

Assessment of Biodiversity Net Gain (BNG)

Version 3
01.06.2022

Client – Wates Construction Ltd.

Address – Land to the west of Rodney Street,
Manchester, M4 6JJ

Project – This City residential development, Ancoats,
Manchester

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1. Introduction

1.1 Background to the project

Amenity Tree was commissioned by Wates Construction to undertake a Biodiversity Net Gain assessment at the Rodney Street development in Ancoats, Manchester.

Summary of the project – This City is a new kind of housing company, owned and run by Manchester City Council. They are a new venture that will develop high quality, low carbon housing for all Mancunians. The new homes will be a mix of market housing and homes designated for Manchester Living Rent (to be rented at or below Local Housing Allowance levels). Market housing will subsidise the provision of the Manchester Living Rent properties.

Application Description of Development – Erection of two residential apartment buildings (Use Class C3), one of 8 storeys (68 apartments) and one of 5 storeys (50 apartments), to form a total of 118 residential apartments; and erection of 10, 3 storey townhouses (Use Class C3); together with car and cycle parking provision, hard and soft landscaping including public realm, access, substation and other associated works

1.2 Site location and context

The Preliminary Ecological Appraisal (01.06.22) stated:

‘The site is located within Ancoats in an urban environment and enclosed by existing commercial, residential, and recreational land uses. The habitat on site comprises of scattered trees, amenity grassland, ephemeral / short perennial, and hard standing habitat’.

The total area of the site is approximately 1.75 acre / 0.7 hectare.

1.3 Report purpose and scope

- 1.3.1 This assessment was requested by the client for the purposes of supporting a planning application for the site’s development.

1.3.2 A Preliminary Ecological Appraisal confirmed habitats present and a repeat site visit on was not required. Therefore, the habitats present are confirmed and using the UK Habitats Classification System (UKHAB) it is possible that the appropriate habitat classification is used in the BNG Calculator.

1.3.3 The scope of the Assessment is therefore:

- Assessment of the habitats within the site in accordance with the UK Habitats Classification (UK Habitats Classification Working Group, 2018).
- Completion of Condition Assessments of each habitat in accordance with those presented in The Biodiversity Metric 3.1: Auditing and accounting for biodiversity value: technical supplement (Crosher, et al., Beta version, July 2019).
- An assessment of BNG using The Biodiversity Metric 3.1 Calculation Tool Beta Test Final (Natural England, 2020).

2. Survey Methods

2.1 Vegetation and Habitats

2.1.1 An extended phase one habitat survey plan (in accordance with JNCC, 2010) is provided in appendix 2 which confirmed the habitats present. Appendix 3 is the habitat mapping based on is based on the UK Habitat Classification system (UK Habitats Classification Working Group, 2018) which details modified grassland, urban trees and urban sealed surface.

2.1.2 The plant species within the site are identified with estimates of the distribution, and abundance of individual species. The estimation of abundance was based on the commonly used DAFOR system, where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare.

2.1.3 The UKHAB scheme has been designed to function at two scales: fine and large scaling. It has been considered for the purposes of this survey that the finer scale is appropriate for the classification of habitats using the measurement of 25m square.

2.1.4 Whilst on the site the habitat survey searched for all plants including those that are considered rare, uncommon or are statutorily protected such as those listed in schedule 9 of the *Wildlife and Countryside Act 1981* (as amended).

2.2 Limitations

2.2.1 The survey was conducted outside the optimal survey period for vascular plants as determined by JNCC, 2010 but it is considered that this has not had a significant impact as the grass species present define the habitat present.

2.3 Evaluation

2.3.1 Habitats have been assessed to determine whether they meet those described in the UK Biodiversity Action Plan – Priority Habitat descriptions which are used to form Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

2.3.2 <https://www.daftlogic.com/projects-google-maps-area-calculator-tool.htm> and AutoCAD has been used to measure habitat size and all habitats are calculated as areas.

2.3.3 The BNG Assessment tool “The Biodiversity Metric 3.0 – Natural England 2020” is used for the evaluation and condition assessment is made using the technical support provided by Natural England.

2.3.4 There are no high or very high value distinctiveness habitats and as such habitat connectivity is not calculated.

2.3.5 Other government advice on wildlife such as the National Planning Policy Framework (NPPF) or the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017, is referenced where applicable and any impacts on protected species are evaluated in accordance with current guidance.

3. Survey results

3.1 History of site

3.1.1 The recent history of the site can be examined using historic aerial imagery. From 2000 to 2021 the southern part of the site has been amenity grassland / scattered trees and therefore little change has occurred over the period to this part of site. From 2000 to 2012 the site had a building on the northern section of site which is now demolished. Since the demolition of the older building to the north of site, the amenity grassland has been unmanaged (2010 onwards).

3.1.2 Multi-Agency Geographic Information for the Countryside (MAGIC) website (<http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx>) has confirmed no statutory designations apply to the site and the site boundaries. The site is located within the SSSI Impact Zone for the Rochdale Canal SSSI /SAC which is located 4275m east of site.

3.2. Site description and assessment of habitats

3.2.1 The site is best described as a neglected amenity grassland site with scattered trees regenerating around its periphery.

3.2.2 A vascular plant list is provided for the amenity grassland / modified grassland below.

Scientific Name	Common Name	DAFOR
Herb species		
<i>Agrostis stolonifera</i>	Creeping Bent	O
<i>Dactylis glomerata</i>	Cock's-foot	O
<i>Festuca rubra</i>	Red fescue	A
<i>Lolium perenne</i>	Perennial Ryegrass	A
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Poa annua</i>	Annual Meadow-grass	O
<i>Rumex obtusifolius</i>	Broad-leaved Dock	F
<i>Taraxacum officinale</i> agg.	Dandelion	F
<i>Trifolium repens</i>	Clover	D
1Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare,		

3.2.3 A condition assessment for the amenity grassland / modified grassland is provided below.

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
UKHab Habitat Type(s)			
Grassland - Modified grassland			
Site name/location	Ancoats	Onsite/offsite	
Central grid reference of habitat	SJ 85305 98958	Unique polygon reference	
Limitations (if applicable)		Metric 3.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	
Habitat Description			
Neglected amenity grassland			
See UKHab			
Condition Assessment Criteria		Condition Achieved (Y/N)	Notes/Justification
1	There must be 6-8 species per m2. If a grassland has 9 or more species per m2 it should be classified as a medium distinctiveness grassland habitat type. NB - this criterion is essential for achieving moderate condition.	N	
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	N	
3	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	N	
4	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	N	
5	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	N	
6	Cover of bracken less than 20%.	Y	
7	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	Y	
		Essential criterion 1 achieved (Y/N) N	
		Number of criteria passed 2	
Condition Assessment Result	Condition Assessment Score	Score Achieved x/✓	
Passes 6 or 7 of 7 criteria including passing essential criterion 1	Good (3)		
Passes 4 or 5 of 7 criteria; OR Passes 4 or 5 of 7 criteria including passing essential criterion 1	Moderate (2)		
Passes 0, 1, 2 or 3 of 7 criteria; OR 4, 5 or 6 of criteria but failing criterion 1	Poor (1)	✓	
Suggested enhancement interventions to improve condition score			

3.2.4 Summary of area based habitat

Habitat ref	UK Habitat Classification Type	Phase 1 Habitat Equivalent	Condition Assessment Result	Acre / Hectare
Habitat 1	G4 modified grassland	J1.2 Amenity grassland	Poor	1.15 / 0.46
Habitat 2	Urban tree	A3 Scattered tree	Moderate	0.35 / 0.14
Habitat 3	Urban sealed surface	J 4 Hard standing	N/A	0.25 / 0.10
				1.75 / 0.7

4. Evaluation and Assessment

- 4.1 The site shall be developed as proposed in appendix 4 which shall consist of new buildings and ecological enhancements. A summary of the habitats created and retained by the proposal is provided below.

Broad Habitat	Proposed habitat	Area (hectares)
Grassland	Modified grassland	0.08
Urban	Rain garden	0.04
Grassland	Lowland meadows	0.16
Urban	Urban Tree	0.04
Urban	Developed land; sealed surface	0.38

4.3 The results of the BNG calculation are indicated below:

On-site baseline	<i>Habitat units</i>	2.04
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	<i>Habitat units</i>	2.05
	<i>Hedgerow units</i>	0.16
	<i>River units</i>	0.00
On-site net % change (Including habitat retention, creation & enhancement)	<i>Habitat units</i>	0.68%
	<i>Hedgerow units</i>	100.00%
	<i>River units</i>	0.00%
Off-site baseline	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	0.01
	<i>Hedgerow units</i>	0.16
	<i>River units</i>	0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	0.68%
	<i>Hedgerow units</i>	100.00%
	<i>River units</i>	0.00%
Trading rules Satisfied?	Yes ✓	

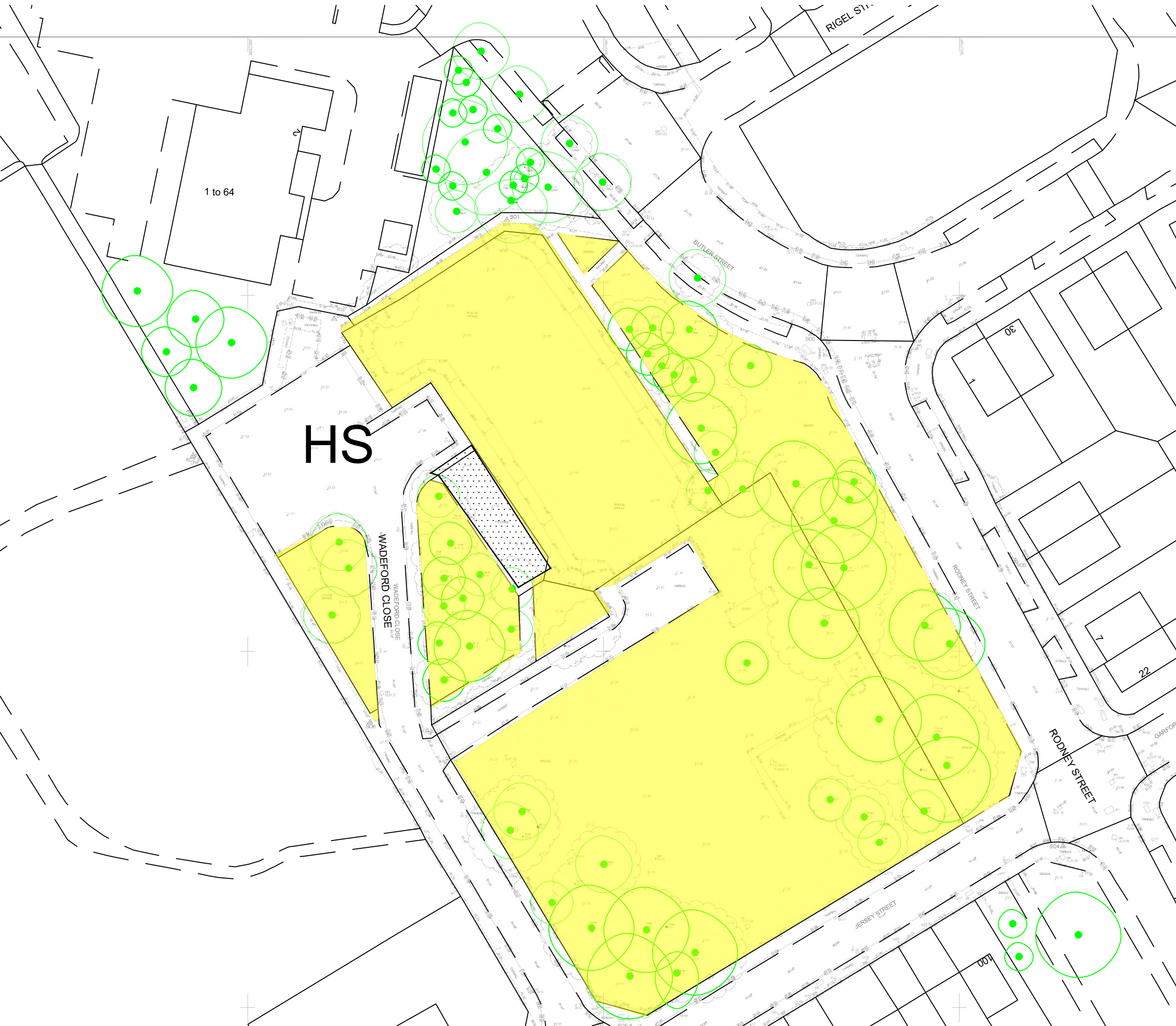
5. Conclusions

- 5.1 In accordance with the habitats present within the site and the proposals for the site's redevelopment the BNG Assessment predicts a change of 0.01 habitat units / +0.68% net gain.

Appendix 1 Aerial mapping of site and adjacent habitats



Appendix 2 Extended phase one habitat plan



PHASE ONE HABITAT MAP
KEY

-  A.3.1 Broadleaf scattered trees
-  J.1.3 Amenity Grassland
-  J.1.3 Ephemeral / short perennial
-  J.3.6 Building
- HS Hard standing
-  Target Notes. Refer to Preliminary Ecological Appraisal

Client:

Wates

Project:

Land to the West of Rodney Street

Detail:

Phase 1 Habitat Plan

Drawn By:

SB

Date:

01.06.2022

Scale:

1:500@A3

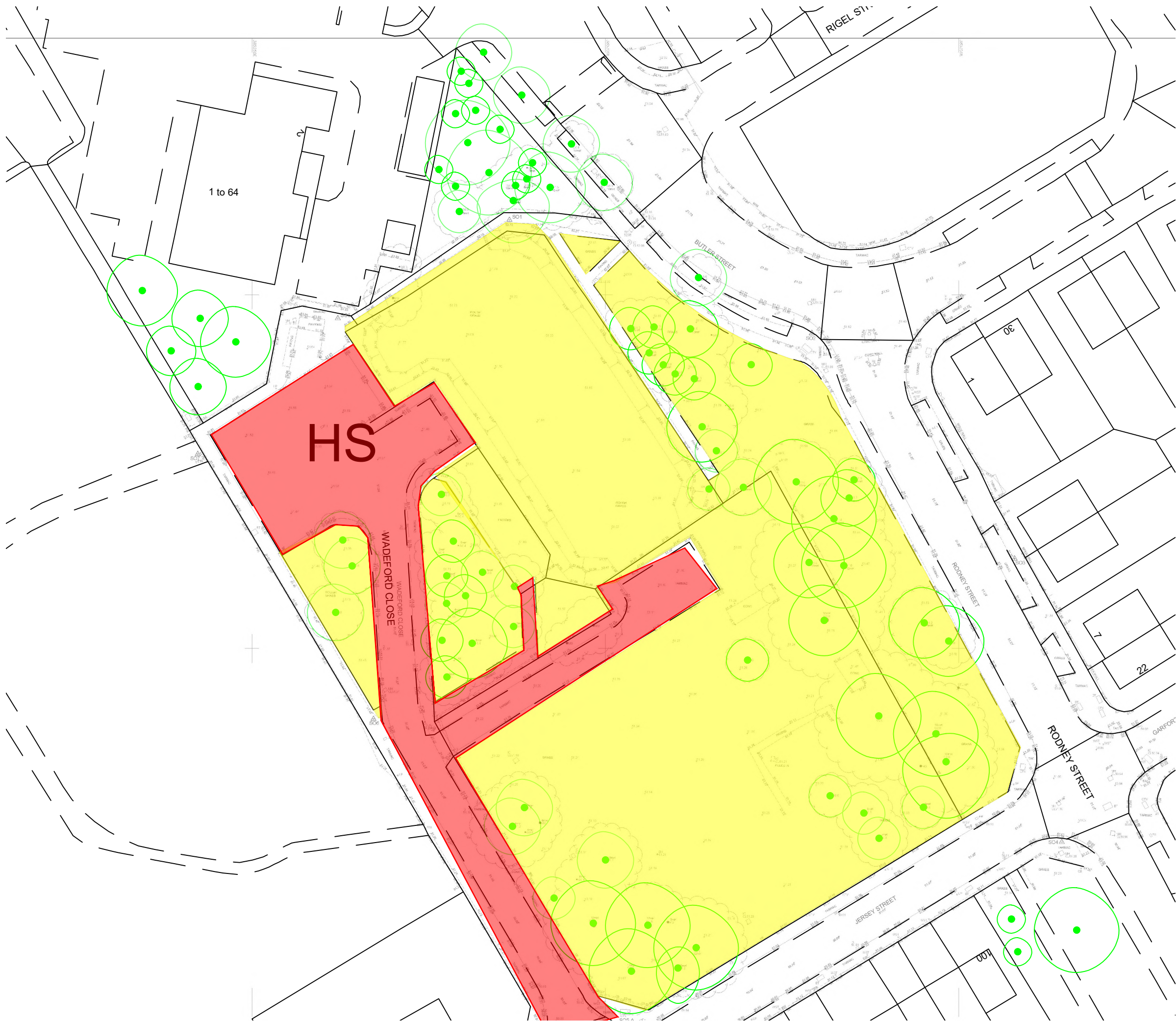
Drg No:

TR-01

Revision:

V2

Appendix 3 Habitat mapping based the UK Habitat Classification system



UK Habs Map KEY

-  U Urban tree
-  g4 modified grassland
-  U1b Urban sealed surface

Client:

Wates

Project:

Land to the West of Rodney Street

Detail:

UK Habitat Plan

Drawn By:

SB

Date:

01.06.2022

Scale:

1:500@A3

Drg No:

TR-01

Revision:

V2

Appendix 4 Proposed development and enhancements plan

Ecological enhancements

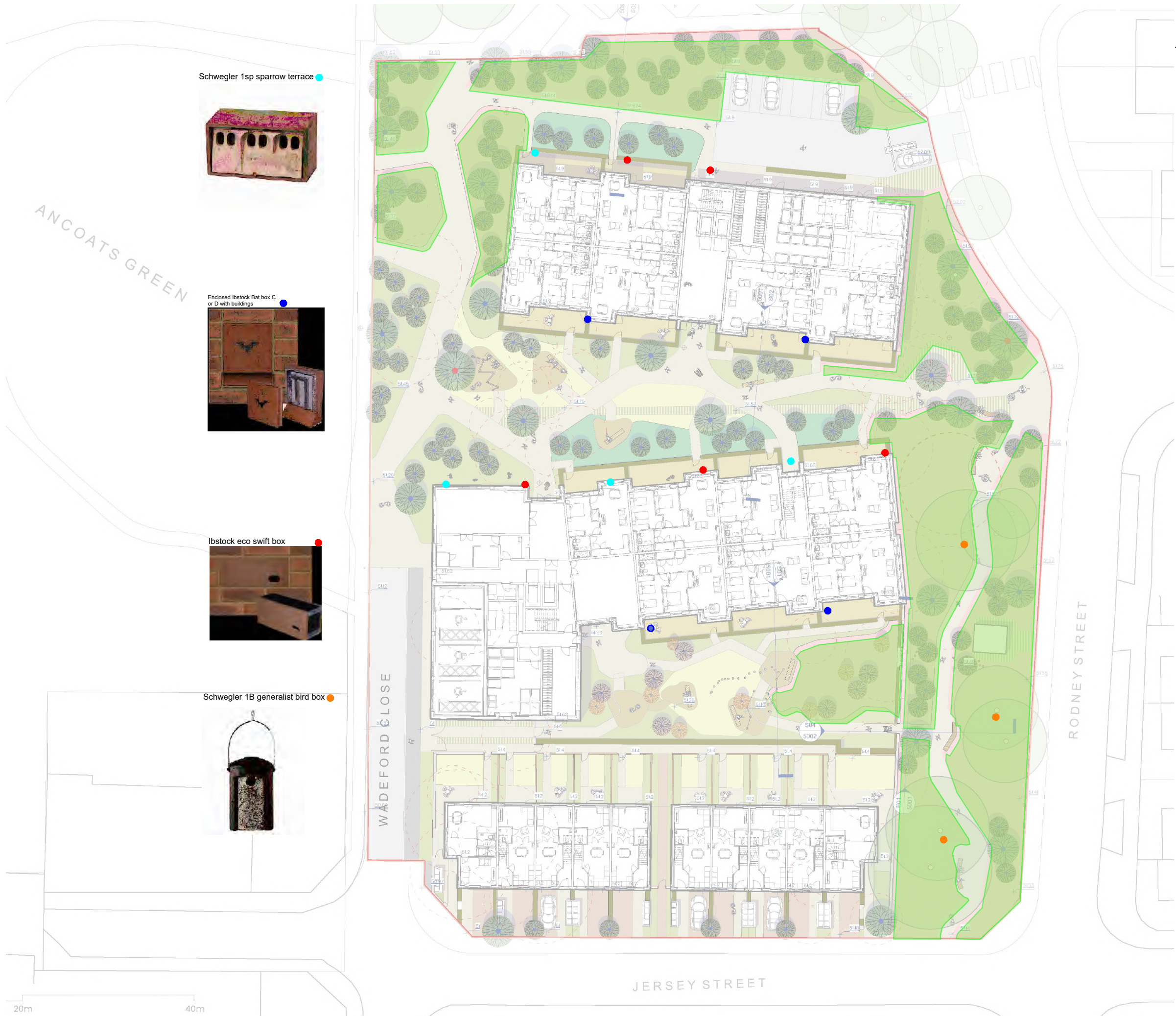
Lowland meadow creation bounded by native hedge

LOWLAND MEADOW CREATION

The Illustrative Masterplan shows an area of land buffered between the woodland and the core development areas within the site. These areas are to be developed into a lowland meadow which has a high biodiversity value and shall provide an environment where the woodland communities interact with the grassland habitat species between the housing and green infrastructure. This eco tone is of intrinsic value to flora and fauna and is set to become highly attractive for invertebrates providing foraging, nesting and shelter opportunities for biodiversity to flourish.

- Schwegler Sparrow terrace
- Ibstock eco swift box
- Ibstock enclosed bat box

Client:		
Wates Construction		
Project:		
Land to the West of Rodney Street		
Detail:		
Ecological Enhancements		
Drawn By:	Date:	Scale:
SB	01.06.22	NTS
Drg No:	Revision:	
TR-01	V3	



Schwegler 1sp sparrow terrace



Enclosed Ibstock Bat box C or D with buildings



Ibstock eco swift box



Schwegler 1B generalist bird box



Appendix 5 BNG Metric