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YOUR HOUSING GROUP

TEN ACRES LANE, NEWTON HEATH – SCENARIO A

BIODIVERSITY OFFSETTING ASSESSMENT

MARCH 2022

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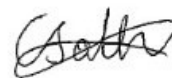
TEN ACRES LANE, NEWTON HEATH – SCENARIO A

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MARCH 2022

PREPARED BY:

Callum Salter Ecologist



**REVIEWED AND
APPROVED BY:**

Tim Palmer Technical Director
(Ecology)



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Appendix 3	Metric 3.0 Scenario A Phase 2

DRAWINGS	TITLE	SCALE
LD10348/001	Scenario A Baseline Habitats (Phase 1)	1:2,000 @A3
LD10348/002	Scenario A Baseline Habitats (Phase 2)	1:2,000@A3
LD10348/003	Habitat Creation (Phase 1)	1:2,000@A3
LD10348/004	Habitat Creation (Phase 2)	1:2,000@A3
2490-PLA-00-00-DR-LA-0041-Phase 1	Landscape General Arrangement	1:750@A1
2490-PLA-00-00-DR-LA-0042-Phase 2	Landscape General Arrangement	1:750@A1

EXECUTIVE SUMMARY

This report provides the results of a Biodiversity Net Gain assessment via the completion of a Biodiversity Metric (DEFRA Metric3.0¹) on a proposed residential scheme at Ten Acres Lane, Newton Heath. The assessment seeks to quantify the anticipated gains / losses in biodiversity through development and to consider Biodiversity Net Gain requirements as set out in the National Planning Policy Framework (NPPF 2021).

The baseline information of the calculation is provided from the results of an Extended Phase I Habitat Survey undertaken by The Ecology Partnership (TEP) (TEP, 2019).

This report covers **Scenario A** – defined as the baseline scenario prior to the completion of a separate proposal to remediate the site which would involve the total loss of all vegetation. The scenario whereby the cleared/remediated site is described in the baseline conditions is defined as **Scenario B** and is covered in a separate report. In each case two separate Biodiversity Net Gain scores are supplied, with the site split into two development phases (Phase 1 and 2).

Scenario A Phase 1 Results

The assessment results based on the supplied landscaping proposals indicate that the development would result in a 64.02% net loss in habitat biodiversity (habitat areas) and 100.00% net gain for hedgerows. This is equivalent to the loss of 33.49 habitat area units and a gain of 9.77 units hedgerows respectively.

Scenario A Phase 2 Results

The results based on supplied landscaping proposals for Phase 2 indicate that the development would result in a 51.42% net loss in biodiversity (habitat areas). This is equivalent to a 15.34 unit loss for habitats.

Given that the assessment identifies a reduction in site biodiversity following development, the ten principles of BNG are failed in this scenario, in the absence of an external offset or mechanism to address site biodiversity losses.

A Landscape and Biodiversity Management Plan will be required in order to confirm the habitat creation, management and monitoring requirements, over the 30-year management

¹ <http://publications.naturalengland.org.uk/publication/6049804846366720>

period. It is anticipated that this LBMP will be imposed by condition attached to any forthcoming planning consent.

1 INTRODUCTION

1.1 Scope of Report

1.1.1 Wardell Armstrong LLP was commissioned by Your Housing Group Ltd to undertake a Biodiversity Offsetting Assessment in relation to a residential development project located at Ten Acres Lane, Newton Heath, Manchester (central Ordnance Survey (OS) grid reference SD 87202 00151). The purpose of the assessment is to quantify the biodiversity losses and gains arising from the proposed development and the requirement under the NPPF 2021 for development proposals to achieve a net gain in biodiversity.

1.1.2 This report is informed by a quantitative assessment using DEFRA's Biodiversity Offsetting Metric v.3.0 developed by Natural England and informed by biodiversity net gain guidance developed by CIRIA, CIEEM and IEMA. The baseline habitat information taken from the Ecological Appraisal Report (TEP 2020). The future condition of the site was informed by referring to plans provided by Planit as follows:

- 2490-PLA-00-00-DR-LA-0041-Phase 1 Landscape General Arrangement
- 2490-PLA-00-00-DR-LA-0042-Phase 2 Landscape General Arrangement

1.1.3 This assessment focusses on a quantitative assessment derived from the Biodiversity Offsetting Metric. The report does not consider wider qualitative assessments which are required as part of the overall BNG assessment process. These assessments are considered as part of the associated Environmental Statement.

1.1.4 This assessment of the site has been split into two separate scenarios and this report covers **Scenario A** defined as follows:

- The baseline scenario on site prior to the removal of habitat as part of site remediation works. Two separate Biodiversity Net Gain scores are provided for each of the two proposed development phases (Phase 1 and 2). No assessment has been undertaken for Phase 3 which involves the construction of a new school as no landscape plans have been provided. This area has been excluded from the assessment.

1.2 Site Description and Context

1.2.1 The Site comprises an area of unmanaged grassland and developing woodland. The Site is bounded by the Rochdale canal to the north and the Ten Acres Lane Sports Complex site to the south. Residential and industrial/commercial properties are

present in the wider landscape. Rochdale Canal SAC, SSSI, SBI, Clayton Vale LNR, SBI and Ashton Canal (west) SBI are located within 2Km of the Site.

2 BIODIVERSITY NET GAIN PRINCIPLES

- 2.1.1 Biodiversity net gain (BNG) assessment is the overarching result of an assessment involving a quantitative assessment typically using a metric spreadsheet calculator and a qualitative assessment involving an overall assessment of the value of the habitat.
- 2.1.2 The overall requirement of the National Planning Policy Framework (NPPF) with regards to BNG is leaving a development with a greater ecological value than its previous condition. This has been interpreted in recent caselaw as being >1% although the emerging Environment Act and local planning policies will generally require a 10% gain to be established. The assessment must show that the development design has followed the mitigation hierarchy, a clear order set to retain habitats and avoid biodiversity losses in situ. Only as a last resort, should damage or lost habitat be compensated for using biodiversity offsets.

2.2 The Environment Act

- 2.2.1 The Environment Act establishes a comprehensive legal framework for environmental improvement within the UK, forming one of the key measures to deliver the vision set out under the 25 Year Environment Plan. The preceding Environment bill has recently received Royal assent and hence its status is now an act of Parliament.
- 2.2.2 The Environment Act is intended to establish the structure for long-term environmental governance and accountability and includes key measures to drive improvements for nature. In particular, it introduces a mandatory requirement for biodiversity net gain in the planning system, to ensure that new developments enhance biodiversity and create new green spaces for local communities to enjoy. This will require developments to deliver a 10% improvement in biodiversity value, albeit this will not be a legal requirement until the legislation amends the current Town and County Planning act, currently anticipated to occur during autumn/winter 2023.

2.3 The Ten Principles of Biodiversity Net Gain

- 2.3.1 In achieving BNG any development is required to follow the ten good practice principles (CIEEM, 2021), each of which is summarised in Table 1, below. The assessment of whether the development can meet each of the ten principles, is provided in Appendix 1. This report principally considers Principle 5.

Table 1: The Ten Principles

Principle	Summary Description
<i>Principle 1. Apply the Mitigation Hierarchy</i>	This principle involves avoiding harm to biodiversity wherever possible, by carefully considering site location and layout relative to the presence of valuable ecological features. If harm cannot be avoided this should be reduced (mitigated) by design considerations and/or timing the works to avoid sensitive periods etc. Finally, if harm cannot be mitigated, it may be appropriate to compensate for losses that cannot be avoided. If compensating for losses within the site is not possible or does not generate the most benefits for nature conservation, then consideration should be given to 'offset' biodiversity losses by ensuring gains elsewhere. Offsetting is therefore synonymous with compensation in this context.
<i>Principle 2. Avoid losing biodiversity that cannot be offset by gains elsewhere</i>	Avoid impacts on irreplaceable biodiversity - these impacts cannot be offset to achieve overall biodiversity gain. The NPPF (2019) definition of irreplaceable habitat is as follows: Habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, considering their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen.
<i>Principle 3. Be inclusive and equitable</i>	It is essential that stakeholders are engaged early in the process. Wherever possible stakeholders should be involved in designing, implementing, monitoring and evaluating the approach to net gain.
<i>Principle 4. Address risks</i>	It is necessary to mitigate difficulty, uncertainty and other risks to achieving BNG. Apply well-accepted ways to add contingency when calculating biodiversity losses and gains in order to account for any remaining risks, as well as to compensate for the time between the losses occurring and the gains being fully realised.
<i>Principle 5. Make a measurable Net Gain contribution</i>	Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.
<i>Principle 6. Achieve the best outcomes for biodiversity</i>	Achieve the best outcomes for biodiversity by using robust, credible evidence and local knowledge to make clearly justified choices when:

	• Delivering compensation that is ecologically equivalent in type, amount and condition, and that accounts for the location and timing of biodiversity losses • Compensating for losses of one type of biodiversity by providing a different type that delivers greater benefits for nature conservation • Achieving Net Gain locally to the development while also contributing towards nature conservation priorities at local, regional and national levels • Enhancing existing or creating new habitat • Enhancing ecological connectivity by creating more bigger, better, and joined areas for biodiversity
Principle 7. Be additional	Nature conservation outcomes should be sought that demonstrably exceed existing obligations i.e. do not seek to deliver something that would occur anyway.
Principle 8. Create a Net Gain legacy	Ensure Net Gain generates long-term benefits by: • Planning for adaptive management and securing dedicated funding for long-term management • Engaging stakeholders and jointly agreeing practical solutions that secure Net Gain in perpetuity • Designing Net Gain for biodiversity to be resilient to external factors, especially climate change • Mitigating risks from other land uses • Avoiding displacing harmful activities from one location to another • Supporting local-level management of Net Gain activities
Principle 9. Optimise sustainability	Prioritise Biodiversity Net Gain and, where possible, optimise the wider environmental benefits for a sustainable society and economy.
Principle 10. Be transparent	Communicate all Net Gain activities in a transparent and timely manner, sharing the learning with all stakeholders.

3 METHODS

3.1 Overview

- 3.1.1 In general terms the DEFRA Biodiversity metric 3.0 (Natural England, 2011) is a (beta/web based) spreadsheet tool which allows a calculation of losses and potential gains in biodiversity to be calculated. The calculation defines biodiversity units to illustrate the change in value arising from a development. Biodiversity units are calculated using the size of a parcel of habitat and its quality. The metric uses habitat area as its core measurement, except for linear habitats where habitat length is used.
- 3.1.2 To assess the quality of a habitat the metric scores habitats of different types, such as woodland or grassland, according to their relative biodiversity value. Habitats that are scarce or declining typically score highly relative to habitats that are more common and widespread. The metric also takes account of the condition of a habitat and the location of the habitat relative to other similar habitats to measure its connectedness in the landscape. Being ‘better’ and ‘more joined-up’ are important facets of habitats that can contribute to halting and reversing biodiversity declines. The metric also accounts for whether or not the habitat is sited in an area identified locally, typically in a relevant policy or plan, as being of significance for nature’.

3.2 Habitat Assessment and Mapped Output

- 3.2.1 The system of habitat classification is based upon the UK Habitat Classification or UKHab (The UK Habitat Classification Working Group, 2018), rather than Phase I (JNCC 2016). In this case habitats were mapped in the field according to Phase I Methodology and translation into UKHab was undertaken in accordance with the Guidance within the Metric 3 spreadsheet itself² as well as the Technical Supplement (2021), the User Guide (2021) and the professional judgement of the ecologist. The map legend displayed on Drawing LD10348/001 Scenario A Baseline Habitats (Phase 1) and LD10348/002 Scenario A Baseline Habitats (Phase 2) presents the Phase I habitat types, with the UKHab translations shown in parentheses.
- 3.2.2 To calculate the total ‘tree’ area for parkland/scattered trees, the root protection area (RPA) is required in the baseline information. Where this is not available a default RPA of 15m diameter is used.
- 3.2.3 Three drawings are presented as follows:

² The Phase I to UKHab Translation tool.

- LD10348/001 Scenario A Baseline Habitats (Phase 1)
- LD10348/002 Scenario A Baseline Habitats (Phase 2)
- LD10348/003 Habitat Creation (Phase 1)
- LD10348/004 Habitat Creation (Phase 2)

3.2.4 Each drawing shows current or post development polygons and linear features labelled with an alpha numeric code e.g. MG1 (Modified Grassland 1), SRH2 (Species Rich Hedge 2) which is replicated in the 'assessor comments' column in the Metric 3 spreadsheet. This enables rapid cross referencing between the drawings and the spreadsheet.

3.3 Area and Length

3.3.1 The area of identified habitats is calculated in hectares (ha), ignoring linear features such as hedgerows or ditches (the area is measured to the centre line of such features). The length of linear features is measured separately in kilometres (km). The area of habitats beneath 'street trees' is also mapped contiguously with surrounding habitats with the canopy area presented separately in the Metric. Where hedgerows lie adjacent to a ditch the ditch habitat the ditch is disregarded in the linear habitats calculation, in accordance with the User Guide and Technical Supplement Guidelines.

3.4 Distinctiveness

3.4.1 Existing information on habitat types within the Application Site is taken from the Extended Phase 1 Habitat Survey Results of the Preliminary Ecological Appraisal. The area and habitats data are then imputed into the Metric 3.0 calculation tool and habitats are pre-assigned to one of four habitat bands, based on their distinctiveness:

- V. High 8
- High: 6
- Medium: 4
- Low: 2
- None 0

3.4.2 Distinctiveness is defined as a collective measure of biodiversity based on parameters including species richness, diversity and rarity.

3.4.3 Removal of habitats of V. high distinctiveness should be avoided at all costs and if considered necessary then bespoke compensation is likely to be required. Removal of habitats of high distinctiveness should also be avoided and if considered necessary then the same habitat is required. Regarding medium distinctiveness habitats these are required to be compensated for with the same broad habitat or a higher distinctness habitat.

3.5 Condition Assessment

3.5.1 Each habitat type identified is then given a condition weighting. The methodology used to assign a condition weighting to each habitat type is based on the DEFRA Metric Technical Supplement, User Guide³ and professional judgement. Condition weightings provide a multiplier based on the following outputs:

- Good condition: All criteria met, with minor variation
- Moderate Condition: All but one/two criterion met
- Poor Condition: Five or more criteria failed, unless specified alternatively

3.5.2 A summary of the condition assessment for each habitat is presented in Section 4 Results (below).

3.6 Strategic Significance

3.6.1 Strategic significance gives additional unit value to habitats that are located within preferred locations for biodiversity and environmental objectives. The habitats will usually have been summarised in a local strategy planning document which articulates where biodiversity is of high priority and the places where it is less so. Strategic significance utilises published local plans and objectives to identify local priorities for targeting biodiversity and nature improvement, such as Nature Recovery Areas, local biodiversity plans, National Character Area objectives and green infrastructure strategies.

3.6.2 A score based on whether the location of the Site has been identified locally as significant for nature conservation of either Low, Medium or High Significance, as follows:

³ <http://publications.naturalengland.org.uk/publication/6049804846366720>

High Strategic Significance (High potential & within area formally identified in local policy)

Medium Strategic Significance (Good potential but not in area defined in local policy)

Low Strategic Significance (Low potential and not in area defined in local policy)

3.7 Rivers and Streams

- 3.7.1 The rivers section of metric 3.0 is assessed separately to the habitats and hedgerows, habitats including rivers and streams is assessed using the modular river physical habitat field survey (MoRPh) methodology. Ditches and canals are assessed using condition assessments in DEFRA Metric Technical Supplement and User Guide
- 3.7.2 The River Condition Assessment (RCA) method combines the MoRPh with a desk study (River Type) to generate a final Condition Score based on the evaluation of 32 Condition Indicators (CIs) which represent positive and negative attributes of the fluvial river reach under investigation.

3.8 Quality Assurance & Environmental Management

- 3.8.1 The calculation and the report have been overseen, checked and verified by a member of CIEEM, whom is bound by its code of professional conduct. All surveys and assessments have been undertaken with reference to the recommendations given in British Standard BS 8683:2021 (2021) *Process for Designing and Implementing Biodiversity Net Gain* and as stated within specialist guidance, as appropriate and referenced separately.
- 3.8.2 Arc GIS software was used to obtain all baseline and predicted final development and offsetting areas. Any alterations to the final area results must be completed using the same software.

3.9 Limitations

- 3.9.1 Drawings 2490-PLA-00-00-DR-LA-0041-Phase 1 Landscape General Arrangement and 2490-PLA-00-00-DR-LA-0042-Phase 2 Landscape General Arrangement provided by Planit I.E Limited (March 2022) have been used to inform details of proposed habitats following completion of the development. Any subsequent revisions will require an update to the assessment presented in this report.
- 3.9.2 The BIA (quantitative) calculations should not be considered in isolation or be taken to be the only biodiversity requirements relevant to the proposed development. It will be necessary to consider other qualitative assessment of ecological/biodiversity value

including protected species assessments. In this case, the qualitative assessment elements will be included within the environmental statement as part of an overall BNG assessment.

- 3.9.3 The condition assessments of individual habitats are seasonal and although a habitat survey can be completed throughout the year, the optimal period for botanical surveys when most species are showing is between April and September.
- 3.9.4 The biodiversity net gain assessment has been separated into four separate assessments, there are two development phases (phase 1 and 2) to be tested in both baseline scenarios A and B:
- Scenario A - The current existing baseline scenario on site.
 - Scenario B – The baseline has been cleared of vegetation and is considered entirely bareground.
- 3.9.5 The results of Scenario A will be delivered in this report.

4 RESULTS

4.1 Habitats Baseline and Condition Assessment

4.1.1 Table 2 (below) provides a summary of baseline habitat conditions, for phase I and Phase 2. Habitat descriptions are split where necessary to allow heterogeneous stands/polygons to be described. Alpha numeric codes are provided in parentheses to allow cross referencing with Drawings LD10348/001 Scenario A Baseline Conditions (Phase 1) and LD10348/002 Scenario A Baseline Conditions (Phase 2).

4.1.2 The table also provides a summary and rationale for the condition assessment with justification for any deviation from the guideline recommendations.

Table 2: Habitat Description and Condition Assessment Summary

Baseline Habitat	Habitat Description	Condition Assessment
Woodland and forest – Other woodland; broadleaved (W1, 2, 3, 4, 5, 6, 7, 8 ,9 ,10, 11,12 and 13	In places the scrub has developed into young woodland with sycamore, birch., ash oak, and willows. Understory species include rose, hawthorn, and self-set trees. Wood avens, hazel, ivy, coltsfoot, wych elm dogwood and hawthorn. The ground layer consisted of frequent bramble, and occasional ivy, field horsetail, creeping buttercup, herb Robert, common comfrey, and male fern.	The following criteria are scored below- Good (3), Moderate (2), Poor (1). Poor – Total Score = 25/39 Points Age distribution of trees - 3 Wild, domestic and feral herbivore damage - 3 Invasive plant species -1 Number of native tree species - 3 Cover of native tree and shrub species - 1 Open space within woodland - 3 Woodland regeneration - 2 Tree health -2 Vegetation and ground flora -2 Woodland vertical structure -1 Veteran trees - 1 Amount of deadwood -2 Woodland disturbance- 1

Baseline Habitat	Habitat Description	Condition Assessment
Heathland and shrub – Mixed scrub (SC1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14)	This habitat dominates the site, varying in density and composition, in places the scrub is present in a mosaic alongside neutral grassland. Species comprised of frequent willow, birch, oak, sycamore, dogwood, hawthorn, rose and scattered stands of Japanese knotweed. The ground layer consisted of shade tolerant species including occasional, bramble, herb-robot, common nettle, field horsetail, hart's-tongue fern and pendulous sedge and rare broad-leaved helleborine. Bramble is scattered throughout, and in areas is dominant, with occasional large bindweed and willowherbs. The area of scrub adjacent to Ten Acres Lane contained a previous overgrown hedgerow consisting of privet.	Poor – 2/7 conditions passed. Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover). - PASS There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs. - FAIL There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species¹ make up less than 5% of ground cover. – FAIL The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s). - FAIL There are clearings, glades or rides present within the scrub, providing sheltered edges. - PASS
Grassland – Other Neutral Grassland (MG1)	Some areas of the neutral grassland are noted which hold shallow standing water and areas of partial inundation with rush and pendulous sedge.	Moderate – Passed 3 out of 5 criteria.

Baseline Habitat	Habitat Description	Condition Assessment
Grassland – Other Neutral Grassland (G1,2 and 3)	Area of semi-improved neutral grassland. Sward length varies according to levels of disturbance, with small patches of scrub and competitive herbs. Species included abundant and locally dominant creeping bent occasional red fescue, perennial rye grass, and cocksfoot. A limited range of common forbs include willowherbs., horsetail, common toadflax, ribwort plantain, common ragwort, creeping buttercup, meadow buttercup. Patches of locally dominant white pinnacle aster are also noted.	The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward - PASS Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed -PASS Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens - PASS Cover of bracken less than 20% and cover of scrub (including bramble) less than 5% - FAIL There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species¹ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area – FAIL

Baseline Habitat	Habitat Description	Condition Assessment
Sparsely vegetated land – Ruderal/ephemeral (R1, 2, 3 and 4)	Former hard standing with short ephemeral vegetation and developing scrub. Species include common bent, mugwort, Broom, willowherbs, horsetails, Yorkshire fog, ribwort plantain, bramble and common ragwort.	Moderate – 2 out of 3 conditions passed. The appearance and composition of the vegetation closely matches characteristics of the specific sparsely vegetated habitat type (see UKHab definition linked above). Indicator species for the specific sparsely vegetated habitat type are very clearly and easily visible - PASS Cover of bracken, scrub and trees less than 25% - FAIL There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species make up less than 5% of vegetated ground cover - FAIL Vegetation cover of vascular and non-vascular plants between 5 and 50% - PASS
Urban – Developed land; sealed surface (HS1 , and 3)	Included all hardstanding areas within the site.	N/A – Assessment not required.
Sparsely vegetated land – Ruderal/ephemeral (ESP1)	Former hard standing with short ephemeral vegetation and developing scrub. Species include common bent, mugwort, Broom, willowherbs, horsetails, Yorkshire fog, ribwort plantain, bramble and common ragwort.	Moderate – 2 out of 4 conditions passed. The appearance and composition of the vegetation closely matches characteristics of the specific sparsely vegetated habitat type (see UKHab definition linked above). Indicator species for the specific sparsely vegetated habitat type

Baseline Habitat	Habitat Description	Condition Assessment
		are very clearly and easily visible - PASS Cover of bracken, scrub and trees less than 25% - FAIL There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species make up less than 5% of vegetated ground cover - FAIL Vegetation cover of vascular and non-vascular plants between 5 and 50% - PASS
Urban - Vacant/derelict land/ bareground (BG1)	There is one large area in the far eastern corner of the site, scattered bare ground within the centre of the site and in the bottom west corner where it looks like there was an old roadway of some description and features large piles of rubble and bricks on the hardstanding ground. Fly-tipping is evident in these areas.	Poor – 0 out of 3 conditions passed. Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single ecotone (i.e. scrub, grassland, herbs) should not account for more than 80% of the total habitat area. - FAIL "There is a diverse range of flowering plant species, providing nectar sources for insects. These species may be either native, or non-native but beneficial to wildlife. NB - To achieve GOOD condition, criterion 2 must be satisfied by native species only (rather than non-natives beneficial to wildlife)." - FAIL "Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area. NB - To achieve GOOD

Baseline Habitat	Habitat Description	Condition Assessment
		condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover)." - FAIL

4.2 Post Development Habitats

4.2.1 Table 3 (below) provides a summary of the proposed habitats in Phase I and Phase 2 following completion of development. This includes all habitats to be created.

Table 3: Post Development Habitat Summary

Proposed Habitat	Habitat Description	Condition Assessment
Urban – Developed Land; Sealed Surface (B1, HS1 etc)	This includes all roads, parking and buildings within the site.	N/A – Other: No assessment for the condition of this habitat is required.
Urban - Artificial unvegetated, unsealed surface	This includes the recreation play area location in the west of the site adjacent to Rochdale Canal.	N/A – Other: No assessment for the condition of this habitat is required.
Urban – Urban Tree (Street Trees)	Includes all street trees within the residential development.	Moderate: Habitat aims to pass 3/5 criteria. More than 70% of trees are native species. - PASS More than 50% of trees are mature or veteran. - FAIL There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height. - FAIL Management regime has encouraged micro habitat sites for birds, mammals and insects e.g. presence of deadwood, cavities or loose bark etc. - PASS Trees are immediately adjacent to other vegetation, and tree canopies are oversailing vegetation beneath - PASS
Grassland –Modified Grassland (MG1)	Areas of amenity grassland to be created near to the built development, within the central more formal landscaped areas, utilising a flowering lawn mix to enhance species diversity such as Emmorsgate EL1	Fairly Poor: No invasive non-native species would be included and Bracken, scrub and physical damage to be kept to minimum. The grassland is expected to pass five of the condition assessment criteria and is therefore considered likely to achieve a fairly poor condition. "There must be 6-8 species per m2. Note - if a grassland has 9 or more species per m2 it should be

Proposed Habitat	Habitat Description	Condition Assessment
	Flowering Lawn Mixture. This area includes garden space for the housing development.	classified as a moderate distinctiveness grassland habitat type. NB - this criterion is non-negotiable for achieving good condition." - FAIL Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed. - FAIL Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.- PASS Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities. - PASS Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens. - PASS Cover of bracken less than 20%. - PASS There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species1 make up less than 5% of ground cover. -PASS
Grassland – Other Neutral Grassland (G4)	Includes all areas labelled as species rich neutral grassland within the development.	Fairly Good: This habitat is expected to pass 4/5 out of 5 of these criteria's. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward. -PASS Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed. - PASS Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens. - PASS Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%. -PASS There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover

Proposed Habitat	Habitat Description	Condition Assessment
		of undesirable species ¹ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. - PASS
Heathland and shrub – Mixed Scrub	Includes all areas labelled as Native and Herbaceous and low shrub planting within the development.	Moderate: Habitat is expected to pass 3 out of the 5 criteria. Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover). - PASS There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs. - PASS There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species¹ make up less than 5% of ground cover. - PASS The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s). - FAIL There are clearings, glades or rides present within the scrub, providing sheltered edges. - FAIL
Urban - Bioswale	Includes all areas of Swale Vegetation within the development.	Moderate: Habitat is expected to pass 3 out of 4 of the criteria. Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single ecotone (i.e. scrub, grassland, herbs) should not account for more than 80% of the total habitat area. - FAIL "There is a diverse range of flowering plant species, providing nectar sources for insects. These species may be either native, or non-native but beneficial to wildlife. NB - To achieve GOOD condition, criterion 2 must be satisfied by native species only (rather than non-natives beneficial to wildlife)."-PASS "Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area. NB - To achieve GOOD condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover)."-PASS

Proposed Habitat	Habitat Description	Condition Assessment
		The water table is at or near the surface throughout the year. This could be open water or saturation of soil at the surface. - PASS
Hedgerow – Native Hedgerow	This area includes all newly planted native hedgerow area the residential development.	Moderate: – This habitat is expected to achieve 4 criteria passes. A1 – Pass, A2 – Pass, B1 – Pass, B2 – Fail, C1 – Fail, C2 – Fail, D1 – Fail and D2 – Pass.

4.3 Quantitative Assessment Results

4.3.1 The site has no losses of high or very high distinctiveness habitats, the habitat losses are within the medium and low distinctiveness categories. Plates 1 and 2 provide a summary of the Metric 3.0 assessment.

4.3.2 Plate 1: Extract from Defra Metric 3.0 'Headline Results' summary – Phase 1

On-site baseline	Habitat units	52.32
	Hedgerow units	0.00
	River units	0.00
On-site post-intervention (including habitat retention, creation & enhancement)	Habitat units	18.82
	Hedgerow units	9.77
	River units	0.00
On-site net % change (including habitat retention, creation & enhancement)	Habitat units	-64.02%
	Hedgerow units	100.00%
	River units	0.00%
Off-site baseline	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (including habitat retention, creation & enhancement)	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-33.49
	Hedgerow units	9.77
	River units	0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-64.02%
	Hedgerow units	100.00%
	River units	0.00%
Trading rules Satisfied?	No - Check Trading Summary	

Plate 2: Extract from Defra Metric 3.0 'Detailed Results' summary – Phase 1

On site change by broad habitat type						
Habitat group	Baseline		Post development on site		Onsite Change	
	Existing area	Existing value	Proposed area	Proposed value	Area change	Onsite Unit change
Cropland	0.00	0.00	0.00	0.00	0.00	0.00
Grassland	3.48	30.62	2.93	13.95	-0.55	-16.67
Heathland and scrub	1.20	5.28	0.26	1.91	-0.94	-3.37
Lakes	0.00	0.00	0.00	0.00	0.00	0.00
Sparsely vegetated land	0.21	0.92	0.00	0.00	-0.21	-0.92
Urban	0.17	0.18	6.06	2.78	5.89	2.60
Wetland	0.00	0.00	0.00	0.00	0.00	0.00
Woodland and forest	3.48	15.31	0.00	0.00	-3.48	-15.31
Intertidal sediment	0.00	0.00	0.00	0.00	0.00	0.00
Coastal saltmarsh	0.00	0.00	0.00	0.00	0.00	0.00
Rocky shore	0.00	0.00	0.00	0.00	0.00	0.00
Coastal lagoons	0.00	0.00	0.00	0.00	0.00	0.00
Intertidal Hard Structures	0.00	0.00	0.00	0.00	0.00	0.00

Plate 3: Extract from Defra Metric 3.0 'Headline Results' summary – Phase 2

On-site baseline	Habitat units	29.83
	Hedgerow units	0.00
	River units	0.00
On-site post-intervention (including habitat retention, creation & enhancement)	Habitat units	14.49
	Hedgerow units	0.00
	River units	0.00
On-site net % change (including habitat retention, creation & enhancement)	Habitat units	-51.42%
	Hedgerow units	0.00%
	River units	0.00%
Off-site baseline	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (including habitat retention, creation & enhancement)	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-15.34
	Hedgerow units	0.00
	River units	0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-51.42%
	Hedgerow units	0.00%
	River units	0.00%
Trading rules Satisfied?	No - Check Trading Summary	

Plate 4: Extract from Defra Metric 3.0 'Detailed Results' summary – Phase 2

On site change by broad habitat type						
	Baseline		Post development on site		Onsite Change	
Habitat group	Existing area	Existing value	Proposed area	Proposed value	Area change	Onsite Unit change
Cropland	0.00	0.00	0.00	0.00	0.00	0.00
Grassland	0.34	2.99	2.73	12.29	2.39	9.30
Heathland and shrub	0.09	0.40	0.02	0.15	-0.07	-0.25
Lakes	0.00	0.00	0.00	0.00	0.00	0.00
Sparsely vegetated land	0.00	0.00	0.00	0.00	0.00	0.00
Urban	0.29	0.00	4.60	2.05	4.31	2.05
Wetland	0.00	0.00	0.00	0.00	0.00	0.00
Woodland and forest	6.01	26.44	0.00	0.00	-6.01	-26.44
Intertidal sediment	0.00	0.00	0.00	0.00	0.00	0.00
Coastal saltmarsh	0.00	0.00	0.00	0.00	0.00	0.00
Rocky shore	0.00	0.00	0.00	0.00	0.00	0.00
Coastal lagoons	0.00	0.00	0.00	0.00	0.00	0.00
Intertidal Hard Structures	0.00	0.00	0.00	0.00	0.00	0.00

4.3.3 Plate 2 and 4 show that many losses are of medium distinctiveness, with the largest losses in woodland (other broadleaved woodland). The trading summary 'warning' is coloured red because the project does not meet the required habitat trading rules due to the loss of woodland and lack of woodland compensation post development.

4.4 Overall Quantitative Results and Conclusion

4.4.1 The assessment concludes that the development is not expected to meet the ten principles of biodiversity net gain as set out in Appendix 1. This is because there is a net loss in biodiversity following the development.

Scenario A Phase 1 Results

4.4.2 The calculation shows that the existing area-based habitats on Site have a biodiversity value of 53.32 units. Following the development, the biodiversity value will be 18.82 units. **There will be a net biodiversity loss of 33.49 Habitat Units or 64.02%.**

4.4.3 The site does not feature any hedgerows in the baseline and hence has a biodiversity value of 0.00 units. For Hedgerow habitats, 9.77 units will be created following development, resulting in a net change of 9.77 Hedgerow Units or 100.00%. **There will be a net biodiversity gain for hedgerows of 100%.**

Scenario A Phase 2 Results

- 4.4.4 The calculation shows that the existing area-based habitats on Site have a biodiversity value of 29.83 units. Following the development, the biodiversity value will be 14.49 units. **There will be a net loss of 15.34 Habitat Units or 51.42%.**
- 4.4.5 A Landscape and Biodiversity Management Plan will be required in order to confirm the habitat creation, management and monitoring requirements, over the 30-year management period’.

REFERENCES

BSBI (2021) BS 8683:2021 Process for designing and implementing Biodiversity Net Gain.

CIEEM (2021). Biodiversity Net Gain Report and Audit Templates Chartered Institute of Ecology and Environmental Management, Winchester, UK.

The Environment Partnership (TET) (2020) Ten Acres Lane Newton Heath, Manchester, Ecological Assessment.

APPENDICES

APPENDIX 1 – ASSESSMENT OF TEN PRINCIPLES OF BNG

Principle	Guidance ⁴	Assessment
1: Apply the Mitigation Hierarchy	Measures to avoid and minimise biodiversity loss and to rehabilitate/restore biodiversity affected by the project are: 1) defined and documented, 2) implemented and monitored; and 3) managed for the duration of the project's impacts. For example, maintain records of the consideration of alternatives as evidence of avoidance measures implemented.	Pass: The project ecology reports (PEA and BNG) provide evidence that the hierarchy has been adopted and alternatives are discussed in the Planning Statement.
2: Avoid losing biodiversity that cannot be offset by gains elsewhere	Project documents describe any impacts to irreplaceable and vulnerable biodiversity resources, e.g., permanent loss or damage to semi-natural ancient woodland, ancient climax vegetation communities, veteran trees, endemic and internationally rare species that cannot be replaced within reasonable timeframes. Projects with impacts on irreplaceable habitats cannot achieve BNG. These projects should demonstrate where biodiversity compensation has been provided but cannot claim project-wide achievement of BNG. These projects should transparently and comprehensively refer to the impacts on irreplaceable habitats in communications and reports.	Pass: No irreplaceable habitats will be lost.
3: Be inclusive and equitable	Evidence of input from and consultation with nature conservation bodies, the local community, the local planning authority and other relevant stakeholders. (NB: For smaller scale projects, this may be part of the planning consultation process). Terms of Reference for any Stakeholder Partnerships are agreed and published, with the roles and responsibilities of members clearly defined.	Pass: Greater Manchester Environmental Unit will provide comments on all BNG assessments on site
4: Address Risks	Evidence that BNG has been achieved within the project.	Pass: The metric includes an inbuilt difficulty multiplier which addresses the

⁴ Taken from CIEEM (2021). Biodiversity Net Gain Report and Audit Templates Chartered Institute of Ecology and Environmental Management, Winchester, UK.

	Sources of risk and uncertainty in design and implementation of mitigation are documented. Identify risks that may present themselves during the 30-year management period and how these should be dealt with.	difficulty of habitat creation. The project will include a management plan which will include maintenance for the proposed habitats.
5: Make a measurable Net gain	Suitable metric is used for all habitat impacts quantified relative to the 'pre-project' condition of each habitat. Gains anticipated from habitat creation, enhancement and positive management are quantified relative to the predicted condition in the absence of BNG activities.	Fail: The site has not achieved a net gain in either Phase 1 or 2.
6: Achieve the best outcomes for Biodiversity	Evidence is provided that BNG commitments contribute (now or in the future) to regional and national conservation goals, e.g., Local Nature Recovery Strategies. Provide evidence that the BNG design has considered where it is possible to contribute to supporting priority species populations. Provide evidence to show where additionality has been proven within the built environment and what gains are achieved.	Fail: There are limited opportunities for biodiversity within the site design.
7: Be additional	Evidence is provided that the conservation gains were caused by project activities and would not have occurred in other circumstances.	Fail: There are limited opportunities for additionality within the site design.
8: Create a Net Gain legacy	Evidence is provided that those responsible for implementing project biodiversity management have the requisite management and technical capacity for their specified roles. Key Performance Indicators are set for biodiversity features affected by the project and specific, measurable and time-bounded targets for indicating conservation success are clearly stated. Evidence is provided that any reasonably foreseeable future developments that might affect long-term commitments to biodiversity, including developments by	Fail: both phases of the site have involved net losses in biodiversity units. However, phase 1 has significant net gains in hedgerow units.

	third parties, have been considered. Evidence that legal and financial mechanisms are in place to guarantee the financial and institutional viability of all biodiversity management for a minimum 30 years or at least the duration of the project's impacts. Evidence is provided that management is adapted, where necessary, throughout implementation to deliver the agreed conservation outcomes and monitoring is in place to identify risks to achieving specified outcomes. Evidence that the design has considered where it is possible to create features for species, in particular, priority species.	
9: Optimise sustainability	Evidence provided that the project prioritises BNG targets, but then seeks opportunities for gains for the wider environment, the community and the economy.	Pass: The site seeks recreational opportunities for children in parks/open spaces. The area will benefit greatly from the creation of the residential development.
10: Be transparent	The commitment to BNG is stated by the project developer in a publicly available document. Results of project audits are publicly available where claims of BNG are made at relevant project stages, including project closure and any deviations from original design specifications are clearly stated. Evidence that the best available scientific knowledge and methods have been used in BNG design and implementation and knowledge is transferred back to the scientific community.	Pass: The site has been upfront with the BNG requirement, all results of the assessment will be made public and available. The BNG was completed by a suitability qualified ecologist with years of experience in completing similar projects.

APPENDIX 2
Metric 3.0 Scenario A Phase 1

Ten Acres Lane, Newton Heath Phase 1 A-1 Site Habitat Baseline															
Guidance / Show Columns				Guidance / Show Rows											
Main Menu				Instructions											
Habitats and areas															
Ref	Broad habitat	Habitat type	Area (hectares)	Disturbance	Condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline	Total habitat units						
1	Woodland and forest	Other woodland/broadleaved	0.04	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.18	0.00	0.00	0.04	0.18	A1.1.1 - Broadleaved woodland - semi-natural W1		
2	Woodland and forest	Other woodland/broadleaved	0.02	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.09	0.00	0.00	0.02	0.09	A1.1.1 - Broadleaved woodland - semi-natural W2		
3	Woodland and forest	Other woodland/broadleaved	0.04	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.18	0.00	0.00	0.04	0.18	A1.1.1 - Broadleaved woodland - semi-natural W3		
4	Woodland and forest	Other woodland/broadleaved	0.07	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.31	0.00	0.00	0.07	0.31	A1.1.1 - Broadleaved woodland - semi-natural W4		
5	Woodland and forest	Other woodland/broadleaved	0.15	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.66	0.00	0.00	0.15	0.66	A1.1.1 - Broadleaved woodland - semi-natural W5		
6	Woodland and forest	Other woodland/broadleaved	0.06	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.36	0.00	0.00	0.06	0.36	A1.1.1 - Broadleaved woodland - semi-natural W6		
7	Woodland and forest	Other woodland/broadleaved	0.03	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.13	0.00	0.00	0.03	0.13	A1.1.1 - Broadleaved woodland - semi-natural W7		
8	Woodland and forest	Other woodland/broadleaved	0.08	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.35	0.00	0.00	0.08	0.35	A1.1.1 - Broadleaved woodland - semi-natural W8		
9	Woodland and forest	Other woodland/broadleaved	0.45	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	1.98	0.00	0.00	0.45	1.98	A1.1.1 - Broadleaved woodland - semi-natural W9		
10	Woodland and forest	Other woodland/broadleaved	0.08	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.36	0.00	0.00	0.08	0.36	A1.1.1 - Broadleaved woodland - semi-natural W10		
11	Woodland and forest	Other woodland/broadleaved	0.01	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.04	0.00	0.00	0.01	0.04	A1.1.1 - Broadleaved woodland - semi-natural W11		
12	Woodland and forest	Other woodland/broadleaved	0.61	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	2.68	0.00	0.00	0.61	2.68	A1.1.1 - Broadleaved woodland - semi-natural W12		
13	Woodland and forest	Other woodland/broadleaved	1.84	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	8.10	0.00	0.00	1.84	8.10	A1.1.1 - Broadleaved woodland - semi-natural W13		
14	heathland and shrub	Mixed scrub	0.2	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.88	0.00	0.00	0.20	0.88	A2.1 - Scrub - dense/continuous SC3		
15	heathland and shrub	Mixed scrub	0.13	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.55	0.00	0.00	0.13	0.55	A2.1 - Scrub - dense/continuous SC3		
16	heathland and shrub	Mixed scrub	0.06	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.26	0.00	0.00	0.06	0.26	A2.1 - Scrub - dense/continuous SC4		
17	heathland and shrub	Mixed scrub	0.02	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.09	0.00	0.00	0.02	0.09	A2.1 - Scrub - dense/continuous SC5		
18	heathland and shrub	Mixed scrub	0.08	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.32	0.00	0.00	0.08	0.32	A2.1 - Scrub - dense/continuous SC6		
19	heathland and shrub	Mixed scrub	0.04	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.18	0.00	0.00	0.04	0.18	A2.1 - Scrub - dense/continuous SC7		
20	heathland and shrub	Mixed scrub	0.19	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.84	0.00	0.00	0.19	0.84	A2.1 - Scrub - dense/continuous SC8		
21	heathland and shrub	Mixed scrub	0.18	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.70	0.00	0.00	0.18	0.70	A2.1 - Scrub - dense/continuous SC9		
22	heathland and shrub	Mixed scrub	0.03	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.13	0.00	0.00	0.03	0.13	A2.1 - Scrub - dense/continuous SC10		
23	heathland and shrub	Mixed scrub	0.02	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.09	0.00	0.00	0.02	0.09	A2.1 - Scrub - dense/continuous SC11		
24	heathland and shrub	Mixed scrub	0.1	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.44	0.00	0.00	0.10	0.44	A2.1 - Scrub - dense/continuous SC12		
25	heathland and shrub	Mixed scrub	0.09	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.40	0.00	0.00	0.09	0.40	A2.1 - Scrub - dense/continuous SC13		
26	heathland and shrub	Mixed scrub	0.11	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.46	0.00	0.00	0.11	0.46	A2.1 - Scrub - dense/continuous SC14		
27	Grassland	Other neutral grassland	0.03	Medium	Moderate	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.26	0.00	0.00	0.03	0.26	B5 - Marshy/neutral grassland M21		
28	Grassland	Other neutral grassland	0.04	Medium	Moderate	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	0.36	0.00	0.00	0.04	0.36	B6 - Poor semi-improved grassland G2		
29	Grassland	Other neutral grassland	3.41	Medium	Moderate	Location ecologically desirable but not in local strategy	Same broad habitat or a higher disturbance/better habitat required	30.01	0.00	0.00	3.41	30.01	B6 - Poor semi-improved grassland G2		
30	Sparsely vegetated land	Ruderal/Ephemeral	0.02	Low	Moderate	Location ecologically desirable but not in local strategy	Same disturbance or better habitat required	0.09	0.00	0.00	0.02	0.09	C2.1 - Other tall herbs and fern - ruderal B1		
31	Sparsely vegetated land	Ruderal/Ephemeral	0.01	Low	Moderate	Location ecologically desirable but not in local strategy	Same disturbance or better habitat required	0.04	0.00	0.00	0.01	0.04	C2.1 - Other tall herbs and fern - ruderal B2		
32	Sparsely vegetated land	Ruderal/Ephemeral	0.02	Low	Moderate	Location ecologically desirable but not in local strategy	Same disturbance or better habitat required	0.09	0.00	0.00	0.02	0.09	C2.1 - Other tall herbs and fern - ruderal B3		
33	Sparsely vegetated land	Ruderal/Ephemeral	0.11	Low	Moderate	Location ecologically desirable but not in local strategy	Same disturbance or better habitat required	0.48	0.00	0.00	0.11	0.48	C2.1 - Other tall herbs and fern - ruderal B4		
34	Sparsely vegetated land	Ruderal/Ephemeral	0.02	Low	Moderate	Location ecologically desirable but not in local strategy	Same disturbance or better habitat required	0.09	0.00	0.00	0.02	0.09	C2.2 - Other tall herbs and fern - non-ruderal		
35															
36	Sparsely vegetated land	Ruderal/Ephemeral	0.03	Low	Moderate	Location ecologically desirable but not in local strategy	Same disturbance or better habitat required	0.13	0.00	0.00	0.03	0.13	D1.3 - Cultivated/managed land - ephemeral/short perennial D21		
37	Urban	Vacant/derelict land background	0.08	Low	Poor	Location ecologically desirable but not in local strategy	Same disturbance or better habitat required	0.18	0.00	0.00	0.08	0.18	E1 - Bare ground B21		
38	Urban	Developed land: sealed surface	0.09	Low	N/A - Other	Location ecologically desirable but not in local strategy	Compensation Not Required	0.00	0.00	0.00	0.09	0.00	E2 - Other habitat		
			0.64					29.38	0.00	0.00	0.00	0.64	29.38		

B-2 Site Hedge Creation												
Condense / Show Columns						Condense / Show Rows						
Main Menu						Instructions						
		Proposed habitats		Habitat distinctiveness	Habitat condition	Strategic significance	Temporal multiplier		Difficulty risk multipliers	Hedge units delivered	Comments	
Baseline ref	New hedge number	Habitat type	Length km	Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition/years	Final difficulty of creation		Assessor comments	Reviewer comments
1		Native Hedgerow	2.92	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	5	Low	9.77	Native hedge (Hedgerow - Native hedgerow)	
2												
3												
4												
5												
6												
			2.92							9.77		

APPENDIX 3
Metric 3.0 Scenario A Phase 2

Ten Acres Lane, Newton Heath - Phase 2									
A-1 Site Habitat Baseline									
Condense / Show Columns					Condense / Show Rows				
Main Menu					Instructions				

Habitats and areas				Distinctiveness	Condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline	Retention category biodiversity value						Bespoke compensation agreed for unacceptable losses	Comments	
Ref	Broad habitat	Habitat type	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area lost	Units lost	Assessor comments	Reviewer comments	
1	Woodland and forest	Other woodland, broadleaved	6.01	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher distinctiveness habitat required	26.44			0.00	0.00	6.01	26.44	A1.1.1 - Broadleaved woodland - semi-natural W13		
2	Heathland and shrub	Mixed scrub	0.09	Medium	Poor	Location ecologically desirable but not in local strategy	Same broad habitat or a higher distinctiveness habitat required	0.40			0.00	0.00	0.09	0.40	A2.1 - Scrub - dense/continuous SC1		
3	Grassland	Other neutral grassland	0.25	Medium	Moderate	Location ecologically desirable but not in local strategy	Same broad habitat or a higher distinctiveness habitat required	2.20			0.00	0.00	0.25	2.20	B6 - Poor semi-improved grassland G1		
4	Grassland	Other neutral grassland	0.09	Medium	Moderate	Location ecologically desirable but not in local strategy	Same broad habitat or a higher distinctiveness habitat required	0.79			0.00	0.00	0.09	0.79	B6 - Poor semi-improved grassland G2		
5	Urban	Developed land; sealed surface	0.2	V.Low	N/A - Other	Location ecologically desirable but not in local strategy	Compensation Not Required	0.00			0.00	0.00	0.20	0.00	B - Other habitat H51		
6	Urban	Developed land; sealed surface	0.09	V.Low	N/A - Other	Location ecologically desirable but not in local strategy	Compensation Not Required	0.00			0.00	0.00	0.09	0.00	B - Other habitat H52		
			6.73					29.83	0.00	0.00	0.00	0.00	6.73	29.83			

Ten Acres Lane, Newton Heath - Phase 2														
A-2 Site Habitat Creation														
Condense / Show Columns					Condense / Show Rows									
Main Menu					Instructions									
Post development/ post intervention habitats														
Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance		Temporal multiplier		Difficulty		Habitat units delivered	Comments		
			Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition/years	Final difficulty of creation	Assessor comments	Reviewer comments				
Urban	Developed land; sealed surface	1.34	V.Low	N/A - Other	Location ecologically desirable but not in local strategy	Standard time to target condition applied	0	Medium	0.00		Buildings B2			
Urban	Introduced shrub	0	Low	Poor	Location ecologically desirable but not in local strategy	Standard time to target condition applied	1	Low	0.00		Ornamental Herbaceous and Low Shrub Plantings SH4			
Heathland and shrub	Mixed scrub	0.01	Medium	Moderate	Location ecologically desirable but not in local strategy	Standard time to target condition applied	5	Low	0.07		Native and Herbaceous and low shrub planting SH5			
Heathland and shrub	Mixed scrub	0.01	Medium	Moderate	Location ecologically desirable but not in local strategy	Standard time to target condition applied	5	Low	0.07		Native and Herbaceous and low shrub planting SH6			
Urban	Developed land; sealed surface	2.65	V.Low	N/A - Other	Location ecologically desirable but not in local strategy	Standard time to target condition applied	0	Medium	0.00		Hardstanding H56			
Grassland	Modified grassland	2.02	Low	Fairly Poor	Location ecologically desirable but not in local strategy	Standard time to target condition applied	2	Low	6.21		Amenity Grassland G6			
Grassland	Other neutral grassland	0.71	Medium	Fairly Good	Location ecologically desirable but not in local strategy	Standard time to target condition applied	7	Low	6.09		Species Rich Grassland G7			
Urban	Urban Tree	0.61	Medium	Moderate	Location ecologically desirable but not in local strategy	Standard time to target condition applied	27	Low	2.05		Urban Trees			

DRAWINGS



KEY

Site Boundary

A1.1.1 - Broadleaved woodland - semi-natural (Woodland and forest – Other woodland; broadleaved)

A2.1 - Scrub - dense/continuous (Heathland and shrub - Mixed scrub)

B5 - Marsh/marshy grassland (Grassland - Other neutral grassland)

SI

B6 - Poor semi-improved grassland (Grassland - Other neutral grassland)

C3.1 - Other tall herb and fern - ruderal (Sparsely vegetated land - Ruderal/ephemeral)

C3.2 - Other tall herb and fern - non ruderal (Sparsely vegetated land - Ruderal/ephemeral)

J1.3 - Cultivated/disturbed land - ephemeral/short perennial (Sparsely vegetated land - Ruderal/ephemeral)

J4 - Bare ground (Urban - Vacant/derelict land/ bareground)

J5 - Other habitat/Hard standing/buildings (Urban- Developed land/sealed surface)

REVISION	DETAILS	DATE	DRAWN	CHKD	APPD
CLIENT					
YOUR HOUSING LTD					
PROJECT					
TEN ACRES LANE, NEWTON HEATH					
DRAWING TITLE					
BIODIVERSITY NET GAIN ASSESSMENT - SCENARIO A BASELINE CONDITION (PHASE 1)					
DRG No.		LD10348/001		REV A	
DRG SIZE		SCALE		DATE	
A3		1:2,000		25/03/2022	
DRAWN BY		CHECKED BY		APPROVED BY	
SW		CS		TP	

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Notes:

Boundaries are indicative. Phase 1 boundary and background data taken from drawing 2022-03-14 Landscape GA drawings (provided by Planit-ie).

BG - Bare ground
ESP - Ephemeral/Short Perennial
G - Grassland
HS - Hard standing
MG - Marsh/Marshy Grassland
R - Ruderal
SC - Scrub
W - Woodland

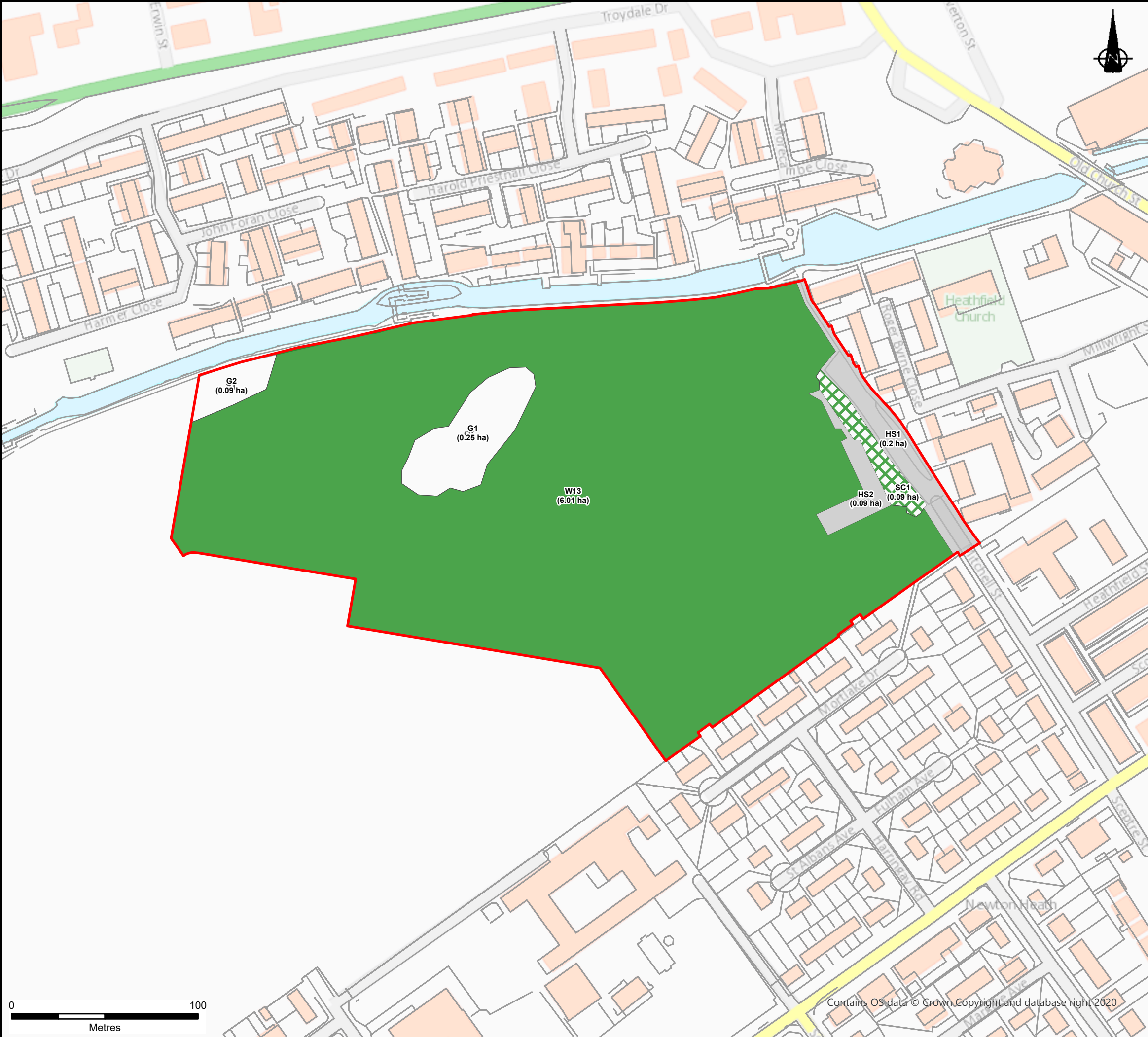
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Metres

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KEY

- Site Boundary
- A1.1.1 - Broadleaved woodland - semi-natural (Woodland and forest - Other woodland; broadleaved)
- A2.1 - Scrub - dense/continuous (Heathland and shrub - Mixed scrub)
- SI B6 - Poor semi-improved grassland (Grassland - Other neutral grassland)
- J5 - Other habitat/Hard standing/buildings (Urban- Developed land/sealed surface)

Notes:

Boundaries are indicative. Phase 1 boundary and background data taken from drawing 2022-03-14 Landscape GA drawings (provided by Planit-ie).

G - Grassland
HS - Hard standing
SC - Scrub
W - Woodland

REVISION	DETAILS	DATE	DRAWN	CHKD	APPD
CLIENT					
YOUR HOUSING LTD					
PROJECT					
TEN ACRES LANE, NEWTON HEATH					
DRAWING TITLE					
BIODIVERSITY NET GAIN ASSESSMENT - SCENARIO A BASELINE CONDITION (PHASE 2)					
DRG No.		LD10348/002		REV	A
DRG SIZE		A3		SCALE	1:2,000
DRAWN BY		SW		CHECKED BY	CS
				APPROVED BY	TP

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KEY

- Site Boundary
- Amenity grassland (Grassland-Modified grassland)
- Buildings (Urban- Developed land/sealed surface)
- Native and Herbaceous and low shrub planting (Heathland and shrub - Mixed scrub)
- Ornamental Herbaceous and Low Shrub Planting (Urban – Introduced Scrub)
- Species Rich Grassland (Grassland - Other neutral grassland)
- Swale vegetation (Urban - Bioswale)
- Hard standing (Urban- Developed land/ sealed surface)
- Hardstanding play area (Urban – Artificial unvegetated; unsealed surface)
- Native hedge (Hedgerow - Native hedgerow)
- Trees (Urban – Urban trees)

Notes:

Boundaries are indicative. Phase 1 boundary and background data taken from drawing 2022-03-14 Landscape GA drawings (provided by Planit-ie).

B- Buildings
G - Grassland
H - Hedgerow
HS - Hard standing
SH- Shrub

REVISION	DETAILS	DATE	DRAWN	CHKD	APPD
CLIENT					
YOUR HOUSING LTD					
PROJECT					
TEN ACRES LANE, NEWTON HEATH					
DRAWING TITLE					
BIODIVERSITY NET GAIN ASSESSMENT - HABITAT CREATION (PHASE 1)					
DRG No.		LD10348/003		REV A	
DRG SIZE		A3		SCALE 1:2,000	
DRAWN BY		SW		DATE 25/03/2022	
CHECKED BY		CS		APPROVED BY TP	

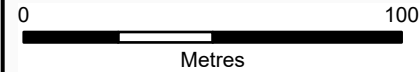
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BOUNDARIES

- Phase 1 - Full Planning Application Boundary
- Phase 2 - Outline Planning Application Boundary
- Boundary between Phase 2 and the School Site

NOTES:

For detailed proposals in rear gardens refer to drawing 2490-PLA-00-00-DR-LA-0058 Typical External Layout of Single Dwellings.

HARD SURFACING

BITUMINOUS SURFACES

- Black tarmacadam/asphalt (tarmac) to carriageways
- Hot rolled asphalt with harden red chippings to carriageways
- Black asphalt concrete (tarmac) to footways
- Steps. Pre-cast concrete or granite.
- Corduroy tactile hazard paving to steps
- Blister tactile hazard paving to steps

PRECAST CONCRETE PAVING

To areas outside the adopted highway only

- Precast concrete block paving to parking spaces
- Precast concrete block paving to paths in parks and on private properties
- Precast concrete paving to the surround of the 'hub' building
- Precast concrete flag paving to paths and patios in rear gardens
- Self-binding gravel to selected paths in parks
- Polymer-bound play surfacing softbouncy, around play equipment
- Composite timber decking with anti-slip properties, to bridge features across shallow swales in the parks.
- Barrier across swales Concrete (or stone or brick) low walling / barrier to dam up water in bioswales, with central overflow point.

SOFT LANDSCAPE

EXISTING TREE

PROPOSED TREE (CLEAR STEM)
Deciduous. Size: min. 2m clear stem, Extra heavy standard 16-18 in enclosed and front gardens, 18-20cm girth in the public realm.

PROPOSED TREE (MULTI STEM)
Deciduous. Size: as above.

NATIVE CLIPPED HEDGE PLANTING
to selected public, communal and private areas
Height: 1m
Species: vary: Hornbeam, Beech, Yew, Field Maple, Hawthorn, Privet

ORNAMENTAL HERBACEOUS AND LOW SHRUB PLANTING
to selected public, communal and private areas
Species: predominantly non-native

NATIVE HERBACEOUS AND LOW SHRUB PLANTING
to selected public, communal and private areas
Species: native

AMENITY GRASS
to much used areas and private gardens.

SPECIES RICH GRASS
to medium and little walked on areas. Treated as a traditional lawn as opposed to a wildflower meadow, with potential to be kept as meadow in selected areas. Species: native perennial grass and herbaceous mix.

NATIVE HERBACEOUS PLANTING IN SWALES
to selected water retention swales and rain gardens.
Up to 1m high.

BOUNDARY TREATMENTS

- RAISED CONCRETE EDGE to front gardens. Pre-cast concrete units. Height: 200mm
- LOW STEEL RAILING to deter trespassing to apartment buildings and houses as shown. Vertical steel bars with top and bottom rails. With gates with latch to each house, or as shown. Height: 900mm. Material: Steel, galvanised and powder-coated.
- BRICK WALL PIERS 900mm high brick piers of various widths. Material: Brick to match associated buildings.
- LOW BRICK WALL WITH STEEL RAILING 300mm dwarf brick wall with 900mm high brick piers of regular width, with 600mm metal railing above. Material: Brick to match associated buildings.
- HIGH BRICK WALL to selected private/communal locations on the interface with public realm. Height: 1800mm. Material: Brick to match associated buildings. Gates: timber to match close boarded fencing. Not shown individually; 1 gate for each dwelling.
- HIGH BRICK WALL WITH TIMBER INFILL to selected private/communal locations on the interface with public realm. 900mm brick wall with 1800mm high brick piers and 900mm close boarded timber fence infill. Height: total 1800mm. Material: Brick to match associated buildings, timber to match close board fencing.
- CLOSE BOARD FENCING to rear gardens. Height: 1800mm. Material: Pressure treated softwood.
- WELDMESH FENCING to site boundary along selected off-plot spaces. Height: 2000mm. Material: Galvanised and powder-coated steel weldmesh.

STREET FURNITURE

- Cycle parking stands Sheffield type hoops at 1m spacing
- Bin Litter bin for general waste
- Static bollards Steel or timber, 1m high, contrasting and with reflective top
- Removable or telescopic bollards Steel, 1m high, contrasting and with reflective top, secured with a pad lock
- Seating without backrest and armrests. Solid stone or concrete.
- Seating with backrest and armrests. Steel/timber.
- Dining Seats and Table Timber or steel/timber
- Boulders Solid stone or concrete.
- Handrails to steps Tubular steel. Compliant with MCC Access for All 2 guidance.
- Wayfinding Fingerpost

S3-P04	14/03/22	Draft	JD	LF
S3-P03	07/03/22	Draft	JD	LF
S0-P02	23/12/21	Work in Progress	JD	LF
S0-P01	17/12/21	Work in Progress	JD	LF

Revision	Date	Description	Drawn	Apprv.
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Planit I.E. Limited
E: info@planit-ie.com W: planit-ie.com
MANCHESTER
2 Back Grafton St., Altrincham, WA14 1DY
T: 0161 928 9281
LONDON
Unit 6 Waterside, 44-48 Wharf Road, London, N1 7UX
T: 0207 253 5678
LIVERPOOL
Tempest 5.3, 12 Tithebarn Street, Liverpool, L2 2DT
T: 0151 363 1230

Client Your Housing Group

Project Jacksons Brickworks

Drg Title Phase 1 Landscape General Arrangement

Created on 17/12/2021 Created by JD Approved by LF

Scale 1:750 Size A1 Workstage RIBA 3 Status Draft

Drg No. 2490-PLA-00-00-DR-LA-0041 Suitability S3 Revision P04

- NOTE:
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 - The dimensions of all materials must be checked on site before being laid out.
 - This drawing must be read with the relevant specification clauses and detail drawings
 - Order of construction and setting out to be agreed on site.
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 5. Order of construction and setting out to be agreed on site.
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 7. All dimensions are in millimetres or metres unless stated otherwise.

BOUNDARIES

- Phase 1 - Full Planning Application Boundary
- Phase 2 - Outline Planning Application Boundary
- Boundary between Phase 2 and the School Site

KEY

- Private gardens
Predominantly amenity grass,
(hard landscape proposals not shown)
- Public green spaces
Predominantly species rich grass,
(hard landscape proposals not shown)

S3-P04	14/03/22	Draft	JD	LF
S3-P03	07/03/22	Draft	JD	LF
S0-P02	23/12/21	Work in Progress	JD	LF
S0-P01	17/12/21	Work in Progress	JD	LF

Revision	Date	Description	Drawn	Apprvd.
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Planit I.E. Limited

E: info@planit-ie.com W: planit-ie.com

MANCHESTER
2 Back Grafton St., Altrincham, WA14 1DY
T: 0161 928 9281

LONDON
Unit 6 Waterside, 44-48 Wharf Road, London, N1 7UX
T: 0207 253 5678

LIVERPOOL
Tempest 5.3, 12 Tithebarn Street, Liverpool, L2 2DT
T: 0151 363 1230

Client Your Housing Group

Project Jacksons Brickworks

Drg Title Phase 2 Landscape General Arrangement

Created on	Created by	Approved by
17/12/22	JD	LF

Scale	Size	Workstage	Status
1:750	A1	RIBA 3	Draft

Drg No.	Suitability	Revision
2490-PLA-00-00-DR-LA-0042	S0	P03

STOKE-ON-TRENT

Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)1782 276 700

BIRMINGHAM

Two Devon Way
Longbridge Technology Park
Longbridge
Birmingham
B31 2TS
Tel: +44 (0)121 580 0909

BOLTON

41-50 Futura Park
Aspinall Way
Middlebrook
Bolton
BL6 6SU
Tel: +44 (0)1204 227 227

BRISTOL

Desk Lodge
2 Redcliffe Way
Bristol
BS1 6NL

BURY ST EDMUNDS

6 Brunel Business Court
Eastern Way
Bury St Edmunds
Suffolk
IP32 7AJ
Tel: +44 (0)1284 765 210

CARDIFF

Tudor House
16 Cathedral Road
Cardiff
CF11 9LJ
Tel: +44 (0)292 072 9191

CARLISLE

Marconi Road
Burgh Road Industrial
Estate Carlisle
Cumbria
CA2 7NA
Tel: +44 (0)1228 550 575

EDINBURGH

Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GLASGOW

2 West Regent Street
Glasgow
G2 1RW
Tel: +44 (0)141 433 7210

LEEDS

36 Park Row
Leeds
LS1 5JL
Tel: +44 (0)113 831 5533

LONDON

Third Floor
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)207 242 3243

NEWCASTLE UPON TYNE

City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

TRURO

Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

International offices:

ALMATY

29/6 Satpaev Avenue
Hyatt Regency Hotel
Office Tower
Almaty
Kazakhstan
050040
Tel: +7(727) 334 1310

MOSCOW

21/5 Kuznetskiy Most St.
Moscow
Russia
Tel: +7(495) 626 07 67