



Bury Interchange – Phase I Southern Access

Habitat Management and Monitoring Plan

Prepared For: Willmott Dixon

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Version 5.0

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1.0	21/08/25	CT	MFW/RT/GD	Issued for comment.	Superseded.
2.0	08/12/25	MG	CT	Amendments following client comment.	Superseded
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The conclusions and recommendations contained in this document are based upon information gathered by TEP and provided by third parties. Information provided by third parties and referred to herein has not been independently verified by TEP, unless otherwise expressly stated in the document.

Nothing in this report constitutes legal opinion. If legal opinion is required, the advice of a qualified legal professional should be secured.

Site Overview

Site Name and Address	Bury Interchange, Phase I – Southern Access
Central OS Grid Reference	SD 80377 10386
Central w3w	///storm.panic.spark
Project Type	The proposed new Southern Access footbridge links to the Pyramid Park site. Bury Council, as applicant, has recently secured full planning permission (LPA ref. 71834/Full) for the remediation of the Pyramid Park site which was formerly a railway station and sidings before being reclaimed as public open space
Landowner / Organisation Responsible for Habitat Creation	Willmott Dixon
Land Manager or Management Company Responsible for Long-Term Management	Transport for Greater Manchester (TfGM)
Author	The Environment Partnership (TEP) Ltd
Planning Authority	Bury Council
National Landscape Character Area	National Character Area 54 – Manchester Pennine Fringe
BNG Metric Reference	16102-TEP-ZZZ-ZZZ-T-EN-L-EN-000001 BNGStatMetric
Irreplaceable Habitats	None present within HMMP

Summary of Habitat Management and Monitoring Plan (HMMP)

Habitats to be Retained, Created and Enhanced	Summary of retained, created and enhanced habitats on-site: ■ Modified Grassland (retained and created); ■ Urban Tree (retained and created); ■ Other Neutral Grassland (created); ■ Other Woodland; Broadleaved (created) ■ Mixed Scrub (created and enhanced); ■ Introduced shrub (created); and ■ Façade-bound Green Wall (created).
Timescales for Actions	Establishment period estimated 0-5 years HMMP period minimum 30 years
BNG Monitoring Requirements	Habitat condition monitored against UK Habitat criteria in years 2,3,5,7,10,15,20,25,27,30
HMMP Update Requirements	The HMMP will be informally reviewed on an annual basis to ensure management prescriptions appropriate to the habitats on site particularly during the establishment period. The HMMP will undergo a formal review every 5 years to ensure the plan is meeting the changing needs of the Site.
Required Consents and Licences	None associated with the Site.
Legal Agreement	Secured via planning consent.

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- Drawing 3: Site of Biological Importance (SBI) Fencing Plan (TEP ref: G10850.024A)

1.0 Introduction

Purpose of the Habitat Management and Monitoring Plan (HMMP)

- 1.1 This HMMP has been produced by The Environment Partnership (TEP) Limited on behalf of Willmott Dixon. The HMMP provides a framework for supporting the delivery of Biodiversity Net Gain (BNG) at Bury Interchange, Phase 1 southern access (hereby referred to as the 'Site').

Scope of the HMMP

- 1.2 This HMMP sets out a coordinated, overarching approach to the management of the habitats, open space and landscaping within the Site. At a strategic level, the HMMP will be used to guide decision making and management interventions, as well as monitoring mechanisms to ensure the successful establishment of each habitat across a 30-year period. At an operational level, the HMMP will be used to inform the day-to-day practical landscape maintenance operations.
- 1.3 The below chapters link to the relevant parts of the associated planning condition:
- 1. Non-technical summary is detailed in the Site overview section;
 - 2. The roles and responsibilities of the people of organisation delivering the HMMP is detailed under chapter 4;
 - 3. The planned habitat creation and enhancement works to create and improve habitat to achieve the biodiversity net gain in accordance with the approved Biodiversity Gain Plan is detailed under chapter 5;
 - 4. The management measures to maintain habitat in accordance with the approved biodiversity gain plan for a period for 30 years from the completion of the development is under chapter 5; and
 - 5. The monitoring methodology and frequency in respect of the created or enhanced habitat to be submitted to the local planning authority is detailed under chapter 6.
- 1.4 This HMMP has been informed by the design proposals, ecological baseline and Arboricultural information and should be read in conjunction with the following documents:
- Site Masterplan (Oobe ref: 16012-OOB-ZZZ-ZZZ-D-LA-000001);
 - Detailed Planting Plan (Oobe ref: 16012-OOB-ZZZ-ZZZ-D-LA-000045);
 - Arboricultural Impact Assessment (TEP ref: 10850.01.001);
 - Ecological Impact Assessment (TEP ref: 16102-TEP-ZZZ-ZZZ-M-EN-000003);
- and

- Biodiversity Net Gain (BNG) Design Stage Report (TEP ref: 16102-TEP-ZZZ-ZZZ-T-EN-00005).
- 1.5 This HMMP has been informed by British Standard 8683:2021 Process for Designing and Implementing BNG and BNG Good Practice Principles for Development, A Practical Guide¹.

Structure of the HMMP

- 1.6 The HMMP comprises the following chapters:
- Chapter 2.0 provides an overview of the Site's baseline landscape and ecological features;
 - Chapter 3.0 provides details of the Site's planning, development and BNG rationale and commitment;
 - Chapter 4.0 includes roles and responsibilities for the long-term management of the Site;
 - Chapter 5.0 details the management intentions and maintenance operations associated with the delivery of BNG; and
 - Chapter 6.0 sets out how the success of the HMMP will be monitored, reviewed and updated over time.
- 1.7 The following appendices are included and support this HMMP:
- Appendix A provides a table of maintenance operations;
 - Appendix B summarises relevant legislation; and
 - Appendix C is the BNG monitoring schedule and summary of the BNG commitment for the Site.
- 1.8 The following drawings are included and support this HMMP:
- Site Masterplan (Oobe ref: 16012-OOB-ZZZ-ZZZ-D-LA-000001);
 - Detailed Planting Plan (Oobe ref: 16012-OOB-ZZZ-ZZZ-D-LA-000045);and
 - Site of Biological Importance (SBI) Fencing Plan (TEP ref: G10850.024A).

¹ Biodiversity Net Gain (BNG) Good practice principles for development. A practical guide. <https://cieem.net/wp-content/uploads/2019/02/C776a-Biodiversity-net-gain.-Good-practice-principles-for-development.-A-practical-guide-web.pdf>

2.0 Overview of Baseline Site

Site Location

- 2.1 The site (central grid reference SD 80377 10386) is within the administrative area of Bury Metropolitan Borough Council. The main site is bounded by Bury Interchange to the north Pyramid Park/Market Street to the east; East Lancashire railway line to the south; and Duke Street/Knowsley Place to the west. .

Land Use Summary

- 2.2 Table 1 summarises the wider baseline environmental information for the Site and HMMP.

Table 1: Summary of Baseline Environmental Information

Baseline Feature	Feature Description Relevant to HMMP
Baseline Habitat Survey	Baseline habitats are illustrated in Phase 1 drawing (TEP ref: G10850.002). Baseline habitats comprised the following: ■ Urban Tree; ■ Modified Grassland; ■ Bramble Scrub; ■ Other Woodland; Broadleaved; and ■ Introduced Shrub
Ecological Surveys	UK Habitat Survey (TEP 2024); and Ecological Desktop Study (TEP, 2024).
Environmental Designations	There are 12 non-statutory designations within 2km of the Site. Townside Site of Biological Importance (SBI) is located within the Site boundary.
Landscape Character Designations	National Character Area 54 – Manchester Pennine Fringe
Protected and Notable Species ²	The Ecological Impact Assessment (TEP ref: 16102-TEP-ZZZ-ZZZ-M-EN-000003) identified minimal notable species onsite. A review of roosting potential was completed on-site with tree being young and providing minimal roosting potential. Existing buildings and structures within the site were surveyed and it was found that there was none suitable for roosting bats.

² Further information of legislative requirements for protected species is included in Appendix B

Protected and Notable Habitats	None identified on-site.																								
Invasive Non-Native Species	As detailed within the Ecological Impact Assessment (TEP ref: 16102-TEP-ZZZ-ZZZ-M-EN-000003) cotoneaster species was recorded around the Site, with mitigation measures detailed within section 5.0 of the assessment.																								
Climate	The following climate data is based on the Met Office³ data for the climate period 1991-2020 at – Climate Station: Rochdale <table> <tr> <td>Days of rain per year</td><td>170 days</td></tr> <tr> <td>Average annual rainfall</td><td>1197 mm</td></tr> <tr> <td>Wettest month</td><td>December</td></tr> <tr> <td>Driest month</td><td>May</td></tr> <tr> <td>Average annual temperature</td><td>10°C</td></tr> <tr> <td>Warmest month</td><td>July</td></tr> <tr> <td>Coldest month</td><td>January</td></tr> <tr> <td>Average annual hours of sunshine</td><td>9hrs</td></tr> <tr> <td>Sunniest month</td><td>July</td></tr> <tr> <td>Prevailing winds</td><td>West</td></tr> <tr> <td>Days of air frost</td><td>44 days</td></tr> <tr> <td>Frostiest month</td><td>January</td></tr> </table>	Days of rain per year	170 days	Average annual rainfall	1197 mm	Wettest month	December	Driest month	May	Average annual temperature	10°C	Warmest month	July	Coldest month	January	Average annual hours of sunshine	9hrs	Sunniest month	July	Prevailing winds	West	Days of air frost	44 days	Frostiest month	January
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Sunniest month	July																								
Prevailing winds	West																								
Days of air frost	44 days																								
Frostiest month	January																								
Geology and Topography	Geology and topography details were collated via the British Geological Survey Map ⁴ . The Site comprises of interbedded grey mudstone, siltstone and pale grey sandstone, commonly with mudstone containing marine fossils in the lower part. Thickness up to 650m thick in north of Staffordshire and 720m thick in Lancashire.																								
Agricultural Land Status	Review of the regional agricultural land classification maps identified the site as land predominantly in urban use ⁵ .																								
Soils and Substrates	Review of the Land information system soil scape viewer ⁶ shows that the site is situated on soilscape 6 which comprises freely draining slightly acid loamy soils.																								
Hydrology and Drainage	No main rivers or ditches are identified on site.																								

³ Location- specific long-term averages – available from <https://www.metoffice.gov.uk/research/climate/maps-and-data/location-specific-long-term-averages/>

⁴ BGS Geology Viewer – available from https://geologyviewer.bgs.ac.uk/?_ga=2.81651735.140819144.1724234248-152679021.1724234248

⁵ Natural England Access to Evidence – Regional Agricultural Land Classification Maps – available from <https://publications.naturalengland.org.uk/category/5954148537204736>

⁶ Land Information System Soil Scape Viewer – available from <https://www.landis.org.uk/soilscales/>

Flood Risk Zones	Review of the flood risk summary details that the site is of low risk for yearly flooding and yearly flooding for surface water between 2040 and 2060, including rivers and the sea.
Historic Environment and Land Use	N/a

3.0 Planning, Development and BNG Rationale

3.1 The proposed new Southern Access footbridge links Bury Interchange to the Pyramid Park site. Bury Council, as applicant, has recently secured full planning permission (LPA ref. 71834/Full) for the infill of the existing underpass, engineering works (including remediation works; foundation/piling works; and other associated engineering works) to recontour the land within Pyramid Park to tie into existing levels, the construction of a fully accessible pedestrian bridge structure (including alterations to Metrolink-related infrastructure) across the existing Metrolink line to allow access between Knowsley Place, the Metrolink platform (via lift and stairs) and Pyramid Park; improvements to the existing Metrolink platforms and canopies; construction of a new sloped footpath with stairs within Pyramid Park site from the bridge; hard/soft landscaping; and associated drainage and lighting schemes.

3.2 The development has been granted subject to conditions, including Condition 22, which states:

3.3 *“The development shall not commence until a Habitat Management and Monitoring Plan (the HMMP), prepared in accordance with the Biodiversity Gain Plan including:*

1. a non-technical summary;
2. the roles and responsibilities of the people or organisation(s) delivering the HMMP;
3. the planned habitat creation and enhancement works to create or improve habitat to achieve the biodiversity net gain in accordance with the approved Biodiversity Gain Plan;
4. the management measures to maintain habitat in accordance with the approved Biodiversity Gain Plan for a period of 30 years from the completion of development; and
5. the monitoring methodology and frequency in respect of the created or enhanced habitat to be submitted to the local planning authority has been submitted to, and approved in writing by, the local planning authority. Only the approved details and scheme shall be implemented.

Reason: To ensure the development delivers a biodiversity net gain on site in accordance with Schedule 7A of the Town and Country Planning Act 1990 and Places for Everyone Joint Development Plan Policy JP-G8 A Net Enhancement of Biodiversity and Geodiversity.”

3.4 This HMMP has been formed to support the planning application through discharging Condition 22, and provide management operations and intentions for the associated Site.

BNG

3.5 Developers are required to deliver a BNG minimum of 10% to ensure the natural environment is in a measurably better condition than it was pre-development.

3.6 The National Planning Policy Framework (NPPF) (February 2024), states that:

"planning policies and decisions should contribute to and enhance the natural and local environment by:

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures".

3.7 BNG is measured in biodiversity units (BU). BU are allocated to each existing habitat present on a site based on their condition, distinctiveness, and strategic significance.

3.8 The Department for Environment Food & Rural Affairs' (DEFRA) Statutory Biodiversity Metric Calculation Tool is used to:

- Quantify and score the baseline BU on site for each habitat;
- Identify and score the BU to be lost due to the proposed development; and
- Identify and score the BU to be retained, enhanced and created.

Baseline Calculation

3.9 A baseline biodiversity calculation of the Site was undertaken (TEP, 2024) in line with Phase 1 habitat survey assessment methods (JNCC, 2010) /UK Habitat Classification User Manual (2020) and the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017).

3.10 The BNG commitment has been calculated using DEFRA's Statutory Biodiversity Metric Calculation Tool (16102-TEP-ZZZ-ZZZ-T-EN-L-EN-000001 BNGStatMetric) and is outlined in the BNG design stage report (TEP ref: 16102-TEP-ZZZ-ZZZ-T-EN-00005).

Securing BNG

3.11 Whilst the Site itself does not deliver a net gain of BU's, Discussions with the LPA will be required with the intention of securing the shortfall through the purchase of biodiversity units from an offsite provider.

3.12 The BUs within the Site will be delivered as follows:

- Habitat enhancement: The majority of existing habitats are in poor condition due to lack of management. It is intended that these habitats will be enhanced through targeted management interventions. The target condition for each habitat is defined in Chapter 5.0 alongside specific management activities to achieve the associated target conditions.

- Habitat creation: new habitats including urban trees, other neutral grassland, mixed scrub, other woodland; broadleaved, modified grassland, introduced shrub and a façade-bound green wall will be created. Each new habitat has a target condition that should be achieved within the lifetime of this HMMP. Some habitats reach their target condition quickly; others take considerably longer.
- 3.13 The BUs committed to as part of the planning process will be managed for at least 30 years to deliver the BU and ensure a net gain.
- 3.14 This HMMP is a key part of the delivery of the intended BU's. A monitoring and review strategy is included in Chapter 6.0, and BNG auditing schedule is in Appendix C. It requires a competent person to certify that:
- Newly created habitats are on course to meet their target condition;
 - Existing habitats are improving in line with commitments relating to target condition; and
 - Any remedial measures are in place to address shortfalls in target condition.
- 3.15 This HMMP has been prepared to support the planning application, and to demonstrate that measurable BNG can be delivered.

4.0 Roles and Responsibilities

Defects Period

- 4.1 During the defects liability period, landscape maintenance and replacement of failed planting will be completed by the landscape contractor who has implemented the scheme.

Practical Completion

- 4.2 BNG Good Practice Principles for Development, A Practical Guide, recommends that a site audit is completed by a competent landscape/ecological professional to review the condition of all habitats which contribute to achieving BNG. The audit should be completed as part of practical completion and prior to the transfer of land to the TfGM for long-term management.

Long-Term Management

- 4.3 Following the defects liability period the Landowner (Transport for Greater Manchester – TfGM) will be responsible for operational management and maintenance of the habitats and landscape within the Site.
- 4.4 TfGM will require the necessary experience and certificates of competence to undertake landscape management operations on site. Where practical, contractors with experience in biodiversity management will be sought. TfGM will ensure that management complies with the guidelines set out in this HMMP.

Mechanism to Secure Delivery

- 4.5 TfGM will have a contractual responsibility to ensure the Site is maintained appropriately to deliver the BU's committed to as part of the development.
- 4.6 TfGM will liaise with the Local Planning Authority during the lifetime of this HMMP (30 years), to ensure that any amendments or changes to management and maintenance are agreed to in writing.

Health and Safety

- 4.7 Management of the Site must be in line with all legislation relating to health and safety and the environment. A review of the relevant legislation affecting site management is at Appendix B.
- 4.8 TfGM will retain ultimate responsibility for the health and safety of the open space and landscaping associated with the Site. The Site will be subject to informal inspections and a formal annual inspection. Whenever the Site is visited, any deficiencies in safety provision will be noted and acted upon.

- 4.9 TfGM is responsible for complying with the provisions of the Health and Safety at Work Act 1974. All machinery and apparatus brought onto the Site shall be safe and maintained to a standard that will not breach provisions within the Health and Safety at Work Act 1974 or any other statutory obligations.
- 4.10 TfGM shall be adequately trained and sufficiently competent to carry out maintenance operations without causing a Health and Safety risk to themselves or other users of the Site.
- 4.11 All works shall be undertaken in accordance with the relevant codes of practice. Appropriate machinery shall be used inclusive of adequate personal protective equipment to avoid harm to themselves or any other persons.

Biosecurity

- 4.12 TfGM should have a sufficient awareness of new and ongoing biosecurity threats, and the necessary precautions to avoid their spread should be undertaken on sites where they are known or suspected.
- 4.13 New findings of suspected non-indigenous plant pests and diseases should be reported to the Plant Health and Seeds Inspectorate or Forestry Commission - Forest Research Tree Health Diagnostic and Advisory Service or both.

Management Plan Reviews

Informal Review

- 4.14 TfGM will undertake an informal review of the maintenance operations annually to ensure that the maintenance operations are meeting the original management objectives and responding to the developing needs of the Site.
- 4.15 Informal reviews will identify the need for additional maintenance operations and inform future management decisions. This can be achieved by:
- Quarterly formal site inspections by TfGM to assess the appointed contractor's quality standards and deliverables in line with this HMMP;
 - An annual site meeting with TfGM, stakeholders and the appointed contractor to assess quality standards and deliverables in line with this HMMP; and
 - Ad hoc unannounced inspections by TfGM to review quality of maintenance work and any potential Health and Safety issues.

Formal Review

- 4.16 A formal review will be undertaken at the end of the first 5-year period following the first year's establishment period and the transition into long-term management.

Subsequent formal reviews will be completed every 5 years unless there is the requirement to increase the monitoring frequency following the review process.

- 4.17 The formal review will include the key measures achieved, habitat condition assessments in line with the BNG audit program and will refer to any ecological reporting undertaken.
- 4.18 The formal review will also consider if any adaptations to existing landscape and habitat management activities are required to ensure habitats are on course to meet expected target conditions.
- 4.19 It is also recommended a cash-flow forecast as part of the formal review process to ensure sufficient funds are in place to deliver long-term management of the Site.

BNG Monitoring

- 4.20 The management intentions and operations at Chapter 5.0 include target conditions for each habitat and the appropriate management operations required to achieve the expected target condition. Monitoring relating to specific BNG commitments should be undertaken in line with Chapter 6.0 and Appendix C.

5.0 Management Intentions and Operations

Management Objectives

5.1 The long-term management objectives of this HMMP are:

- To ensure new planting establishes to create a high-quality landscaping scheme to provide an attractive and desirable setting to the development;
- To maximise the BU's delivered by habitats on Site;
- To ensure the scheme is successfully maintained;
- To enhance public awareness and appreciation of the habitats and associated flora and fauna of the Site; and
- To comply with legal obligations and constraints.

Landscape Elements

5.2 The Site will comprise the following landscape elements as shown on the Site Masterplan (Oobe ref: 16012-OOB-ZZZ-ZZZ-D-LA-000001) and Detailed Planting Plan (Oobe ref: 16012-OOB-ZZZ-ZZZ-D-LA-000045) which includes planting quantities.

Habitats associated with BNG:

- Existing Trees, Saplings and Vegetation;
- Proposed Woodland Planting;
- Proposed Tree and Sapling Planting;
- Proposed Scrub Planting;
- Proposed Ornamental Planting;
- Proposed Species Rich Lawn;
- Proposed Wildflower Meadow; and
- Façade Green Wall.

Landscape features associated with site wide management:

- Bird Box;
- Bat Box;
- Proposed Paving, Tarmac and Walls; and
- Proposed HWM Bollard, Benches, handrails, fencing and signage.

5.3 This chapter details management intentions for each element listed above.

- 5.4 The current habitat condition and target condition of habitats associated with BNG (as detailed within the Biodiversity Metric Calculator (TEP ref: 16102-TEP-ZZZ-ZZZ-T-EN-L-EN-000001 BNGStatMetric) are included alongside key issues which require addressing to achieve the target condition. These are indicative only and based on site assessment and landscape drawings and will be re-evaluated based on As Built Drawings at completion of the landscape scheme.
- 5.5 The condition of each habitat will be reviewed during the audit process to ensure they are on track to achieve the anticipated target condition and BU. Ongoing monitoring will ensure adaptive management can be undertaken in good time if required. BNG monitoring requirements are included in Chapter 6 and a monitoring schedule is included in Appendix C.

General Management Principles

Site Inspections

- 5.6 Regular inspections will ensure any health and safety hazards are identified and made safe. Site inspections will be undertaken monthly to identify any health and safety hazards and arrange for them to be made safe as far as is practicable.
- 5.7 Results from the monthly site inspections will be compiled and presented within the annual report which will be used in the review of the HMMP as detailed in Chapter 6.0.

Tree Risk Management Strategy

- 5.8 This HMMP does not prescribe how tree risk management must be delivered. The responsibility of tree risk lies with the landowner on which trees are located unless it is transferred to another party by agreement.
- 5.9 By virtue of their location and/or size some trees have an inherently greater capacity to cause injury than others. Prior to transfer of public open space areas to the appointed management company, a qualified arboriculturist should carry out an inspection of mature trees within or adjacent to areas of public access to check for damage and disease and to maintain appropriate height clearances for safe pedestrian access.
- 5.10 Following the inspection a tree risk management strategy should be developed by a qualified arboriculturist which will differentiate between frequency of inspection and thresholds of tolerable risk proposed by tree stock.

Site Cleansing

- 5.11 A litter pick of the Site will be carried out weekly. All litter will be removed and disposed of in an authorised manner.

Chemical Use and Weeding

- 5.12 It should be recognised that plants considered as weeds can provide suitable habitat for invertebrates.
- 5.13 Ragwort and thistles are important food sources pollinators, provide seeds for birds and habitat for a range of invertebrates. Weeding should be an adaptive process. Monitoring of habitats will identify occurrence of problem species and if any species is becoming over-dominant or problematic appropriate action should then be taken.
- 5.14 Weed control where feasible should be undertaken by hand pulling, however in certain instances herbicide may be the most effective measure to remove unwanted species. Where herbicide application is undertaken this should be in small, controlled areas and should only target the undesirable species. Herbicides should comply with the Control of Pesticides Regulations as amended (1997) and be on the current list of approved products.
- 5.15 Consideration would need to be given to the fact that chemicals can prevent growth of grasses and woody species in landscape schemes.
- 5.16 Fertiliser is not to be applied to any of the meadow areas in order to conserve the development of a diverse sward.

INNS Management (Cotoneaster) – Construction Phase

- 5.17 A suitably qualified person⁷ will ensure that cotoneaster stems are cut close to ground level using appropriate machinery which will consider the amount of cotoneaster to be removed, location of infestation on site and the topography.
- 5.18 The cut material will then be chipped prior to disposal. All roots will be dug out and removed from site along with chippings as green waste.

Protective SBI Fencing – Construction Phase

- 5.19 Heras fencing which, may be secured by concrete footing, will be implemented along the current access road. Where the heras fencing is positioned within root a protection area (as shown on preliminary tree protection plan (TEP ref:D10850.01.002)) the heras panels will need to be secured via above ground means to prevent any excavation activities taking place within the Root Protection Areas of the retained trees adjacent to the road.
- 5.20 Orange barrier fencing such as netlon will be implemented from the bottom of the road and will cut across the site as shown in the Site of Biological Importance (SBI) fencing Plan (Drawing 3: G10850.024A) and will be implemented with supporting

⁷ A person with the appropriate professional qualifications, training, skills and experience.

metal pins such as road pins to de-mark the areas between the interchange scheme and the Pyramid Park scheme.

- 5.21 The use of netlon and pins will be required to ensure the fencing is implemented across the irregular topography across the site and along the steep banks of the site.

Inspections and Remedial Measures

- 5.22 An inspection of the fencing will be conducted weekly to ensure any damaged areas are repaired or replaced following the original specification. This will ensure that fencing is erect during the

Existing Trees, Saplings and Vegetation

Management Intentions

- 5.23 Areas of existing trees, saplings and vegetation will be retained on-site and will provide mature and established areas of vegetation across the Site. This will provide areas of foraging, shelter and commuting habitat for locally identified wildlife species. Exact details for trees, sapling and vegetation that will be retained and areas that require pruning are specified on the Tree Works Plan (Drawing 2) (TEP ref: 10612-TEP-ZZZ-ZZZ-D-EN-000007).
- 5.24 An arboriculturist will be consulted prior to undertaking any major tree works within the Site. Existing trees and vegetation will be retained in moderate and good condition and will support the developments BNG aspirations.

Management Operations

Formative Pruning

- 5.25 Pruning to facilitate the development of good form and to remediate developing structural defects will be undertaken at the discretion of a qualified arboriculturist and form part of Tree Risk Management (sections 4.34 to 4.47).
- 5.26 Tree and branch failures will be removed where they present an obstruction or hazard.

Crown Maintenance

- 5.27 Crown lifting above marked, surfaced vehicle and pedestrian routes may be undertaken as necessary. Crown lifting for pedestrian access will be to 2.4m. Crown lifting for vehicle access will be dependent on the size of vehicle up to a maximum of 5.2m.

Weed Control

- 5.28 Mowing and strimming of the amenity grass areas adjacent to tree planting will be undertaken with care to avoid damage to buttresses, bark and surface roots.

Deadwood Strategy

- 5.29 Deadwood management will be low intervention; this means that any deadwood found will be left in situ. If leaving deadwood in situ represents a health and safety risk or hinders management access, it will be moved and stacked elsewhere in appropriate locations onsite to retain shelter and forage opportunities for wildlife.

Proposed Woodland Planting

Management Intentions

- 5.30 Woodland planting is proposed on-site and will be implemented within the south of the site. The implementation and establishment of woodland planting will provide ecological diverse habitats for wildlife species and will diversify the flora structure across the Site. The species mix implemented within the proposed woodland block will consist of native species including field maple, elder and oak species. Exact details of the species composition are described on the Detailed Planting Plan (Oobe ref: 16012-OOB-ZZZ-ZZZ-D-LA-000045).
- 5.31 An arboriculturist will be consulted prior to undertaking any major tree works within the Site and the proposed woodland block during the long-term management of the Site.

Table 1: BNG Target Condition Criteria for Proposed Woodland Planting

Woodland UKHab Community: Other woodland; broadleaved		Target Condition: Moderate	Time to Achieve Target Condition: 15 Years
Condition Assessment Criteria		Proposed	Management Intentions
A	Age distribution of trees	2	Develop at least two age classes. Retained vegetation will be supplemented with native tree planting. New planting adjacent and within the exiting woodland will create at least two age classes. Management will also include thinning and coppicing which will diversify the age structure of the woodland.

Woodland UKHab Community: Other woodland; broadleaved		Target Condition: Moderate	Time to Achieve Target Condition: 15 Years
B	Wild, domestic, and feral herbivore damage	3	Review damage where relevant and implement appropriate management interventions where applicable i.e. protective fencing, etc. Replacement of failed planting as required if damage is extensive.
C	Invasive plant species	3	Long-term management will monitor the presence of INNS species to ensure control and removal as necessary.
D	Number of native tree species	3	Long-term management will review species composition so that no one species form a monoculture. New planting will increase the native species currently present within the retained woodland.
E	Cover of native tree and shrub species	3	Planting plan includes native shrub and understory species. Management actions will review success of new planting and adjust if required to ensure successful native stock within the woodland. Woodland edge will provide opportunities along the grassland interface to allow natural succession of scrub where this does not impact the grassland habitat.
F	Open space within woodland	1	Minimal management and intervention due to the size and structure of the proposed woodland block on-site.
G	Woodland regeneration	3	Ensure that regeneration includes all three classes present in woodland. Trees 4-7cm diameter at breast height (dbh), saplings are present and good amount of coppiced growth is managed on a rotation

Woodland UKHab Community: Other woodland; broadleaved		Target Condition: Moderate	Time to Achieve Target Condition: 15 Years
H	Tree health	2	Remove any diseased trees, particularly of note is the management of ash dieback in woodland 3 and 4. Monitor woodland to ensure tree mortality is <10% with no pests, disease or crown die back.
I	Vegetation and ground flora	1	Increase seeding and bulb planting within all woodland compartments and manage tree density, opening areas up to encourage a more diverse ground flora particularly along the edges of the woodland where scalloped edges could offer gradation of habitat between woodland and grass areas.
J	Woodland vertical structure	2	Provide a more complex habitat by creating three or more stories across all woodland compartments. Thinning and coppicing existing trees and allow natural regeneration.
K	Veteran trees	1	n/a
L	Amount of deadwood	2	Promote deadwood habitat and facilitate approximately 25-50% in all compartments through habitat piles, standing deadwood and retaining dead branches and stumps.
M	Woodland disturbance	2	Continuous disturbance effecting tree health will require appropriate intervention where required to ensure viable tree health, could include protective fencing as required.

Capital Works

Woodland Planting

- 5.32 The understorey will be planted with new whips to increase the provision and species diversity. The exact species and quantity of planting is provided on the Detailed Planting Plan (Oobe ref: 16012-OOB-ZZZ-ZZZ-D-LA-000045).

Understorey Planting: Woodland Seed Mix

- 5.33 Field and shrub layer will be supplemented via the implementation of a woodland seed mix (Emorsgate EW1 Woodland Mixture). The species composition will include wildflower and grasses that will bloom in spring and early summer. Implemented species include ramsons, garlic mustard, cow parsley, foxglove, hedge bedstraw and others.

Management Operations – Following Establishment (10 Year Cycle)

Thinning and Cutting Understorey Vegetation

- 5.34 Trees for thinning will be cut to a level stump height of 150 mm for treatment with stump killer. A minimum of 50% of the stump surface will be scored over and treated to stop re-growth. Future growth of stumps will be monitored, and additional cuts and applications of stump killer will be made (or an appropriate herbicide application such as eco plugs) over the following two or three years as required.
- 5.35 Thinning and cutting understorey vegetation will be undertaken on an annual cyclical programme (5 - 10-year cycle) and will be carried out outside of bird nesting season (March to August inclusive). If works are required to any trees with bat roosting potential, advice must be sought from a licensed bat ecologist prior to any works commencing.
- 5.36 Tree thinning will focus on damaged and poor form trees and will target areas that will create natural features such as scalloped edges and small open areas within the woodland parcel. This will facilitate some natural regeneration of saplings as light is increased to the field layer. Scalloped edges will be thinned more frequently to develop a gradation of habitat between grassland and woodland encouraging field, shrub and age class of tree species across the small woodland parcel as a whole.

Deadwood Strategy

- 5.37 Deadwood management will be low intervention; this means that any deadwood found will be left in situ. If leaving deadwood in situ represents a health and safety risk or hinders management access, it will be moved and stacked elsewhere in appropriate locations onsite to retain shelter and forage opportunities for wildlife.

Individual Tree Planting

Management Intentions

- 5.38 Woodland and ornamental trees will be planted as individual trees within the landscape scheme. The trees will be positioned so their canopy over sails grassland and scrub habitat and management will focus on ensuring the trees remain as individual features within the landscape. Individual tree planting will support the

aesthetic and amenity value of the Site whilst providing greater habitat connectivity to the wider environment, foraging and nesting opportunities.

- 5.39 Tree planting will be subject to additional maintenance during the establishment period (for the first 5 years) and thereafter managed to encourage healthy development.

Table 2: BNG Target Condition Criteria for Proposed Trees and Saplings

Individual Trees UKHab Community: Urban tree		Target Condition: Moderate	Time to Achieve Target Condition: 27 Years
Condition Assessment Criteria		Proposed	Management Intentions
A	Tree is a native species (70% in block are native)	Pass	Implemented trees will be native and will follow the specification detailed on the Site masterplan and planting plan. Where planting fails this should be re-implemented until established.
B	Tree canopy is predominantly continuous	Pass	Proposed tree planting and saplings will be managed to ensure the canopy is continuous with supplemented planting across the site. This is supported by the retention of trees on-site.
C	Tree is mature (50% within block is mature)	Fail	n/a
D	Little or no evidence of adverse impact on tree health	Pass	Long-term management will review the requirements of tree protection and will implement adaptive management as required to ensure damage is minimal.
E	Natural ecological niches	Fail	n/a

Individual Trees UKHab Community: Urban tree		Target Condition: Moderate	Time to Achieve Target Condition: 27 Years
F	20% of tree canopy area is oversailing	Pass	Management will review the canopy structure to ensure 20% of the area is oversailing. Pruning and crown maintenance will be reduced as required to ensure 20% is achievable.

Maintenance Operation

Re-firming

- 5.40 Newly planted trees will require re-firming as required.

Stakes and Ties

- 5.41 Where trees are staked, the stakes and ties will be checked quarterly, and it is anticipated that they will need adjusting at least twice annually. Any broken or damaged stakes will be replaced and ties re-fixed at a slightly lower position, allowing for growth since planting.
- 5.42 Remove stakes as necessary, when the tree is suitably established, approximately in Year 5.

Formative Pruning

- 5.43 Young trees will require formative pruning until a height of 3m is attained to maintain a desirable shape as well as to maintain health and vigour. Pruning and thinning of trees will be in accordance with BS 7370-4:1993 Recommendations for Maintenance of Soft Landscape (Other Than Amenity Turf).
- 5.44 Once trees are established crown pruning is desirable and any dead or severely damaged trees will be felled and replaced accordingly.

Replacement of Failed Planting

- 5.45 Failed planting will be removed and replaced with the same species between November and March for deciduous species.

- 5.46 If there is a continuous failure of a certain species, this will be reviewed and, if appropriate, an alternative appropriate species will be planted instead.

Watering

- 5.47 Watering may be required during periods of drought in the first couple of years following planting. Water should be applied to the base of the tree and should not be more than 20 litres every other day, as required, between April and September.

Fertiliser

- 5.48 Apply slow-release multi-purpose plant food and soil improver in Autumn during the first 5 years after planting.
- 5.49 Any bark or other weed suppressant should be carefully removed/lifted and fertiliser applied direct to the top layer of soil at the manufacturers recommended rate.

Post Establishment Maintenance

- 5.50 Following the establishment period review condition assessment criteria and consider what additional management intervention is needed to ensure tree planting achieves the Target Condition.

Proposed Scrub Planting

Management Intentions

- 5.51 Proposed native scrub planting will provide suitable terrestrial habitat for local wildlife species including passerine bird species including foraging habitat, green infrastructure links and will provide naturalistic appearance to the overall landscape composition across the Site.
- 5.52 Proposed scrub planting will be comprised of created mixed scrub to moderate condition. This will also be supplemented by bramble scrub enhanced to mixed scrub in moderate condition and introduced shrub enhanced to mixed scrub in poor condition.

Table 3: BNG Target Condition Criteria for Scrub Planting (Created)

Scrub UKHab Community: Mixed scrub	Target Condition: Moderate	Time to Achieve Target Condition: 5 Years
Condition Assessment Criteria	Proposed	Management Intentions

Scrub UKHab Community: Mixed scrub		Target Condition: Moderate	Time to Achieve Target Condition: 5 Years
A	Scrub is good representation of habitat type	Pass	Maintain appropriate species diversity so that mixed scrub is representative of UKHab description (No one species comprising 75% of the cover);
B	Seedlings, saplings, young shrubs and mature shrubs are all present	Fail	n/a
C	Absence of Invasive Non-native Species	Pass	Where INNS are identified on-site during the long-term management of the site a detailed INNS Method Statement will be formed and implemented accordingly.
D	The scrub has a well-developed edge with scattered scrub	Pass	Management should review the establishment of proposed planting, with pruning implemented to provide a well-developed edge.
E	There are clearings, glades and rides	Fail	n/a

Table 4: BNG Target Condition Criteria for Scrub Planting (Enhanced)

Scrub UKHab Community: Bramble Scrub		Current Condition: n/a	Target Condition: Mixed Scrub - Moderate	Time to Achieve Target Condition: 5 yrs
Scrub UKHab Community: Introduced Shrub		Current Condition: n/a	Target Condition: Mixed Scrub - Poor	Time to Achieve Target Condition: 1 Yr
Condition Assessment Criteria		Baseline	Proposed	Management Intentions
A	Scrub is good representation of habitat type	n/a	Bramble Scrub – Pass; and	Maintain appropriate species diversity so that mixed scrub is representative of UKHab description (No one species comprising 75% of the cover);

Scrub UKHab Community: Bramble Scrub		Current Condition: n/a	Target Condition: Mixed Scrub - Moderate	Time to Achieve Target Condition: 5 yrs
Scrub UKHab Community: Introduced Shrub		Current Condition: n/a	Target Condition: Mixed Scrub - Poor	Time to Achieve Target Condition: 1 Yr
			Introduced Shrub - Pass	
B	Seedlings, saplings, young shrubs and mature shrubs are all present	n/a	Bramble Scrub – Fail; and Introduced Shrub -Fail	n/a
C	Absence of Invasive Non- native Species	n/a	Bramble Scrub – Pass; and Introduced Shrub -Fail	Where INNS are identified on- site during the long-term management of the site a detailed INNS Method Statement will be formed and implemented accordingly.
D	The scrub has a well- developed edge with scattered scrub	n/a	Bramble Scrub – Pass; and Introduced Shrub - Fail	Management should review the establishment of proposed planting, with pruning implemented to provide a well- developed edge.
E	There are clearings, glades and rides	n/a	Bramble Scrub – Fail; and Introduced Shrub - Fail	n/a

Capital Works – Proposed and Enhanced

- 5.53 Implemented native scrub planting will be facilitated on-site and will follow the species composition and quantity as described on the planting Detailed Planting Plan (Oobe ref: 16012-OOB-ZZZ-ZZZ-D-LA-000045).

Maintenance Operations

Weed Control

- 5.54 Hand pulling of noxious weed species including nettles, docks, thistles and bindweed should be implemented across the native scrub planting until established (years 1-3). Once established weed control can be reduced but should be reviewed periodically to ensure this does not complete encroach across the scrub parcel.

Pruning

- 5.55 Cutting will be carried out by hand using scrub cutters or loppers. The scrub will be cut to 150mm height for the first 2 - 4 years and then at 200mm height in subsequent years, with the arisings removed from site. Cuts will be made in late September/October. Areas will be cut on a rotational basis to create a varied age structure.
- 5.56 Works will be avoided between March and August (inclusive) to prevent risk of disturbance to nesting birds. Should any works be required within the bird nesting season an assessment will be undertaken by a suitably qualified ecologist before any works commence.

Assessment of Scrub and Weeds - Established

- 5.57 Scrub planting provides an array of habitat opportunities and as such it may be appropriate to allow weed species to develop within the scrub. Weeds provide a vital source of food for pollinators and intern foraging opportunities for birds and mammals.
- 5.58 An annual visual inspection in September will determine whether weeds are becoming too dominant or scrub is encroaching onto neighbouring grassland.

Reduction of Scrub - Established

- 5.59 Where reduction of coverage is required, scrub growth will be controlled along its advancing face using brush cutters, arisings will be chipped and used sustainably on site for mulching. If required dominant weed species will be hand pulled.
- 5.60 Scrub cutting will be scheduled at a time when there is no risk of disturbing breeding or nesting birds or mammals and to enable berry-bearing scrub species to fruit for the benefit of foraging wildlife (e.g. between December and early February).
- 5.61 In the long-term, consideration will be given to active management, e.g. cyclical cutting of 5% annually to create greater structural diversity.

Proposed Ornamental Planting

Management Intentions

- 5.62 Management of ornamental planting will focus on maintaining a neat and tidy appearance, which will also encourage plant growth through appropriate horticultural techniques. The inclusion of ornamental planting will support the aesthetic value of the site by including year found foliage and species that provide seasonal foliage, creating a diverse structure of vegetation across the Site.
- 5.63 Introduced shrub will be implemented as Ornamental planting and will support the BNG aspirations of the Site.

Maintenance Operations

Mulching

- 5.64 A layer of composted wood chip or bark mulch will be maintained around the base of all young plants to suppress weed growth and will be maintained to a depth of 75mm.

Weed Control

- 5.65 Weed control will be undertake annually between April and September and where feasible should be undertaken by hand pulling and should remove all noxious weeds such as docks, thistles, nettles, ragwort and willowherb.
- 5.66 In certain instances, herbicide maybe the most effective measure to remove unwanted species. Where herbicide application is needed this should be in small, controlled areas and should only target the undesirable species. Shields should be used as appropriate to prevent drift into sensitive areas. Herbicides should comply with the Control of Pesticides Regulations as amended (1997) and be on the current list of approved products.

Replacement of Failed Planting

- 5.67 Failed planting will be removed and replaced with the same species in the first five years following implementation. If there is a continuous failure of a certain species, this will be reviewed and, if appropriate, an alternative appropriate species will be planted instead.

Proposed Species Rich Lawn

Management Intentions

- 5.68 Open areas of grass will be managed as required to maintain a tidy appearance as well as facilitating safe public usage. This should be managed to allow for a safe

height for walking across the low-cut grass areas and can provide areas for recreation and amenity within the site boundary.

Table 5: BNG Target Condition Criteria for Proposed Species Rich Lawn

Grassland Low UKHab Community: Modified grassland		Target Condition: Poor	Time to Achieve Target Condition: 1 Year
Condition Assessment Criteria		Proposed	Management Intentions
A	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description	Fail	n/a
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Fail	n/a
C	Some scattered scrub (Including bramble) may be present, but scrub accounts for less than 20% of total grassland area.	Fail	n/a
D	Physical damage is evident in less than 5% of total grassland area.	Fail	n/a
E	Cover of bare ground is between 1% and 10%, including localised areas.	Fail	n/a
F	Cover of bracken is less than 20%	Pass	Bracken is not identified, but if this is identified during the long-term management of the site a detailed management approach will be required to remove accordingly.

Grassland Low UKHab Community: Modified grassland		Target Condition: Poor	Time to Achieve Target Condition: 1 Year
G	Absence of Invasive Non-native Species	Pass	Where INNS are identified on-site during the long-term management of the site a detailed INNS Method Statement will be formed and implemented accordingly.

Maintenance Operations

Grass Cutting

- 5.69 The grass will be kept as medium 'walk on' length of 35-50 mm with fortnightly cuts. Arisings will be removed from site and disposed of appropriately. This will also include the retained modified grassland area as noted within the BNG Metric.

Cultivating and Re-seeding

- 5.70 Any bare ground will be cultivated and re-seeded as required to successfully establish sward. This will be carried out twice annually between August and October.

Weed Control

- 5.71 Weed control will be undertaken annually between April and September and where feasible should be undertaken by hand pulling and should remove all noxious weeds such as docks, thistles, nettles, ragwort and willowherb.
- 5.72 In certain instances, herbicide maybe the most effective measure to remove unwanted species. Where herbicide application is needed this should be in small, controlled areas and should only target the undesirable species. Shields should be used as appropriate to prevent drift into sensitive areas. Herbicides should comply with the Control of Pesticides Regulations as amended (1997) and be on the current list of approved products.

Proposed Wildflower and Grass Meadow

Management Intentions

- 5.73 An area of wildflower and grass meadow is proposed to introduce ecological diversity and valuable wildlife habitats. The timing and frequency of grass cuts will be determined by management procedures required to maximise conservation benefits of desirable flora species and maintaining grassland habitats. The wildflower mix will comprise the Emorsgate EM34 Diverse Meadow Mixture for the meadow areas situated on-site.

Table 6: BNG Target Condition Criteria for Wildflower and Grass Meadow (Other Neutral Grassland)

Grassland Med High and V.High UKHab Community: Other neutral grassland		Target Condition: Moderate	Time to Achieve Target Condition: 5 Years
Condition Assessment Criteria		Proposed	Management Intentions
A	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description	Pass	The implemented grassland mix for the proposed wildflower meadow (Diverse meadow mixture) will be managed to align with the UKHab description.
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass	Grass cutting will be undertaken on a rotational basis with minimum 20% retained each year to facilitate a varied sward height and provide over wintering habitat.
C	Cover of bare ground is between 1% and 5%, including localised areas.	Fail	n/a
D	Cover of bracken is less than 20% and scrub is less than 5%	Pass	Bracken is not identified, but if this is identified during the long-term management of the site a detailed management approach will be required to remove accordingly.
E	Combined cover of species is less than 20% and cover of scrub is less than 5%	Pass	Regular mowing will keep scrub at bay and prevent establishment of pioneer species.

Grassland Med High and V.High UKHab Community: Other neutral grassland		Target Condition: Moderate	Time to Achieve Target Condition: 5 Years
F	There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type.	Fail	N/A

Capital Works to Grassland Areas

- 5.74 Capital works will be required to assist in developing the floristic diversity of the grassland areas. The Grassland areas will be topped a height of 7cm with all arisings removed.
- 5.75 During the summer weed control will be undertaken across all habitat parcels and will remove all unwanted perennial weeds including docks and other injurious weeds such as ragwort (*Senecio jacobaea*), where possible weeds will be dug out and removed from site.
- 5.76 Following the cut and collect the grassland areas will be harrowed and scarified using handheld or pedestrian equipment to break up the thatch and create areas of bare soil, providing the opportunity for herbs and forbs to develop within the perennial grasses.

Overseeding

- 5.77 The area will be overseeded with a wildflower mix immediately. The wildflower mix will consist of 100% wildflower and will include yellow rattle at a minimum of 5% of the total percentage.

Maintenance Operations

Grass Cutting

- 5.78 The wildflower sward will be cut to a height of no less than 150mm every 6-8 weeks between April and September in the first year. Arisings will be collected and removed off-site via a cut and collect methodology to prevent nutrient enrichment.
- 5.79 From year two onwards, the grass will be cut annually once seed heads have dropped in late September to a height of 100mm.

- 5.80 Arisings will be left in situ for 24 hours to allow flower seed to disperse. The arisings will then be raked and removed from the Site to prevent nutrient enrichment and to retain the desired species composition.
- 5.81 Grass cutting will be avoided between mid-March and August (inclusive) to prevent risk of disturbance and destruction to nesting birds.

Cultivating and Re-seeding

- 5.82 Any bare ground will be cultivated and re-seeded as required to successfully establish sward. This will be carried out twice annually between August and October.

Weed Control

- 5.83 Weed control will be undertaken annually between April and September and where feasible should be undertaken by hand pulling and should remove all noxious weeds such as docks, thistles, nettles, ragwort and willowherb.
- 5.84 In certain instances, herbicide maybe the most effective measure to remove unwanted species. Where herbicide application is needed this should be in small, controlled areas and should only target the undesirable species. Shields should be used as appropriate to prevent drift into sensitive areas. Herbicides should comply with the Control of Pesticides Regulations as amended (1997) and be on the current list of approved products.

Fertiliser Use

- 5.85 Fertiliser is not to be applied to any of the wildflower areas to conserve the development of a diverse sward.

Façade-bound Green Wall

Management Intention

- 5.86 A proposed façade-bound green wall will be implemented on-site and will provide natural ecological value and amenity value through seasonal foliage. This inclusion of a proposed green wall will support the aesthetic value of the site, providing nature-based solutions within an urban landscape.

Table 7: BNG Target Condition Criteria for Facade-bound Green Wall

UKHab Community: Urban	Current Condition: n/a	Target Condition: Moderate	Time to Achieve Target Condition: 3 Yrs
Condition Assessment Criteria	Proposed		Management Intentions

UKHab Community: Urban		Current Condition: n/a	Target Condition: Moderate	Time to Achieve Target Condition: 3 Yrs
A	A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	Fail		n/a
B	The habitat parcel contains different plant species that are beneficial for wildlife.	Pass		Review the establishment of implemented planting to ensure this is supporting pollinator species, and local wildlife. Review planting mix as required until established.
C	Absence of Invasive Non-native Species	Pass		Where INNS are identified on-site during the long-term management of the site a detailed INNS Method Statement will be formed and implemented accordingly.

Management Operation

- 5.87 Management of the proposed green wall should follow the detailed specification from the design schedules and landscape masterplan.

Landscape Features Associated with Site Wide Management

- 5.88 Landscape features associated with site wide management detail features that are to be implemented or retained as part of the proposed development. These features are not included within the BNG metric calculations and do not contribute to the Site's overall BNG. However, these features do contribute to the aesthetic and amenity value of the Site and should undergo management operations and monitoring as detailed in the HMMP.

Bat Boxes

Management Intention

- 5.89 Bat boxes will be maintained in a viable condition to provide roost habitat throughout the year. Bat boxes will be of types that are generally maintenance free.

Maintenance Operations

Inspections and Remedial Measures

- 5.90 Bat boxes will be inspected from the ground to ensure they remain in viable condition. This will be undertaken annually and will be completed during the routine monthly site inspection in November.
- 5.91 Where any bat box is found to be damaged, it will be replaced a similar model prior to the following February.
- 5.92 In the event that the bat box is occupied by wasp or hornets, the box will either be relocated to a safe place away from regularly accessed public places or be removed from site, as desired, and a replacement box will be installed.

Bird Boxes

Management Intention

- 5.93 Bird boxes will be maintained in a viable condition to provide nesting habitat throughout the year. Bird boxes will be of types that are generally maintenance free.

Maintenance Operations

Inspections and Remedial Measures

- 5.94 Bird boxes will be inspected from the ground to ensure they remain in viable condition. This will be undertaken annually and will be completed during the routine monthly site inspection in November.
- 5.95 Bird boxes will be cleaned of any residual nest material and debris. This will be done in situ without adjustment to position or orientation of the box by removal of the inspection panels. In the event the nest box is occupied (by bird, bat or other animal), the box will be closed without cleaning and cleaning will be delayed until the following year. In the event that a bird is occupying the nest box, the advice of an ecologist will be sought. In the event that the box is occupied by wasp or hornets, the box will be removed to a safe place away from regularly accessed public places and a replacement box will be installed.

- 5.96 Where any bird box is found to be damaged, it will be replaced a similar model prior to the following February.

Proposed Paving, Tarmac and Walls

Management Intention

- 5.97 Proposed paving, tarmac and walls will be safe and useable. Maintenance will focus on clearing any obstacles to the use of footpaths and walls and ensure they are free of slip and trip hazards.

Maintenance Operations

Inspections and Remedial Measures

- 5.98 Proposed paving, tarmac and walls will be inspected during the monthly site inspection and will be kept safe and usable and cleared of overhanging vegetation and broken branches. Any item considered unsafe must be removed or made safe and replaced as soon as possible.
- 5.99 Repairs will be carried out as required, the surfacing will be replaced in line with the manufacturer's recommendations. The use of materials for repairs and replacements will conform to the original design specification for external works.

Encroaching Vegetation

- 5.100 Encroaching vegetation will be managed manually using an appropriate edging tool for paving and tarmac surfacing.

Proposed HVM Bollards, Benches, Handrails, Fencing and Signage

Management Intention

- 5.101 Proposed HVM bollards, benches, handrails and signage will be maintained for their functionality and aesthetic value. Routine inspections will ensure that any damaged items are repaired or replaced as quickly as possible to prevent a risk to health and safety.
- 5.102 To discharge Condition 13 detailed on the Decision Notice, details of the proposed protective fencing to safeguard the Townside SBI must be submitted. A continuous line of Heras-type steel mesh security fencing (minimum 2m height) will be installed along the SBI boundary (as per SBI Fencing Plan (TEP ref: G10850.024)) and supplemented with high-visibility tree-protection fencing in sensitive areas. This will be maintained for the duration of the construction phase to ensure the ecological value of the SBI is protected.

Maintenance Operations

Inspections and Remedial Measures

- 5.103 Bollards, benches, rails, fencing and signage will be inspected during the monthly site inspection.
- 5.104 Any considered unsafe will be removed or made safe and/or replaced as soon as possible. The use of materials for repairs and replacements will conform to the original design specification for external works.
- 5.105 Graffiti removal will be carried out as required.

Re-painting

- 5.106 Bollards, rails, benches may need to be re-painted to retain a tidy appearance approximately every five years, dependent on condition.

6.0 Habitat Monitoring and Review Schedule

BNG Monitoring

- 6.1 British Standard 8683 2021 and BNG Good Practice Principles for Development, A Practical Guide include the requirement for a robust and detailed monitoring and review strategy to ensure that new and enhanced habitats associated with the BNG design are establishing as expected, and on-going management, and maintenance is being undertaken and that adjustments in management practices can be undertaken if required.
- 6.2 The BNG Good Practice Principles for Development, A Practical Guide requires the organisation responsible for management of the Site and delivering the BU's to 'communicate all net gain activities in a transparent and timely manner, sharing the learning with all stakeholders'. The monitoring report should include clear, timed and measurable objectives for BNG, a commitment to adaptive management (where this is required in response to monitoring) and a formal review process to review success against expectations.
- 6.3 To ensure the delivery of the predicted target conditions and the success of BNG the management organisation may need to employ an adaptive management strategy. If required, this will be evidenced based through ecological monitoring and any required practical steps will be devised by an appropriately qualified and competent person and agreed with the local authority as part of its ongoing monitoring of the habitats within the Site.

Responsibility

- 6.4 As part of practical completion and prior to handover to the agreed management organisation a full site walkover will be completed by the management company and/or a suitably qualified representative. The purpose of the site walk over will be to ensure all new and enhanced landscape and habitat features are implemented to the required standards and where required habitat enhancements have been completed or are underway.
- 6.5 TfGM will be responsible for undertaking the informal and formal reviews of this HMMP and updating management and maintenance operations to ensure the long-term success of the habitats and compliance with BNG commitments.
- 6.6 Monitoring reports will be submitted to the local authority at appropriate intervals to demonstrate the management organisations success in delivering the required BNG or if habitats are not achieving the predicted target conditions, reasoning as to why and details of appropriate management actions required to amend management and maintenance operations.

Habitats

- 6.7 Habitats which contribute to BNG on site will require monitoring by a suitably qualified and competent person at the required intervals derived from the UK Habitat Condition Assessment Criteria in accordance with the UK Habitat Definitions.
- 6.8 Monitoring will be conducted via a walkover survey and/or ecological assessment for each habitat type at the frequency as detailed in the BNG monitoring program included in the table below and detailed in Appendix C.
- 6.9 Adaptive management maybe required if habitats are not on track to achieve target condition. Routine monitoring will review key measures to ensure habitats are on track and note trigger points where intervention maybe considered necessary.
- 6.10 The table below provides an overview of the post development habitats and the associated BUs they provide through either retained, enhanced or created habitats. The table also includes the anticipated timeframe when the target condition will be achieved. Further information on monitoring schedules is include in Appendix C.

Table 8: Key Measures for Monitoring Habitat Features: Woodland Planting and Tree Planting

Baseline Habitat Condition	Target Habitat Condition	Monitoring Interval	Anticipated timeframe to achieve BNG
n/a	Other Woodland; Broadleaved - Moderate	1,3,5,10 and15	15 Years
n/a	Urban tree – Moderate	1,3,5,10,15, 20, 25 and 27	27 Years
Key Measures – Woodland and Trees Proposed woodland will consist of other woodland; broadleaved and will align with the UKHab definition. Initial management will review the establishment of implemented planting (Year 1-5) to ensure species are establishing accordingly. Where continuous failure has been noted, a review of the species schedule will be required to ensure establishment occurs. Review the need for thinning for first thinning in year 10 and developing ground flora and facilitating new self-set tree species to increase age class and support the existing and newly planting tree stock in fulfilling this criterion. Seeds may colonise the ground flora naturally from the surrounding landscape, but consideration will be given to bulb planting and seeding as detailed in management operations to enhance woodland.			

Baseline Habitat Condition	Target Habitat Condition	Monitoring Interval	Anticipated timeframe to achieve BNG
Individual tree planting will review the establishment of ornamental tree planting and woodland trees implemented as individual trees (Silver birch). This will comprise of the removal of stakes and ties once established and ensuring diseased and damaged branches are removed accordingly. As above where continuous failure has been noted a review of the planting schedule will be conducted to ensure establishment occurs accordingly.			
Trigger	Action	When	
INNS identified	Complete a full INNS Survey of the Site and record all invasive species. Develop a suitable management plan for the treatment and eradication of INNS	INNS Survey to be completed between April and September when plants are identifiable	
Bracken identified	Complete a site walkover to identify all areas of bracken where this is dominating the field layer and preventing other field layer species from developing. Form a management operation to remove and control areas of bracken using bruise and targeted herbicide or dig and remove through hand digging to reduce risk of impacting the woodland and tree species.	During growing season for optimal review of all bracken between April and September.	
Failed planting (Extensive)	Review and adapt the species schedule, discuss with a landscape architect to amend the mix and re-plant on-site.	Where continuous and complete failure of planting is evident	
Recreational disturbance and tree health	During site walkovers review impact of amenity use and site visitors may have had on the woodland. Monitor if negative and develop a strategy to alleviate pressure on the woodland if tree health is declining.	During Arboricultural walkover and monitor evidence during routine maintenance operations.	

Table 9: Key Measures for Monitoring Habitat Features: Scrub Planting

Baseline Habitat Condition	Target Habitat Condition	Monitoring Interval	Anticipated timeframe to achieve BNG
n/a	Mixed scrub - Moderate	1,2,3 and 5	5 Years
Bramble Scrub – n/a	Mixed Scrub - moderate	1,2,3 and 5	5 Years
Introduced Shrub – n/a	Mixed Scrub – Poor	1 Yr	1 st Year
Key Measures ■ Ensure planting is establishing successfully and filling out; ■ Monitor for areas of excessive scrub encroachment onto other land cover types and reduce where required while ensuring habitat gradation; ■ Monitor for INNS infestations and manage using appropriate interventions where required; and ■ Ensure habitat remains representative of a UKHab mixed scrub description.			
Trigger	Action	When	
More than 20% of new planting is failing	Replace failed plants with a suitable alternative species	Planting should commence during the dormant season	
Weed Management - Encroaching	Where weeds become dominant across scrub areas, these will be removed via hand tools or machinery were deemed plausible.	Where weeds are becoming dominant within scrub areas.	

Table 10: Key Measures for Monitoring Habitat Features: Grass Meadow and Species Rich Lawn

Baseline Habitat Condition	Target Habitat Condition	Monitoring Interval	Anticipated timeframe to achieve BNG
n/a	Other Neutral Grassland - Moderate	1, 2, 3 and 5	5 Years
n/a	Modified Grassland - Moderate	Year 1	Year 1
Key Measures			

Baseline Habitat Condition	Target Habitat Condition	Monitoring Interval	Anticipated timeframe to achieve BNG
First reviews will consist of ensuring management and grass cutting operations are being undertaken as detailed in this management plan. Cutting and collecting in the first year is vital to reduce nutrients within the soil. Monitoring in years 2 and 3 will focus on recording species diversity within the sward to review what species are present and if additional overseeding is required. ■ Ensure grass is establishing successfully; ■ Ensure management and grass cutting operations are being undertaken regularly as detailed in Chapter 5.0; and ■ Carry out reseeding as required to establish sward, maintain species composition, and reduce bare ground coverage.			
Trigger	Action	When	
Less than 10 plant species per m2 present within the sward (Meadow grassland)	Scarify and oversow with additional wildflower seed. If persistent failing of a particular species occurs undertake soil sampling and amend species list.	Autumn	
Damaged and notably open areas of bare ground (Modified grassland)	Scarify and oversow with additional wildflower seed. If persistent failing of a particular species occurs undertake soil sampling and amend species list.	Autumn/Spring	

Table 11: Key Measures for Monitoring Habitat Features: Façade-bound Green Wall

Baseline Habitat Condition	Target Habitat Condition	Monitoring Interval	Anticipated timeframe to achieve BNG
n/a	Urban - Moderate	1, 2 and 3	3 Years
Key Measures First reviews will consist of ensuring that the implemented planting within the green wall is establishing accordingly. Where continuous and extensive failure of planting is noted, this should be reviewed and adapted by a landscape architect to amend the species composition until established. This should be reviewed against the design and specification detailed by the designer and contractor implemented the green wall.			

Baseline Habitat Condition	Target Habitat Condition	Monitoring Interval	Anticipated timeframe to achieve BNG
Trigger	Action	When	
Failed planting (Extensive)	Review and adapt the species schedule, discuss with a landscape architect to amend the mix and re-plant on-site.	Where continuous and complete failure of planting is evident	

Site Wide Monitoring

- 6.11 The below table includes key measures for monitoring landscape and community features within the Site to ensure the Site continues to support the needs and requirements of its site visitors.

Table 12: Key Measures for Monitoring Landscape Features

Feature	Key Measures
Site Wide	Is the landscape establishing well and attractive to residents and wildlife overall? Is the Site in a clean and tidy condition? Is public access to the Site maintained? Are there any health and safety hazards / deficiencies which require rectification? Does the Site comply with the relevant environmental and health and safety legislation (as set out in Appendix B of this HMMP)? Are there any instances where planting is repeatedly failing? If so, has an Arboricultural consultant or landscape architect been consulted with to specify an alternative species?
Proposed Bollards, Benches, Handrails, Signage	Carry out an inspection to ensure weed free appearance and remove trip or slip hazards. Note any damage and carry out repairs as required.
Proposed Tarmac, Paving and Walls	Carry out an inspection to ensure they are safe for use. Note any damage and carry out repairs as required.
Bird Boxes	Inspect bird boxes to ensure they are in situ and report any missing or damaged boxes to an ecologist.

Feature	Key Measures
Bat Boxes	Inspect bat boxes to ensure they are in situ and report any missing or damaged boxes to an ecologist.

Appendix A: Landscape Maintenance Schedules

✓

Works to be carried out in these months

Works not to be carried out in these months

*Bird breeding and nesting season (March to August inclusive) no works that may have an impact on nesting birds are to be undertaken

Activity	Frequency per Annum	Years	Indicative Timing of Operation											
			J	F	M	A	M	J	J	A	S	O	N	D
Inspections, Surveys and Cleansing														
Health and Safety														
Undertake a formal inspection to review hazards identified by original assessment.	12	All years	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Specialist Surveys														
Instruct a trained arboriculturist to undertake a tree hazard and condition survey of mature trees.	0.3	Every 3 years	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Site Cleansing														
Cleanse the whole site weekly.	52	All years	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Remove fly-tipping and graffiti as soon as possible.	As required	All years	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Soft Landscape Elements														
Existing Trees, Saplings and Vegetation														
Tree survey to inform management: Undertake a cyclical programme of selective thinning, coppicing, pruning and felling. Wood under 250 mm diameter collected from thinning, pruning, brashing and scrub/vegetation clearance will, wherever possible, be chipped and used on site for mulching. Wood greater than 250 mm diameter will be logged and used to create deadwood piles to increase biodiversity.	N/A	Every 5 years	✓	✓								✓	✓	✓
Proposed Woodland Planting														
Capital Works - Year 1														
Capital Works: Woodland Planting and Woodland Seed Mix	1	Year 1				✓	✓	✓	✓	✓				
Established Management - 10 Year Cycle														
Thinning and cutting vegetation	1	Year 3+										✓	✓	
Coppicing cyclical programme	1	Year 10+	✓	✓								✓	✓	✓
Deadwood strategy	1	Year 10+	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Proposed Trees and Sapling Planting														
Re-firming planting	As required	Years 1 to 5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Stakes and Ties: Checked quarterly, remove as necessary in Year 5	4	Years 1 to 5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Formative pruning: Crown pruning once height of 3m is attained	As required	Years 1 to 5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replaced failing planting with same species.	1	1 to 5	✓	✓	✓								✓	✓
Watering: Water whips and period of drought.	As required	1 to 5	✓	✓	✓	✓						✓	✓	✓
Fertiliser: Apply slow release fertiliser for first 5 years.	As required	1 to 5	✓	✓	✓	✓						✓	✓	✓
Post establishment: Review condition and follow retained tree management above.	1	Years 10+	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Proposed Scrub Planting														
Weed Control: Hand pulling or trimming of weed species.	As required	1 to 3				✓	✓	✓	✓	✓	✓	✓		
Pruning: Cutting using hand scrub cutters.	1	Every 2 Years				✓	✓	✓	✓	✓				
Assessment of scrub: Annual review in September.	1	All years										✓		
Established management: Reduction of scrub to prevent complete encroachment once established.	As required	Year 5+	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Proposed Ornamental Planting														
Weed control.	1	All years				✓	✓	✓	✓	✓				
Replace failed or damaged species with the same species.	1	1 to 5	✓	✓	✓	✓	✓					✓	✓	✓
Proposed Species Rich Lawn														
Cut (35-50mm) fortnightly during the growing season and remove arisings from the Site.	16	All years				✓	✓	✓	✓	✓	✓			
Cultivate and re-seed as required.	As required	1 to 5			✓	✓	✓					✓		
Weed control.	1	All years				✓	✓	✓	✓	✓	✓			
Proposed Wildflower and Grass Meadow														
Capital Works - Year 1														

Key

✓ Works to be carried out in these months

Works not to be carried out in these months

*Bird breeding and nesting season (March to August inclusive) no works that may have an impact on nesting birds are to be undertaken

Activity	Frequency per Annum	Years	Indicative Timing of Operation											
			J	F	M	A	M	J	J	A	S	O	N	D
Capital Works: Meadow implementation works. Top grassland to 7cm and collect arisings. Remove weed species, harrow and scarify and overseed with a detailed seed mix.	1	Year 1				✓	✓	✓	✓	✓				
Cut (150mm) every 6-8weeks and remove the arisings from the Site.	1	Year 1				✓	✓	✓	✓	✓	✓			
Cut (100mm) once a year and remove the arisings from the Site.	1	Year 2+									✓			
Cultivate and re-seed as required.	As required	1 to 5			✓	✓	✓				✓			
Weed control.	1	All years				✓	✓	✓	✓	✓	✓			
Façade-bound Green Wall														
Should be managed following the detailed specification	1	All years									✓			
Ecological Feature														
Bat Boxes														
Annual visual inspection from the ground to check condition.	1	All years											✓	
Internal inspection of bat boxes by a licensed ecologist.	0.5	Every 2 years											✓	
Replacement, as required, before March.	As required	All years	✓	✓								✓	✓	✓
Bird Nesting Boxes														
Annual inspection to check condition.	1	All years											✓	
Removal of nesting debris by hand and disposal.	1	All years											✓	
Replacement, as required, before March.	As required	All years	✓	✓							✓	✓	✓	✓
Hard Landscape Elements														
Proposed Paving, Tarmac and Walls														
Inspection and remedial measures for hard standing.	12	All years	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cut back vegetation with appropriate edging tool.	1	All years				✓	✓	✓	✓	✓	✓	✓		
Clean with soapy water (acid free) and stiff brush.	1	All years	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Repairs to footpath surfacing.	As required	All years	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Proposed HVM Bollards, Benches, Handrails, Fencing and Signage														
Inspection during monthly site inspections and any repairs will be carried out as required.	12	All years	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Repair any damaged items or replace accordingly.	As required	All years	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Graffiti removal as required.	As required	All years	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Monitoring and Review														
Formal site inspections by managing organisation	4	All years			✓			✓			✓			✓
Annual site meeting with stakeholders	1	All years	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Formal review of management plan and maintenance operations.	0.2	Every 5 years	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

NOTE Glyphosate formulations containing the surfactant Polyethoxylated tallow amine (POEA) should not be used within close proximity to waterbodies or other wetland habitats as it can cause high amphibian larvae mortality.

Appendix B: Legislation Context

Summary of Relevant Legislation

The following legal obligations, among others must be considered in carrying out any management operations:

Legislation	Obligations
Health and Safety Legislation	
The Health and Safety at Work Act (1974)	All operations carried out on the Site must only be undertaken by trained personnel, using methods and equipment approved by the Health and Safety Executive (HSE).
Occupiers Liability Act (1984)	The management organisation must ensure that every reasonable care is taken to remove any risks to both legitimate visitors and to any trespassers. In compliance it will be necessary: To make sure that all footpaths and any other structures are safe; To remove any hazardous objects; and To conduct an annual safety audit in order to identify any further hazards.
Environmental Legislation	
Conservation of Habitats and Species Regulations 2017 (as amended)	The Habitat Regulations for England and Wales assign a greater level of protection to a variety of native species of animals and plants listed. The 2017 Regulations have been amended by the 2019 EU Exit Regulations.
Wildlife and Countryside Act (1981)	There is an obligation to comply with legislation for UK species protected (including amphibians, reptiles and bats) under this Act.
Environmental Protection Act (1990)	There is an obligation to keep the Site free from litter and refuse.
Countryside and Rights of Way Act (2000)	Imposes a new right of access on foot to registered common land and other areas of 'open countryside' which under certain circumstances allows access without being confined to footpaths.
Protected Species	

Legislation	Obligations
Amphibians	Great crested newts (GCN) are protected under Schedule 5 of the Wildlife and Countryside Act (1981) as amended and the Conservation of Habitats and Species Regulations 2017 (as amended). Under this legislation it is an offence to intentionally kill, injure or capture GCN. It is also an offence to intentionally or recklessly damage, destroy or obstruct access to places used by GCN for shelter or protection or to disturb them whilst they are occupying these habitats.
Birds	All UK wild birds are protected while at the nest under the Wildlife and Countryside Act (1981). Effectively, this means that if removal of habitats (which can include buildings, trees, hedges, scrub and grassland) cannot be timed to avoid the bird breeding season (March to August inclusive), then a survey by a suitably experienced ecologist will be required to ensure no nesting birds will be affected. There is generally no process to gain a licence to disturb nesting birds; therefore, if active nests are present works will need to avoid the area of the nest until the young have fledged.
Bats	Bats and their roosts are protected under Schedule 5 of the Wildlife and Countryside Act (1981) as amended and the Conservation of Habitats and Species Regulations 2017 (as amended).
Badgers	Badgers and their setts are safeguarded under the Protection of Badgers Act (1991). Under this legislation it is illegal to interfere, damage or destroy a sett, obstruct access to a sett, or disturb a badger whilst it is occupying a sett.
Hedgehogs	Hedgehogs are S41 species of principal importance under the NERC Act (2006).
Brown hare	Brown hares are listed as a S41 species of principal importance under the NERC Act (2006).

Appendix C: BNG Monitoring Schedule



Habitat Condition Assessment

*

Target Condition Date

Reporting to the LPA

Habitat Condition Monitoring				Years																													
Landscape Feature	Statutory BNG Metric Habitat Feature Reference	Target Condition	Timeframe	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Area Habitats																																	
Woodland Planting	Other woodland; broadleaved	Moderate	15 Yrs															*															
Proposed Trees	Urban trees	Mdoerate	27 Yrs																											*			
Scrub Planting	Mixed Scrub	Moderate	5 Yrs					*																									
Wildflower Meadow	Other neutral Grassland	Moderate	5 Yrs					*																									
Grassland and Grass	Modified Grassland	Moderate	1 Yr	*																													
Green Wall	Façade-bound Green Wall	Moderate	3 Yrs			*																											

Reporting	Years																														
HMMP updates																															
BNG Condition Assessment Report and updated HMMP to be submitted to the LPA																															

EXAMPLE: Habitat Condition Monitoring Assessment Sheet

Date of Assessment:

Landscape Feature

Statutory BNG Metric Habitat Feature Reference

Baseline Condition

Target Condition

Monitoring Interval

Anticipated Timeframe to Achieve BNG Target

Condition Assessment summary:

Progress towards UKHab and condition summary (is the habitat on course to meet or has met target condition):

Adaptive management: Any proposed changes to management:



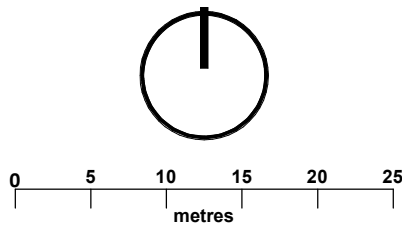
THE
ENVIRONMENT
PARTNERSHIP

Drawings

Drawing 1: Site Masterplan (Oobe ref: 16012-OOB-ZZZ-ZZZ-D-LA-000001)

Drawing 2: Detailed Planting Plan (Oobe ref: 16012-OOB-ZZZ-ZZZ-D-LA-000045)

Drawing 3: Site of Biological Importance (SBI) Fencing Plan
(TEP ref: G10850.024A)



Legend

Site Boundary

Areas covered in other Consultants' package
Refer to notes on Site Plan

Existing Levels to be Raised to +86-87m

Tram Train Future Provision

Hardworks

TP01 - Tactile Paving
Hazard warning corduroy pavers

P01 - Paving Type 1
Natural stone flags

P02 - Paving Type 2
600x600m concrete flag paving to maintenance paths

P03 - Paving Type 3
Existing concrete pavers to be retained

P04 - Paving Type 4
Union Square granite paving to be retained / reinstated

Proposed Gravel
To Gravel Maintenance Area

Proposed Tarmac
Tarmac to External Sloped path

Existing Tarmac to be Retained
to TfGM site access road

ST01 - Proposed Steps with Handrails

Existing Walls to be Retained

Proposed Walls / Retaining Wall
Refer to '000020 - Boundary Treatment Strategy'
To Engineer's detail and specification

K01 - Kerb Type 1
Natural Stone Kerb

K02 - Kerb Type 2
Concrete Raised Road Kerb

K03 - Kerb Type 3
Concrete Pin Kerb

Proposed Manholes and Chambers
By others

Hardstanding working area formed
and made good upon completion

Softworks

Proposed Grass

Proposed Ornamental Planting

Existing Vegetation to be Retained /
Reinstated

Scrub Planting

Proposed Wildflower Meadow

Woodland Planting

Grassland

Tree / Sapling
28 Total

Existing Tree to be Retained

Note:
Total amount of trees within site is 46.
[28 Proposed + 18 Retained]

Signage and Wayfinding

Q50 250 S01 - Metrolink Flag Sign
To Metrolink's specification

Q50 251 S02 - Cyclists Dismount Sign
Fixed to lamppost

Lighting

Existing Lighting Column to be Retained /
Relocated (shown indicatively)

Proposed Lighting Column / CCTV
Details and specification by Engineers

Existing Ground Spot Light

Existing Relocated Ground Spot Light

Ecological Enhancements

Bird Box
1B Schwegler Nest box

Bat Box
1F Schwegler Bat Box

Bug Hotel
NHBS Insect Hotel

Deadwood Log Piles
Using felled trees on site

Furniture

F01 - Proposed Seat
Steel and timber bench
External bench with back and armrests; seat
height 450-480 mm; firm, level, non-slip base;
designed to discourage rough sleeping..
To be compliant with BS 8300-1.

F02 - Proposed HVM Bollard (B)
Marshalls: Cylindrical, Stainless Steel

F02 - Proposed Standard Bollard (sB)
Marshalls: Cylindrical, Stainless Steel [non-HVM]

Existing Bollard (eX)
To be retained

H01 - Proposed Handrail to Steps, sloped
path and maintenance access. With mid-
rail and tapping rail. To Metrolink's
specification. Material:GRP.

Existing Handrail to be Retained

R01 - Proposed Guardrail to Union Square
Material: GRP

G01 - Proposed GRP Maintenance Gate
G02 - Proposed Handrail/Gate

For more information on the proposed materials
and furniture refer to "16012-00B-XXX-XXX-L-
LA-006001_Landscape and Planting Specification"
document.

Updates from Previous Issued Revision

Issued for Coordination - Proposed Trees Location and Existing Walls Revised - MMA Revision	P21	JPO	CH	01/07/26
Bollards Specifications Added	P20	JPO	CH	04/06/26
Union Square Layout and MEP updated - Rev C	P19	JPO	CH	03/06/26
100% Submission - Rev B	P18	JPO	CH	08/04/26
Revision Note	Rev.	Author	Apvrd	Date

newcastle: studio 7 & 8, the mills, newcastle upon tyne, newcastle, ne6 2PL. t: +44 (0)191 281 3775	london: the fisherics, 1, westmore terrace, london, e8 3jn. t: +44 (0)20 479 2649	edinburgh: 91 george street, edinburgh eh2 3ns. t: +44 (0)131 241 0309	glasgow: 177 w george st, glasgow metropolitan area, g2 2BL. t: +44 (0)141 301 1465
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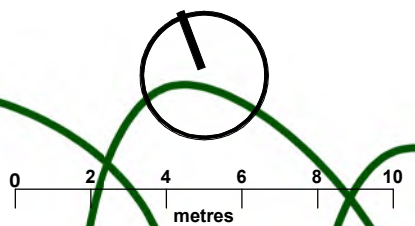
Client	Transport for Greater Manchester (TfGM)
Project	Bury Interchange
Title	Site Masterplan

Dwg. No.	16012- 00B- ZZZ- ZZZ- D- LA- 000001	Rev.	P21
Scale	1 : 500 @ A1	Date	Dec 2024

Platform and Bridge Architecture and Engineering works
Refer to specialist designer's drawings

Hardstanding working area formed
and made good upon completion

Attenuation Tank
(24000 x 3000mm)



Legend

- Site Boundary
- Areas covered in other Consultants' package
Refer to notes on Plan

Softworks

- Existing Vegetation to be Retained
- Q30 311 - Species Rich Lawn**
Supplier: Emorsgate
Mixture Reference: Emorsgate EL1 Flowering Lawn Mix or Similar Approved
Application Rate: 4g/m²
Note: Refer to Detail 01
- Q30 312 - Wildflower & Grass Meadow**
Supplier: Emorsgate
Mixture Reference: Emorsgate EM34 diverse Meadow Mix or Similar Approved
Application Rate: 4g/m²
Note: Refer to Detail 04
- Q30 313 - Woodland Planting**
Supplier: Emorsgate
Mixture Reference: Emorsgate EW1 Woodland Seed Mix - or similar approved
Density: Tree whips to be added creating denser areas and gaps. Average density: 1 whip / 2m²
Note: Refer to Detail 06
- Q30 310 - Grassland**
Seeded grassland to match Pyramid Park remediation works
Note: Refer to Detail 03
- Q31 401 - Scrub Planting**
Topsoil Depth: 300mm
Average Density: 2no / m² - unevenly planted to create denser areas and gaps
Note: Refer to Detail 02
- Q31 400 - Ornamental Planting**
Topsoil Depth: 450mm
Note: Low maintenance ornamental mix to Union Square. Refer to Detail 05

Existing Tree to be Retained

Q31 510 - Tree Root Barriers
Product: ReRoot Root Barriers (RER1000A)
Supplier: GreenBlue Urban

Proposed Manholes and Chambers
By others

Hardstanding working area formed
and made good upon completion

Ornamental Planting:
40 No. A mo 11%
40 No. ARU KNE 11%
40 No. C x a 'K' F 11%
43 No. G x o 'W' P 12%
40 No. M s 'S' 11%
40 No. P aA 11%
40 No. P ru 11%
40 No. R f s 'G' 11%
40 No. S auc 11%

Native Scrub Mix
5 No. C san 16%
5 No. CA 17%
5 No. C mon 17%
5 No. IA 16%
5 No. LV 17%

Native Scrub Mix
10 No. C san 16%
11 No. CA 17%
11 No. C mon 17%
10 No. IA 16%
11 No. LV 17%

Native Scrub Mix
54 No. C san 16%
58 No. CA 17%
58 No. C mon 17%
54 No. IA 16%
58 No. LV 17%

Woodland Tree Mix (Whips)
68 No. A ca 11%
68 No. A gl 11%
68 No. B pe 11%
68 No. CA 11%
68 No. C mon 11%
68 No. M sy 11%
68 No. Q r 11%
68 No. S auc 11%
75 No. T co 12%

Planting Schedule

Number	Abbreviation	Species	Girth	Specification	Density
1	Ps	Pinus sylvestris		Multi-Stemmed: RB	Counted
2	P c 'Ch'	Pyrus calleryana 'Chanticleer'	14-16cm Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm		Counted
4	S auc	Sorbus aucuparia	14-16cm Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm		Counted

Woodland Trees (Saplings Along Tram Lines)

Number	Abbreviation	Species	Girth	Specification	Density
21	B pe	Betula pendula	8-10cm Standard: 3 brks: 2x: RB: Clear Stem 175-200cm		Counted

Native Scrub Mix

Number	Abbreviation	Species	Specification	Height	Density	Percentage Contribution
452	C san	Cornus sanguinea	1+1: Transplant - seed raised: Branched: 3 brks: B	60-80cm	2/m ²	16%
481	CA	Corylus avellana	1+1: Transplant - seed raised: B	60-80cm	2/m ²	17%
481	C mon	Crataegus monogyna	1+1: Transplant - seed raised: B	60-80cm	2/m ²	17%
452	IA	Ilex aquifolium	1+1: Transplant - seed raised: B	60-80cm	2/m ²	16%
481	LV	Ligustrum vulgare	1+1: Transplant - seed raised: B	60-80cm	2/m ²	17%
481	LV	Viburnum lantana	1+1: Transplant - seed raised: B	60-80cm	2/m ²	17%
Total :2828						

Ornamental Planting

Number	Abbreviation	Species	Specification	Pot Size	Density	Percentage Contribution
40	A mo	Achillea millefolium	Full Pot: C	3L	9/m ²	11%
40	ARU KNE	Aruncus dioicus 'Kneiffii'	Full Pot: C	3L	9/m ²	11%
40	C x a 'K' F	Calamagrostis x acutiflora 'Karl Foerster'	Full Pot: C	3L	9/m ²	11%
43	G x o 'W' P	Geranium x oxonianum 'Wargrave Pink'	Full Pot: C	3L	9/m ²	12%
40	M s 'S'	Miscanthus sinensis 'Kleine Silberspinne'	Full Pot: C	3L	9/m ²	11%
40	P aA	Persicaria amplexicaulis 'Alba'	Full Pot: C	3L	9/m ²	11%
40	P ru	Phlox russelliana	Full Pot: C	3L	9/m ²	11%
40	R f s 'G'	Rudbeckia fulgida sultivantii 'Goldsturm'	Full Pot: C	3L	9/m ²	11%
40	S auc	Sesleria autumnalis	Full Pot: C	3L	9/m ²	11%
Total :363						

Woodland Tree Mix (Whips)

Number	Abbreviation	Species	Specification	Density	Percentage Contribution
68	A ca	Acer campestre	1+1: Transplant - seed raised: B 1/m ²	11%	
68	A gl	Alnus glutinosa	1+1: Transplant - seed raised: B 1/m ²	11%	
68	B pe	Betula pendula	1+1: Transplant - seed raised: B 1/m ²	11%	
68	CA	Corylus avellana	1+1: Transplant - seed raised: B 1/m ²	11%	
68	C mon	Crataegus monogyna	1+1: Transplant - seed raised: B 1/m ²	11%	
68	M sy	Malus sylvestris	1+1: Transplant - seed raised: B 1/m ²	11%	
68	Q r	Quercus robur	1+1: Transplant - seed raised: B 1/m ²	11%	
68	S auc	Sorbus aucuparia	1+1: Transplant - seed raised: B 1/m ²	11%	
75	T co	Tilia cordata	1+1: Transplant - seed raised: B 1/m ²	12%	
Total :619					

Issued for Coordination - Proposed Trees Location and Existing Walls Revised - NMA Revision	P08	JPO	CH	01/07/26
Union Square Layout and MEP updated - Rev C	P07	JPO	CH	03/06/26
100% Submission - Rev B	P06	JPO	CH	08/04/26
100% Submission	P05	JPO	MG0	27/02/26

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Client Transport for Greater Manchester (TfGM)
Project Bury Interchange

Title Detailed Planting Plan



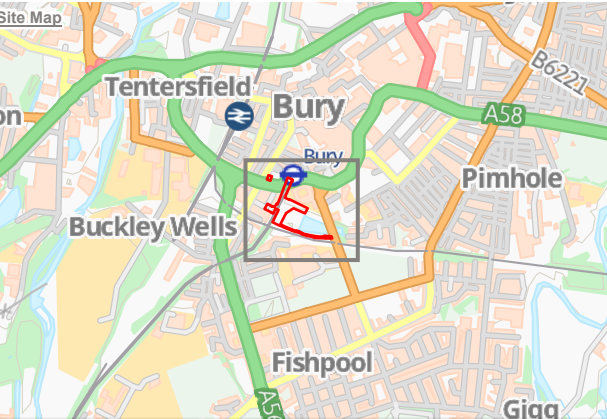
KEY

- Site boundary
- Townside Site of Biological Importance (SBI)
- Proposed SBI fencing

Proposed UK Habitats

- Urban tree
- Modified grassland
- Other neutral grassland
- Mixed scrub
- Other woodland, broadleaved
- Artificial unvegetated, unsealed surface
- Developed land, sealed surface
- Facade-bound green wall
- Introduced shrub

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Rev	Description	Drawn	Approved	Date



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Project
Bury Interchange

Title
Site of Biological Importance (SBI) Fencing Plan

Drawing Number
G10850.024

Drawn	Checked	Approved	Scale	Date
MG	BJ	EH	1:1,500 @ A3	01/12/2025



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