HABITAT MANAGEMENT AND MONITORING PLAN

DRAFT

DECEMBER 2024

Octagon House
Hathersage Road
Manchester
M13 0FN

URBAN GREEN

QUALITY MANAGEMENT

Project Title:	Habitat Management and Monitoring Plan				
Document Type:	HMMP	**Issue No.:**	01 (DRAFT)		
Date:	06/09/2024				
Prepared By:	Shannon Brady	**Signature:**	SBrady	**Qualifications:**	Senior Biodiversity Net Gain Consultant, MSc
Checked By:	Tafara Musonza	**Signature:**		**Qualifications:**	Assistant Biodiversity Net Gain Consultant, BSc

Revision Status

Rev	Date	Comment	Prepared	Checked
02	18/12/2024	To reflect changes to landscape	SB	WG

Project Details

Project Type:	Energy
Project:	Octagon House
Location:	Hathersage Road, Manchester, M13 0FN
Author Organisation:	Urban Green
Developer:	
Developer Address:	
Responsible Person:	
Planning Authority:	Manchester City Council
Planning Reference (if applicable):	
BNG Register Reference (if applicable):	
HMMP Name/Reference:	
Metric Revision/Title:	Statutory Biodiversity Metric from July 2024
Are any Irreplaceable Habitats presents onsite?	Yes: ☐ No: ☒
Phasing Strategy:	There is no phasing strategy.

DRAFT

CONTENTS

1 Project Background 4

1.1 Roles and responsibilities 4

1.2 Summary of Management Plan 6

1.3 Scope 6

1.4 Site Context 7

1.5 Purpose of Report 7

2 Baseline Environmental Data 8

2.1 Desk Study 8

2.2 Preliminary Ecological Appraisal Summary 8

2.3 Biodiversity Net Gain Assessment 9

3 Habitat Management 11

3.1 Management Responsibilities 11

3.2 Habitats Covered 11

3.3 Retained Habitats 12

3.4 Created Habitats 13

3.5 General Measures 13

3.6 Habitat Creation Measures 14

3.7 Management Prescriptions 16

4 Habitat Monitoring 21

4.1 Monitoring Schedule 21

4.2 Monitoring Reports 21

5 References 29

Appendix 1 - Site Context Map

Appendix 2 - Photographs of the Site

Appendix 3 - Baseline Habitat Map

Appendix 4 - Primary and Secondary Codes

Appendix 5 - Proposed Landscape Plans

Appendix 6 - Invasive, Non-Native Species

DRAFT

1 Project Background

1.1 Roles and responsibilities

1.1.1.1 NOTE: This document is currently in draft format. 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		Shannon Brady		
Organisation		Urban Green		
Responsibility	**Start Date:**	TBC	**End Date:**	TBC
The author of the report is Senior Biodiversity Net Gain Consultant, Shannon Brady. The person who will be responsible for the implementation of the HMMP and the continued monitoring is TBC.				
Statement of Competency				
Shannon has experience providing consulting services in Biodiversity Net Gain for a range of development schemes across the UK, including residential and commercial schemes. Shannon is a technically competent and experienced person, as defined in British Standard BS8683 - Suitably qualified person – definition in BS8683:2020.				

DRAFT

Landowner or Land Manager				
Name or Initials		TBC		
Organisation		TBC		
Responsibility	**Start Date:**	TBC	**End Date:**	TBC
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		TBC Add N/A if works being completed by the landowner or land manager		
Organisation		TBC		
Responsibility	**Start Date:**	TBC	**End Date:**	TBC
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.				

DRAFT

LPA or Responsible Body for Reviewing HMMP				
Name or Initials		TBC		
Organisation		TBC		
Responsibility	**Start Date:**	TBC	**End Date:**	TBC
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)				

1.2 Summary of Management Plan

1.2.1 Timescales for Actions

1.2.1.1 This management plan will cover a period of 30 years once the development onsite has been completed.

1.2.2 Monitoring Requirements

1.2.2.1 Monitoring must be carried out by a suitably qualified ecologist on Years 1, 2, 3, 4, 5, 10, 15, 20, 25 and 30.

1.2.3 Funding

1.2.3.1 This development will be funded by Manchester Energy Partnership.

1.2.4 Legal Agreement

1.2.4.1 This management plan will be legally secured through a Section 106 Agreement or a Conservation Covenant once planning approval has been granted, as part of the Biodiversity Gain Plan.

1.3 Scope

1.3.1.1 Urban Green has been instructed by Manchester Energy Partnership to complete a Habitat Management and Monitoring Plan (HMMP) for Octagon House, Manchester (hereafter referred to as 'the site').

1.3.1.2 The site is currently functioning as a car park which serves Octagon House dialysis centre.

1.3.1.3 The proposals include the construction of an energy centre. There is no phasing strategy.

DRAFT

1.4 Site Context

1.4.1.1 The site is located at National Grid Reference SJ 85570 95960 and comprises a total area of approximately 0.25ha (see Appendix 1).

1.4.1.2 The site is located approximately 2.5km south-east of Manchester City Centre. The area surrounding the site is heavily urbanised, with residential and healthcare development in the immediate vicinity. The A34 runs approximately 120m west of the site, and the A6 is 750m east. Several areas of public green space, including Whitworth Park and Swinton Grove Park, are present within 1km of the site.

1.4.1.3 The site is currently comprised primarily of developed land, with individual urban trees and a species rich native hedgerow along the site boundaries and a parcel of introduced shrub to the south-west.

1.5 Purpose of Report

1.5.1.1 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.

DRAFT

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
Local Planning Authority	Local Planning Authorities (April 2024) Boundaries UL - https://geoportal.statistics.gov.uk/datasets/992de91f065148e786870aec2359d427/explore	The site is within the Manchester City Council Local Planning Authority.
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 land predominantly in urban use.
Soils and Substrates	Soilscapes Viewer, LandIS (https://www.landis.org.uk/soilscapes/)	The soil on site is likely to be slowly permeable, seasonally wet and acidic, with a loamy and clayey texture and 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.
Landscape Character and Designations	MAGiC map https://magic.defra.gov.uk/maintenance.html	There are no statutory or non-statutory designations on site or within 1km of the site boundary.
Climate Information	Climate Data https://en.climate-data.org/europe/united-kingdom/england/manchester-3621/	Average temperature: 9.4°C Average rainfall: 86.71cm Hottest month: July Coldest month: January

2.2 Preliminary Ecological Appraisal Summary

2.2.1.1 A preliminary ecological appraisal (PEA) was conducted on the site in September 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, 2024a).

Table 2 – Summary of the PEA

Site Aspect	Summary
Current Site Use and Adjacent Site Use	The site's current use is as a car park associated with Octagon House, with associated hedgerows and ornamental shrubbery.
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 and tall ruderal vegetation.
Ecological Constraints	The following potential ecological constraints were identified during the assessment: Suitable habitat for common amphibians, nesting birds, commuting bats, hedgehog and commuting badger.
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 commuting bats, common amphibians, hedgehog, and badger. 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	No further surveys are required for development to proceed.
Recommended Ecological Enhancements	The National Planning Policy Framework (NPPF) (2021) 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

2.3.1.1 The most recent Biodiversity Net Gain Assessment was completed on this site by Urban Green in December 2024 (Urban Green, 2024b).

2.3.2 Methodology

2.3.2.1 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).

2.3.2.2 The BNG calculation was undertaken utilising The Statutory Biodiversity Metric from Department for Environment, Food & Rural Affairs, using data obtained from the field surveys.

2.3.2.3 The calculation was performed by a technically competent and experienced person as detailed in British Standard BS8683 - Suitably qualified person – definition in BS8683:2020.

2.3.3 Baseline Habitat Assessment

2.3.3.1 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.

2.3.3.2 Photos of all existing, pre-development habitats can be found within Appendix 2. The baseline habitat map can be found in Appendix 3 and definitions for primary and secondary codes can be found in Appendix 4.

2.3.3.3 The baseline habitats present are summarised in the tables below.

Table 3 – Baseline Area Habitats

Habitat Parcel Reference	Priority Habitat	Total Area (ha)	Condition	Total Units
1) Developed land; sealed surface	No	0.23	N/A	0.00
2) Introduced shrub	No	0.015	N/A	0.03
3) Urban tree	No	0.029	Good	0.34
4) Urban tree	No	0.016	Moderate	0.13
Total	-	0.289	-	0.50

Table 4 – Baseline Linear Hedgerow Habitats

Habitat Parcel Reference	Priority Habitat	Total Length (km)	Condition	Total Units
1) Species rich native hedgerow	No	0.085	Good	1.17
Total	-	0.085	-	1.17

2.3.4 Post-Development Habitat Assessment

2.3.4.1 Post-development habitats are subject to the same condition assessments as baseline habitats, with the addition of temporal and difficulty multipliers within the Statutory Biodiversity Metric.

2.3.4.2 The proposed layout was provided by Artform Archtiects (2024) and can be found in Appendix 5. Using this, the existing habitats that will be retained, lost and enhanced have been identified.

2.3.5 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	0.50	0.47	0.03	0.00	0.09	0.56	+0.06	**+11.10**
Linear Hedgerow Units	1.17	1.17	0.00	0.00	0.12	1.30	+0.12	**+10.50**

DRAFT

2.3.5.1 The current landscape proposals for the development of the site produce a 0.06 unit (11.10%) net gain in area units and a 0.12 unit (10.50%) net gain in linear hedgerow habitats.

2.3.5.2 The trading rules have been satisfied for all habitat types.

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.

DRAFT

Table 6 – Habitats that do not provide significant onsite enhancements

Habitat Type	Justification	Management Measures
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. • Clear any vegetation that begins to colonise these areas.

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
Urban Trees	Moderate/Good	• Install fencing around the root zone to keep vehicles and workers away from trees. • 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.
Species Rich Native Hedgerow	Good	• Maintain a 5m buffer zone around hedgerow on both sides, which is cordoned off to ensure that vehicles do not encroach into this area. • 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		
Urban Trees	Moderate	27
Linear Hedgerow Habitats		
Species Rich Native Hedgerow	Moderate	5

3.5 General Measures

3.5.1.1 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.

DRAFT

Optimal timing for habitat creation

Unsuitable for habitat creation

3.6 Habitat Creation Measures

3.6.1 Individual Trees – Urban Trees

3.6.1.1 Six new urban trees will be planted to the north and west of the site, along site boundaries. Trees are expected to be native species.

Table 9 – Habitat Creation Activities for Urban 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/Root Ball)	• Dig a square hole the same depth as the tree's roots/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/Root Ball)	• 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.												

DRAFT

3.6.2 Hedgerow – Species Rich Native Hedgerow

3.6.2.1 A length of species rich native hedgerow is proposed along the southern boundary of the site which will contain a minimum of 5 native species.

Table 10 – 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 manually 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 4-6 plants per liner metre, in groups of five of the same species. • Secure whips with spiral guards and/or bamboo canes (if appropriate) • Apply mulch to base of plants to prevent weed establishment.												
Establishment	• Hand removal of any weeds that establish at the base of the plants.												

DRAFT

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 Individual Tree – Urban Tree

3.7.2.1 Detailed management techniques are described within Table 11 along with the corresponding condition criteria.

Table 11 - Management Objectives for Urban 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 according to landscape proposals or existing species composition	Root ball and bare root - As required												
		Containerised - As required												
B. The tree canopy is predominantly continuous C. The tree is mature or veteran 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	• Undertake regular arboricultural inspections to identify any structural risks, pests, diseases or other health issues.	Every year for the first 3 years for newly planted trees and based on formal recommendations following Frequency for existing trees based on formal recommendations												
	• 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.	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
	• 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.													
	• 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	As required												
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												
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 for newly planted trees												
	• 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												

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
	• Continuously monitor for, and removal of, invasive, non-native species and weeds (see Appendix 6).	As required												

DRAFT

3.7.3 Hedgerow - Species Rich Native Hedgerow

3.7.3.1 Detailed management techniques are described within Table 12 along with the corresponding condition criteria.

Table 12 - 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
A1. Height >1.5m average along length. A2. Width >1.5m average along length. B1. Gap between ground and base of canopy <0.5 m for >90% of length.	• Prune hedge once a year shaping the hedge to be slightly narrower at the top compared to the base, to allow light to reach lower sections of the hedge. • Prune mature plants in a way that promotes natural form	Every 2 years												
B2. Gaps make up <10% of total length and no canopy gaps >5 m	• Replace any failed plants with new whips, following planting outlined within landscape proposals	As required												
C1. >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: - measured from outer edge of hedgerow, and - is present on one side of the hedge (at least).	• This criterion cannot be passed due to land use surrounding the hedgerows													
C2. Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	• No use of fertilisers to prevent nutrient enrichment, allow for a higher diversity of flora and prevent a few species dominating	Ongoing												
D1. >90% of the hedgerow and undisturbed ground is free of	• Identification and removal of invasive non-native species as soon as possible. Where possible, do this by	As required												

invasive non-native and neophyte species.	hand. If necessary, application of herbicide should be carried out by an experienced contractor.		
D2. >90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	• Damaging practices and activities should be avoided around the hedge e.g., use of machinery to allow plants to grow to maturity and in good health	Annually	

DRAFT

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

4.2.1.1 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.

4.2.1.2 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.

4.2.1.3 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.

DRAFT

4.2.2 Individual Trees – Urban Trees (Retained - Good)

4.2.2.1 This habitat will be retained in its current condition (good); therefore, the existing condition scores for each criterion detailed within Table 13 should continue to be achieved over the 30-year period covered by this management plan.

Table 13 – Monitoring Results for Retained Urban Tree

Condition Criteria	Target Condition Score	Year										Comments / Remediation Measures
		0	1	2	3	4	5	10	15	20	25	30	
A. The tree is a native species (or at least 70% within a block)	Pass												Trees to be replaced like for like if failure occurs
B. The tree canopy is predominantly continuous	Pass												Essential pruning only to be carried out by suitably qualified contractors
C. The tree is mature or veteran	Fail												Likely to pass over the 30-year period. Regularly monitor health via visual tree assessment and undertake management works where required
D. There is little or no evidence of an adverse impact on tree health by anthropogenic activities	Pass												Avoid damaging activities around trees and unnecessary works
E. Natural ecological niches present	Pass												Leave ivy growth and deadwood in situ
F. More than 20% of the tree canopy area is oversailing vegetation beneath	Pass												Retain understory growth beneath tree canopies

4.2.3 Individual Trees – Urban Trees (Retained - Moderate)

4.2.3.1 This habitat will be retained in its current condition (moderate); therefore, the existing condition scores for each criterion detailed within Table 14 should continue to be achieved over the 30-year period covered by this management plan.

Table 14 – Monitoring Results for Retained Urban Tree

Condition Criteria	Target Condition Score	Year											Comments / Remediation Measures
		0	1	2	3	4	5	10	15	20	25	30	
A. The tree is a native species (or at least 70% within a block)	Pass												Tree to be replaced like for like if failure occurs
B. The tree canopy is predominantly continuous	Pass												Essential pruning only to be carried out by suitably qualified contractors
C. The tree is mature or veteran	Fail												Likely to pass over the 30-year period. Regularly monitor health via visual tree assessment and undertake management works where required
D. There is little or no evidence of an adverse impact on tree health by anthropogenic activities	Pass												Avoid damaging activities around tree and unnecessary works
E. Natural ecological niches present	Fail												Leave ivy growth and deadwood in situ where appropriate
F. More than 20% of the tree canopy area is oversailing vegetation beneath	Pass												Retain introduced shrub beneath tree canopy

4.2.4 Hedgerow - Species-Rich Native Hedgerow (Retained)

4.2.4.1 Part of this habitat will be retained in its current condition (good); therefore, the existing condition scores for each criterion detailed within Table 15 should continue to be achieved over the 30-year period covered by this management plan.

Table 15 – Monitoring Results for Species-Rich Native Hedgerow

Condition Criteria	Target Condition Score	Year											Comments / Remediation Measures
		0	1	2	3	4	5	10	15	20	25	30	
A1. Height: >1.5 m average along length	Pass												Avoid unnecessary pruning and undertake works outside of nesting season
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												Fill any gaps that arise in canopy with native whips
C1. >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length	Fail												This criterion will not pass due to the location of the hedgerow
C2. Undesirable species <20% cover of the area of undisturbed ground	Pass												Ensure pruned material is removed from site and no use of fertilisers around hedgerow

D1. >90% of hedgerow and undisturbed ground is free from Invasive Non-native species	Pass												Continuous monitoring for, and removal of, invasive species
D2. Current damage: >90% of the hedgerow or undisturbed ground is free of damage caused by human activities	Fail												Essential works only to be undertaken by a qualified professional and no use of chemical fertiliser/herbicide around hedgerow

DRAFT

4.2.5 Individual Trees – Urban Trees (Created - Moderate)

4.2.5.1 The expected condition of the proposed urban trees is moderate. The condition scores for each criterion detailed within Table 16 should continue to be achieved over the 30-year period covered by this management plan.

Table 16 – Monitoring Results for Proposed Urban Tree

Condition Criteria	Target Condition Score	Year										Comments / Remediation Measures
		0	1	2	3	4	5	10	15	20	25	30	
A. The tree is a native species (or at least 70% within a block)	Pass												Tree to be replaced like for like if failure occurs
B. The tree canopy is predominantly continuous	Pass												Essential pruning only to be carried out by suitably qualified contractors
C. The tree is mature or veteran	Fail												Time to maturity dependent on tree species
D. There is little or no evidence of an adverse impact on tree health by anthropogenic activities	Pass												Avoid damaging activities around tree and unnecessary works
E. Natural ecological niches present	Fail												Allow ivy growth and leave deadwood in situ
F. More than 20% of the tree canopy area is oversailing vegetation beneath	Fail												Cannot pass due to location of trees

4.2.6 Hedgerow – Species Rich Native Hedgerow (Created - Moderate)

4.1.1.1 Table 17 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 17 – Monitoring Results for Created 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	Pass												Avoid unnecessary pruning and undertake works outside of nesting season
A2. Width: >1.5 m average along length	Fail												The width of the hedgerow is expected to be limited by its location
B1. Gap between ground and base of canopy <0.5 m for >90% of length	Pass												Fill any gaps that arise in canopy with native whips and avoid unnecessary pruning which would lift the canopy
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												This criterion will not pass due to the location of the hedgerow
C2. Undesirable species <20% cover of the area of undisturbed ground	Pass												Ensure pruned material is removed from site and no

													use of fertilisers around hedgerow
D1. >90% of hedgerow and undisturbed ground is free from Invasive Non-native species	Pass												Continuous monitoring for, and removal of, invasive species
D2. Current damage: >90% of the hedgerow or undisturbed ground is free of damage caused by human activities	Fail												The hedgerow is expected to receive disturbance due to its location
Condition Score	Moderate												

DRAFT

5 References

Artform Architects (2024). Energy Centre – Proposed Site Plan Rev03.

Basingstoke and Deane (2010). Hedgerows – A Guide to their Management.

Baker, J., Hoskin, R. and Butterworth, T. (2019). Biodiversity net gain. Good practice principles for development: A practical guide.

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2023). *UK Habitat Classification – Habitat Definitions V2.0.*

CIEEM (2019). Advice Note on the Lifespan of Ecological Reports and Surveys. CIEEM.

Department for Environment, Food & Rural Affairs (2024a). Statutory Biodiversity Metric: User Guide.

Department for Environment, Food & Rural Affairs (2024b). Statutory Biodiversity Metric Condition Assessments.

Greater Manchester Biodiversity Project (2009). Greater Manchester Biodiversity Action Plan (BAP).

Greater Manchester Combined Authority (2021). GMCA Biodiversity Net Gain: Guidance for Greater Manchester.

Greater Manchester Combined Authority (2022). MappingGM – GMODIN. Available at: https://mappinggm.org.uk/gmodin/#os_maps_light/10/53.5069/-2.3201.

Greater Manchester Combined Authority (2024). Places for Everyone Joint Development Plan Document for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan.

Manchester City Council (2012). Core Strategy Development Plan Document.

Manchester City Council (2024). Local Development Framework Area Map Browser. Available at: https://mcr-council.maps.arcgis.com/apps/webappviewer/index.html?id=565a33eaba904b2dabf4c3dd8685db80 .

Stace, C. (2010). New Flora of the British Isles. 3rd ed. Cambridge: Cambridge University Press.

The Tree Council (2007). Managing and Caring for Trees.

Urban Green (2024a). Preliminary Ecological Appraisal (PEA). Ref: UG_2623_ECO_PEA_01.

Urban Green (2024b). Biodiversity Net Gain Design Stage Assessment. Ref: UG_2623_BNG_02.

Wildlife and Countryside Act (1981).

DRAFT

APPENDIX 1 – SITE CONTEXT

URBAN GREEN



Legend:

Red Line Boundary

0.4

Kilometers

N

Client: Manchester Energy Partnership	Issue: 01	Figure: 01	
Project: Octagon House	Scale @ A4: 1:5000		
Title: Site Context	Approved by: SB	Checked by: SP	
Drawing Ref: UG_2623_SITE_CONTEXT	Author: CL	Date: 11/07/2024	

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

APPENDIX 2 – PHOTOGRAPHS

URBAN GREEN



Photograph 1: Car park



Photograph 2: Introduced shrub



Photograph 3: Urban tree



Photograph 4: Species rich native hedgerow

APPENDIX 3 – BASELINE HABITAT MAP

URBAN GREEN

385500 385520 385540 385560 385580 385600 385620 385640 385660

396000 395980 395960 395940 395920 395900 395880

Carmoor Road

Carmoor Road

Carmoor Road

Carmoor Road

Autumn Street

Hathersage Road

Hathersage Road

h2a5

u1b

u 847

U R B A N
G R E E N

Legend

- Red Line Boundary
- Species-rich native hedgerow
- Developed land sealed surface
- Urban
- Urban Tree

N

0 5 10 20 Meters



Do not scale this drawing (printed or electronic version).
This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.
Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when compared to the original paper or electronic image.

Client: Manchester Energy Partnership		
Project: Octagon House		
Title: UKHAB Habitat Map		
Issue: 01	Figure: 00	
Drawn: CL	Checked: SB	Approved: SB
Project: UG2623	Scale @ A3: 1:500	Date: 31/07/2024
Dwg No: UG_2623_ECO_HM_01		Revision: 01

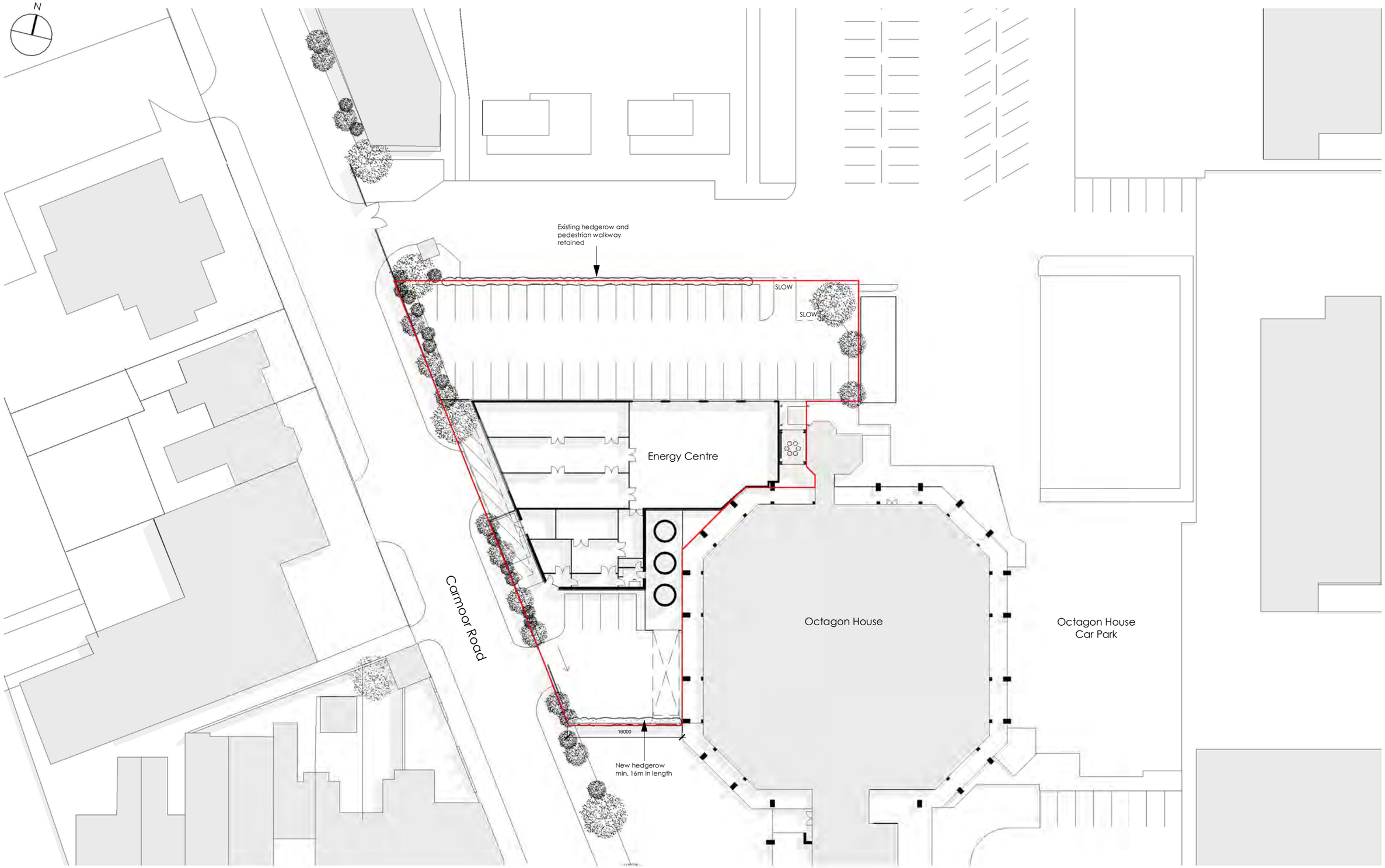
APPENDIX 4 – PRIMARY AND SECONDARY CODES

URBAN GREEN

Hierarchical code	Code	Definition
Primary Code	h2a5	Species rich native hedgerow
	u	Urban
	u1b	Developed land; sealed surface
Secondary Code	847	Introduced shrub

APPENDIX 5 – PROPOSED LANDSCAPE PLAN

URBAN GREEN



DO NOT SCALE FROM THIS DRAWING.
All drawings and visuals are provided for illustrative purposes only and are indicative proposals subject to detailed design and structural coordination. AA advises all measurements to be checked on site.

Specific details and materials/colours are subject to further design development.

COPYRIGHT: Artform Architects.

Rev	Description	Date	By
01	Amendments made following comments by planners	29/01/2021	CA
02	Facade line amended along Carmoor Road	10/02/2021	CA
03	Hedgrerows added	16/12/2024	JE

SCALE	STATUS	DATE
1 : 500 @A3	PLANNING	10/02/2021
DWG No	DRAWN	REV
OEC/PL/001	CA	03

Energy Centre
Proposed Site Plan

WEB: www.artformarchitects.com | **EMAIL:** info@artformarchitects.com
Studio Nine, 9 Stevenson Square, Manchester, M1 1DB | **TEL** 0161 6600377

ARTFORM ARCHITECTS

APPENDIX 6 – INVASIVE, NON-NATIVE SPECIES

URBAN GREEN

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 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 (*scientific name*)	Identification	
Himalayan balsam (*Impatiens glandulifera*)	• 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	
Japanese knotweed (*Fallopia japonica*)	• Bamboo like stems with purple flecks • Large, shovel shaped leaved • Cream/white clustered flowers	
Rhododendron (*Rhododendron* spp.)	• Woody stems • Oval, dark green, glossy leaves • Dense clusters of flowers of various colours	

Montbretia (*Crocosmia x crocosmiiflora*)	• Low growing plant • Long, thin, light green leaves • Bright orange flowers	
Cotoneaster (*Cotoneaster* 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 (*Lamium galeobdolon subsp. Argentatum*)	• Low growth which forms carpets on the ground • Opposite, variegated leaves • Small, round, yellow flowers	