

**UoS Wide Lane Sports Centre
Wide Lane
Eastleigh
Southampton
Hampshire
SO18 2HW**

Biodiversity Net Gain Assessment

Report prepared by Conor Watson; reviewed by John Wenman MCIEEM
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1	EXECUTIVE SUMMARY	3
2	INTRODUCTION	4
2.1	Project Background	4
2.2	Site Location and Context	4
2.3	Objectives	4
3	RELEVANT PLANNING POLICY AND LEGISLATION	5
3.1	National Planning Policy.....	5
3.2	Local Planning Policy	5
4	METHODOLOGY	7
4.1	Baseline Information.....	7
4.2	Biodiversity Net Gain Assessment.....	7
5	BASELINE INFORMATION	9
5.1	Important Ecological Features.....	9
	<i>Statutorily Designated Sites</i>	9
	<i>Non-statutorily Designated Sites</i>	10
	<i>Protected Species</i>	10
5.2	Baseline Habitats	11
6	PROPOSED DESIGN	13
6.1	Proposed General Arrangement.....	13
6.2	Proposed Habitats.....	13
7	BIODIVERSITY NET GAIN METRIC	15
7.1	Biodiversity Net Gain Calculation.....	15
7.2	Project Implementation and Management	15
8	REFERENCES	17
	APPENDIX 1 – SITE LOCATION PLAN	18
	APPENDIX 2 – HABITATS BASELINE PLAN	19
	APPENDIX 3 – PROPOSED SOFTWORKS PLAN	20
	APPENDIX 4 –HABITATS PROPOSED PLAN.....	21

1 EXECUTIVE SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was commissioned by Mr Lars Jaeger on behalf of the University of Southampton to undertake a Biodiversity Net Gain (BNG) assessment at Wide Lane Sports Centre in Eastleigh, Southampton. The BNG assessment was commissioned to accompany a full planning application to be submitted to Eastleigh Borough Council seeking consent for the redevelopment of existing grassed pitches into two new 3G artificial grass pitches. The BNG assessment follows a Preliminary Ecological Appraisal (PEA) reported by John Wenman Ecological Consultancy in December 2022.
- 1.1.2** The application site covers approximately 3.5ha of land at Wide Lane Sports Centre situated to the west of Southampton Airport Parkway in Eastleigh (**Appendix 1**). Wide Lane Sports Centre is bounded by Wide Lane to the east, the A335 to the south, Monks Brook to the west and Lakeside Country Park to the north.
- 1.1.3** The baseline habitats for the application site comprise: modified grassland; developed land, sealed surface; artificial unvegetated, unsealed surface; line of trees. The proposed habitats based on the proposed design include: modified grassland; other neutral grassland; developed land, sealed surface; artificial unvegetated, unsealed surface; line of trees.
- 1.1.4** The Biodiversity Metric 3.1 calculation tool demonstrates that a measurable net gain in biodiversity can be achieved on the application site. The '*Headline Results*' section taken from the Metric spreadsheet shows a total on-site net change of 11.3% in habitat units has been calculated for the proposed design.
- 1.1.5** The enhancement of the (poor condition) modified grassland into (moderate condition) other neutral grassland should be delivered through long-term management. The management would seek to increase floral species richness by re-seeding areas of ground disturbed by construction activities with native wildflower mix and adopting a less intensive mowing regime.

2 INTRODUCTION

2.1 Project Background

2.1.1 John Wenman Ecological Consultancy LLP was commissioned by Mr Lars Jaeger on behalf of the University of Southampton to undertake a Biodiversity Net Gain (BNG) assessment at Wide Lane Sports Centre in Eastleigh, Southampton.

2.1.2 The BNG assessment was commissioned to accompany a full planning application to be submitted to Eastleigh Borough Council (EBC) seeking consent for the redevelopment of existing grassed pitches into two new 3G artificial grass pitches with associated features including new fencing, hard standing and aggregate paths.

2.1.3 The BNG assessment follows a Preliminary Ecological Appraisal (PEA) reported by John Wenman Ecological Consultancy in December 2022.

2.2 Site Location and Context

2.2.1 The application site covers approximately 3.5ha of land at Wide Lane Sports Centre situated to the west of Southampton Airport Parkway in Eastleigh (refer to Site Location Plan in **Appendix 1**). Wide Lane Sports Centre is bounded by Wide Lane to the east, the A335 to the south, Monks Brook to the west and Lakeside Country Park to the north.

2.3 Objectives

2.3.1 The aim of the BNG assessment is to establish the baseline number of biodiversity units for the site and discuss the delivery of a measurable on-site net gain for biodiversity. The key objectives are to:

- detail the approach taken for the BNG assessment;
- describe and map the baseline habitats and important ecological features on site;
- describe and map the proposed habitats based on the proposed design;
- complete a Biodiversity Metric 3.1 calculation; and
- outline the implementation of the design concepts and the long-term management to deliver BNG.

3 RELEVANT PLANNING POLICY AND LEGISLATION

3.1 National Planning Policy

3.1.1 The National Planning Policy Framework (NPPF) refers to Biodiversity Net Gain (BNG) in the following ‘*Section 15. Conserving and enhancing the natural environment*’ paragraphs:

- *‘Paragraph 174. Planning policies and decisions should contribute and enhance the natural and local environment by: [...] d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures[.]’*
- *‘Paragraph 179. To protect and enhance biodiversity and geodiversity, plans should: b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.’*
- *‘Paragraph 180. When determining planning applications, local planning authorities should apply the following principles: d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.’*

3.2 Local Planning Policy

3.2.1 The adopted Local Plan refers to BNG in the ‘*Policy DM11, Nature conservation – General Approach*’:

- 1. The Council will work with statutory and voluntary agencies and developers, and will determine planning applications, to:*
 - a. Protect, conserve and enhance all:*
 - i. International, national and local nature conservation designations; and*
 - ii. networks of natural habitats and features, including the Local Ecological Network, Priority Biodiversity Areas and Priority Biodiversity Links, watercourses, wetland complexes, woodland*

trees, and trees and hedgerows important to biodiversity and local character;

and facilitate their adaptation to climate change wherever possible;

- b. assist in achieving national, county and local biodiversity targets as set out in Biodiversity Action Plans (BAPs);*
- c. seek a net gain of biodiversity on all development sites (including sites for redevelopment) through the protection, enhancement and connection of existing and provision of new habitats and features of nature conservation interest compatible with the native biodiversity characteristics of the Borough, having regard to local geodiversity and soils; and*
- d. contribute to major elements of the PfSH Green Infrastructure Strategy and other strategies for the provision and enhancement of multifunctional green infrastructure including green routes, ecological networks and biodiversity enhancements (see strategic policy S9).'*

4 METHODOLOGY

4.1 Baseline Information

Desk Study

- 4.1.1** A desktop study formed part of the Preliminary Ecological Appraisal produced by John Wenman Ecological Consultancy in December 2022. The study utilised data from the local environmental record centre and online resources to acquire information on the nature of the site and its surroundings, and to highlight any potential ecological features.
- 4.1.2** Hampshire Biodiversity Information Centre (HBIC) was commissioned to undertake a search of pre-existing records of protected and/or notable species and non-statutorily designated wildlife sites held by them within 2km of a central point inside the Wide Lane Sports Centre.
- 4.1.3** The DEFRA Data Services Platform was used to obtain geospatial datasets for designated sites (i.e., RAMSAR, SPA, SAC, SSSI) and habitat inventories (i.e., Priority Habitat Inventory, Ancient Woodland Inventory) to be analysed in QGIS. The Multi-Agency Geographical Information Centre (MAGIC) website was examined for granted European protected species applications. Furthermore, geospatial datasets and Google Earth satellite imagery were used to determine the extent and connectivity of habitats, how the site is linked to the surrounding landscape and whether development could have wider scale impacts on biodiversity.

Field Survey

- 4.1.4** A site walkover formed part of the Preliminary Ecological Appraisal produced by John Wenman Ecological Consultancy in December 2022. The site was surveyed using the UK Habitat Classification (UKHab) system (Butcher *et al.* 2020) in accordance with the CIEEM Guidelines for Preliminary Ecological Appraisal 2nd Edition (CIEEM 2017). Particular attention was given to evidence of protected and priority species (NERC Act 2006 Section 41 species of principal importance) and the site's potential to support such species.

4.2 Biodiversity Net Gain Assessment

- 4.2.1** The Biodiversity Metric 3.1 (Panks *et al.* 2022) was used to calculate the
- UoS Wide Lane Sports Ground - Biodiversity Net Gain Assessment (R3390b)

baseline biodiversity units and the feasibility of delivering a measurable on-site net gain for biodiversity.

4.2.2 The key principles of the 'Biodiversity Metric 3.1' are as follows:

- *Principle 1: The metric does not change the protection afforded to biodiversity.*
- *Principle 2: Biodiversity metric calculations can inform decision-making where application of the mitigation hierarchy and good practice principles conclude that compensation for habitat losses is justified.*
- *Principle 3: The metric's biodiversity units are only a proxy for biodiversity and should be treated as relative values.*
- *Principle 4: The metric focuses on typical habitats and widespread species; important or protected habitats and features should be given broader consideration.*
- *Principle 5: The metric design aims to encourage enhancement, not transformation, of the natural environment.*
- *Principle 6: The metric is designed to inform decisions, not to override expert opinion.*
- *Principle 7: Compensation habitats should seek, where practical, to be local to the impact.*
- *Principle 8: The metric does not enforce a mandatory minimum 1:1 habitat size ratio for losses and compensation but consideration should be given to maintaining habitat extent and habitat parcels of sufficient size for ecological function.'*

5 BASELINE INFORMATION

5.1 Important Ecological Features

Statutorily Designated Sites

- 5.1.1** The desk study revealed that the application site is not statutorily designated for its wildlife interest and therefore not currently recognised as being of international or national level conservation significance.
- 5.1.2** The application site is located inside Impact Risk Zones for the River Itchen Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI), which is less than 1km east; the Solent and Dorset Special Protection Area (SPA), which is approximately 2km south; and the Solent & Southampton Water Ramsar Site and SPA, which is approximately 4km south.
- 5.1.3** The River Itchen SAC and SSSI is a classic chalk river that is species-rich and includes the following Annex II listed species: Atlantic salmon (*Salmo salar*), brook lamprey (*Lampetra planeri*), bullhead (*Cottus gobio*), otter (*Lutra lutra*), southern damselfly (*Coenagrion mercuriale*) and white-clawed crayfish (*Austropotamobius pallipes*).
- 5.1.4** The Solent and Dorset SPA is designated to protect the surrounding waters of the Pool Harbour SPA, Solent & Southampton Water SPA, Chichester & Langstone Harbours SPA and Pagham Harbour SPA. These SPAs support breeding colonies of terns and the surrounding waters are used by the terns for foraging and maintenance activities, such as bathing and preening.
- 5.1.5** The Solent & Southampton Water Ramsar Site and SPA supports internationally important numbers of winter waterfowl including ringed plover (*Charadrius hiaticula*), teal (*Anas crecca*) and dark-bellied brent goose (*Branta bernicla*), important breeding gull and tern populations, and an impressive assemblage of rare invertebrates and plants.
- 5.1.6** The nature and scale of the proposed works are small and would not result in a significant change in the recreational use at Wide Lane Sports Centre and therefore no adverse effects on nearby statutorily designated sites are foreseen.

Non-statutorily Designated Sites

- 5.1.7** 29 Sites of Importance for Nature Conservation (SINCs) are located within a 2km radius of Wide Lane Sports Centre. The closest SINC to the application site is Lakeside Country Park SINC which is approximately 225m north and designated for floodplain grazing marsh priority habitat (NERC Act 2006 Section 41 habitat of principle importance).
- 5.1.8** The nature and scale of the proposed works are small and would not result in a significant change in the recreational use at Wide Lane Sports Centre and therefore no adverse effects on nearby non-statutorily designated sites are foreseen.

Protected Species

- 5.1.9** Three species of reptiles have been recorded locally including slow worm (*Anguis fragilis*) and grass snake (*Natrix helvetica*) at the Lakeside Country Park in 2014. In addition, common toad (*Bufo bufo*) has been recorded locally just over 1km to the northeast of Wide Lane Sports Centre. However, the proposals are considered highly unlikely to adversely affect local reptiles and amphibians on the application site and therefore no mitigation has been recommended.
- 5.1.10** Potential roosting sites for locally recorded bat species were identified in a pavilion building and mature oak tree at Wide Lane Sports Centre. However, these potential roosting sites are located outside of the application site and therefore the proposals are considered highly unlikely to adversely affect roosting bats. Recommendations for further detailed survey have been made relating to future lighting installation.
- 5.1.11** Other terrestrial mammals (excluding bats) have been recorded locally including otter (*Lutra lutra*), badger (*Meles meles*) and hazel dormouse (*Muscardinus avellanarius*) whereby a European Protected Species (EPS) mitigation licence was granted for the destruction of a dormouse breeding site on the opposite side of the A335 in 2011. The suitable habitat for these mammals at Wide Lane Sports Centre is located outside of the application site and therefore the proposals are considered highly unlikely to have any adverse impacts.
- 5.1.12** A range of protected/notable bird species have been recorded locally. However, the proposals are considered highly unlikely to adversely affect

nesting birds and therefore no mitigation has been recommended.

5.2 Baseline Habitats

5.2.1 The baseline habitats for the application site have been assessed using information taken from the desk study and field survey – see **Table 1** below.

Table 1. Baseline habitats for Biodiversity Metric 3.1.

Existing Broad Habitat Type	Existing Habitat Type	Area (ha) / Length (m)	Condition	Strategic Significance
Grassland	Modified grassland	3.07	Poor	Low
Urban	Developed land; sealed surface	0.28	N/A - Other	Low
Urban	Artificial unvegetated, unsealed surface	0.17	N/A - Other	Low
Hedgerow	Line of trees	313	Poor	Low
Total Area (ha)*		3.52		

*excluding urban trees, hedgerows and green walls.

5.2.2 A plan of the baseline habitats for the Biodiversity Metric 3.1 calculation is presented in **Appendix 2**. A description of the existing habitat in the application site and the current habitat condition is as follows:

Modified Grassland

5.2.3 The application site comprises grass sport pitches and amenity verges. The modified grassland in these areas is species-poor, consisting of fewer than 6-8 species, and therefore resembles low distinctiveness habitat in poor condition.

Developed Land; Sealed Surface

5.2.4 The application site contains the Wide Lane Sports Centre building and areas of hard standing. These urban sealed surfaces have very low habitat distinctiveness and cannot be assigned a condition score.

Artificial Unvegetated, Unsealed Surface

5.2.5 The application site had aggregate pathways that have very low habitat distinctiveness and cannot be assigned a condition score.

Line of Trees

- 5.2.6** A line of Lombardy poplar and silver birch trees bisected the application site. The linear habitat had low distinctiveness and was in poor condition.

6 PROPOSED DESIGN

6.1 Proposed General Arrangement

6.1.1 The proposed general arrangement plan for the redevelopment of existing grassed pitches into two new 3G artificial grass pitches has been guided by this Biodiversity Net Gain (BNG) assessment (refer to proposed general arrangement plan in **Appendix 3**).

6.2 Proposed Habitats

6.2.1 The proposed habitats will be delivered through a combination of retention, enhancement and creation – see **Table 2** below.

Table 2. Proposed habitats for Biodiversity Metric 3.1.

Proposed Broad Habitat Type	Proposed Habitat Type	Total Area/length	Condition	Strategic Significance
Grassland	Modified grassland	0.04	Poor	Low
Grassland	Other neutral grassland	1.09	Moderate	Low
Urban	Developed land; sealed surface	0.28	N/A - Other	Low
Urban	Artificial unvegetated, unsealed surface	2.11	N/A - Other	Low
Hedgerow	Line of trees	313	Poor	Low
Total Area (ha)*		3.52		

*excluding urban trees, hedgerows and green walls.

6.2.2 A plan of the proposed habitats for the Biodiversity Metric 3.1 calculation is presented in **Appendix 4**.

Modified Grassland

6.2.3 A section of modified grassland between the two new 3G artificial grass pitches will be retained.

Other Neutral Grassland

6.2.4 All remaining modified grassland in the application site will be enhanced into other neutral grassland – a medium distinctiveness habitat – in moderate condition.

Developed Land; Sealed Surface

- 6.2.5** The Wide Lane Sports Centre building and existing areas of hard standing inside the application site are to be retained.

Artificial Unvegetated, Unsealed Surface

- 6.2.6** The existing aggregate pathways in the application site are to be retained and extended up to the two new 3G artificial grass pitches.

Line of Trees

- 6.2.7** The line of Lombardy poplar and silver birch trees bisecting the application site will be retained.

7 BIODIVERSITY NET GAIN METRIC

7.1 Biodiversity Net Gain Calculation

7.1.1 The Biodiversity Metric 3.1 calculation tool demonstrates that a measurable net gain in biodiversity can be achieved on the application site. The 'Headline Results' section taken from the Metric spreadsheet shows a total on-site net change of 11.3% in habitat units has been calculated for the proposed design – **Figure 1** below.

On-site baseline	Habitat units	6.15
	Hedgerow units	0.63
	River units	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	6.84
	Hedgerow units	0.63
	River units	0.00
On-site net % change (Including habitat retention, creation & enhancement)	Habitat units	11.30%
	Hedgerow units	0.00%
	River units	0.00%
Off-site baseline	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.69
	Hedgerow units	0.00
	River units	0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	11.30%
	Hedgerow units	0.00%
	River units	0.00%
Trading rules Satisfied?	Yes ✓	

Figure 1. Biodiversity Metric 3.1 Headline Results.

7.1.2 The 'UoS Wide Lane Sports Centre - Biodiversity Metric 3.1 auditing and accounting for biodiversity calculation tool (R3390b)' document should be referred to for the full calculation that leads to the final biodiversity unit scores.

7.2 Project Implementation and Management

7.2.1 A section of (poor condition) modified grassland between the two new 3G artificial grass pitches will be retained; any disturbed ground caused by construction activities will be re-seeded with Emorsgate Strong Lawn Grass

Mixture EG22 (or a functional equivalent).

- 7.2.2** The enhancement of the remaining (poor condition) modified grassland into (moderate condition) other neutral grassland should be delivered through habitat management. The management would seek to increase floral species richness by re-seeding areas of ground disturbed by construction activities with a native wildflower mix, such as Emorsgate Basic General Purpose Meadow Mixture EM1, in the short-term and adopting a less intensive mowing regime in the long-term. The grassland areas would be mown two to three times to control annual weed growth in first growing season and maintained after by cutting to 75mm at the end of each flowering season (August).

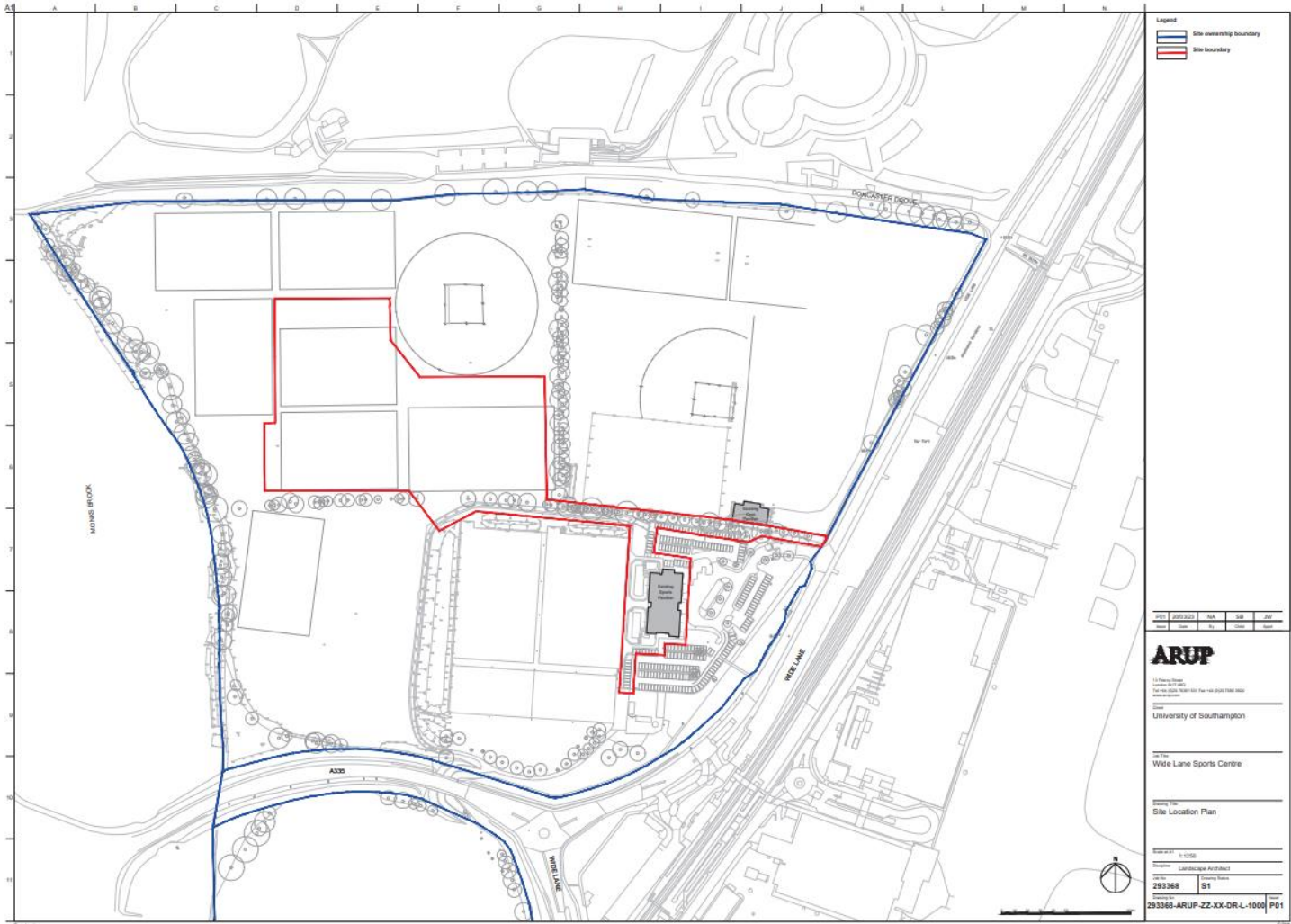
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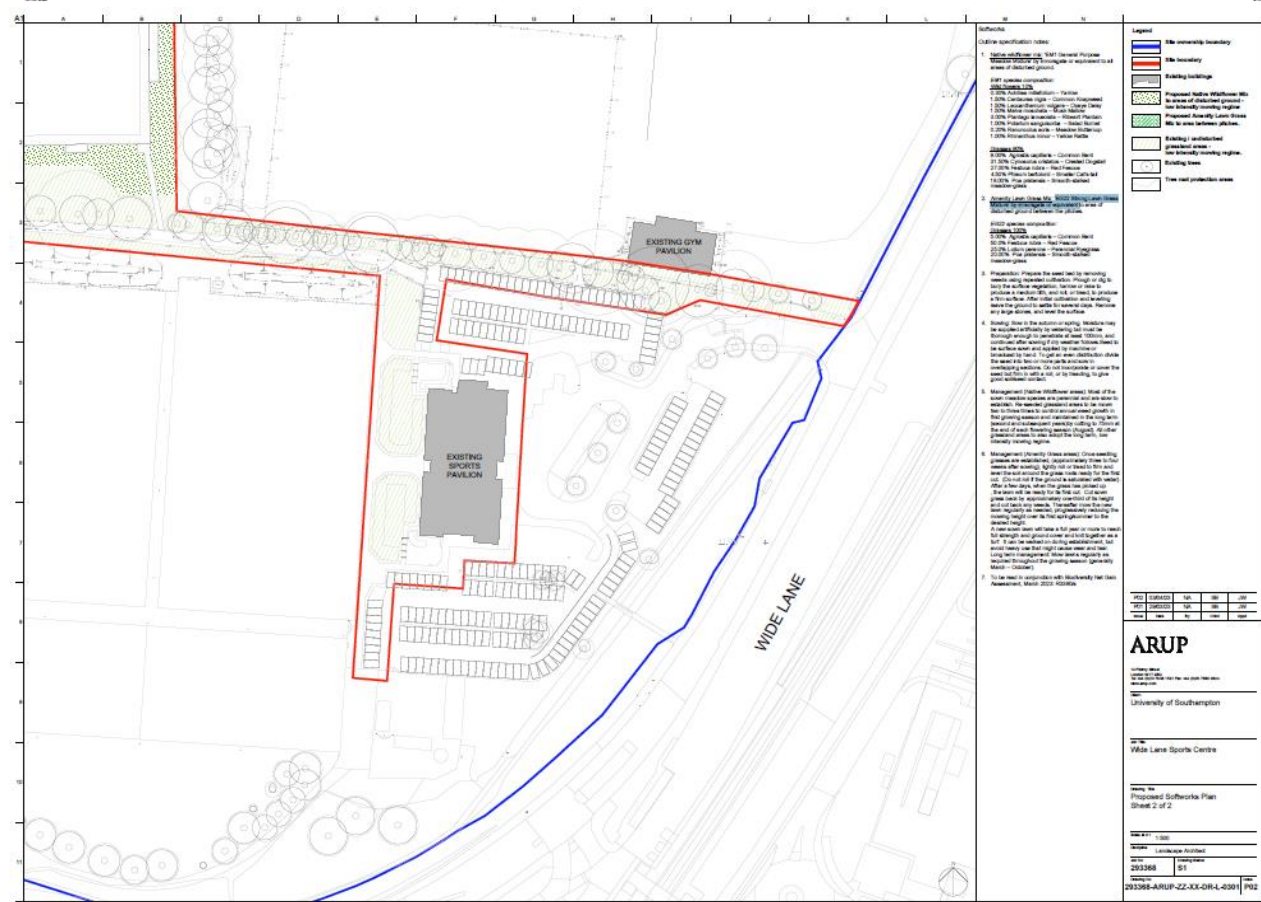
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APPENDIX 1 – SITE LOCATION PLAN



APPENDIX 2 – HABITATS BASELINE PLAN



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APPENDIX 4 –HABITATS PROPOSED PLAN

