



Technical Note

Project: Garden Mill, Kingsbridge
Title: Biodiversity Net Gain Assessment
Date: 24 May 2023
Client: Blakesley Estates
Reference: 230515_ EAD Ecology_P1198_Garden_Mill_Kingsbridge_BNG_Technical_Note: May 2023
Prepared: Edward Walker, ACIEEM
Approved: Dr. Matt Cowley, MCIEEM, CEnv

1 Introduction

- 1.1.1 EAD Ecology was commissioned by Blakesley Estates to update the Biodiversity Net Gain (BNG) assessment undertaken for the Section 73 application (Planning Application Ref: 3122/21/VAR) for development at Garden Mill, Kingsbridge, hereafter referenced as ‘the Site’, refer to Figure 1.
- 1.1.2 A BNG assessment for the Section 73 application was previously prepared in October 2021 (EAD Ecology 2021). This report updates the 2021 BNG assessment to reflect subsequent changes to the proposed development layout and landscaping; the assessment has also been updated to use the latest version of the Defra Biodiversity Metric (4.0). This Technical Note sets out the methodology and results of the BNG assessment; a completed BNG spreadsheet is also provided separately.

2 Methodology

- 2.1.1 The BNG assessment utilises the most up to date Defra Biodiversity Metric calculation tool (version 4.0, Natural England 2023) with reference to supporting documents (Natural England 2023a, 2023b & 2023c). The completed Metric has been supplied separately as a digital file (Excel spreadsheet).

Pre-development habitats

- 2.1.2 The Biodiversity Metric 4.0 requires a ‘baseline’ of habitats and their condition on site prior to works commencing. As habitats on the site have largely been cleared, the baseline was informed by review of an earlier ecology report (Quantock Ecology July 2021), which was based on survey carried out in June 2021 prior to site clearance and by a Habitat Condition Assessment survey undertaken by an experienced (FISC level 4) ecologist from EAD Ecology on 23 August 2021. Site clearance operations had commenced prior to the August 2021 survey, although localised areas of grassland remained, which could be assessed. Other habitats (e.g., hedgerow and scrub) were still present and could be reliably surveyed in August 2021.
- 2.1.3 The results of the Habitat Condition Assessment were assessed against the Defra Metric 4.0 Habitat Condition Criteria (Natural England 2023c); refer to Appendix 1. Whilst the results were

gathered with reference to V3.0 criteria, this was not considered a significant limitation as the results could be reliably adapted to 4.0 criteria.

- 2.1.4 Baseline habitat measurements were undertaken using ArcGIS. Areas for baseline trees were calculated in accordance with guidance (Natural England 2023a) using the integrated Metric 4.0 Individual Tree Helper.

Post-development habitats

- 2.1.5 Post-development habitat areas are based on the landscape plans for the development; refer to Figures 3 and 4. Habitat measurements were undertaken using ArcGIS. Areas for proposed individual trees were calculated in accordance with guidance (Natural England 2023a) using the integrated Metric 4.0 Individual Tree Helper. Only new trees, hedgerow and habitats established within areas of public realm were included in the habitat creation calculations (trees and hedgerows to be established in gardens/private areas were excluded).
- 2.1.6 Interventions proposed to achieve the conditions specified in the Metric are detailed in Appendix 2. It is considered that these measures and targeted habitat condition are achievable, based on professional opinion and review of the relevant habitat condition criteria detailed in Defra Biodiversity Metric 4.0 documentation (Natural England 2023c). It assumes implementation of a Landscape and Ecological Management Plan (LEMP) providing appropriate planting and establishment specifications and a long-term habitat management plan.

Strategic Significance / Delivery

- 2.1.7 The Strategic Significance of Baseline and Post Construction habitats applied to the Metrics have been assigned in accordance with the Metric guidance (Natural England 2023a), with reference to site-specific information. A review of the Plymouth and South West Devon Joint Local Plan indicated that the site location was ecologically important for hedgerows and trees (High Strategic Significance). The hedgerows and trees were therefore categorised as 'Formally identified in local strategy', with the remaining habitats classified as 'Area/compensation not in local strategy/ no local strategy'. The site is located on the edge of Kingsbridge with predominantly urban habitat to the north and agricultural habitats on the remaining sides.

3 Biodiversity Net Gain

- 3.1.1 The pre-development biodiversity value of the Site is 5.38 'Habitat Units' and 8.49 'Hedgerow Units', there are no watercourses on site; refer to Table 1, Figure 2 and Appendix 1 for baseline summary.
- 3.1.2 The predicted post-development biodiversity value of the site, based on Figures 3 and 4, would be 2.47 'Habitat Units' and 7.36 'Hedgerow Units'.
- 3.1.3 The proposed development, therefore, is expected to deliver an on-site Biodiversity Net Loss of -2.91 'Habitat Units' (-54.05%) and a loss of -1.12 'Hedgerow Units' on-site (-13.23%); refer to Table 1.
- 3.1.4 To achieve 10% net gain in Habitat Units, a total of 5.92 Habitat Units would be required; therefore, off-site habitat creation or enhancement (i.e., 'biodiversity offsetting') would be required to deliver the shortfall of 3.45 Habitat Units; refer to Table 1.

3.1.5 To achieve 10% net gain in Hedgerow Units, a total of 9.34 Hedgerow Units would be required; therefore, off-site hedgerow creation or enhancement (i.e., ‘biodiversity offsetting’) would be required to deliver the shortfall of 1.98 Hedgerow Units; refer to Table 1.

Table 1: BNG Metric Summary ¹

On-site baseline pre-development	Habitat units	5.38
	Hedgerow units	8.49
On-site post-development (Habitat retention, creation & enhancement)	Habitat units	2.47
	Hedgerow units	7.36
On-site net change (Habitat retention, creation & enhancement)	Habitat units	-2.91 (-54.05%)
	Hedgerow units	-1.67 (- 19.62%)
Additional units required to deliver 10% gain, via Offsetting	Habitat units	3.45
	Hedgerow units	1.98

3.1.6 ‘Habitat Trading’ requirements specified in the Metric 4.0 are currently not satisfied. This is due to the loss of ‘Other neutral grassland’ and ‘Rural tree’ on site. These are habitats of medium distinctiveness and, if lost, the ‘same broad habitat or a higher distinctiveness habitat is required’. The 3.45 Habitat Units required through off-setting would therefore need to include creation or enhancement of other neutral grassland (at least 3.05 Habitat Units) and rural trees (at least 0.4 Habitat Units), to ensure trading rules are satisfied.

3.1.7 ‘Hedgerow Trading’ requirements specified in the Metric 4.0 are also currently not satisfied. This is due to the reduction in quality of Hedgerow 1. This is no longer a ‘Species-rich native hedgerow with trees – associated with bank or ditch’, as the trees have been removed. This is a habitat of ‘Very High’ distinctiveness and the same habitat will be required within the offset to replace that lost.

4 Conclusion and summary

4.1.1 The Biodiversity Net Gain calculations demonstrate that the proposed development layout and landscaping is predicted to deliver a -54.05% net loss in Habitat Units and a -13.23% net loss of Hedgerow Units. To achieve to required 10% net increase in Habitat Units, and to meet the required trading rules, a further 3.45 Habitat Units would need to be provided through offsetting, at least 3.05 of these units would need to be delivered through Other Neutral grassland and 0.4 units through rural trees.

4.1.2 To achieve the required 10% net increase in Hedgerow Units, and to meet the required trading rules, a further 3.25 Hedgerow Units would need to be provided through offsetting. To satisfy the trading rules, this must comprise ‘Species-rich hedgerow with trees – associated with bank or ditch’.

¹ Headline figures reflect metric outputs which include built in rounding to two decimal places.

5 References

EAD Ecology. October 2021. Garden Mill Kingsbridge, Biodiversity Net Gain Assessment. A Report to Blakesley Estates.

Natural England (2023). The Biodiversity Metric 4.0 Auditing and accounting for biodiversity calculation tool. ISBN: 978-1-7393362-0-2

Natural England (2023a) Biodiversity Metric 4.0 User Guide. Natural England Joint Publication JP039.


Natural England (2023b) Biodiversity Metric 4.0 Short Data Input Guide. Natural England Joint Publication JP039.

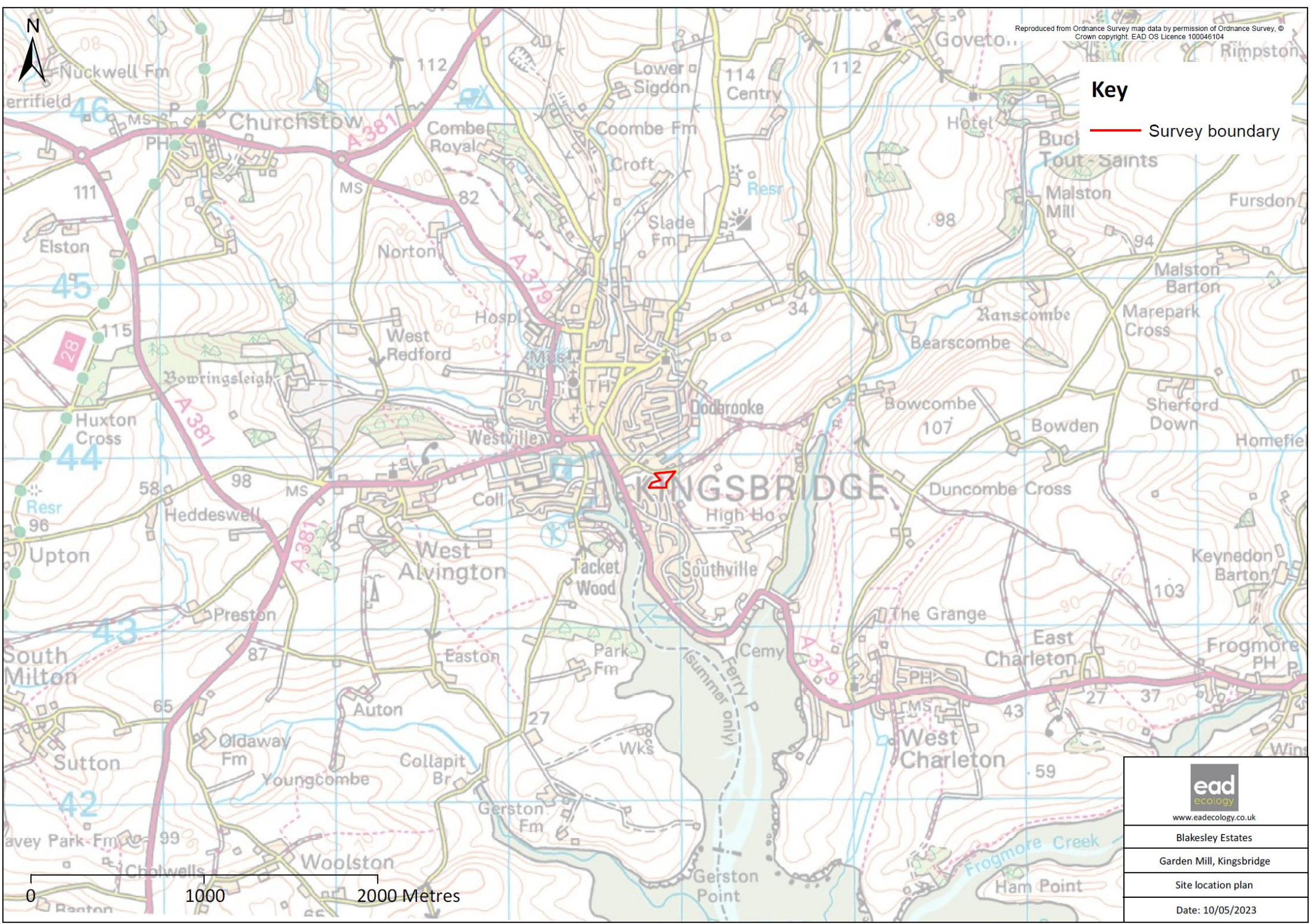
Natural England (2023c) The Biodiversity Metric 4.0 -Technical Annex 1: Condition Assessment Sheets and Methodology. Natural England Joint Publication JP039. ISBN 978-1-7393362-2-6.

Figure 1: Site Location Plan



Key

 Survey boundary



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Garden Mill, Kingsbridge

Site location plan

Date: 10/05/2023

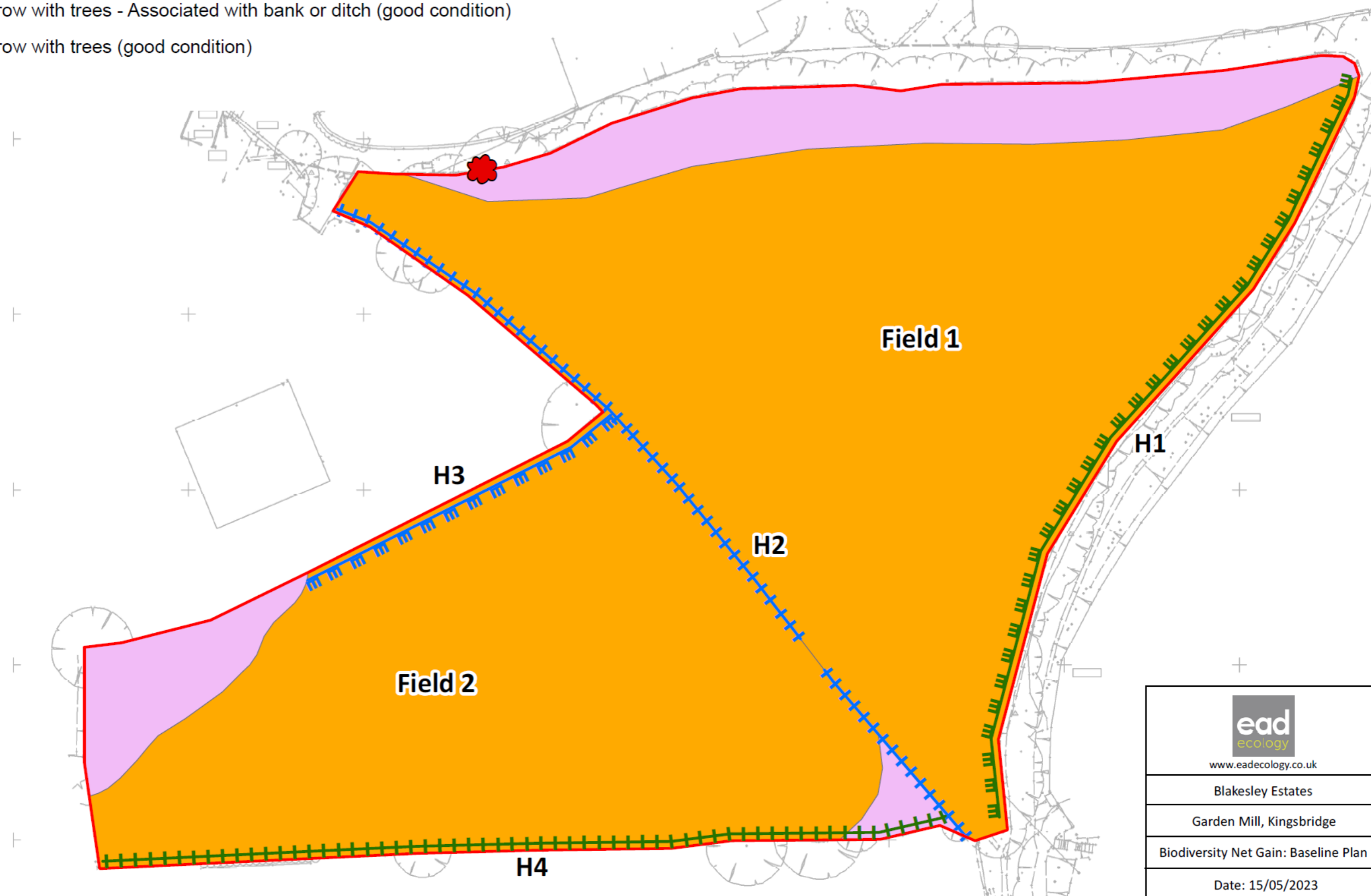
**Figure 2: 2021 Pre-development (Baseline) Metric 4.0
Habitat Condition Assessment Plan**

Key

-  Grassland: Other neutral grassland (poor condition)
-  Heathland and shrub: Mixed scrub (poor condition)
-  Individual tree - Rural tree; medium (good condition)
-  Native hedgerow with trees (good condition)
-  Native hedgerow with trees - Associated with bank or ditch (good condition)
-  Species-rich native hedgerow with trees - Associated with bank or ditch (good condition)
-  Species-rich native hedgerow with trees (good condition)
-  Survey boundary



0 25 50 Metres



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Garden Mill, Kingsbridge
Biodiversity Net Gain: Baseline Plan
Date: 15/05/2023

Figure 3: Post development landscape strategy

Key

- Site Boundary
- Existing tree or other woody vegetation to be retained
- Root Protection Zone
- Existing tree or other woody vegetation to be removed
- Specimen shrub(s)
- Pollinator-friendly shrub & hedge planting to plot frontages
- Biodiversity planting to key habitat corridors & boundaries
- 1,012m. sq. - Hedgerow edge seed mix (Emorsgate EH1 or similar approved) seeded at rate of 1.5g/ m sq.
- Proposed climber planting to be trained up/down retaining structures
- Green roof grass/wild flower seed mix to selected buildings to be Emorsgate EH1 seed mix or similar approved
- Timber faced retaining structure - see engineers details
- Gabion Basket retaining structure - see engineers details
- 1,076m. sq. - Flowering lawn seed mix (Emorsgate EL1 or similar approved) inc. seasonal bulb planting seeded at a rate of 4g/ m. sq.
- Amenity turf to rear garden areas
- Habitat/log-pile to be integrated into habitat corridor
- Bird boxes to be fixed to retaining structure or tree
- Bird Brick (Swift type) built into houses. (Green & Blue type -white)
- Bat Brick built into houses. (Green & Blue type -white)
- Bee Posts 2No. Total (Green & Blue 2.4m tall)
- Bee Block built into houses (Green & Blue type 215 x215mm-white)
- Grasscrete to additional parking areas
- Native Hedgerow

Note: hedgerow plants and woody vegetation within existing hedgebank bounding High House Lane to be coppiced and allowed to naturally regenerate.
Existing Ash trees adjacent to plots 14/15 & 29/30 potentially infected with Ash Dieback to be monitored.

Planting Schedule

Pollinator-Friendly Planting Mix

Common Name	Latin Name
Cone flower**	Echinacea 'Parrot'
Torbay Palm*	Cordyline australis
Dogwood 'Ivory Halo**'	Cornus 'Ivory Halo'
Golden-twig Dogwood**	Cornus stolonifera 'Flaviramea'
Golden Oats	Stipa gigantea
Zebra Grass	Miscanthus sinensis 'Zebinus'
Cotton Lavender**	Santolina chamaecyparissus
Periwinkle	Vinca minor
Lydia Broom**	Genista lydia
Jerusalem Sage**	Phlomis fruticosa
Gold Flower**	Hypericum x moserianum
Red Hot Poker**	Knifophia 'Bees Lemon'
Oregon Grape**	Mahonia aquifolium 'Apollo'
Japanese Spurge	Pachysandra terminalis
Boston Ivy	Parthenocissus tricuspidata 'Veitchii'
Brachyglottis group 'Sunshine**'	Brachyglottis 'Sunshine'
Stags Horn Sumach	Rhus typhina 'Laciniata'
Dwarf bamboo	Pleioblastus variegatus
Daisy Bush**	Olearia x haastii
Evergreen Magnolia 'Exmouth**'	Magnolia grandiflora 'Exmouth'
Rakai Hebe**	Hebe rakaiensis
Tawhiwhi 'Tom Thumb'	Pittosporum 'Tom Thumb'
St John's Wort 'Hidcote**'	Hypericum 'Hidcote'
Native Primrose	Primula vulgaris
Ivy	Hedera helix
Honeysuckle	Lonicera periclymenum

Note: ** = Non-native species or varieties of wildlife value providing flowers, fruit or nuts.

Bulb Planting

Common Name	Latin Name
Snowdrops	Galanthus nivalis
Daffodil	Narcissus 'Carlton'
Wild Garlic	Allium ursinum
English Bluebells	Hyacinthoides non-scripta

Biodiversity Planting Mix

Common Name	Latin Name
Hardy Fuchsia	Fuchsia magellanica
Field Rose	Rosa avensis
Honeysuckle	Lonicera periclymenum
Holly	Ilex aquifolium
Hazel	Corylus avellana
Oregon Grape	Mahonia aquifolium
Butchers Broom	Ruscus aculeatus
Rose of Sharon	Hypericum perforatum
Foxglove	*Digitalis purpurea

*Digitalis purpurea to be planted in informal groups of 3-6 at a rate of 1/m sq.

Note: Bulb planting to be undertaken in the appropriate season below grassed or planted areas.

- Biodiversity planting mix to be undertaken on an average 1.0m staggered grid in the areas shown. Ilex and Corylus shrubs to be evenly (min 2.0m from edge of planted areas).
- * Digitalis to be planted in informal groups of 3-5No. (within 1.5m from edge of planted areas). Remaining plants to be planted in informal groups of 8-15No. plants.
- Planting mix to be under-planted with Hyacinthoides non-scripta (Bluebells) in groups of 20No. bulbs at an average rate of 25No. /m sq.
- Climber planting will include a mix of twining and self-clinging climber plants that will be trained up retaining structures using stainless steel cables to aid establishment where necessary. The final design of retaining structures and facing materials is subject to detailed design.

Tree Planting (to support Green Infrastructure, Biodiversity & overall resilience)

Common Name	Latin Name	Girth	Form	Height	Clear Stem	Root	No.
Field Maple	Acer campestre 'Streetwise'	12-14cm	Heavy Standard	3.0-3.5m	Min 200cm	60L	4
Small Leaved Lime	Tilia cordata	12-14cm	Heavy Standard	3.0-3.5m	Min 200cm	60L	2
Wild Cherry	Prunus avium	10-12cm	Select Standard	3.0-3.5m	Min 175cm	40L	5
Bird Cherry	Prunus padus 'Albertii'	10-12cm	Select Standard	3.0-3.5m	Min 175cm	40L	2
English Oak	Quercus robur	6-8cm	Light Standard	2.0-2.5m	Min 150cm	25L	1
Disease-resistant Elm	Ulmus 'New Horizon'	12-14cm	Heavy Standard	3.0-3.5m	Min 200cm	60L	4
Monterey Pine	Pinus radiata	N/A	Feathered	1.0-1.25m	N/A	10-12L	3
Whitebeam	Sorbus aria	10-12cm	Select Standard	3.0-3.5m	Min 175cm	40L	2

Native Hedgerow - 40L.m.

Common Name	Latin Name	Form	Height	% Mix.	Root
Corylus avellana	Hazel	Whip	60-80cm	15	BR
Crataegus monogyna	Hawthorn	Whip	60-80cm	20	BR
Sambucus nigra	Elderberry	Whip	60-80cm	20	BR
Ilex aquifolium	Holly	Leaders & Laterals	40-60cm	20	2L C
Prunus spinosa	Blackthorn	Whip	60-80cm	15	BR
Rosa canina	Dogrose	Whip	60-80cm	5	BR
Lonicera periclymenum	Honeysuckle	Several Shoots	60-80cm	5	2L C

NOTE: THIS DRAWING MUST NOT BE USED FOR TENDER OR CONSTRUCTION PURPOSES



RELEVANT BRITISH STANDARDS

- All works to be in accordance with the following British Standards:
- BS 8545:2014 Trees: from nursery to independence in the landscape - Recommendations.
 - BS 4043:1989 Recommendations for Transplanting Rootball Trees.
 - BS 4428:1989 Code of Practice for General Landscape Operations.
 - BS 3882:2015 Specifications for Topsoil. (Multipurpose Grade).
 - BS 3882:2015 Specification for Topsoil (Low-fertility Grade).
 - BS 8601:2013 Specification for Subsoil. (Multipurpose Grade).
 - BS 3998:2010 Tree work - Recommendations.

See LHC Design drawing L93.01 for Hard Landscape Plans

REV	DATE	COMMENTS	AUTHOR / CHECKED
P5	18.05.23	For Planning - Ecologist Recommendations. Second S73 submission	AF / PK
P4	14.04.23	For Planning - second S73 submission	AF / PK
P3	10.02.22	Additional details and specifications added following LPA comments	TA / MS
P2	08.09.21	Public Right of Way updated	TA / MS
P1	06.08.21	Issued for S73 application	PK

PROJECT TITLE
Garden Mill, Kingsbridge

DETAIL
Soft Landscape Strategy

DRAWING NUMBER
(PROJECT-ORIGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER)
21024GMK-LHC - 00 - XX- DR - L - 94.01

STATUS
D0

STATUS DESCRIPTION
ISSUED FOR PLANNING

REVISION
P5

DATE
AUGUST 2021

SCALE
1:500 @A2

CONTRACTORS MUST CHECK ALL DIMENSIONS ON SITE - ONLY FIGURED DIMENSIONS ARE TO BE WORKED FROM - DISCREPANCIES MUST BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING
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LHC PROJECT NUMBER
21024GMK



SCALE 1:500

lhc design

- EXETER 01392 444334
- PLYMOUTH 01752 669368
- ST AUSTELL 01726 213435
- lhc.net

**Figure 4: Post-development Metric Habitat Retention,
Creation and Enhancement Plan**



Key

- Grassland: Other neutral grassland (moderate condition)
- Grassland: Other neutral grassland (poor condition)
- Heathland and shrub: Mixed scrub (moderate condition) - Created
- Heathland and shrub: Mixed scrub (moderate condition)
- Individual tree - Rural tree; medium (good condition) - Lost
- Individual tree - Urban tree; medium (moderate condition)
- Individual tree - Urban tree; small (moderate condition)
- Native hedgerow with trees - Lost
- Native hedgerow with trees (good condition)
- Species-rich native hedgerow (good condition)
- Species-rich native hedgerow - Associated with bank or ditch (good condition)
- Species-rich native hedgerow with trees - Associated with bank or ditch (good condition)
- Species-rich native hedgerow with trees (good condition)
- Survey boundary
- Urban: Developed land, sealed surface (condition N/A)
- Urban: Other green roof (condition N/A)
- Urban: Vegetated garden (condition N/A)

0 25 50 Metres

Green roof grass/wild flower seed

Bird Brick (Swift)

Timber faced retaining structure - see engineers details*

Gabion Basket retaining structure - see engineers details*

1,076m² sqm. - Flowering lawn seed mix (Emorsgate EL1 or similar approved) inc seasonal bulb planting seeded at a rate of 4g/m² sqm.

Amenity turf to rear garden areas

100% OFFICE WAREHOUSE HOUSES (Green & Blue type -white)

Bee Posts 2No. Total (Green & Blue 2.4m tall)

Dec Block built into houses (Green & Blue type 215 x215mm-white)

Grasscrete to additional parking areas

Existing hedgebank bounding High House Lane to be coppiced and allowed to naturally regenerate. potentially infected with Ash Dieback to be monitored.

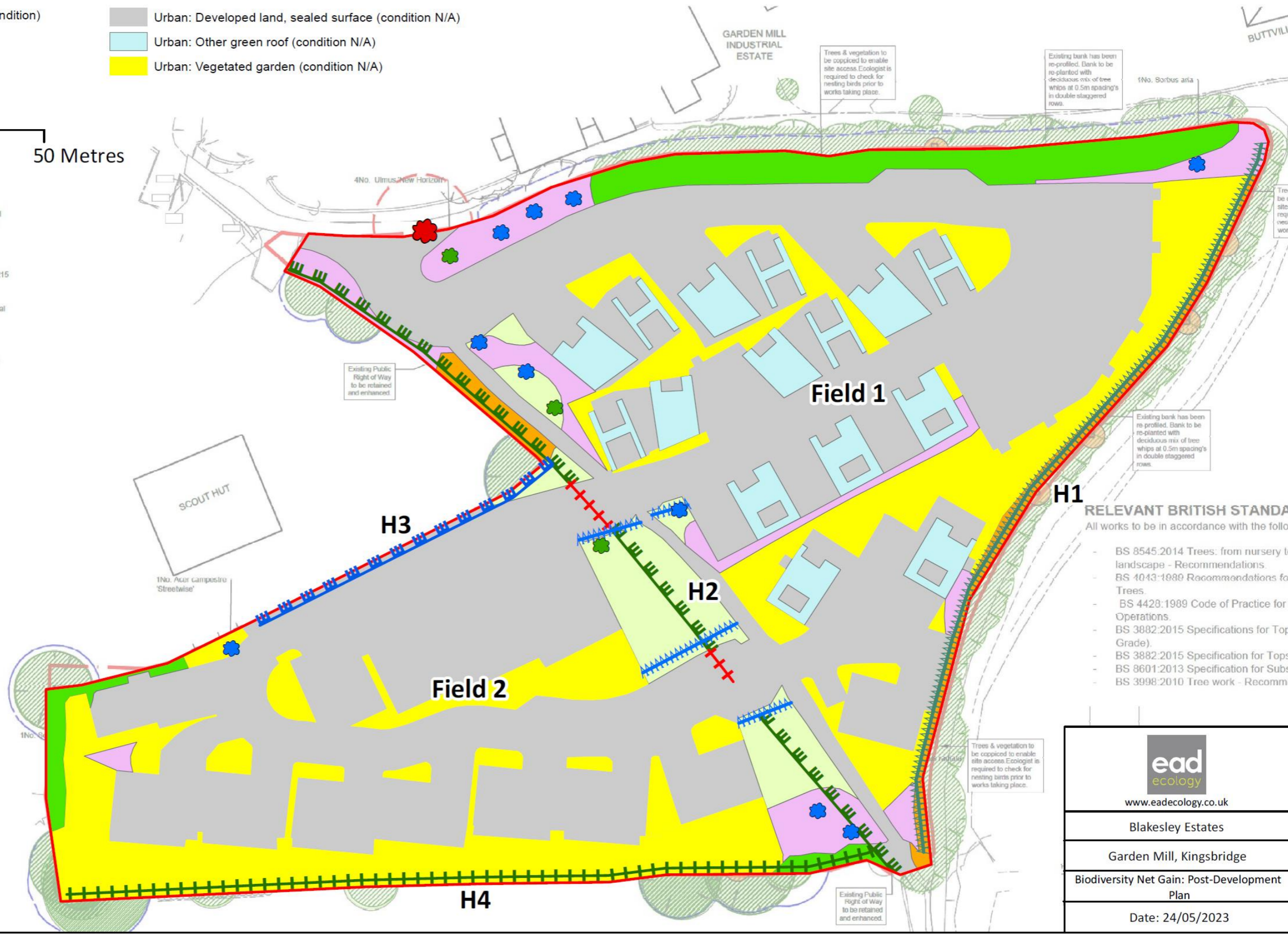
Biodiversity Planting Mix

Common Name	Latin Name
Hardy Fuschia	Fuchsia magellanica
Field Rose	Rosa avensis
Honeysuckle	Lonicera periclymenum
Holly	Ilex aquifolium
Hazel	Corylus avellana
Oregon Grape	Mahonia aquifolium
Butchers Broom	Ruscus aculeatus
Rose of Sharon	Hypericum perforatum
Foxglove	*Digitalis purpurea

*Digitalis purpurea to be planted in informal groups of 3-6 at a rate of 1/m² sqm.

Note: Bulb planting to be undertaken in the appropriate season below grassed or planted areas.

- Biodiversity planting mix to be undertaken on an average 1.0m staggered grid in the areas shown. Ilex and Corylus shrubs to be evenly (min 2.0m from edge of planted areas).
- * Digitalis to be planted in informal groups of 3-5No. (within 1.5m from edge of planted areas). Remaining plants to be planted in informal groups of 8-15No. plants.
- Planting mix to be under-planted with Hyacinthoides non-scripta (Bluebells) in groups of 20No. bulbs at an average rate of 25No./m² sqm.



RELEVANT BRITISH STANDARDS

- All works to be in accordance with the following:
- BS 8545:2014 Trees: from nursery to landscape - Recommendations
 - BS 4043:1989 Recommendations for Trees
 - BS 4428:1989 Code of Practice for Operations
 - BS 3882:2015 Specifications for Topsoil (Grade)
 - BS 3882:2015 Specification for Topsoil
 - BS 8601:2013 Specification for Subsoil
 - BS 3998:2010 Tree work - Recommendations

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Biodiversity Net Gain: Post-Development Plan

Date: 24/05/2023

Appendix 1: Baseline Habitat Condition Assessment

Summary Tables

Table A1.1. Baseline Habitat Condition Assessment Results (April 2023); refer to Figure 2

Unit	Habitat type	Area (ha)	Condition	Condition assessment notes	Strategic Significance
Field 1 and 2	Grassland – Other neutral grassland	1.07	Poor	<p>Fails condition criteria A: The appearance and composition of the vegetation does not closely match the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland habitat type are not consistently present.</p> <p>Passes condition criteria B: Sward height is varied and therefore creates microclimates which would provide opportunities for insects, birds and small mammals to live and breed.</p> <p>Passes condition criteria C: Cover of bare ground is less than 1%, including localised areas.</p> <p>Fails condition criteria D: Cover of bracken is less than 20% and cover of scrub (including bramble) is less than 5%.</p> <p>Passes condition criteria E: Combined cover of species indicative of sub-optimal condition 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, and there are no invasive non-native plant species (as listed on Schedule 9 of WCA) are present.</p> <p>Fails condition F: There are fewer than 10 vascular plant species per m² present, including forbs that are characteristic of the habitat type.</p>	Area/compensation not in local strategy/ no local strategy'
	Heathland and shrub – Mixed scrub	0.15	Poor	<p>Passes condition criteria A: The scrub is a good representation of the habitat type it has been identified as, based on its UKHab description (where in its natural range). The appearance and composition of the vegetation closely matches the characteristics of the specific scrub type. At least 80% of scrub is native, and there are at least three native woody species, with no single species comprising more than 75% of the cover (except hazel <i>Corylus avellana</i>, common juniper <i>Juniperus communis</i>, sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i>, which can be up to 100% cover).</p>	Area/compensation not in local strategy/ no local strategy'

Unit	Habitat type	Area (ha)	Condition	Condition assessment notes	Strategic Significance
				<p>Fails condition criteria B: Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are not all present.</p> <p>Passes condition criteria C: There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition make up less than 5% of ground cover.</p> <p>Fails condition criteria D: The scrub does not have a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.</p> <p>Fails condition criteria E: There are clearing, glades or rides present within the scrub, providing sheltered edges.</p>	
	Individual trees – Rural tree; medium size	0.036	Good	<p>Passes condition criteria A: The tree is a native species (or at least 70% within the block are native species).</p> <p>Passes condition criteria B: The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).</p> <p>Passes condition criteria C: The tree is mature (or more than 50% within the block are mature).</p> <p>Passes condition criteria D: There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.</p> <p>Passes condition criteria E: Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.</p> <p>Passes condition criteria F: More than 20% of the tree canopy area is oversailing vegetation beneath.</p>	'Formally identified in local strategy'

Table A1.2 Baseline Hedgerow Condition Assessment Results; refer to Figure 2

Hedge Reference	A1. Height (>1.5m average)	A2. Width (>1.5m average)	B1. Gap under canopy (<0.5m average)	B2. Canopy gaps (<10%, 5m max)	C1. Undisturbed ground (1m width at least 1 side)	C2. Nutrient-enriched perennial vegetation (<20% cover of the area of undisturbed ground.)	D1. Invasives/ Neophytes (non-natives) (<10%)	D2. Damage (<10%)	E1. One mature tree / 20-50m and more than 1 age class present	E2. Tree health (>95% in healthy condition)	Bank or ditch	Sp. rich	Length (km)	Condition
1	✓	✓	X	✓	✓	X	✓	✓	✓	✓	✓	✓	0.12	Good
2	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	X	0.12	Good
3	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	X	✓	0.05	Good
4	✓	✓	✓	X	✓	X	✓	✓	✓	✓	X	X	0.12	Good

Appendix 2: Post-Construction Management and Interventions

Habitat	Predicted condition	Justification
Heathland and shrub – mixed scrub	Moderate	<ul style="list-style-type: none"> Plant diverse range of native woody species. Manage to encourage varied structure with different age classes of woody scrub species. Manage access to prevent damage to ground. Subject to management as detailed in LEMP².
Urban – Developed land; sealed surface	N/A	N/A
Urban – vegetated garden	N/A	<ul style="list-style-type: none"> Pollinator shrub and hedge planting subject to management as detailed in the LEMP².
Urban – Other green roof	N/A	N/A
Grassland – Other neutral grassland	Moderate	<ul style="list-style-type: none"> Areas adjacent to housing, assumed good condition is not possible due to probable trampling / disturbance. Establish low nutrient topsoil / subsoil profile appropriate for species rich meadow grassland. Sow with appropriate species rich neutral grassland native meadow seed mix. Implement varied cutting regime with removal of arisings. Spot treatment for non-native / undesirable species. Subject to management as detailed in the LEMP².
Individual trees - urban trees (small and medium)	Moderate	<ul style="list-style-type: none"> Scattered trees will be planted throughout the Public Realm. Trees will comprise a range of native species including fruiting and flowering species of value to birds and invertebrates. Subject to management as detailed in the LEMP, including aftercare and watering during the establishment period².
Native hedgerows (retained and created) (Hedgerows 2 and 3)	Good	<ul style="list-style-type: none"> Manage hedgerows to maintain minimum height and width > 1.5m. Manage >1m width margin adjacent to hedgerow base (at least one side) to provide appropriate undisturbed vegetated buffer (<5% non-native or undesirable species). Subject to phased hedgerow laying and management as detailed in the LEMP².
Native hedgerow (retained) (Hedgerow 4)	Good	<ul style="list-style-type: none"> Assumed retained. Bounded by gardens (already garden to the south) so no access for long-term management. Not included in ownership of adjacent property; measures to protect hedgerow recommended in LEMP. May not retain 'good' condition; however, metric has not option for reduction in Condition.

² LHC design, (2021) Garden Mill, Kingsbridge, Landscape & Ecology Management Plan