

# Biodiversity Metric Report

Wellwick, St Osyth

Reference: 81-705-R1-2

Date: April 24





# E3P

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CRN: 08725262

## QUALITY ASSURANCE

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## EXECUTIVE SUMMARY

<b>Site Address</b>	Land off Colchester Road, St Osyth, Essex, CO16 8HS				
<b>Co-ordinates</b>	E 612159, N 216859				
<b>Site Area</b>	Approximately 4.5 ha				
<b>Current Site Use</b>	The site comprised an area of grassland to the north of the town of St Osyth. Arable farmland surrounds the site to the north and east, with reside development to the south and woodland associated with St Osyth Park lies to the west of site.				
<b>Proposed Development</b>	Development proposals include the construction of residential buildings and an access road within the centre of the site.				
<b>Results</b>	<p>The biodiversity metric shows that the proposed development can achieve a net gain in habitat and hedgerow units in line with E3P's recommendations as follows:</p> <table> <tr> <td>Habitat Units</td> <td>+0.94</td> </tr> <tr> <td>Hedgerow Units</td> <td>+0.27</td> </tr> </table> <p>A 10.05% gain in habitat units and a 10.36% gain in hedgerow units could be incurred on-site as a result of development and E3P's recommendations, if implemented. The trading rules of the metric would be satisfied as habitats lost would be 'traded up'.</p>	Habitat Units	+0.94	Hedgerow Units	+0.27
Habitat Units	+0.94				
Hedgerow Units	+0.27				
<b>Conclusions and Recommendations</b>	<p>To achieve a gain of 0.94 (10.05%) habitat units on site, E3P recommends the creation of 2.1 ha of moderate condition modified grassland, 0.085 ha of moderate condition mixed scrub, and the planting of 72 small trees within the areas of Public Open Space.</p> <p>To achieve a gain in 0.27 hedgerow units (10.36%) on-site, E3P recommends the retention of the existing hedgerow and treeline on site as well as the creation of 0.035 km of species-rich native hedgerow in good condition within Public Open Space.</p>				



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## 1. INTRODUCTION

### 1.1. BACKGROUND

E3P has been instructed by City and Country Group PLC to undertake a Biodiversity Metric Calculation at Wellwick, St Osyth, hereafter referred to as “the site”.

This report has been produced by Zach Squire-Watt BSc (Hons), MSc, QCIEEM, Graduate Ecologist at E3P. Zach has experience undertaking Biodiversity Net Gain and Condition Assessments on a variety of projects across the UK.

This report should be read in conjunction with ‘The Statutory Biodiversity Metric Calculation Tool – Wellwick, St Osyth.xl’.

### 1.2. PREVIOUS SURVEYS

#### 1.2.1. HOPKINS ECOLOGY (2023)

Hopkins Ecology undertook an Ecology Assessment of the site in December 2023. The site was found to comprise poor semi-improved grassland, scattered scrub, and hedgerows.

### 1.3. SITE LOCATION

The site is located approximately 230 m north of the town of St Osyth. Colchester Road defines the site’s western boundary and Oaklands Holiday Park lies along the site’s northern boundary. St Osyth Park and Flag Creek lie approximately 80 m west and 800 m west respectively. Please refer to Figure 1.1 for the approximate site location.



Figure 1 Approximate site location



## 1.4. OBJECTIVES

The objectives of the Biodiversity Metric are as follows:

- ✿ Identify percentage change in on-site habitat.
- ✿ Identify the number of habitat units lost/gained on-site; and
- ✿ Determine the need for a conservation offset payment or off-site habitat creation.



## 2. METHODOLOGY

### 2.1. BIODIVERSITY METRIC

Department for Environment, Food and Rural Affairs' (DEFRA) Statutory Biodiversity Metric was used to undertake the metric calculation. The metric was undertaken following guidance as detailed within the Statutory Biodiversity Metric: Draft User Guide (Natural England, 2023).

This metric was calculated by Zach Squire-Watt BSc (Hons) MSc, Graduate Ecologist at E3P. Zach has attended internal training courses focusing on Biodiversity Net Gain and using the Biodiversity Metric Calculation Tool, and holds a Qualifying Level CIEEM membership.

This metric was reviewed by Associate Director Celia Kenyon, BSc (Hons) MSc MEnvSc CEnv MCIEEM. Celia has undertaken a number of online training courses with CIEEM including 'Calculating and Using Biodiversity Units with Metric 2.0' and 'Biodiversity Net Gain Through Development'. Celia has also completed Condition Assessments on a number of sites across the UK and holds a Level 3 Field Identification Skills Certificate (FISC).

### 2.2. ON-SITE HABITAT BASELINE DATA

The Statutory Biodiversity Metric Condition Assessment Sheets (Natural England 2023) were used to undertake the condition assessment. The methodology follows the Statutory Biodiversity Metric: Draft User Guide (Natural England 2023).

The baseline data used to inform the condition assessment was collected by E3P on 18<sup>th</sup> March 2024 during a site walkover. Please see Appendix I for UKHab Habitat Map. On-site baseline habitats were measured off the UKHab Habitat Plan using QGIS.

### 2.3. POST DEVELOPMENT HABITAT CREATION

The Indicative Site Plan was used to measure habitat creation on-site (City and Country Group, 2023, Drawing Reference: CC009-PL-02-1). Where applicable, E3P has recommended the creation of habitats in areas of Public Open Space. The areas of the proposed habitats were measured using QGIS. The Root Protection Areas (RPAs) of proposed trees were calculated using the Tree Helper within the metric.

Please see Appendix II for the Indicative Site Plan. A Post-Development Habitat Plan based on the Indicative Site Plan and E3P's recommendations has also been created. Please see Appendix III for the Proposed Post Development Plan.

### 2.4. LIMITATIONS

The site condition assessment was undertaken in March, and as a result of seasonal vegetation die-back it is possible that some species of flora may have been missed, including invasive non-native species. However, due to the limited quality and diversity of the habitats present on site, this is not considered to be a major constraint.



### 3. RESULTS

#### 3.1. ON-SITE BASELINE CONDITION ASSESSMENT RESULTS

Table 1 shows the details of the habitat condition assessment used for input into the metric calculation tool.

Table 1 Habitat Baseline Condition Assessment Results

HABITAT TYPE (UKHAB)	AREA (HA) / LENGTH (KM)	CONDITION ASSESSMENT	DESCRIPTION
Grassland – Modified Grassland	1.574	Poor	Fails Criterion A which is essential for achieving Moderate or Good condition: <i>There are 6-8 vascular plant species per m<sup>2</sup> present, including at least 2 forbs.</i>
Urban – Bare Ground	2.909	Poor	Passes 1 of 3 condition assessment criteria: invasive non-native plant species and others which are to the detriment of native wildlife cover less than 5% of the total vegetated area.
Heathland and Shrub – Bramble Scrub	0.0863	N/A	N/A
Hedgerow – Line of Trees (H1)	0.411	Moderate	<p>Passes 3 of 5 condition assessment criteria:</p> <ul style="list-style-type: none"> <li>☑ At least 70% of trees are native species.</li> <li>☑ Tree canopy is predominantly continuous with gaps in canopy cover making &lt;10% of total area and no individual gap being &gt;5 m wide.</li> <li>☑ At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.</li> </ul>
Hedgerow – Native Hedgerow with Trees (H2)	0.125	Moderate	No more than five failures in total and does not fail both attributes in more than one functional group Please see Appendix IV for the full hedgerow condition assessment.





### 3.2. ON-SITE HABITAT RETENTION DETAILS

Table 2 shows the details of the habitats to be retained, which includes the line of trees and hedgerow defining the northern and western site boundaries.



**Table 2** Habitat Retention Details

HABITAT TYPE (UKHAB)	CONDITION	LENGTH RETAINED (KM)
Hedgerow – Line of Trees (H1)	Moderate	0.411
Hedgerow – Native Hedgerow with Trees (H2)	Moderate	0.125

### 3.3. ON-SITE HABITAT CREATION CONDITION ASSESSMENT

Habitats have been proposed within the site based on the Indicative Site Plan (City and Country Group, 2023) and E3P's recommendations. Table 3 shows the details of the target condition assessment and total areas of habitat creation. It has been assumed that there will be no significant delay in the creation of the proposed habitat features, as such the delay in starting habitat creation has been set to zero.

**Table 3** Habitat Creation Condition Assessment Results

HABITAT TYPE (UKHAB)	AREA (HA) / LENGTH (KM)	TARGET CONDITION	TIME TO TARGET CONDITION (YEARS)	DESCRIPTION
Urban – Developed Land; Sealed Surface	1.605	N/A	0	N/A
Urban – Vegetated Garden	0.7757	N/A	1	N/A
Grassland – Modified Grassland	2.1	Moderate	4	<p>Passes 5 of 7 condition assessment criteria:</p> <ul style="list-style-type: none"> <li> There are 6-8 vascular plant species per m<sup>2</sup> present, including at least 2 forbs.</li> <li> Physical damage is evident in less than 5% of total grassland area. Example of physical damage include excessive poaching, damage from machinery use or storage, erosion</li> </ul>



HABITAT TYPE (UKHAB)	AREA (HA) / LENGTH (KM)	TARGET CONDITION	TIME TO TARGET CONDITION (YEARS)	DESCRIPTION
				<p>caused by high levels of access, or any other damage management activities.</p> <ul style="list-style-type: none"> <li>✦ Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).</li> <li>✦ Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.</li> <li>✦ There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).</li> </ul>
Individual Trees – Rural Tree	0.2931 (72 small)	Moderate	27	<p>Passes 4 of 6 condition assessment criteria:</p> <ul style="list-style-type: none"> <li>✦ The tree is a native species (or at least 70% within the block are native species).</li> <li>✦ The tree canopy is predominantly continuous, with gaps in canopy cover making up &lt;10% of total area and no individual gap being &gt;5 m wide (individual trees automatically pass this criterion).</li> <li>✦ 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 &gt;75% of expected canopy for their age range and height.</li> <li>✦ More than 20% of the tree canopy area is overgrown with vegetation beneath.</li> </ul>
Heathland and Shrub – Mixed Scrub	0.085	Moderate	5	<p>Passes 3 of 5 condition assessment criteria:</p>



HABITAT TYPE (UKHAB)	AREA (HA) / LENGTH (KM)	TARGET CONDITION	TIME TO TARGET CONDITION (YEARS)	DESCRIPTION
				<ul style="list-style-type: none"> <li>✿ At least 80% of scrub is native; there are at least three native woody species; no single species comprises 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% c</li> <li>✿ Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.</li> <li>✿ There is an absence of invasive non-native plant species<sup>4</sup> (as listed on Schedule 9 of WCA) and species indicative of suboptimal condition make up less than 5% of ground cover.</li> </ul>
Hedgerow – Species-Rich Native Hedgerow (H3)	0.035	Good	12	No more than 2 failures in total and no more than 1 in any functional group. Please see Appendix IV for the full hedgerow condition assessment.



### 3.4. STRATEGIC SIGNIFICANCE

The strategic significance was defined as ‘area/compensation not in local strategy/no local strategy’. The site comprised modified grassland, bare ground, native hedgerow, and a line of trees, which are anticipated to provide limited value for local wildlife. Additionally, the site is not identified within St Osyth Conservation Area Appraisal and Management Plan (2010) or Tendring District Local Plan (2013) for its ecological value.

### 3.5. BIODIVERSITY UNIT RESULT

The headline results of the metric show a total gain of +0.94 habitat units and +0.27 hedgerow units as a result of development. 4 shows the headline results detailed within the Biodiversity Metric.

**Table 4**      **Headline Results**

HEADLINE	CATEGORY	RESULT
<b>Total Net Unit Change</b>	Habitat Units	+0.94
	Hedgerow Units	+0.27
	Watercourse Units	N/A
<b>Total Net % Change</b>	Habitat Units	+10.05%
	Hedgerow Units	+10.36%
	Watercourse Units	N/A

The trading rules of the metric would be satisfied in relation to habitat and hedgerow units as habitats lost would be ‘traded up’.



## 4. CONCLUSIONS AND RECOMMENDATIONS

### 4.1. HABITAT UNITS

The proposed scheme can achieve a gain of 0.94 (10.05%) habitat units. To do so, E3P recommends the creation of 2.1 ha of moderate condition modified grassland, 0.085 ha of moderate condition mixed scrub, and the planting of 72 small trees within the areas of Public Open Space on-site.

#### MODIFIED GRASSLAND

For the modified grassland to achieve its target condition, the following criteria should be adhered to:

- ✦ There are 6-8 vascular plant species per m<sup>2</sup>, including at least 2 forbs.
- ✦ Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.
- ✦ Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).
- ✦ There is an absence of invasive non-native plant species.

#### MIXED SCRUB

For the mixed scrub to achieve its target condition, it will need to be ensured that the following criteria are adhered to:

- ✦ At least 80% of scrub is native; there are at least three native woody species; no single species comprises more than 75% of the cover (except hazel *Corylus avellana*, common juniper *Juniperus communis*, sea buckthorn *Hippophae rhamnoides* or box *Buxus sempervirens*, which can be up to 100% cover).
- ✦ Seedlings, saplings, young shrubs and mature (or ancient or veteran<sup>3</sup>) shrubs are all present.
- ✦ There is an absence of invasive non-native plant species<sup>4</sup> (as listed on Schedule 9 of WCA) and species indicative of suboptimal condition<sup>6</sup> make up less than 5% of ground cover.

#### INDIVIDUAL TREES

72 trees are recommended on site to achieve a 10% net gain in habitat units. The trees must comprise native species, and be planted within areas of Public Open Space, with at least 20% of their canopy oversailing vegetation beneath.

#### TRADING RULES

With the above implemented, the trading rules of the metric would be satisfied in relation to habitat units as habitats lost would be 'traded up'.



## 4.2. HEDGEROW UNITS

The proposed scheme can achieve a gain in 0.27 hedgerow units (10.36%) on-site. To do so, E3P recommends the retention of the existing hedgerow and treeline on site. Additionally, at least 0.035 km of species-rich native hedgerow in good condition should be created within Public Open Space. At least five native plant species should be present within the hedgerow and the following criteria must be satisfied:

- ✿ >1.5 m average height and width along length
- ✿ Gap between ground and base of canopy <0.5 m for >90% of length
- ✿ Gaps make up <10% of total length and no canopy gaps >5 m
- ✿ >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: measured from outer edge of hedgerow, and is present on one side of the hedge (at least).
- ✿ >90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species
- ✿ >90% of the hedgerow or undisturbed ground is free of damage caused by human activities

## TRADING RULES

With the above implemented, the trading rules of the metric would be satisfied in relation to hedgerow units.

## 4.3. ADDITIONAL SPECIES ENHANCEMENTS

The Biodiversity Metric does not take account for additional species enhancements within the site, and to further increase the site's value for wildlife the following could be provided:

- ✿ Creation of hibernacula (following guidance set out within Froglife, 2001) for common amphibians.
- ✿ Hedgehog houses may be installed to enhance the site for hedgehogs.
- ✿ Bat and bird boxes could be integrated within the proposed residential units.



## 5. REFERENCES

- ✿ Hopkins Ecology (2023). Ecology Assessment: Northern Part of the Wellwick Land, St Osyth.
- ✿ National Planning Policy Framework (2021). Ministry of Housing, Communities and Local Government.
- ✿ Natural England Joint Publication JP039. (2023). The Statutory Biodiversity Metric: Draft User Guide.
- ✿ Natural England. (2023). Statutory Biodiversity Metric Condition Assessments.
- ✿ Tendring District Council (2010). The Essex Design Initiative: St Osyth Conservation Area Appraisal and Management Plan.
- ✿ Tendring District Local Plan (2013). Policies Map 2: South-East Tendring.

**END OF REPORT**

# APPENDIX I

# UKHAB HABITAT PLAN





- Key:**
- Site boundary
  - Grassland - modified grassland
  - Heathland and shrub - bramble scrub
  - Urban - bare ground
  - - - Line of trees
  - Native hedgerow with trees

**Notes**

Issue: 1	Revision: 1	Date: 20/03/2024	Drawn: ZSW	Authorised: CK
Client: City and Country Group PLC		Job No. 81-705	Date: 20/03/2024	
		Drawing No. 81-705-001	Scale: 1 : 3000 @A4	
Job title: Wellwick, St Osyth		Drawing title: UKHab Habitat Plan		



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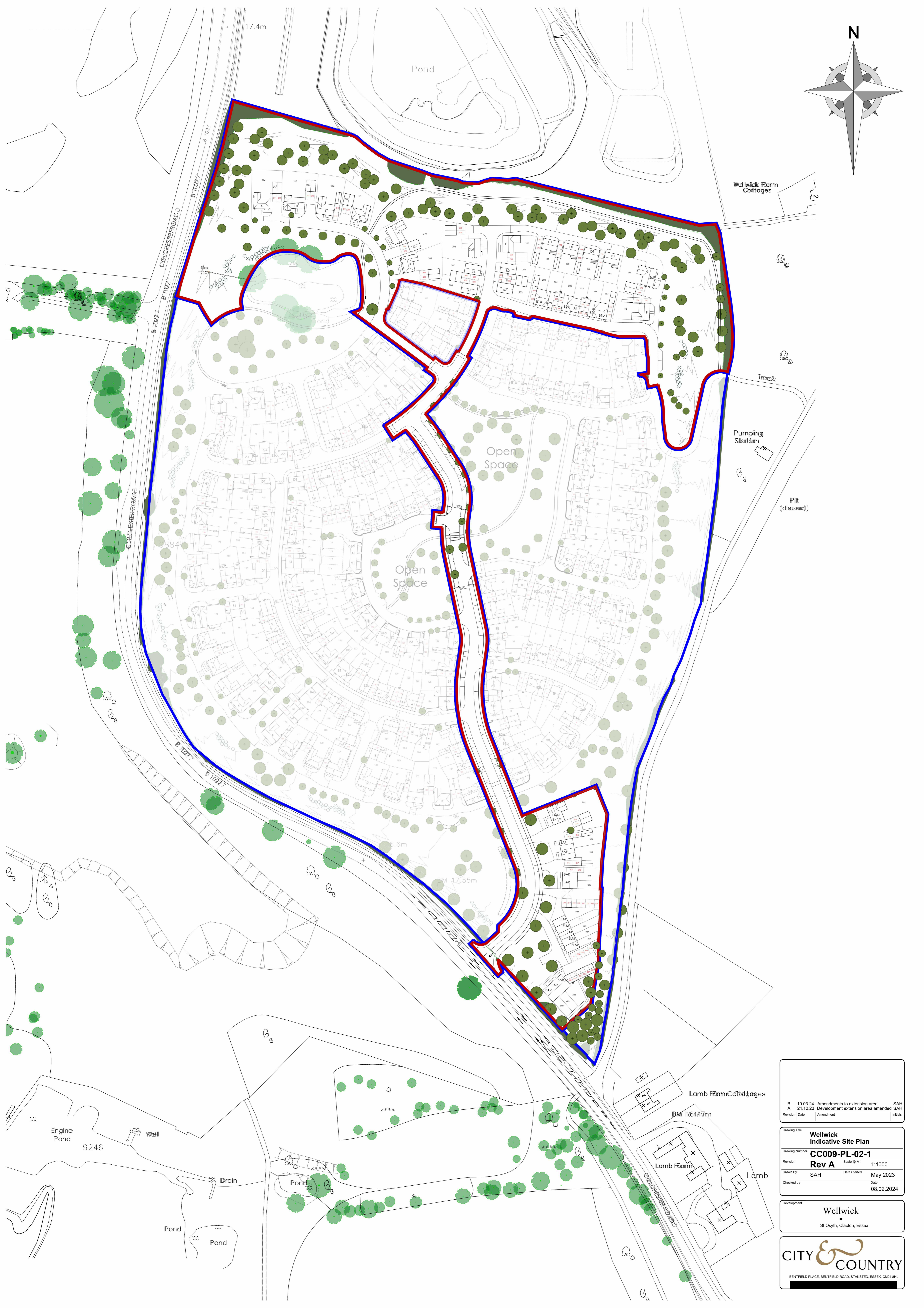
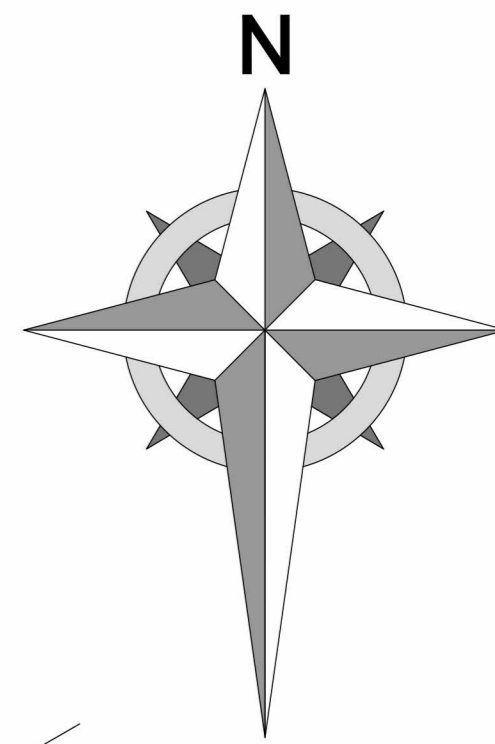
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# APPENDIX II

# INDICATIVE SITE PLAN





B	19.03.24	Amendments to extension area	SAH
A	24.10.23	Development extension area amended	SAH
Revision	Date	Amendment	Initials

<b>Drawing Title</b> <b>Wellwick Indicative Site Plan</b>			
<b>Drawing Number</b> <b>CC009-PL-02-1</b>			
Revision	Date	Scale @ A1	1:1000
<b>Rev A</b>			
Drawn By	SAH	Date Started	May 2023
Checked by		Date	08.02.2024

Development  
**Wellwick**  
St.Osyth, Clacton, Essex

**CITY & COUNTRY**  
BENTFIELD PLACE, BENTFIELD ROAD, STANSTED, ESSEX, CM24 8HL



APPENDIX III  
PROPOSED POST  
DEVELOPMENT PLAN





**Key:**

- Site boundary
- Native hedgerow with trees (retained)
- Line of trees (retained)
- - - Species rich native hedgerow (proposed)
- / Heathland and shrub - mixed scrub (proposed)
- Grassland - modified grassland (proposed)
- / Urban - developed land; sealed surface (proposed)
- / Urban - vegetated gardens (proposed)
- Individual trees - rural tree (proposed)

**Notes**

Issue: 1	Revision: 2	Date: 04/04/2024	Drawn: ZSW	Authorised: CK
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			Drawing No. 81-705-002	Scale: 1 : 3000 @A4
Job title: Wellwick, St Osyth			Drawing title: UKHab Post Development Habitat Plan	

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APPENDIX IV  
BASELINE AND PROPOSED  
HEDGEROW CONDITION  
ASSESSMENT



## HEDGEROW CONDITION ASSESSMENT – RETAINED NATIVE HEDEGROW WITH TREES

ATTRIBUTES AND FUNCTIONAL GROUPINGS (A, B, C, D & E)		CRITERIA (THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION')	DESCRIPTION	CRITERION PASSED (YES OR NO)
A1.	Height	>1.5 m average along length	<p>The average height of woody growth estimated from base of stem to the top of shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees.</p> <p>Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).</p> <p>A newly planted hedgerow does not pass this criterion (unless it is &gt; 1.5 m height).</p>	Yes
A2.	Width	>1.5 m average along length	<p>The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees.</p> <p>Outgrowths (e.g. blackthorn suckers) are only included in the width estimate when they &gt;0.5 m in height.</p> <p>Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice<sup>4</sup>).</p>	Yes
B1.	Gap - Hedge Base	Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees')	<p>This is the vertical gappiness of the woody component of the hedgerow, and its distance from the ground to the lowest live growth.</p> <p>Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).</p>	Yes



ATTRIBUTES AND FUNCTIONAL GROUPINGS (A, B, C, D & E)		CRITERIA (THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION')	DESCRIPTION	CRITERION PASSED (YES OR NO)
B2.	Gap - Hedge Canopy Continuity	Gaps make up <10% of total length and No canopy gaps >5 m	<p>This is the horizontal gappiness of the woody component of hedgerow. Gaps are complete breaks in the woody canopy matter how small).</p> <p>Access points and gates contribute to the overall gappiness but are not subject to the &gt;5 m criterion (as this is the typical size of a gate).</p>	No
C1.	Undisturbed Ground And Perennial Vegetation	<p>&gt;1 m width of undisturbed ground with perennial herbaceous vegetation for &gt;90% of length:</p> <ul style="list-style-type: none"> <li>- measured from outer edge of hedgerow, and</li> <li>- is present on one side of the hedge (at least)</li> </ul>	<p>This is the level of disturbance (excluding wildlife disturbance) at the base of the hedge.</p> <p>Undisturbed ground should be present for at least 90% of hedgerow length, greater than 1m in width and must be present along at least one side of the hedge.</p> <p>This criterion recognises the value of the hedge base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.</p>	No
C2.	Undesirable Perennial Vegetation	Plant species indicative of nutrient enrichment of soil dominate <20% cover of the area of undisturbed ground	The indicator species used are nettles ( <i>Urtica</i> spp.), cleavers ( <i>Galium aparine</i> ) and docks ( <i>Rumex</i> spp.). Their presence, either singly or together, should not exceed the 20% cover threshold.	No
D1.	Invasive And Neophyte Species	>90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	Neophytes are plants that have naturalised in the UK since AD 1500. For information on neophytes see the JNCC website and for information on invasive non-native species see the GB Non-Native Secretariat website.	Yes





ATTRIBUTES AND FUNCTIONAL GROUPINGS (A, B, C, D & E)		CRITERIA (THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION')	DESCRIPTION	CRITERION PASSED (YES OR NO)
D2.	Current Damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g. excessive hedge cutting).	No
E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient <sup>8</sup> ), and there is average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.	Yes
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.	Yes



## HEDGEROW CONDITION ASSESSMENT – PROPOSED SPECIES RICH NATIVE HEDGEROW

ATTRIBUTES AND FUNCTIONAL GROUPINGS (A, B, C, D & E)		CRITERIA (THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION')	DESCRIPTION	CRITERION PASSED (YES OR NO)
A1.	Height	>1.5 m average along length	<p>The average height of woody growth estimated from base of stem to the top of shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees.</p> <p>Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).</p> <p>A newly planted hedgerow does not pass this criterion (unless it is &gt; 1.5 m height).</p>	Yes
A2.	Width	>1.5 m average along length	<p>The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees.</p> <p>Outgrowths (e.g. blackthorn suckers) are only included in the width estimate when they are &gt;0.5 m in height.</p> <p>Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice<sup>4</sup>).</p>	Yes
B1.	Gap - Hedge Base	Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees')	<p>This is the vertical gappiness of the woody component of the hedgerow, and its distance from the ground to the lowest leaf.</p> <p>Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).</p>	Yes



ATTRIBUTES AND FUNCTIONAL GROUPINGS (A, B, C, D & E)		CRITERIA (THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION')	DESCRIPTION	CRITERION PASSED (YES OR NO)
B2.	Gap - Hedge Canopy Continuity	Gaps make up <10% of total length and No canopy gaps >5 m	This is the horizontal gappiness of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small).  Access points and gates contribute to the overall gappiness but are not subject to the >5 m criterion (as this is the typical size of a gate).	Yes
C1.	Undisturbed Ground And Perennial Vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: - measured from outer edge of hedgerow, and - is present on one side of the hedge (at least)	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedge.  Undisturbed ground should be present for at least 90% of the hedgerow length, greater than 1m in width and must be present along at least one side of the hedge.  This criterion recognises the value of the hedge base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	Yes
C2.	Undesirable Perennial Vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	The indicator species used are nettles ( <i>Urtica</i> spp.), cleavers ( <i>Galiur aparine</i> ) and docks ( <i>Rumex</i> spp.). Their presence, either singly or together, should not exceed the 20% cover threshold.	No
D1.	Invasive And Neophyte Species	>90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	Neophytes are plants that have naturalised in the UK since AD 1500. For information on neophytes see the JNCC website and for information on invasive non-native species see the GB Non-Native Secretariat website.	Yes



ATTRIBUTES AND FUNCTIONAL GROUPINGS (A, B, C, D & E)		CRITERIA (THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION')	DESCRIPTION	CRITERION PASSED (YES OR NO)
D2.	Current Damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities	<p>This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes.</p> <p>This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g. excessive hedge cutting).</p>	Yes



CONDITION CATEGORIES FOR HEDGEROWS WITHOUT TREES

CATEGORY	MAXIMUM NUMBER OF ATTRIBUTES THAT CAN FAIL TO MEET 'FAVOURABLE CONDITION' CRITERIA IN TABLE TS1-2	WEIGHTING (SCORE)
Good	No more than 2 failures in total; AND No more than 1 in any functional group.	3
Moderate	No more than 4 failures in total; AND Does not fail both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & C2 = Moderate condition).	2
Poor	Fails a total of more than 4 attributes; OR Fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & B2 = Poor condition).	1

APPENDIX V  
SITE WALKOVER  
PHOTOGRAPHS



Figure 2 Showing modified grassland



Figure 3 Showing bare ground



Figure 4 Showing bramble scrub



Figure 5 Showing line of trees



Figure 6 Showing native hedgerow with trees

