

Biodiversity Net Gain Assessment

Site Address:

Former Electrium Sales Ltd Site, 1934 Sharston Road, Wythenshawe, Manchester M22 4RA

Client:

Kier Sharston Limited

Assessment Date:

13th June 2025

Project:

This report is prepared to inform a planning application with Manchester City Council. The proposal is described as:

The demolition of the existing buildings on site and the erection of a new industrial units, in addition to new areas of hard standing and landscaping.

BNG assessment methodology and legislation can be found in the Arbtech Supplement: **BNG Methodology and Legislation – 2025**.

The results and recommendations contained within this report are valid for 18 months. An updated site visit and BNG assessment may be required if the report is to be used any longer than 18 months after completion.

Site Location and Context

A baseline habitat map is provided in **Appendix 1**, a proposed development plan in **Appendix 2**, headline BNG results in **Appendix 3**, and condition assessments in **Appendix 4**.

The survey site is centred on National Grid Reference SJ 83257 89326 and has an area of approximately 1.7ha. The site comprises one building complex, a separate metal cylindrical structure, surrounded by areas of hardstanding with scattered trees, lined with native hedgerows and areas of introduced shrub. The site is set with an industrial complex, ~8.75km south of Manchester City Centre. As a result, the site is surrounded by industrial buildings and residential dwellings. Within the wider landscape, there are habitats of elevated ecological value including multiple areas of deciduous woodland, areas of grassland and multiple ponds. Such features likely enhance the area for a variety of species, including bats, amphibians and reptiles. A site location plan is provided in Appendix 2.

This report should be read in conjunction with the following documents:

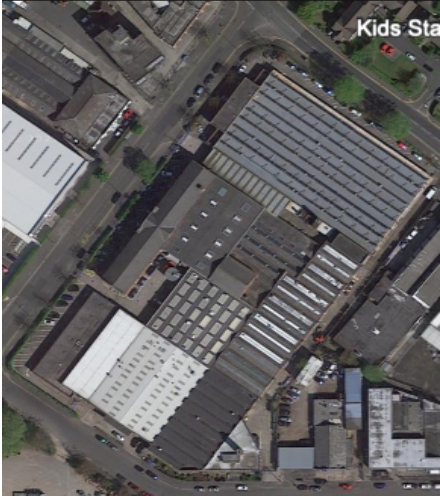
- ❖ Statutory BNG Metric – Industrial Complex, Manchester, M22 4RA - (Arbtech Consulting Ltd., 2025)
- ❖ Proposed Plan (April 2025)
- ❖ Preliminary Ecological Appraisal (PEA) - Industrial Complex, Manchester, M22 4RA - (Arbtech Consulting Ltd., 2025)
- ❖ Tree Survey Report - Industrial Complex, Manchester, M22 4RA (Arbtech Consulting Ltd., 2025)

Executive Summary

The site at the Former Electrium Sales Ltd premises, Sharston Road, Wythenshawe, covers approximately 1.7ha and is dominated by low-value urban habitats, including 1.18ha of buildings, 0.60ha of sealed hardstanding, 0.04ha of small, scattered trees, 0.07ha of medium scattered trees, 0.04ha of large, scattered trees, 0.01ha of introduced shrub, and 0.24km of native hedgerow. All habitats were assessed as being of low strategic significance, with trees and hedgerows in moderate condition and forming the entirety of the site's baseline biodiversity value. The baseline biodiversity value was calculated at 1.17 habitat units (primarily from urban trees and introduced shrub) and 0.96 hedgerow units.

The proposed development involves demolition of existing buildings and removal of some vegetation to accommodate three new industrial units, associated hardstanding, and landscaping. This will result in a net change of **-16.87%** for habitat units and **+32.46%** for hedgerow units, failing to meet the mandatory 10% biodiversity net gain target for habitats. While retention of six existing trees and most hedgerow is proposed, along with planting 15 native trees, new native hedgerow, mixed scrub, modified grassland, and introduced shrub, a shortfall of 0.31 habitat units remains (including a 0.40-unit shortfall in urban trees to satisfy trading rules). Additional on-site planting, particularly of native trees and species-rich hedgerow, is recommended to reduce this deficit. Any remaining loss would need to be addressed through off-site compensation or, if unavailable, purchase of statutory biodiversity credits, estimated at **£33,600** for the required urban tree units (excluding VAT). On-site and local compensation should be prioritised before statutory credits are considered.

Introduction

BNG Informative		
Habitat Degradation Statement	Date reflected by BNG calculations	13 th June 2025
	The baseline biodiversity value of the site is derived from the site as observed during the PEA field survey (Arbtech Consulting Ltd., 2025). As evident in the screenshots of satellite imagery obtained from Google Earth dated 22nd April 2020 and 6th March 2025, the site does not appear to have undergone any degradation. The habitats on site, and therefore biodiversity value of the site, is not considered to have undergone degradation since 30th January 2020.	
	Historical imagery < 22 Apr 2020 >  Historical imagery < 6 Mar 2025 > 	
Irreplaceable Habitat Statement	No irreplaceable habitats as listed under the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations (2024) are currently present nor were present before 30 th January 2020.	

Metric Version & Publication Date	Statutory Biodiversity Metric Calculation Tool first published 29 th November 2023 with last updates to metric tools and user guides on 23 rd July 2024.
BNG Target Uplift	+10%
National Character Area (NCA)	55 – Manchester Conurbation
Strategic Significance	Greater Manchester Nature Recovery Strategy: https://www.greetermanchester-ca.gov.uk/media/hmsj013u/gm-local-nature-recovery-strategy-consultation-draft.pdf
Limitations	
There were no specific limitations to the assessment.	

Baseline Biodiversity Value: On-Site

Area-Based Habitats (A-1)

Habitat	Area (ha)	Description	Condition Assessment	Strategic Significance
u1b Developed land, sealed surface	0.60077ha	As described within the PEA report for the same address (Arbtech, 2025)	Habitat condition pre-determined as ' N/A ' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
u1b5 Building	1.17628ha	As described within the PEA report for the same address (Arbtech, 2025)	Habitat condition pre-determined as ' N/A ' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
u1 847 Urban, Introduced shrub	0.01414ha	As described within the PEA report for the same address (Arbtech, 2025)	Habitat condition pre-determined as ' N/A ' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).

u1 32 Urban, Scattered trees	Small: 0.0407ha	As described within the PEA report for the same address (Arbtech, 2025)	Moderate: All trees pass 3 of 5 criteria Assessed using the 'Individual tree' habitat type condition sheet.	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
	Medium: 0.0651ha			
	Large: 0.0366ha			

Baseline Biodiversity Value: On-Site				
Linear-Based Habitats (B-1)				
Habitat	Length (km)	Description	Condition Assessment	Strategic Significance
h2a 516 Native Hedgerow	Hedgerow 1: 0.124km	As described within the PEA report for the same address (Arbtech, 2025)	Moderate: Both hedgerows pass 4 of 8 criteria and does not fail both attributes in more than one functional group.	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
	Hedgerow 2: 0.114km		Assessed using the 'hedgerow' habitat type condition sheet.	

Post-Development Habitat Value: On-Site

Post-Development Biodiversity Value: On-Site

Habitat		Area	Description	Condition Assessment	Strategic Significance
Retained	u1 32 Urban, Scattered Trees	Small 0.0163ha	Six trees will be retained post development and incorporated into the new layout.	To remain in Moderate Condition	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
		Medium 0.0163ha			
		Large 0.0366ha			
	h2a 516 Native Hedgerow	Hedgerow 1: 0.11km	The majority of the hedgerows currently on site will be retained post development aside from the lengths that will be removed to facilitate the new access roads.	To remain in Moderate Condition	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
		Hedgerow 2: 0.104km			
Created	u1b Developed land, sealed surface	0.96534ha	New areas of hardstanding in the form of site access, parking, walkways and traffic islands.	Habitat condition pre- determined as 'N/A' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).

	u1b5 Building	0.73694ha	Three new large industrial buildings will be created as part of the proposed development.	Habitat condition pre-determined as ' N/A ' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
	g4 Modified grassland	0.04068ha	Small area of species rich modified grassland are to be including along the boundary of the site and managed to maintain a short sward height.	Poor Target Condition	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
	u1 847 Urban, Introduced shrub	0.03404ha	Partially along the boundaries of the site are to be newly created areas of introduced shrubs.	Habitat condition pre-determined as ' N/A ' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
	h3c Mixed scrub	0.01283ha	Along the northern boundary of the site is an newly created area of mixed scrub with 5 native species proposed to be included.	Moderate Target Condition	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the

					habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
	u1 32 Urban, Scattered Trees	0.0611ha	15 new native trees will be planted in the newly created areas of introduced shrub.	Moderate Target Condition In line with the retained trees on site.	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
	h2a Native hedgerow	0.121km	Newly planted native hedgerow will be incorporated where previous access points are to become redundant and along the southern boundary.	Moderate Target Condition In line with the retained hedgerow on site.	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).

Change of Biodiversity Value		
Biodiversity Units		
On-Site	Baseline	The baseline area-based habitat value of the site is 1.17 units comprising 1.14 units of urban trees, 0.03 units of introduced shrub and 0.00 units of developed land, sealed surface and buildings. The baseline linear-based habitat value of the site is 0.95 units comprising 0.96 units of native hedgerow.
	Post-Development	The post-development area-based habitat value is 0.97 units comprising the retention of 0.55 units of urban trees in addition to the creation of 0.19 units of urban trees, 0.09 units of mixed scrub, 0.08 units of modified grassland, 0.07 of introduced shrub and 0.00 units of developed land, sealed surface and buildings. The post-development linear-based habitat value is 1.26 units comprising the retention of 0.86 units of native hedgerow and the creation of 0.41 units of native hedgerow.
Overall Net Change		This results in a net change in biodiversity of -16.87% for area-based habitat units (i.e. a net less) and +32.46% for linear-based habitat units (i.e. a net gain).

Results, Discussion, and Next Steps

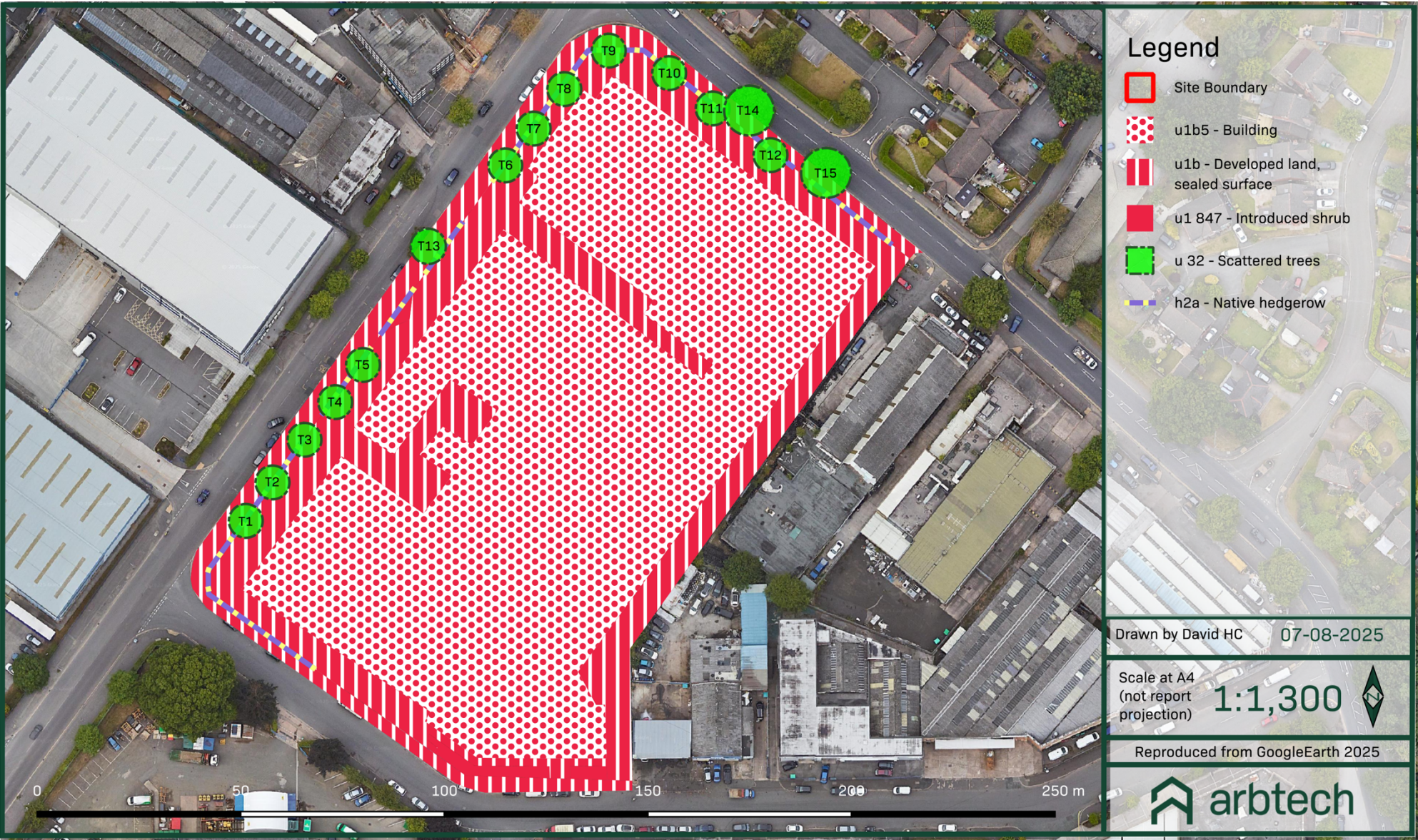
BNG Informative

Results	In order to achieve a 10% net gain in biodiversity value, a minimum unit score for area-based habitats of 1.28 units (baseline value of 1.17 + 10%) must be achieved. Conversely, a minimum unit score for linear-based habitats of 1.05 units (baseline value of 0.96 + 10%) must also be achieved. At present, there is a unit deficit of 0.31 units for area-based habitats with a 0.00 unit deficit for linear-based habitats. Regarding area-based habitat units, 0.40 units must be of urban trees to satisfy trading rules. With unmet trading conditions and a net loss, the proposal fails principal Rules 1 and 2 of BNG and is not compliant with current legislation (Environment Act 2021) and planning policies (National Planning Policy Framework, 2024).
Recommendations	In order to achieve the required 10% net-gain the following enhancements/alterations to the proposed plans are suggested in keeping with the mitigation hierarchy: Avoid: Retain the existing urban trees present on site. As all 15 trees are positioned around the boundaries of the site, there is reasonable scope to incorporate the trees currently on site into the proposed development. Minimise: Retain parts of the existing hedgerows currently on site. Although there are sections of the hedgerows that will need to be removed to facilitate the development, there is opportunities within the development plans to retain certain sections and enhancement them with the planting of additional species encourage a more diversity hedgerow. If enough species are able to establish the native hedgerow could be re-classified as a species-rich native hedgerow which holds more habitat value given the greater diversity.

	Mitigate: To account for any loss in biodiversity as a result of the proposed development, alterations to the landscape plan should be considered include the following: • The planting of more native mixed scrub species on site. The inclusion of mixed scrub will aid in offsetting the loss of the introduced shrub currently present on site. There management should be in keeping with a moderate or good condition assessment score. • The addition of more tree planting to compensate for the loss of trees current anticipated. ○ It is strongly encouraged that any tree species planted be of native origin. ○ Trees planted on site will require protection from damage caused by human activity, including poor management and vandalism. ○ Trees should be planted in areas with enough space for the canopy growth to reach a minimum of 75% of its expected area, relative to the age, height and species of the tree. Additionally, these trees will not be subject to regular pruning. Compensate: Any remaining loss in biodiversity would need to be accounted for by the enhancement of both area and linear-based habitats outside of the current site boundary. In the absence of available offsite habitat providers, Statutory Biodiversity Credits can be used as a last resort. The costs associated with habitat compensation using statutory credits has been issued by the government as outlined here: https://www.gov.uk/guidance/statutory-biodiversity-credit-prices • Statutory prices are not guideline prices for biodiversity units sold in the off-site private market. Credit prices are set high to ensure they do not compete with the development of the private market.
--	--

	• These units may be cheaper to source in the local third party BNG unit market. • If you buy statutory credits, a 'spatial risk multiplier' (SRM) will apply, which doubles the number of statutory credits you need. • For each habitat type in the table, you can see its 'tier'. Statutory credits are priced in tiers according to habitat type for area-based biodiversity units. For the units required for this development, assuming that all habitats of value were to be removed during the development, this would equate to: • 0.80 units of urban trees (Tier A1) at £42,000 per credit = £33,600 These prices do not include VAT. You will see VAT in the invoice for any statutory credit purchase. In order to achieve the required net gain in biodiversity as a result of the proposed development, the provision of additional or alternative landscaping should be explored and the proposed plans amended accordingly to achieve a net gain on site. The provision of additional landscaping should first be considered within the site boundary. Only when all other options have been exhausted should statutory credits be considered as a via option to off-set the remaining loss.
Pre-Commencement	A Biodiversity Gain Plan (BGP) and Habitat Management and Monitoring Plan (HMMP) must be produced for the site. This should include recommendations for the implementation, management and monitoring of the site for at least 30 years to ensure that biodiversity net gain is delivered. These additional requirements can only be actioned following the finalisation of the BNG assessment – be it on-site or off-site net gains sought.

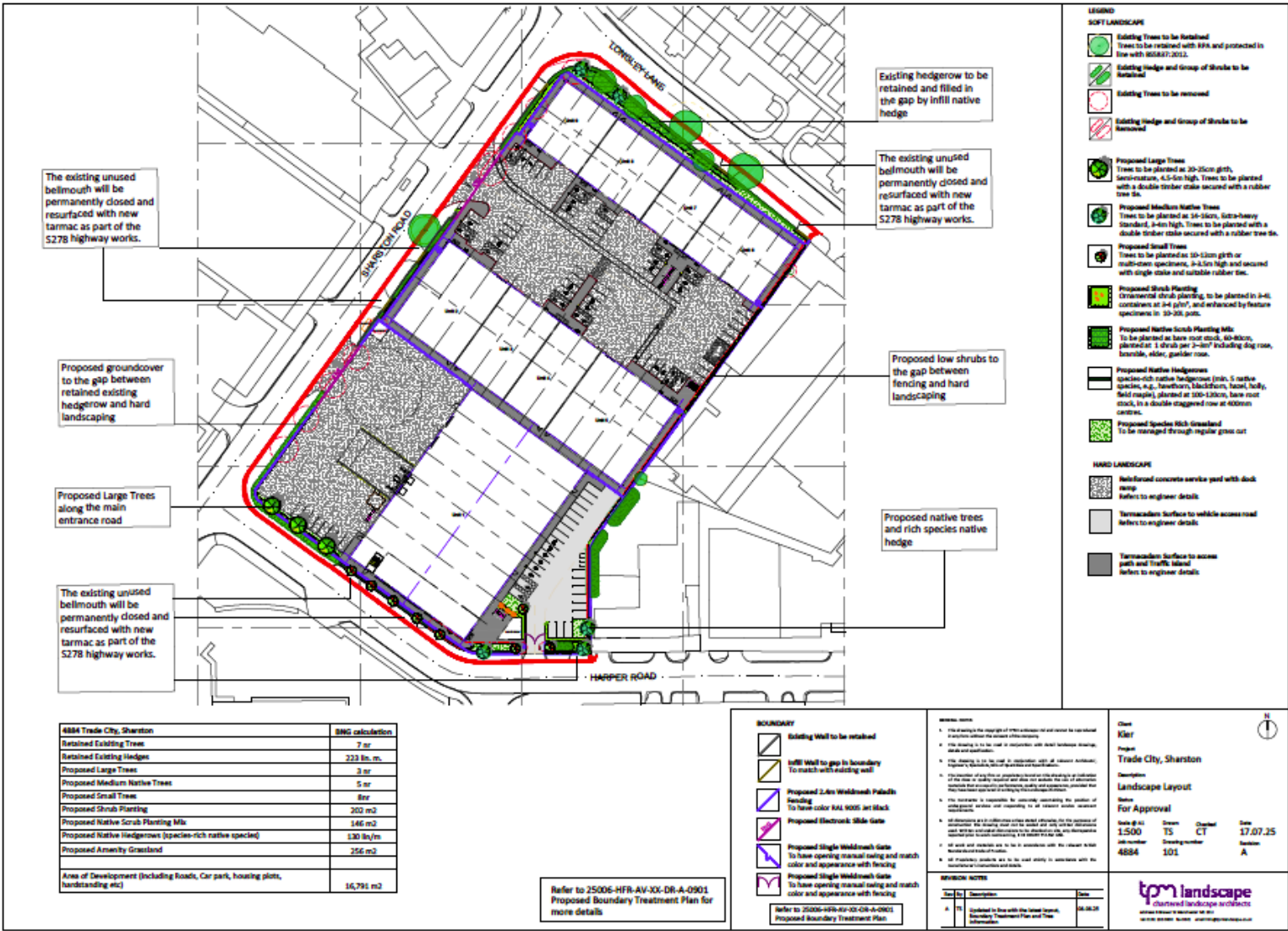
Appendix 1: Baseline Habitat Plan



Appendix 2: Post Development Habitat Plan



Appendix 3: Proposed Development Plan



Appendix 4: Headline BNG Results

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-0.20
	Hedgerow units	0.31
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-16.87%
	Hedgerow units	32.46%
	Watercourse units	0.00%
Trading rules satisfied?	No - Check Trading Summaries ▲	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	1.17	1.28	0.31
Hedgerow units	10.00%	0.95	1.05	0.00
Watercourse units	10.00%	0.00	0.00	0.00

Total net gain achieved is less than target set ▲

No additional hedgerow units required to meet target ✓

No additional watercourse units required to meet target ✓

Input errors/rule breaks present in metric ▲

Appendix 5: Baseline Habitat Condition Assessment Sheets

Urban Trees; assessed using 'Individual Trees' habitat type condition sheet:

Condition Assessment Criteria		Condition Achieved (Y/N)	Notes/Justification
A	The tree is a native species (or more than 70% within the block are native species).	Y	All trees are native.
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).	Y	All trees are individual trees and thus automatically pass this criterion.
C	The tree is mature (or more than 50% within the block are mature).	Y (T14&T15) N (T1-T13)	Only T14 and T15 are considered mature with the remaining trees classed a young, early mature and semi mature.
D	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.	Y	Little to no evidence of adverse anthropogenic impacts; all trees have retained >75% of their expected canopy.
E	Natural Ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N	None observed.
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	N	Less than 20% of the tree canopy area has vegetation underneath.
Number of criteria passed			3 or 4
Condition Assessment Result		Condition Assessment Score	Score Achieved x/✓
Passes 5 or 6 of 6 criteria		Good (3)	
Passes 3 or 4 of 6 criteria		Moderate (2)	✓
Passes 0, 1 or 2 of 6 criteria		Poor (1)	

Native, Species-Rich Hedgerow with Trees; assessed using 'Hedgerow' habitat type condition sheet:

Hedgerow favourable condition attributes				
Attributes and functional groupings (A, B, C, D & E)	Criteria (the minimum requirements for 'favourable condition')	Description	Condition Achieved (Y/N)	Notes/Justification
Core groups - applicable to all hedgerow types				
A1. Height	>1.5 m average along length	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. 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). A newly planted hedgerow does not pass this criterion (unless it is > 1.5 m height).	N	Hedgerow height is below 1.5m.
A2. Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (e.g. blackthorn suckers) are only included in the width estimate when they >0.5 m in height. 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).	N	Hedgerow width is below 1.5m.
B1. Gap – hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth.	N	Gap between ground and base of canopy is >0.5m for more than 10% of length.

		Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).		
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).	Y	No canopy gaps >5m for each segment of hedgerow.
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.	N	Area of hardstanding are present along both sides of the hedgerow.
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>Galium aparine</i>) and docks (<i>Rumex</i> spp.). Their presence, either singly or together, should not exceed the 20% cover threshold.	Y	No species indicative of nutrient enrichment present.
D1. Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native and recently introduced species	Recently introduced species refer to plant that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives.	Y	No invasives observed.

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).	Y	>90% of hedgerow and understorey is free of damage caused by human activities.
Condition categories for hedgerows with 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 failure in any functional group.	3		
Moderate	No more than 5 failures in total; AND <u>Does not fail both attributes</u> in more than one functional group (e.g., fails attributes A1, A2, B1, C2 and E1 = Moderate condition).	2		
Poor	Fails a total of more than 5 attributes; OR <u>Fails both attributes</u> in more than one functional group (e.g. fails attributes A1, A2, B1 and B2 = Poor condition).	1		
Score achieved:	Moderate			

Limitations and Copyright

Legal

Arbtech Consulting Limited has prepared this report for the sole use of the above-named client or their agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

Arbtech cannot be held responsible for any project management failures, delays or unforeseen costs arising from failure to read and ensure understanding of the content with in, nor is Arbtech responsible for any adverse outcomes arising from failure to account for ecological advice given at any stage throughout the project collaboration.

© This report is the copyright of Arbtech Consulting Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.

Version Control			
Status	Issue	Name	Date
Draft	0.1	David Hill-Chambers MSc BSc (Hons) – Graduate Ecologist	13/06/2025
Reviewed	0.2	Abby Pidgen – Consultant Ecologist	19/06/2025
Final	1.0	David Hill-Chambers MSc BSc (Hons) – Graduate Ecologist	20/06/2025
Draft	1.1	David Hill-Chambers MSc BSc (Hons) – Graduate Ecologist	07/08/2025
Reviewed	1.2	Mel Reid BSc (Hons) MRes AMRSB, Principal Ecologist	08/08/2025
Updated	2.0	David Hill-Chambers MSc BSc (Hons) – Graduate Ecologist	08/08/2025
Updated	3.0	David Hill-Chambers MSc BSc (Hons) – Graduate Ecologist	13/08/2025