

HABITAT MANAGEMENT AND MONITORING PLAN

JULY 2024

Russell Road Extra Care

Russell Road
Whalley Range
Manchester
M16 8AJ

U R B A N
G R E E N

QUALITY MANAGEMENT

Project Title:	Habitat Management and Monitoring Plan				
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Project Details

Project Type:	Residential
Project:	Russel Road Extra Care
Location:	Russell Road, Whalley Range, Manchester, M16 8AJ
Author Organisation:	Urban Green
Landowner:	
Land Manager:	
Responsible Person:	
Planning Authority:	Manchester City Council
Planning Reference (if applicable)	
BNG Register Reference (if applicable)	
Metric Revision/Title	Statutory Biodiversity Metric from January 2024
Are any Irreplaceable Habitats presents onsite	Yes: ☐ No: ☒
Phasing Strategy	

Roles and responsibilities

NOTE: The following section is to be completed by the relevant parties once the document becomes live.

Ecologist or Other Professional Responsible for HMMP			
Name or Initials			
Organisation			
Responsibility	Start Date:	End Date:	
Summarise the relevant responsibilities of the Ecologist or other professional responsible for the HMMP, both in terms of the production and implementation of this HMMP			
Statement of Competency			
A competent person is someone who can demonstrate they have acquired through training, qualifications or experience, or a combination of these, the knowledge and skills enabling that person to perform specified tasks.			

Landowner or Land Manager			
Name or Initials			
Organisation			
Responsibility	Start Date:		End Date:
Summarise the relevant responsibilities of the landowner (or land manager if appropriate) in the production and, or, implementation of this HMMP			
Statement of Competency			
Demonstrate management and monitoring competency and, or, relevant site knowledge and skills through relevant training, qualifications or experience, or a combination of these.			
Management Organisation(s) Responsible for Implementing the HMMP			
Name or Initials		Add N/A if works being completed by the landowner or land manager	
Organisation			
Responsibility	Start Date:		End Date:
Summarise the relevant responsibilities of the Management Organisation(s) in the production and, or, implementation of this HMMP.			
Statement of Competency			
Demonstrate the knowledge, skills and, or, experience to manage the habitats to achieve the BNG requirements, through relevant training, qualifications, experience, or combination of these.			

LPA or Responsible Body for Reviewing HMMP			
Name or Initials			
Organisation			
Responsibility	Start Date:		End Date:
Summarise the agreed relevant responsibilities of the LPA or Responsible Body in the review, auditing and, or, long-term involvement in the implementation of this HMMP (if applicable)			

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1 Introduction

1.1 Scope

- 1.1.1.1 Urban Green has been instructed by Rowlinson Construction to complete a Habitat Management and Monitoring Plan (HMMP) for the land at Russel Road in Whalley Range, Manchester (hereafter referred to as ‘the site’).
- 1.1.1.2 The site is currently derelict with the footprint of the demolished former Spire Hospital.
- 1.1.1.3 The proposals include Great Places Housing Group are proposing the development of a four-storey care home on the derelict site of the former Spire hospital along with associated external structures, parking bays and soft landscaping.
- 1.1.1.4 No phasing strategy is required for this development.

1.2 Site Context

- 1.2.1.1 The site is located at National Grid Reference SJ 82618 95205 and comprises a total area of approximately 0.95ha.
- 1.2.1.2 The site is located in Whalley Range in Greater Manchester, approximately 1.2km west of the A5103 and north of the A6010, and approximately 3.3km south of central Manchester. It is located within a densely populated urban area, with residential properties to all sides.
- 1.2.1.3 The site comprises a large area of sparsely vegetated land with various unmanaged vegetative habitats bordering the site such as introduced shrub, bramble scrub, lines of trees and non – native and ornamental hedgerow.

1.3 Purpose of Report

- 1.3.1.1 The purpose of this management plan is to provide a schedule for the management of habitats on site for a 30-year period, ensure that existing and proposed habitats are suitably maintained and ensure good establishment and continued improvement of habitat condition.

2 Baseline Environmental Data

2.1 Desk Study

- 2.1.1.1 A desk study for relevant environmental data was completed for the site and has been summarised in Table 1.

Table 1 – Desk Study Sources of Information

Environmental Information	Data Source	Results
National Character Area	National Character Area Profiles – https://nationalcharacterareas.co.uk/	The site falls within National Character Area 55: Manchester Conurbation.
Agricultural Land Status	Natural England (https://publications.naturalengland.org.uk/category/5954148537204736)	According to Natural England's Agricultural Land Classification map for the North West region, the site is currently classified as Non-Agricultural Land, which is predominantly in urban use.
Soils and Substrates	Soilscapes Viewer, LandIS (https://www.landis.org.uk/soilscapes/)	The soil on site is likely to be naturally wet very acidic, with a sandy and loamy texture and very low fertility. Due to the size and function of the site, and the low complexity of the habitats proposed, a full soil analysis of the site was not deemed necessary.
Flood Risk Information	Flood Map for Planning (https://flood-map-for-planning.service.gov.uk/)	The site lies within Flood Zone 1. Therefore, it has a low probability of flooding from rivers or the sea.
Hydrology and Drainage	BGS – (https://mapapps2.bgs.ac.uk/geoindex/home.html?layer=BGS_HydroMap&_ga=2.127165192.462924524.1715347671-664810172.1715347671)	Based on the Hydrogeology 1:625,000 scale the site has been identified as having Aquifers with Significant intergranular flow (Highly productive aquifer). The principal sandstone aquifer up to 600 m thick and yielding up to 125 L/s. Quality is good but hard and becomes saline beneath confining Mercia Mudstone.

2.2 Preliminary Ecological Appraisal Summary

- 2.2.1.1 A preliminary ecological appraisal (PEA) was conducted on the site in February 2024 by Urban Green. This constituted a desk-based study and a field survey.
- 2.2.1.2 Key information obtained in the PEA is summarised in Table 2; full details can be found within the PEA (Urban Green, 2024c).

Table 2 – Summary of the PEA (Urban Green, 2024c)

Site Aspect	Summary
Current Site Use and Adjacent Site Use	The current site is a derelict footprint of a demolished former Spire Hospital. The site comprises a large area of sparsely vegetated land with various unmanaged vegetative habitats bordering the site.
Potential Impacts on Designated Sites	No potential impacts on designated sites nearby to the site are anticipated to occur due to the proposed development. The site is located at a sufficient distance from nearby designated sites, and the proposed development activities have been considered
Habitats	The site comprised predominantly hardstanding and buildings, surrounded by scrub, lines of trees and tall ruderal vegetation.
Ecological Constraints	The following potential ecological constraints were identified during the assessment: • Twelve trees were assessed as needing further assessment for potential bat roosts. • Suitable habitats for nesting notable bird species. • Numerous invasive plant species are present throughout the site.
Recommended Ecological Mitigation	The following mitigation measures are recommended to minimise potential impacts due to the proposed development: • Precautionary Working Methods during the construction phase for badgers. • Lighting mitigation for commuting bats • Reasonable avoidance measures relating to hedgehog and common amphibians. • If any vegetation requires removal, it should be completed outside of the breeding bird season (March to September, inclusive). If this is not feasible, a Nesting Bird Check is to be completed by a qualified ecologist within 48 hours before removal is completed.
Recommended Further Surveys and Reports	As the twelve trees were identified as having ‘Further Assessment Required’ (FAR) suitability for potential roosts, further surveys in the form of roost inspection surveys are then required.
Recommended Ecological Enhancements	The National Planning Policy Framework (NPPF) (2023) highlights the requirement for planning policies and decisions to conserve and enhance the natural environment. The proposed development provides the opportunity to enhance the site and ecological enhancements have been recommended.

2.3 Biodiversity Net Gain Assessment

2.3.1 Methodology

- 2.3.1.1 The Biodiversity Net Gain Assessment and Report follows the user guidance produced by Department for Environment, Food & Rural Affairs (2024) and the good practice methodology as detailed within the *Biodiversity Net Gain: Good Practice Principles for Development* (Baker, et al., 2019).
- 2.3.1.2 The BNG calculation was undertaken utilising The Statutory Biodiversity Metric from Department for Environment, Food & Rural Affairs, using data obtained from the field surveys.
- 2.3.1.3 The calculation was performed by a technically competent and experienced person as detailed in British Standard BS8683 - Suitably qualified person – definition in BS8683:2020.

2.3.2 Baseline Habitat Assessment

2.3.2.1 The habitats present onsite prior to development have been summarised in the tables below, as well as the habitat units lost as part of the development.

Table 3 – Baseline Area Habitats

Habitat Parcel Reference	Total Area (ha)	Condition	Total Units	Units Lost
1) Ruderal/Ephemeral	0.85	Poor	1.69	1.69
2) Introduced Shrub	0.09	N/A	0.17	0.17
3) Modified Grassland	0.01	Poor	0.02	0.02
4) Bramble Scrub	0.01	N/A	0.02	0.02
5) Urban Tree	0.02	Moderate	0.13	0.13
6) Urban Tree	0.004	Poor	0.02	0.02
7) Urban Tree	0.004	Moderate	0.03	0.03
8) Urban Tree	0.02	Poor	0.08	0.08
9) Urban Tree	0.004	Moderate	0.03	0.03
Total	0.95	-	2.20	2.20

Table 4 – Baseline Linear Hedgerow Habitats

Habitat Parcel Reference	Total Length (km)	Condition	Total Units	Units Lost
H1) Non-native and Ornamental Hedgerow	0.01	Poor	0.01	0
H2) Non-native and Ornamental Hedgerow	0.06	Poor	0.06	0
H3) Line of Trees	0.21	Moderate	0.86	0
H4) Line of Trees	0.02	Moderate	0.07	0
H5) Line of Trees	0.03	Poor	0.05	0
Total	0.33	-	1.05	0

2.3.3 Post-Development Habitat Summary

Table 5 - Post Development Biodiversity Net Gain Calculation

	Habitat Unit Change					Net change in Biodiversity		
	On-site baseline	Retained	Lost	Enhanced	Created	On-site post development	Habitat units	%
Area Habitat Units	2.20	0	2.20	0	2.42	2.42	+0.23	+10.31
Linear Hedgerow Units	1.05	1.05	0	0	0.31	1.36	+0.31	+29.71

2.3.3.1 As illustrated in Table 5, the current landscape proposals for the development of the site produce a 0.23 unit (10.31%) net gain in biodiversity for area habitats and a 0.31 unit (29.71%) net gain in linear hedgerow habitats.

- 2.3.3.2 The trading rules were satisfied by the landscape proposals.
- 2.3.3.3 The development meets local and national planning policy and off-site mitigation will not be necessary.

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3 Habitat Management

3.1 Management Responsibilities

- 3.1.1.1 The detailed maintenance requirements outlined in this section must be followed at all times. Any deviations from the management plan must be highlighted to the site owners or management company.
- 3.1.1.2 The organisation implementing this plan will be a management company with the necessary certificates of competence to implement landscape management operation on site.
- 3.1.1.3 The managing organisation will ensure that all site management complies with good practice standards and all relevant health and safety procedures.
- 3.1.1.4 The managing organisation will also ensure that measures outlined to avoid pollution incidents, comply with protected species and habitats legislation, and ensure overall environmental protection are enforced.
- 3.1.1.5 Any transference of responsibility of this plan should be undertaken with the appropriate appointment of a competent organisation capable of delivering the management detailed within the document.

3.2 Habitats Covered

- 3.2.1.1 This management plan covers all proposed habitats which provide significant onsite enhancements, as assessed within the Statutory Biodiversity Metric. These include:
- habitats of medium or higher distinctiveness in the biodiversity metric;
 - habitats of low distinctiveness which create a large number of biodiversity units relative to the biodiversity value of the site before development;
 - habitat creation or enhancement where distinctiveness or condition is increased relative to that of the habitat before development;
 - areas of habitat creation or enhancement which are significant in area relative to the size of the development.
- 3.2.1.2 Habitats that do not provide significant on-site enhancements do not require detailed management regimes. However, many of these habitats still perform important functions and should receive some ecologically driven management.
- 3.2.1.3 Habitats that have not provided significant onsite enhancements, and basic management measures are summarised in Table 6.

Table 6 – Habitats that do not provide significant onsite enhancements

Habitat Type	Justification	Management Measures
Introduced Shrub	Introduced shrubs and ground level planters are low distinctiveness habitats, and only contribute 0.08 units (3.31%)	• Pruning and cutting may be necessary, but should aim to maintain shape and vigour,

	of the overall post-development unit value.	promote flowering/fruitleing, and create variation and diversity in height and structure. • Avoid cutting all specimens across the plot in a single period, particularly where this is likely to removes all flower/fruit interest for wildlife. • Avoid herbicide use, instead prioritise organic mulches.
Modified Grassland	Modified grassland is a low distinctiveness habitat, and only contributes 0.11 units (4.52%) of the overall post-development unit value.	• Implement a rotational mowing regime to maintain diversity. • Hand removal of any scrub or invasive, non-native species that establish. • Reseed any bare or damaged ground with appropriate seed mix.
Developed Land; Sealed Surface	Developed land; sealed surface is a very low distinctiveness habitat and contributes no units to the overall post-development unit value of the site.	• Regularly monitor tarmacked areas, and resurface/fill holes where necessary • Replace any lose paving stones
Ornamental, Non-native Hedgerow	Ornamental, non-native hedgerow is a low distinctiveness habitat, and only contributes 0.09 units (3.71%) of the overall post-development unit value.	• Avoid planting in freezing or waterlogged conditions, and apply mulch and tree-guards/bamboo canes once planted. • Avoid use of herbicides, instead remove any weeds by hand. • Replace any failed whips immediately with the same species, as described in planting plans (Appendix 3).

3.3 Retained Habitats

- 3.3.1.1 Some of the habitats that originally existed on the site will be retained as part of the development.
- 3.3.1.2 They will be retained in their current condition and should be protected during the development works.
- 3.3.1.3 Retained habitats and appropriate protection measures have been detailed in Table 7.

Table 7 – Retained Habitats and Protection Measures

Habitat Type	Condition	Protection Measures
Line of Trees	Poor/Moderate	• Install fencing around the root zone to keep vehicles and workers away. • Do not drive heavy machinery over the root zone. • Use permeable pavers in walkways or patios that allow rainwater to percolate into the soil beneath. • Do not wash equipment or dump chemicals over the roots. • Water during and after construction whenever there is less than one inch of rainfall in a week.

- 3.3.1.4 Retained habitats should be managed following the appropriate prescriptions within Section 3.7 to ensure that they continue to maintain their current condition.

3.4 Created Habitats

3.4.1.1 This section sets out the specific measures that will ensure that all proposed habitats that provide significant onsite enhancements are successfully created and can achieve their target condition within the targeted time period.

3.4.1.2 Habitats to be created are summarised in Table 8.

Table 8 – Proposed Habitat Creation

Habitat Type	Proposed Condition	Time to Target Condition (years)
Area Habitats		
Other Neutral Grassland	Moderate	5
Mixed Scrub	Moderate	5
Urban Trees	Moderate	27
Hedgerow Habitats		
Species-Rich Native Hedgerow	Moderate	5

3.5 General Measures

3.5.1.1 Habitat creation on site will follow details set out in the Detailed Planting Plan (Urban Green, 2024b). The following general measures shall be met to ensure successful habitat creation and succession on site.

- All planting is to follow guidance set out in the relevant British Standard or Horticultural Trades Association documents and carried out by a competent person.
- Planting is to remain undamaged, with healthy and vigorous growth, and is to be planted upright and well balanced. Trees and shrubs are to be of good shape and without elongated shoots, grown in a suitable environment and hardened off before being delivered to the site.
- All planting is to be true to name and free from pests, diseases, discoloration, weeds, fungus, and physiological disorders upon planting.
- If plants/trees are unobtainable alternatives are to be agreed with the Ecologist/Landscape Architect in writing prior to ordering.
- After planting ensure that the full depth of topsoil is wetted. Apply water evenly and without damaging or displacing plants or soil. Continue to water as necessary to ensure the successful establishment and continued thriving of planting.
- No tree/shrub/hedgerow works shall be completed during nesting bird season (March to September inclusive). If works are required within the nesting bird season, a check must be undertaken of all affected trees by a suitably qualified ecologist.

	Optimal timing for habitat creation
	Unsuitable for habitat creation

3.6 Habitat Creation Measures

3.6.1 Grassland - Other Neutral Grassland (Wildflower Meadows)

- 3.6.1.1 New areas of wildflower meadows will be created mainly around the periphery of the site as well as within areas associated with hard standing and sensory shrub planting to southwest and the centre of the site. The wildflower meadows will be seeded with Superior Pollen and Nectar Wildflower Seed Mix (100% wildflowers) from Habitat Aid.
- 3.6.1.2 Within the wildflower meadows parcels around the periphery, seasonal native bulbs snowdrop (*Galanthus nivalis*), spring crocus (*Crocus vernus*), and wild daffodil (*Narcissus pseudonarcissus*) will be planted for ornamental purposes.
- 3.6.1.3 As these areas have been identified in the Greater Manchester LNRS as opportunities for grassland creation, they have been allocated a **high strategic significance**.

Table 9 – Habitat Creation Activities for Other Neutral Grassland

Habitat Creation Activity	Further Details	Indicative Timing of Operation											
		J	F	M	A	M	J	J	A	S	O	N	D
Ground Preparation	Soil testing to ensure soil is of low fertility (<25 mg/l of phosphorus, <120 mg/l of potassium and approx. 0.2% nitrogen), with pH 5-7.												
	If necessary, reduce fertility through stripping topsoil, inversion ploughing or spreading with nutrient-poor soil.												
	Remove weeds by hand, through repeated cultivation, or use herbicides where necessary (e.g. glyphosate free herbicide).												
	Plough or dig to bury the surface vegetation, harrow or rake to produce a medium tilth, and roll or tread, to produce a firm surface.												
Sowing	Seed with Superior Pollen and Nectar Wildflower Seed Mix at a rate of 2g/m² by hand or using appropriate lightweight machinery, and roll or tread once all seeds are sown. For best results, sow in August/September (though can also sow in spring if necessary).												

Establishment	If there is little/no rain, water with a light spray to avoid dislodging seeds.	Orange	Orange	Green	Green	Orange	Orange	Orange	Green	Green	Green	Orange	Orange
	Cut or graze in the first autumn after sowing to reduce competition for wildflowers.	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Orange	Orange

3.6.2 Heathland and Shrub – Mixed Scrub

3.6.2.1 To the western periphery of the site strips of mixed scrub will be planted adjacent to some wildflower meadow parcels, continuing along the southern periphery.

3.6.2.2 Species composition will include, common hazel (*Corylus avellana*), guelder-rose (*Viburnum opulus*), common dogwood (*Cornus sanguinea*), bird cherry (*Prunus padus*), common hawthorn (*Crataegus monogyna*), elder (*Sambucus nigra*), and crab apple.

Table 10 – Habitat Creation Activities for Mixed Scrub

Habitat Creation Activity	Further Details	Indicative Timing of Operation											
		J	F	M	A	M	J	J	A	S	O	N	D
Ground Preparation	Remove weeds by hand, or use herbicides where necessary (e.g. glyphosate free herbicide).	Orange	Orange	Green	Green	Green	Green	Orange	Orange	Orange	Orange	Orange	Orange
	Fork soil to break up and compacted areas and create pits with approximately 1m spacing. Complete just prior to planting to avoid soil becoming waterlogged or dried out.	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Planting	- Whips should be planted into pits in groups of approximately 3-7 backfilled with topsoil (ideally collected from site) which will be combined with a general-purpose slow-release fertiliser and Tree Planting and Mulching Compost. - Avoid freezing or waterlogged conditions. - Secure trees with stakes and protected with tree guards.	Green	Green	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green

3.6.3 Individual Trees – Urban Trees

- 3.6.3.1 A total of 58 trees will be planted across the site, 47 of these trees are non-native species such as, Himalayan birch (*Betula utilis Jacquemontii*), sweetgum (*Liquidambar styracifula*), and service berry (*Amelanchier canadensis*). The remaining 11 consist of native species including wild cherry (*Prunus avium*), silver birch (*Betula pendula*) and apple (*Malus domestica*).
- 3.6.3.2 All trees are classified as small according to guidance in the Statutory Biodiversity Metric User Guidance (Department for Environment, Food & Rural Affairs, 2024a).

Table 11 – Habitat Creation Activities for Individual Trees

Habitat Creation Activity	Further Details	Indicative Timing of Operation											
		J	F	M	A	M	J	J	A	S	O	N	D
Ground Preparation (Bare Root)	- Dig a square hole the same depth as the tree's rootball but three times as wide. Loosen the soil around the sides and base of the hole. Avoid planting during hot/dry, wet or freezing conditions. - Retain the topsoil and mix with compost.												
Planting (Bare Root)	- Soak the roots of the tree for 2 hours before planting. - Place tree into centre of hole, spread roots and fill hole with soil mixture, compacting once full to secure tree. - For trees >1.5m in height, add a stake on the side that will be facing the wind and tether the tree to it. - Water the soil generously.												
Establishment	Water daily for the first two weeks, then weekly for the first year while the tree has its leaves. Tear off any suckers that appear and readjust the tether to the stake to avoid damage to the trunk. Stakes can be removed after 3 years.												

3.6.4 Hedgerow – Species-rich Native Hedgerow

- 3.6.4.1 To the west of the site, in an area of grassland, 30m of species-rich native hedgerow will be planted along the periphery of the site. Hedgerow species composition will consist of, 10% field maple (*Acer campestre*), 10% common dogwood, 10% common hazel, 5% dog-rose (*Rosa canina*), 5% blackthorn (*Prunus spinosa*) and 50% common hawthorn.

Table 12 – Habitat Creation Activities for Species Rich Native Hedgerow

Habitat Creation Activity	Further Details	Indicative Timing of Operation											
		J	F	M	A	M	J	J	A	S	O	N	D
Ground Preparation	Remove weeds by hand, or use herbicides where necessary (e.g. glyphosate free herbicide), and then cultivate the soil.												
Planting	- Avoid freezing or waterlogged conditions. - Plant using slot-planting or T-notch planting depending on the soil type. - Plant in double staggered rows, with approx. 40cm between rows, and between 5 plants per liner metre. - Secure whips with spiral guards and/or bamboo canes (if provided) - Apply mulch to base of plants to prevent weed establishment.												
Establishment	Hand removal of any weeds that establish at the base of the plants.												

3.7 Management Prescriptions

3.7.1.1 This section includes detailed management techniques and annual schedule of works for each habitat that will be present within the proposed development, including retained, enhanced and created habitats. These management prescriptions should be followed for the next 30 years to ensure all habitats achieve their existing/proposed condition.

3.7.2 Line of Trees (Retained)

3.7.2.1 No management activities to take place during nesting season (March to September inclusive).

3.7.2.2 Detailed management techniques are described within Table 13 along with the corresponding condition criteria.

Table 13 - Management Objectives for Line of Trees

Condition Criteria	Management Action	Timing of Management Action (Year)	Indicative Timing of Operation											
			J	F	M	A	M	J	J	A	S	O	N	D
A. More than 70% of trees are native species.	Replacement planting for failed trees, replacing species like for like	Root ball - As required												
		Bare root - As required												
B. Tree canopy is predominantly continuous.	Undertake regular arboricultural inspections to identify any structural risks, pests, diseases or other health issues	Annually												
C. One or more trees has veteran features and or natural ecological niches are present.	Once trees reach semi-maturity, appropriate corrective surgery may be necessary and should be completed by a qualified professional	Year 10 onwards												
	Water twice a month during warmer months.	Annually during warmer months or as needed in periods of hot weather												

3.7.3 Grassland - Other Neutral Grassland (Wildflower Meadows)

3.7.3.1 Detailed management techniques are described within Table 14 along with the corresponding condition criteria.

Table 14 - Management Objectives for Other Neutral Grassland

Condition Criteria	Management Action	Timing of Management Action (Year)	Indicative Timing of Operation											
			J	F	M	A	M	J	J	A	S	O	N	D
A. The grassland is a good representation of the habitat type it is identified as based on its UKHab description	- Mowing regime as described under criterion B - Remove arisings shortly after mowing to prevent nutrient enrichment of soils and the likelihood of a handful of species dominating. Avoid use of any fertiliser or herbicides.	Annually												
B. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm)	Initial cut in summer, ideally mid-August, and remove cuttings.	Year 1												
	Continue to keep short through mowing until March of Year 2.	Years 1 and 2												
	- Due to the location of this grassland, it is expected to receive regular management and to fail this criterion. However, if possible mowing should be limited to three cuts a year. - Take a hay cut in summer to ~50mm, and leave arisings in situ to dry and shed seed for one week then remove entirely.	Annually from Year 2												
	Cut again in autumn (and spring if needed) and remove arisings.	Annually from Year 2												
C. Cover of bare ground between 1% and 5%, including localised	Visual assessment of bare ground cover. If exceeding 5%, carry out management action.	Annually from Year 2												

Condition Criteria	Management Action	Timing of Management Action (Year)	Indicative Timing of Operation											
			J	F	M	A	M	J	J	A	S	O	N	D
areas, for example, rabbit warrens.	Seed areas of bare ground with Superior Pollen and Nectar Wildflower Seed Mix. Seed at a rate of 2g/m² by hand.	As required												
D. Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	Manual removal of bracken and scrub regeneration upon discovery.	As required												
E. Combined cover of species indicative of sub-optimal condition and physical damage account for less than 5% of total area.	Mowing regime as described under criterion B, with removal of arisings following.	Annually												
	- Continuously monitor for invasive, non-native species and weeds (see Appendix 4). - Where safe and appropriate to do so, remove by hand immediately. If necessary, application of herbicide should be carried out by an experienced contractor.	As required												
F. There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type	Random quadrat sampling using 1m² quadrats. Ten quadrat samples should be taken and average species richness per m² calculated	Annually from Year 5												
	Re-seeding of areas with a species richness of <10 species per m² by overseeding with Superior Pollen and Nectar Wildflower Seed Mix.	As required												

3.7.4 Heathland and Shrubs – Mixed Scrub

3.7.4.1 No management activities to take place during nesting season (March to September inclusive).

3.7.4.2 Detailed management techniques are described within Table 15 along with the corresponding condition criteria.

Table 15 - Management Objectives for Mixed Scrub

Condition Criteria	Management Action	Timing of Management Action (Year)	Indicative Timing of Operation											
			J	F	M	A	M	J	J	A	S	O	N	D
A. The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description.	Replace lost plants with others of the same species, size and quality to ensure diversity is maintained – follow planting process in Section 3.6.2.	Annually												
B. Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	- Prune all shrubs immediately after flowering, back to a strong, upright shoot as low as possible, aiming to remove one stem in three. - Allow natural seeding of new shrubs where appropriate.	Annually from Year 4												
C. There is an absence of invasive non-native species and species indicative of sub-optimal condition make up less than 5% of ground cover.	- Continuously monitor for invasive, non-native species and weeds (see Appendix 4). - Where safe and appropriate to do so, remove by hand immediately. If necessary, application of herbicide should be carried out by an experienced contractor.	As required												
	Hand removal of any scrub or tree species indicative of suboptimal condition, such as cherry laurel (<i>Prunus laurocerasus</i>), snowberry (<i>Symphoricarpos</i> spp.), and cotoneaster (<i>Cotoneaster</i> spp.).	As required												

Condition Criteria	Management Action	Timing of Management Action (Year)	Indicative Timing of Operation											
			J	F	M	A	M	J	J	A	S	O	N	D
D. The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).	Maintain a buffer of at least 2m in the adjacent grassland where there is no mowing or management to allow succession of natural vegetation.	Annually												
E. There are clearings, glades or rides present within the scrub, providing sheltered edges.	Woody species in clearings/rides/glades should be removed where possible, to retain open spaces within this habitat.	As required												

3.7.5 Individual – Urban Trees

3.7.5.1 No management activities to take place during nesting season (March to September inclusive).

3.7.5.2 Detailed management techniques are described within Table 16 along with the corresponding condition criteria.

Table 16 - Management Objectives for Individual Trees

Condition Criteria	Management Action	Timing of Management Action (Year)	Indicative Timing of Operation											
			J	F	M	A	M	J	J	A	S	O	N	D
A. The tree is a native species (or at least 70% within a block)	Replacement planting for failed trees using same species (according to planting scheme within landscapes).	Root ball - As required												
		Bare root - As required												
	Hand removal of any non-native saplings establishing	As required												

Condition Criteria	Management Action	Timing of Management Action (Year)	Indicative Timing of Operation											
			J	F	M	A	M	J	J	A	S	O	N	D
B. The tree canopy is predominantly continuous	Undertake regular arboricultural inspections to identify any structural risks, pests, diseases or other health issues.	Every 3 years												
C. The tree is mature or veteran	- Pruning of damaged or diseased trees to ensure tree canopy is balanced and consistent with the natural structure for the species. All pruning works must be carried out by a qualified professional. - Limit the use of damaging management practices e.g., herbicide use and unnecessary pruning. - Avoid undertaking management activities on all trees in a single month period to retain important resources for wildlife. Instead, rotate management across plots.	As required												
D. There is little or no evidence of an adverse impact on tree health by anthropogenic activities and no current regular pruning regime so the trees retain >75% of expected canopy														
	Water twice a month during warmer months.	Annually during warmer months or as needed in periods of hot weather												
	Once trees reach semi-maturity, appropriate corrective surgery may be necessary and should be completed by a qualified professional	Annually from Year 10 onwards												
E. Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark	Leave any micro-habitat features, such as ivy, loose bark and deadwood, in place and where it is safe and appropriate.	As required												

Condition Criteria	Management Action	Timing of Management Action (Year)	Indicative Timing of Operation											
			J	F	M	A	M	J	J	A	S	O	N	D
F. More than 20% of the tree canopy area is oversailing vegetation beneath	Mulch forming 1m radius around tree, to control weeds. Use organic mulches (leaf litter, rotted hay or grass clippings, manure, wood chips), at a depth of 75mm.	Annually Years 1 to 3												
	- Leave a 2m unmanaged buffer zone around any trees planted over vegetation to allow natural succession of surrounding vegetation. - Avoid use of herbicides within this zone.	As required												
	- Continuously monitor for invasive, non-native species and weeds (see Appendix 4). - Where safe and appropriate to do so, remove by hand immediately. If necessary, application of herbicide should be carried out by an experienced contractor.	As required												

3.7.6 Hedgerow – Species-Rich Native Hedgerow

3.7.6.1 No management activities to take place during nesting season (March to September inclusive).

3.7.6.2 Detailed management techniques are described within Table 17 along with the corresponding condition criteria.

Table 17 - Management Objectives for Species-Rich Native Hedgerow

Condition Criteria	Management Action	Timing of Management Action (Year)	Indicative Timing of Operation											
			J	F	M	A	M	J	J	A	S	O	N	D

4 Habitat Monitoring

4.1 Monitoring Schedule

- 4.1.1.1 Following completion of habitat creation and initial enhancement works, habitats should be monitored to ensure that they are on track to achieve their predicted condition.
- 4.1.1.2 Monitoring should be carried out on Years 1, 2, 3, 4, 5, 10, 15, 20, 25 and 30.
- 4.1.1.3 All monitoring should be completed within the optimal botanical survey period (May to October) by a suitably qualified ecologist, using appropriate measures to assess the habitat against the Statutory Biodiversity Metric Condition Assessments (DEFRA 2024b) (e.g., photography, quadrat sampling, etc).

4.2 Monitoring Reports

- 4.1.1.1 Following completion of habitat creation and initial enhancement works, a monitoring report should be prepared and submitted to the Local Planning Authority or Responsible Body on the years detailed in Section 4.1.
- 4.1.1.2 Monitoring results inform necessary management changes to promote achieving BNG targets stated in the Statutory Biodiversity Metric and HMMP, allowing an adaptive management system to be followed.
- 4.2.1.2 For any habitats which aren't achieving their proposed condition within the target time period, reasons for failure and proposed remediation measures should also be recorded.

4.2.2 Line of Trees – Line of Trees

4.2.2.1 The line of broadleaved trees should be maintained in its current condition to be classed as a retained habitat.

4.1.1.1 Detailed management techniques are described within Table 13 along with the corresponding condition criteria. In order to maintain the current condition of **moderate**, at least 3 of the condition criteria must be met.

Table 18 – Monitoring Results for Line of trees

Condition Criteria	Target Condition Score	Year											Comments / Remediation Measures
		0	1	2	3	4	5	10	15	20	25	30	
A. At least 70% of trees are native species.	Pass												
B. Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Pass												
C. One or more trees has veteran features or natural ecological niches for vertebrates and invertebrates.	Fail												
D. There is an undisturbed naturally-vegetated strip at least 6m on both sides.	Pass												
E. At least 95% of the trees are in a healthy	Pass												

condition. There is little evidence of an adverse impact on tree health.													
Condition Score	Moderate												

4.2.3 Line of Trees – Line of Trees

4.2.3.1 The line of coniferous trees should be maintained in its current condition to be classed as a retained habitat.

4.1.1.1 Detailed management techniques are described within Table 13 along with the corresponding condition criteria. In order to maintain the current condition of **poor**, at least 2 of the condition criteria must be met.

Table 19 – Monitoring Results for Line of trees

Condition Criteria	Target Condition Score	Year											Comments / Remediation Measures
		0	1	2	3	4	5	10	15	20	25	30	
A. At least 70% of trees are native species.	Fail												
B. Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Pass												
C. One or more trees has veteran features or natural ecological niches	Fail												

for vertebrates and invertebrates.													
D. There is an undisturbed naturally-vegetated strip at least 6m on both sides.	Fail												
E. At least 95% of the trees are in a healthy condition. There is little evidence of an adverse impact on tree health.	Pass												
Condition Score	Poor												

4.2.4 Grassland – Other Neutral Grassland (Wildflower Meadows)

- 4.1.1.1 The targeted condition for the new other neutral grassland habitat is **moderate**, with an expected target condition time of 5 years. In order to reach the expected targeted condition of moderate, at least 4 of the criteria must be met. Additionally, given the location and level of disturbance that the grassland is likely to receive, a maximum condition score of **moderate** is realistic.
- 4.1.1.2 Table 20 details the habitat condition criteria for the elected habitat type and the condition, and the score for each year at which monitoring should take place.

Table 20 – Monitoring Results for Other Neutral Grassland

Condition Criteria	Target Condition Score	Year											Comments
		0	1	2	3	4	5	10	15	20	25	30	
A. The grassland is a good representation based on its UKHab description.	Pass												

B. Sward height is varied.	Fail												
C. Cover of bare ground is between 1% and 5%.	Pass												
D. Cover of bracken >20% and cover of scrub >5%.	Pass												
E. Species indicative of sub-optimal condition and physical damage accounts for > 5% of total area.	Pass												
F. There are 10 or more vascular plant species per m2 including forbs that are characteristic of the habitat type.	Fail												
Condition Score	Moderate												

4.2.5 Heathland and Shrub – Mixed Scrub

4.1.1.1 The targeted condition for the new mixed scrub habitat is **moderate**, with an expected target condition time of 5 years. In order to reach the expected targeted condition of moderate, at least 3 of the criteria must be met.

4.1.1.2 Table 21 details the habitat condition criteria for the elected habitat type and the condition, and the score for each year at which monitoring should take place.

Table 21 – Monitoring Results for Mixed Scrub

Condition Criteria		Year	Comments
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	Target Condition Score	0	1	2	3	4	5	10	15	20	25	30	
1. The scrub is a good representation of its habitat based on UKHab definition.	Pass												
2. Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	Fail												
3. Absence of invasive non-native species.	Pass												
4. The scrub has a well-developed edge.	Pass												
5. There are clearings, glades or rides present within the scrub, providing sheltered edges.	Fail												
Condition Score	Moderate												

4.2.6 Individual Trees – Non-Native Trees

4.2.6.1 This monitoring schedule covers the native tree species that will be planted onsite; these are the field maple ‘Streetwise’, Himalayan birch and sweetgum. The target condition for the non-native individual urban trees is **moderate**, with an expected time to target condition of 27 years. For complete tree species planting list, see planting schedule (Appendix 4).

4.2.6.2 Table 22 details the habitat condition criteria for the elected habitat type and the condition, and the score for each year at which monitoring should take place.

Table 22 – Monitoring Results for Urban Trees

Condition Criteria	Target Condition Score	Year											Comments
		0	1	2	3	4	5	10	15	20	25	30	
1. The tree is a native species (or at least 70% within a block)	Fail												
2. The tree canopy is predominantly continuous	Pass												
3. The tree is mature or veteran	Fail												
4. There is little or no evidence of an adverse impact on tree health	Pass												
5. Natural ecological niches for vertebrates and invertebrates	Fail												

6. More than 20% of the tree canopy area is oversailing vegetation beneath.	Pass												
Condition Score	Moderate												

4.2.7 Individual Trees – Native Trees

4.2.7.1 This monitoring schedule covers the native tree species that will be planted onsite; these are the silver birch, apple wild cherry. The target condition for the native individual urban trees is **moderate**, with an expected time to target condition of 27 years. For complete tree species planting list, see planting schedule (Appendix 4).

4.2.7.2 Table 23 details the habitat condition criteria for the elected habitat type and the condition, and the score for each year at which monitoring should take place.

Table 23 – Monitoring Results for Urban Trees

Condition Criteria	Target Condition Score	Year											Comments
		0	1	2	3	4	5	10	15	20	25	30	
7. The tree is a native species (or at least 70% within a block)	Pass												
8. The tree canopy is predominantly continuous	Pass												

9. The tree is mature or veteran	Fail												
10. There is little or no evidence of an adverse impact on tree health	Pass												
11. Natural ecological niches for vertebrates and invertebrates	Fail												
12. More than 20% of the tree canopy area is oversailing vegetation beneath.	Pass												
Condition Score	Moderate												

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4.2.8 Species-Rich Native Hedgerow

4.2.8.1 The target condition for the new species-rich native hedgerow is **moderate**, with an expected time to target condition of 5 years. In order to reach the expected targeted condition of moderate, at least 4 of the criteria must be met, and does not fail both attributes in more than one functional group.

4.2.8.2 Table 24 details the habitat condition criteria for the elected habitat type and the condition, the score, and the years at which monitoring should take place.

Table 24 – Monitoring Results for Species-Rich Native Hedgerow

Condition Criteria	Target Condition Score	Year											Comments
		0	1	2	3	4	5	10	15	20	25	30	
A1. Height: >1.5 m average along length	Fail												
A2. Width: >1.5 m average along length	Pass												
B1. Gap between ground and base of canopy <0.5 m for >90% of length	Pass												
B2. Gaps make up <10% of total length. No canopy gaps >5m	Pass												
C1. >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length	Fail												

C2. Undesirable species <20% cover of the area of undisturbed ground	Pass												
D1. >90% of hedgerow and undisturbed ground is free from Invasive Non-native species	Pass												
D2. Current damage: >90% of the hedgerow or undisturbed ground is free of damage caused by human activities	Fail												
Condition Score	Moderate												

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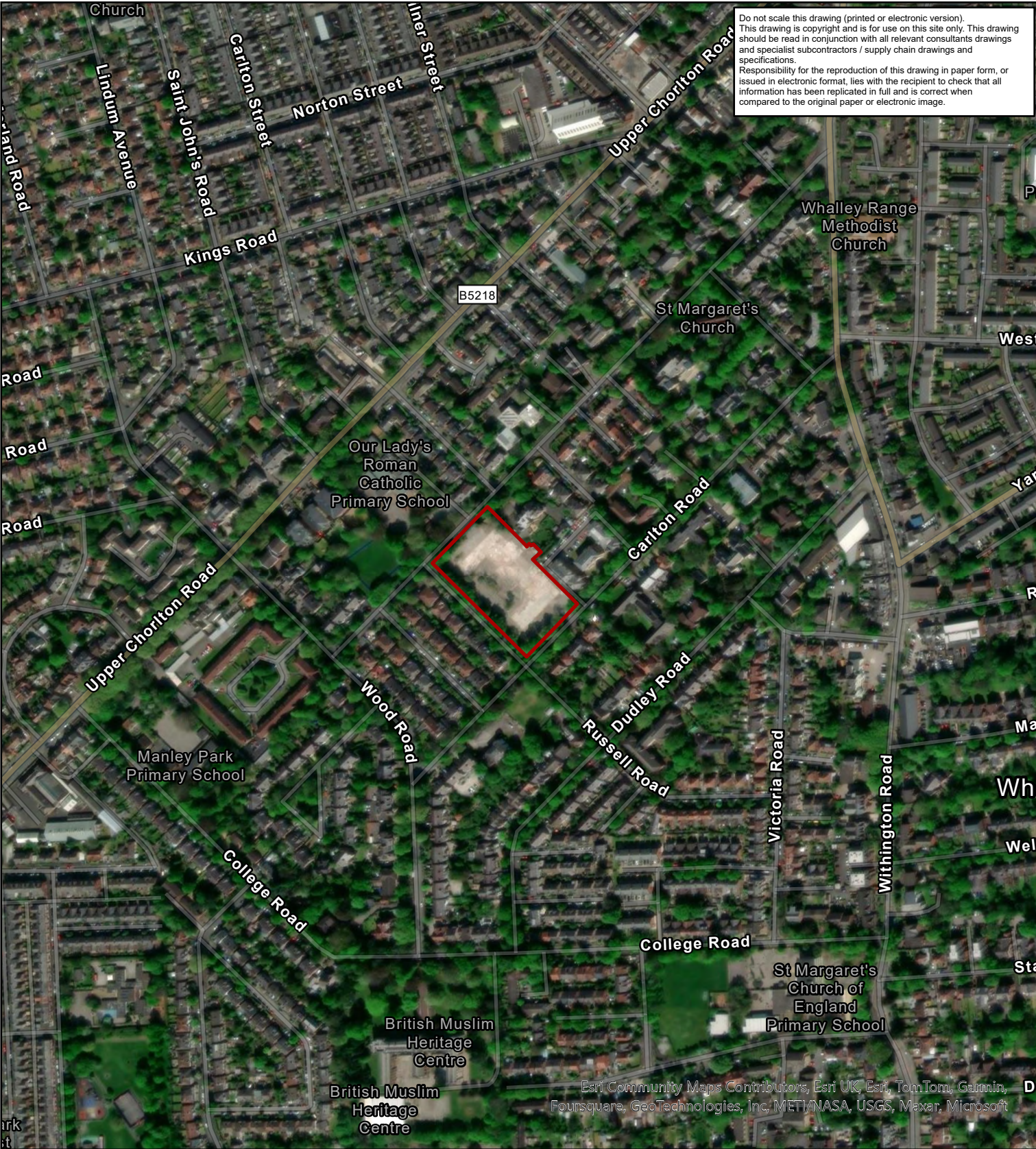
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APPENDIX 1 – SITE CONTEXT

U R B A N
G R E E N



Legend: Red Line Boundary		0.4 Kilometers		N	
Client: Rowlinson Construction		Issue: 01		U R B A N G R E E N A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF T: +44 (0) 161 312 3131 weareurbangreen.co.uk	
Project: Russell Road Extra Care		Scale @ A4 1:5,000			
Title: Site Context		Approved by: TM	Checked by: OJ		
Drawing Ref: UG_2410_SITE_CONTEXT		Author: CL	Date: 23/05/2024		

APPENDIX 2 – PRE-DEVELOPMENT HABITAT MAP

U R B A N
G R E E N

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Legend

- Red Line Boundary
- Non-native and ornamental hedgerow
- Other broadleaved woodland
- Other coniferous woodland
- Bramble scrub
- Built-up areas and gardens
- Modified grassland
- Sparsely vegetated urban land
- Urban - Introduced shrub
- FAR
- Urban Tree
- Target Note
 - TN1 - Cotoneaster
 - TN2 - Rhododendron
 - TN3 - Spanish bluebell



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weareurbangreen.co.uk

Client: Rowlinson Construction

Project: Russell Road Extra Care

Title: UKHAB Habitat Map

Issue: 01

Drawn: CL	Checked: JH	Approved: OJ
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Project: UG2410	Scale @ A3: 1:510	Date: 27/02/2024
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Dwg No: UG_2410_ECO_HM_01	Revision: 01
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Appendix 3 - Primary and Secondary Codes

Hierarchical code	Code	Definition
Primary Code	g4	Modified Grassland
	h2b	Non-native and ornamental hedgerow
	h3b	Bramble scrub
	u	Urban
	u1	Built-up areas and gardens
	u1f	Sparsely vegetated urban land
	w1g	Other broadleaved woodland
	w2c	Other coniferous woodland
Secondary Code	12	Scattered bracken
	32	Scattered trees
	33	Line of trees
	82	Vacant or derelict land
	203	Mature tree
	518	Neglected
	519	Abandoned
	521	Unmanaged
	523	Non-native
	524	Invasive non-native species
	847	Introduced shrub

APPENDIX 4 - PROPOSED LANDSCAPE PLAN

U R B A N
G R E E N

Appendix 5 – Invasive, Non-Native Species

- 5.1.1.1 An invasive, non-native species is a species that is present outside of its native range but has established populations after accidental or intentional introduction to a geographical region. These species have negative ecological impacts on the environments in which they are present by outcompeting native flora and fauna for resources, facilitating the spread of disease, and interrupting natural food webs.
- 5.1.1.2 Schedule 9 of the Wildlife and Countryside Act 1981 and the Invasive Alien Species (Enforcement and Permitting) Order 2019 list the species within the UK which are considered invasive and are damaging to biodiversity. It is the legal responsibility of the landowner to control populations of invasive species and prevent their growth and spread.
- 5.1.1.3 While no invasive species were identified onsite; however, it should be noted that some invasive non-native plants are very fast spreading and therefore the potential for these species to be introduced to the site at a later date cannot be ruled out.
- 5.1.1.4 The table below details common invasive, non-native species listed on Schedule 9 and the Invasive Alien Species Order 2019 and how to identify them. If any are identified onsite, a professional management company that specialises in invasive species should be contacted immediately.

Common name (<i>scientific name</i>)	Identification	
Himalayan balsam (<i>Impatiens glandulifera</i>)	• Green or red stems • Serrated oval leaves growing in a whorl round the stem • Bright pink flowers	

Giant Hogweed	• Up to 4m in height • Large white flower clusters • Green stem with purple blotches • Large compound leaves with serrated edges, up to 1.5m across	 A photograph of a Giant Hogweed plant. It features several tall, green stems with purple blotches, large compound leaves with serrated edges, and large, flat-topped clusters of small white flowers at the top. The background is a clear blue sky.	
Japanese knotweed (<i>Fallopia japonica</i>)	• Bamboo like stems with purple flecks • Large, shovel shaped leaved • Cream/white clustered flowers	 A close-up photograph of Japanese knotweed. It shows dark green, shovel-shaped leaves with prominent veins and clusters of small, cream-colored flowers. The stems are not clearly visible but are described as bamboo-like with purple flecks.	
Rhododendron (<i>Rhododendron</i> spp.)	• Woody stems • Oval, dark green, glossy leaves • Dense clusters of flowers of various colours	 A photograph of a Rhododendron plant. It features dense clusters of large, five-petaled flowers in shades of purple and pink. The leaves are dark green, oval-shaped, and have a glossy texture.	

Montbretia (<i>Crocasmia x crocosmiiflora</i>)	• Low growing plant • Long, thin, light green leaves • Bright orange flowers		
Cotoneaster (<i>Cotoneaster</i> spp.)	• Genus of flowering plants • Dense, shrubby growth • Small, shiny, dark green leaves • Small white or pink berries with red berries in autumn		
Variegated yellow archangel (<i>Lamium galeobdolon</i> subsp. <i>Argentatum</i>)	• Low growth which forms carpets on the ground • Opposite, variegated leaves • Small, round, yellow flowers		