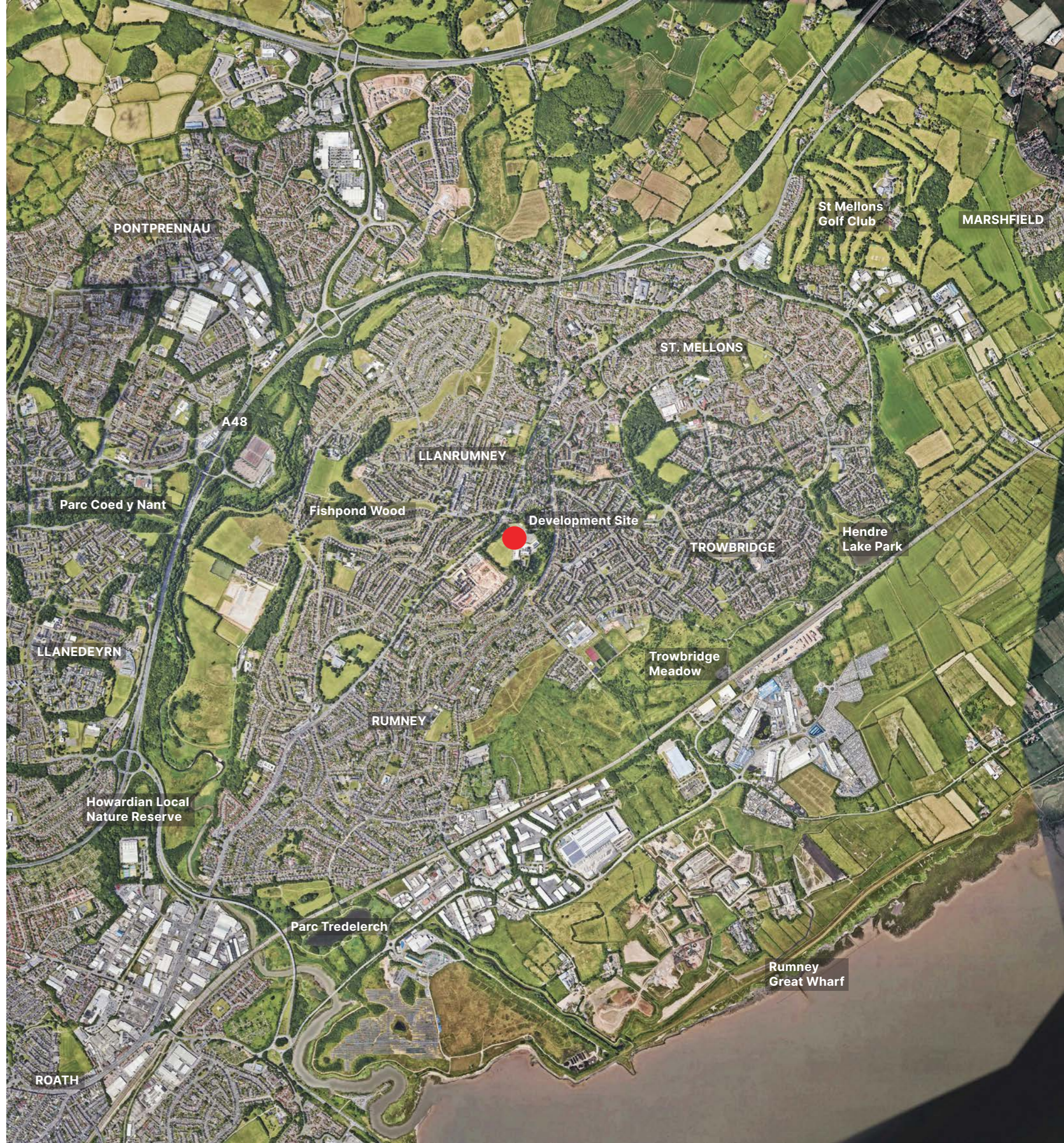
The proposed development is to comprise the construction of a new 3G sports pitch and accompanying landscape. The landscape proposals aim to mitigate the visual and ecological impacts of the development.

Below is an extract from the Design and Access Statement, describing the development area:

*“The Pitch will be located on the west side of the site and will partially sit on the existing hard play area. There are no alterations proposed to the existing access of the school.”*

*External works include landscaping to accommodate the new pitch levels and any subsequent banking and retaining elements. A Sustainable Urban Drainage Strategy application will be included in the proposal.”*

In summary, the proposal retains the existing mixed woodland and scrub to the north-west boundary. New wildflower planting will enhance this woodland edge, increasing biodiversity and creating a natural buffer to the sports pitch. New wildflower planting will align the main vehicular route into the school, and shrub planting will be planted along the south-east boundary of the site to help screen views of the retaining elements associated with the sports pitch.



## **02** Existing Site Context

## 02.1 Site Context

### Green Space and Green Corridors

The diagram on the right illustrates the site within its local context and highlights existing green infrastructure present within a 1km radius of the site.

The site has several significant green spaces within the study area. Greenway Road and associated green space encompasses the southern side of the site, forming an important link to the surrounding residential areas.

Trowbridge Meadow to the south includes a diverse mix of blue and green infrastructure and contains landscape designations such as Hendre Road Site of Importance for Nature Conservation and Rumney and Peterstone Site of Special Scientific Interest.

Below is an extract from the Natural Resources Wales summary for Rumney and Peterstone SSSI:

*Reen and Ditch Habitat: "The reens and ditches are host to a wide range of aquatic plants, including many rare or scarce species, that in turn support a wide variety of other wildlife. The ditches are carefully constructed so that the system drains by gravity."*

*Insects and other Invertebrates: "There is a diverse community of insects and other invertebrates (for example water beetles) inhabiting the reens and ditches. Over 164 species of insects and other invertebrates have been recorded from this site..."*

The Newport Road corridor is located to the north of the site, which adjoins several green spaces within the study area including Eastern Leisure Centre and St Mellons Parish Church. In addition to being an important, extensive green corridor, the Cardiff Green Infrastructure SPG specifies that, in accordance with the Pollinator Action Plan, every effort should be made to allow wildflowers to develop along roadsides. Wildflower planting will be implemented in the new proposal where appropriate.




# 02.2 Landscape Designations

## Landscape Designations

There is 1 no. statutory designations within the 1km study area. 1 no. Site of Special Scientific Interest (SSSI).





There are four non-statutory designation within the 1km study area. 4 no. Sites of Importance for Nature Conservation (SINC):

### Site of Special Scientific Interest

 SSSI - Rumney and Peterstone

Site of Special Scientific Interest are the most important sites for Wales' natural heritage. Most are in private ownership, although some are owned and managed by local wildlife trusts, or other voluntary conservation bodies.

### Site of Special Scientific Nature Conservation

-  SINC - Lower Rookery Wood
-  SINC - Fishpond Wood
-  SINC - Cath Cobb Wood
-  SINC - Hendre Road

Sites of Importance for Nature Conservation are identified to bring recognition to habitats and features of at least local nature conservation importance.





## 02.3 Site Analysis

### Existing Boundaries and Green Connections

The site is bounded by mature, mixed woodland to the north-west, screening views and noise from Newport Road. Scrub planting provides an intermediary between the woodland and the open amenity grassland. The woodland is a key feature to the site and any future development, as it provides a dense green corridor that extends beyond a site-wide scale - stretching along the majority of Newport Road and linking ancillary green spaces such as Eastern Leisure Centre. Native species such as Beech, Oak and Sycamore can be found in this woodland block.

It's worth noting that while several ancillary green spaces are present locally to the site, connected by tree planting along Newport Road, the immediate surroundings are predominantly residential. Therefore, direct green links are somewhat interrupted by highways, footpaths and other hard standing areas, such as the school car parking to the east.

To the south-west, the large open amenity grassland associated with the school extends from the site boundary to the mixed woodland and scrub boundary. The grassland comprises species such as dandelion, daisy and cornflower and is well maintained to facilitate recreational activities.

As noted in the Preliminary Ecology Appraisal (PEA), the semi-natural mixed woodland provides a good foraging, commuting and sheltering habitat for wildlife, and is therefore considered to be of local ecological importance. The scrub and grassland habitats are considered to be of site ecological importance.



## 02.3 Site Analysis

### Aerial View

Following the boundary descriptions on the previous page, the diagram on the right highlights key features in 3D, helping to illustrate indicative vegetation heights and densities.

As shown, the woodland block to the north-west and west (beyond the amenity grassland), provides a strong landscape element within close proximity to the site. This is the main contributing factor to a high level of visual screening and noise reduction from surrounding areas.

This planted boundary to the north-west and west contrasts with the open boundary to the south-west, south and east, which comprise open grassland, school buildings and hard-standing. The landscape proposal will aim to enhance the open boundaries with new planting.

As described previously, each of the existing habitat features are considered to be of local or site ecological importance. The following section of this document assesses the landscape proposal, and how it ties in with the framework of existing green infrastructure.



# 03 Landscape Proposal

# 03.1 Existing Site Plan



## 03.2 Landscape Proposal

### Green Infrastructure Strategy

The green infrastructure strategy aims to address the site as a unified landscape, bolstering site boundaries with new meadow planting and enhancing the existing landscape structure by providing new shrub planting.

The aim is to help integrate the new 3G sports pitch into the site with minimal impact to the surrounding green infrastructure. The approach is to establish new habitats that provide ecological benefit while helping to reduce the visual impact of the pitch and associated lighting and retaining structures.

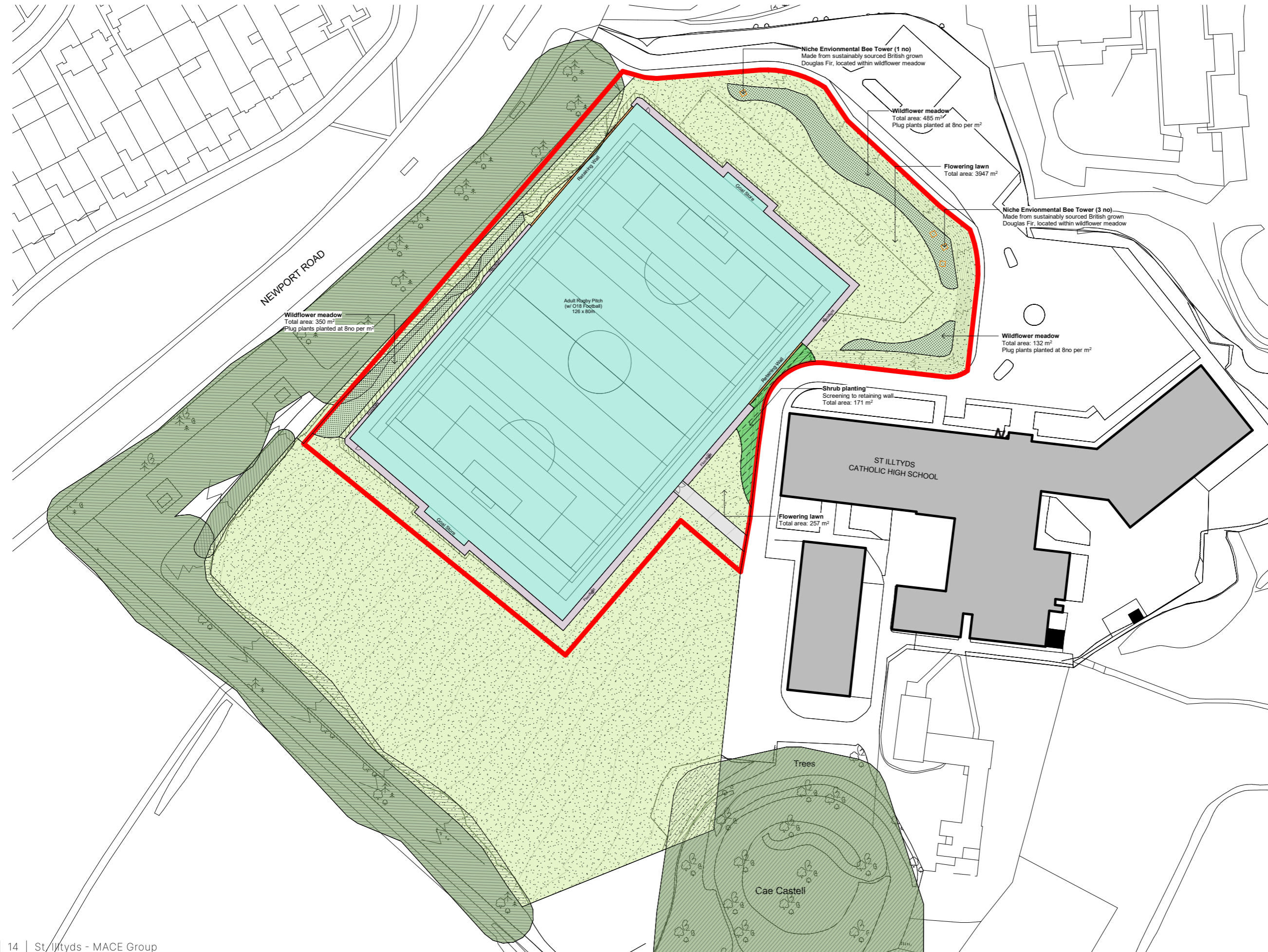
Existing vegetation and trees to the perimeter will be retained and new meadow planting will provide an environmental buffer to the edge of the existing woodland. Additionally, wildflower will be specified along the main vehicular route into the school, at the bottom of an existing embankment. Species rich wildflower meadow planting will be used in both cases, providing high amenity and biodiversity value, and aesthetic interest.

Shrub planting has been specified around the retained elements to diversify the landscape and help screen views from the school. New mixed shrub planting will also help create a more inviting approach to the new sports pitch.

The landscape proposal aims to promote a healthy environment for pupils, staff and users, with the inclusion of several Bee Towers to provide nesting sites for solitary bees and offer educational interest.



# 03.2 Landscape Proposal



- KEY**
- Existing tree planting to be retained
  - Proposed specimen shrub planting and groundcover
  - Existing amenity grass
  - Proposed wildflower meadow mix
  - Habitat Improvement Feature  
Niche Environmental - Bee Tower

Refer to drawing 45203-Planting Schedule for further information on planting specifications

**General Notes**  
ASL soft landscape information excludes addressing any invasive weeds that are potentially present on site.

Site assessment and remedial work to be carried out by contractor.

Soil Resource Plan for specification of soiling and operations to be confirmed by contractor.

The Client will appoint a suitably qualified Landscape Architect to oversee the implementation of the landscape works.

The landscape architect will obtain the contractor's programme of works to agree suitable points for inspection of planting stock, tree pits etc. to ensure compliant planting stock is supplied and with evidence of the relevant certification.

The LPA will be notified on the completion of this work.

## 03.3 Ecological Management Plan

### Biodiversity and Ecological Strategy

4 Bee Towers have been scattered around the site among wildflower planting to enhance biodiversity. Solitary bees play a vital role in pollinating crops, flowers and trees and their numbers are in decline due to the use of chemicals in farming, fewer wildflower meadows, and less suitable habitats. The proposed towers aim to contribute to a thriving habitat, and provide nesting areas for pollinators.

Mixed shrub planting, including species of British native origin add to the landscape structure and provide refuge and cover for small animals. Additionally, several specified shrubs provide nectar and pollen to pollinating insects.

2 types of meadow/wildflower mixture have been specified to create larger areas of grassland that create buffer zones to existing tree and scrub planting. Additional information on seed mixtures can be found below -

#### Flowering Lawn Mixture EL1 -Mixture

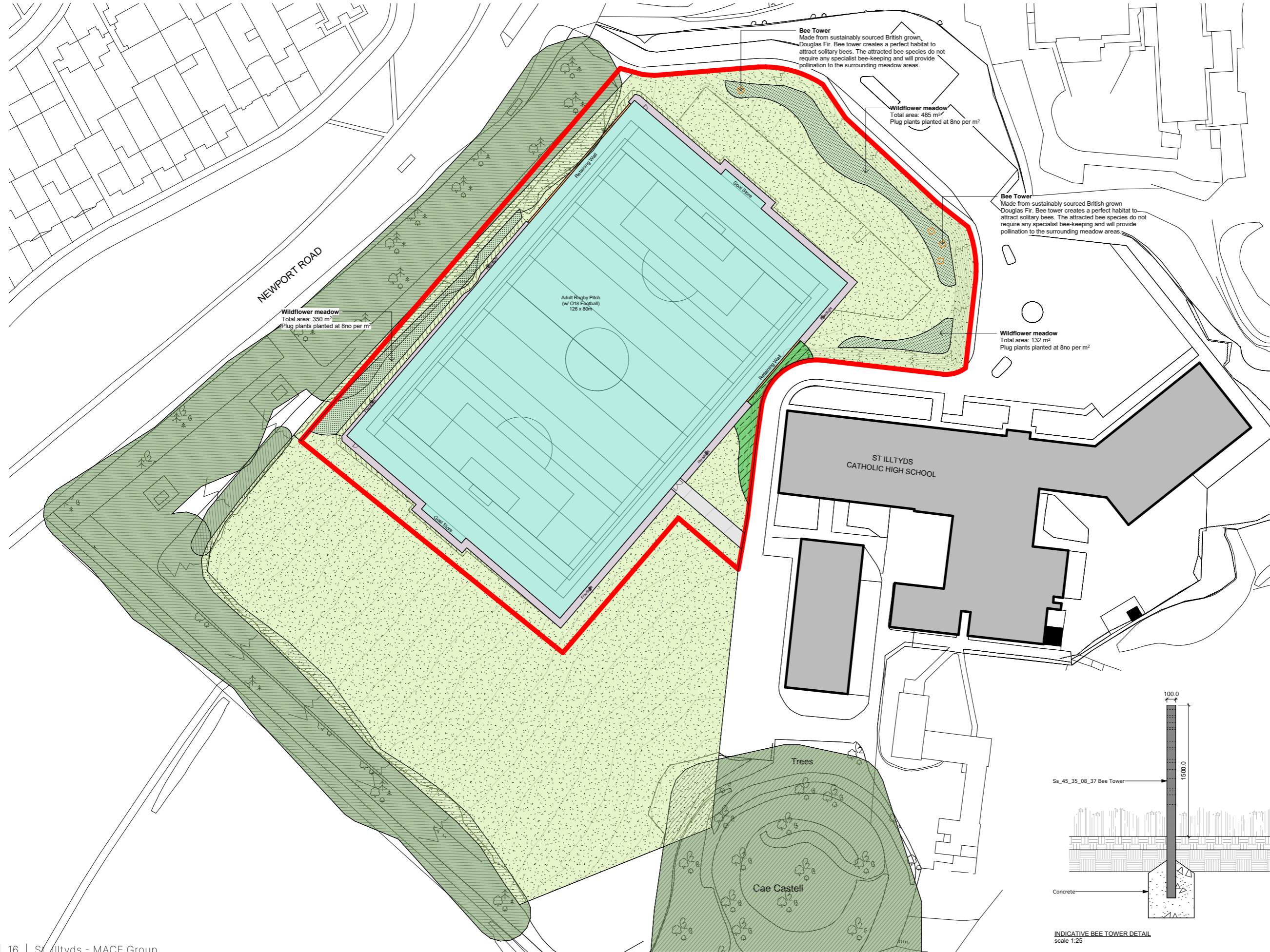
EL1 contains slow growing grasses with a selection of wild flowers that respond well to regular short mowing. Composition is 20% wildflower 80% grasses.

#### Standard General Purpose Meadow Mixture

EM2 -Mixture EM2 contains species that are characteristic of traditional meadows across a wide range of soil types. The mix is composed of 15% native wild flowers and 85% slow growing grasses. Composition is 15% wildflowers 85% grasses.

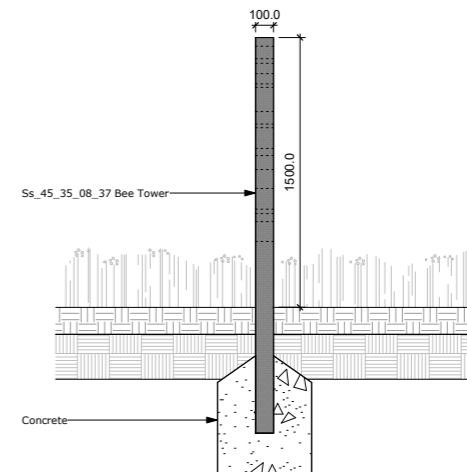


# 03.4 Biodiversity Proposal



- KEY
- Proposed wildflower meadow mix
  - Habitat Improvement Feature
  - Niche Environmental - Bee Tower

Refer to drawings 45201-Planting Plan and 45203-Planting Schedule for further information on planting specifications, quantities and construction detail



INDICATIVE BEE TOWER DETAIL  
scale 1:25



## 03.5 Net Benefits for Biodiversity

### Summary

The list below provides a summary of the net loss and net gain for biodiversity. Please refer to the Preliminary Ecology Appraisal Report, Appendix I: Pea Plan for more information on existing habitat areas/types:

- Amenity grassland to be reduced in size to accommodate 3G sports pitch. Sports pitch surfacing to comprise porous artificial grass with permeable sub-base and storage reservoir.
- Amenity grassland around the site to be enhanced with wildflower seed, flowering lawn and plug plants. Bee Towers to be located within meadow.
- New shrub planting to provide screening of the new retaining wall and enhance biodiversity.



# 04 Appendix

## **04.1** Ecology Survey

## **04.2** Arboricultural Report

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Enhancing Life & Environments By Design

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