

Biodiversity Net Gain Assessment

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Report	Biodiversity Net Gain Assessment
Site Name	Tottenham Hale Station
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Client	Fastned
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1.0 INTRODUCTION

1.1 Background

Ecosupport Ltd. were commissioned by Fastned to undertake a Biodiversity Net Gain Assessment for the proposed development at Tottenham Hale Station.

The purpose of the Biodiversity Net Gain (BNG) assessment is to quantify the biodiversity value of the site prior to its development, and the predicted value post development. This is measured in biodiversity units, calculated according to the habitats present based on their size, distinctiveness and condition. This enables the quantitative calculation of the predicted change in biodiversity value as a result of the proposed development, with the objective of achieving a net gain in biodiversity.

This report should be read in conjunction with the associated PEA Report (Ecosupport Ltd., 2025).

1.2 Site Location and Description

The site is an existing hard standing area at Tottenham Hale train station, London, N17 9FD (centred on OS grid reference TQ 34499 89610) (**Figure 1**). The site is bounded by the railway / Tottenham Hale station platform to the east, by a hardstanding yard to the north, by a group of trees / modified grassland to the west and by Tottenham Hale station buildings and carpark drop-off to the south. In the wider area the site is located in a highly urban area, with the Walthamstow Reservoirs and River Lea also located to the east.

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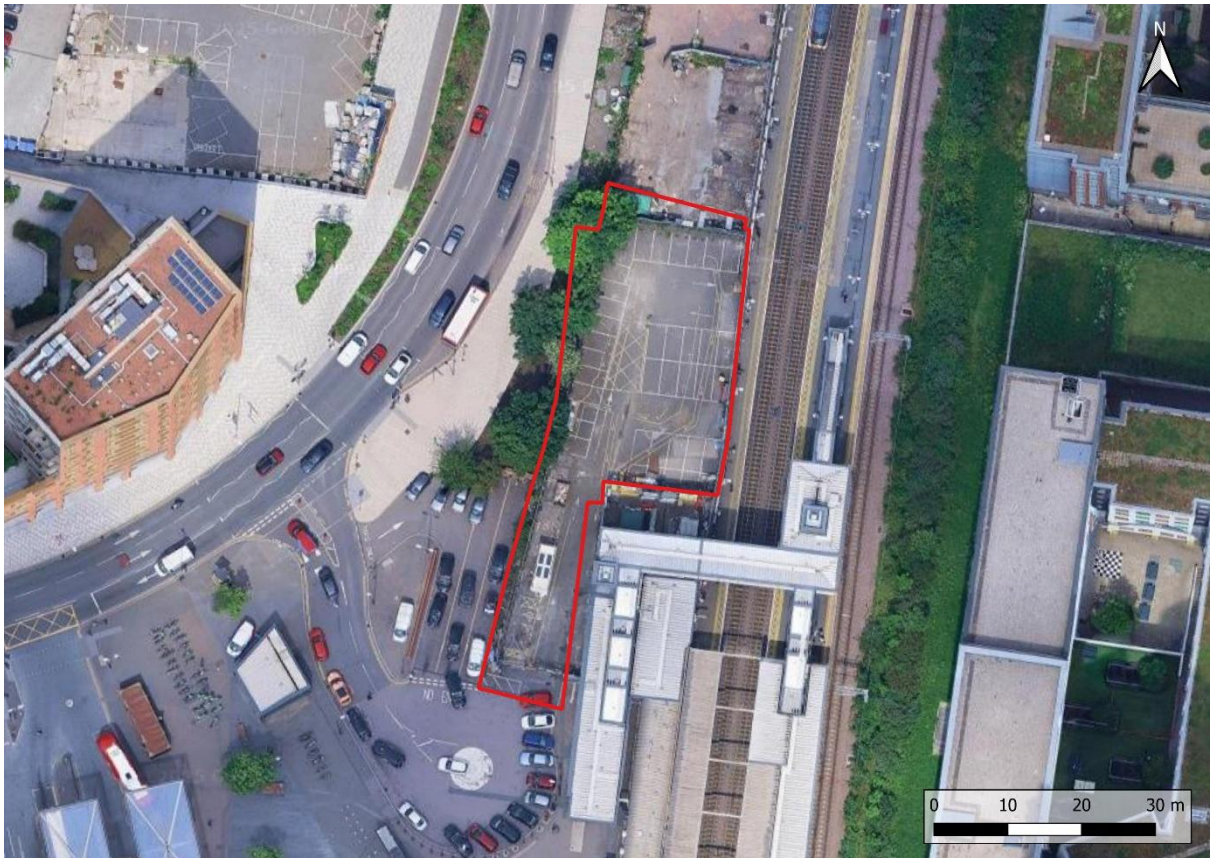
Figure 1. Redline boundary of the site (Google, 2025)



1.3 Development Proposals

The proposed development is for a car park with installation of charging stations, substation and amenities unit (**Figure 2**).

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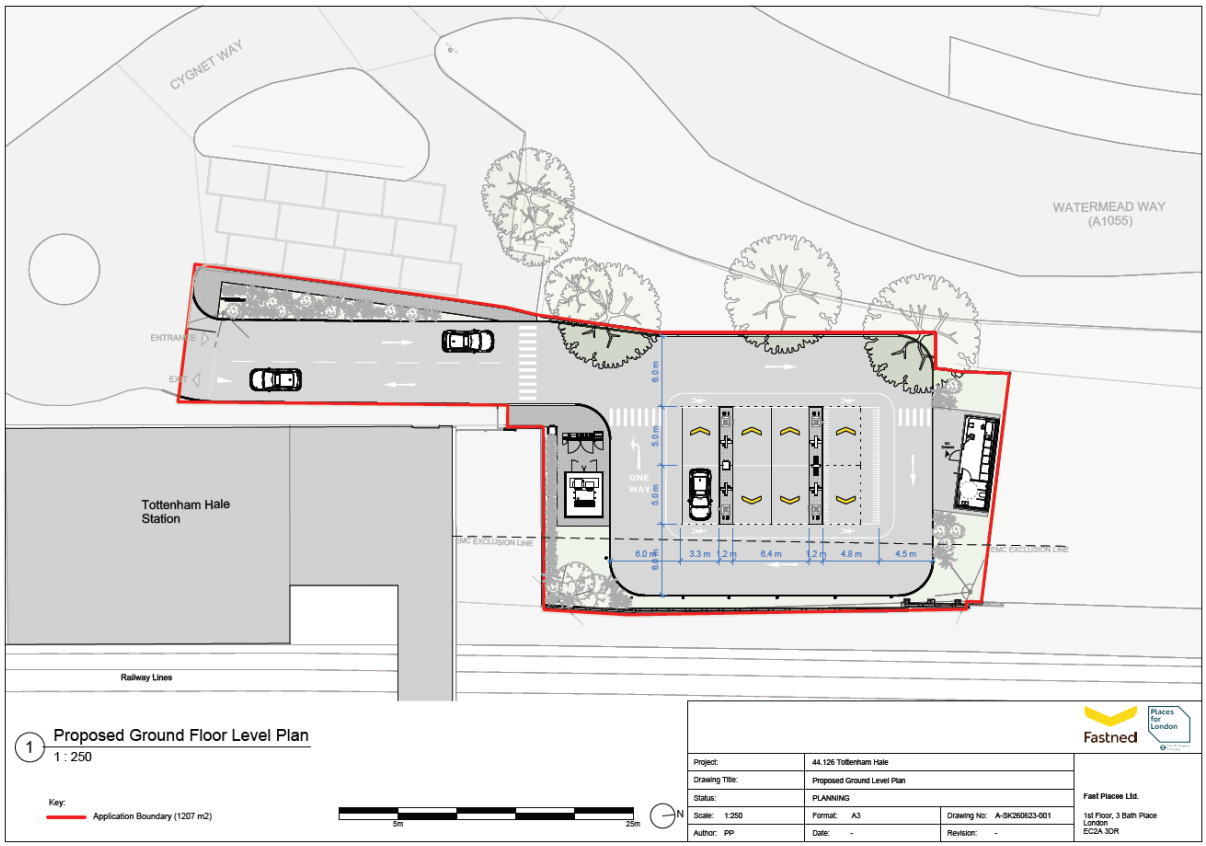
Figure 2. Proposed ground floor level plan (Fastned, 2026)



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2.0 METHODOLOGY

The methodology for the assessment follows the Natural England Statutory Biodiversity Metric habitat condition assessment protocols and uses the Statutory Biodiversity Metric calculation tool to calculate biodiversity losses and gains (DEFRA, 2023b, updated 2024).

2.1 Habitat Assessment

Habitats on site pre-development were identified in accordance with the categories specified for a UK Habitats survey, using Habitat Definitions Version 2.0 (UKHab Ltd., 2023). This was chosen as an appropriate habitat categorisation system as it fits within the Statutory Biodiversity Metric calculation. A condition assessment, in line with the Statutory Biodiversity Metric Condition Assessment sheets, was carried out on the site on 4th September 2025. The area of identified habitats is calculated in hectares (ha). The dominant habitat type was selected, according to those defined by UKHab Ltd (2023). Where there was disparity between the UK classification for habitat type and those present within the Statutory Biodiversity Metric calculator tool, this was noted within the condition assessment tables.

2.2 Habitat Distinctiveness

Each habitat was assigned a score for distinctiveness, according to the Statutory Biodiversity Metric calculator tool (DEFRA, 2023b, updated 2024). This ranged from Poor - High for most habitats, or Not Applicable. Using the tool, habitats were assigned a score based on their distinctiveness.

2.3 Habitat Condition

The condition of each habitat was assessed following criteria set out in the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2023b, updated 2024), which includes detailed assessment criteria for different habitats. Full results of the condition assessments can be found within **Section 3.0**. The condition of each habitat was assessed individually on site but, where the condition was found to be the same across several parcels, these were grouped together.

2.4 Strategic Significance

Each habitat was assigned a strategic significance in line with the Statutory Biodiversity Metric User Guide (DEFRA, 2023b, updated 2024). Currently, London's Local Nature Recovery Strategy (LNRS) has not been published. However, a search using the council's interactive planning policy map identified that the site does not fall under any designations or ecological network and all habitats were classified as 'area/compensation not in local strategy'.

2.5 Limitations

Access was not granted to the interior of the site due to difficulty in obtaining permission from Transportation for London. However, the entire interior of the site is hard standing and could be seen from the fenceline, as seen in the photos. Further, the trees to be removed are the only ecological feature of value and are located outside the fenceline where they were fully accessible and as such this is not considered a significant limitation to the assessment.

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3.0 EXISTING HABITATS AND DEVELOPMENT PROPOSALS

The habitats on site were categorised according to UK Hab Ltd. Habitat Definitions Version 2.0 (2023) as listed below (please refer to the **Baseline Habitats map appended** for information on the locations of these habitats on site):

- u1b – Developed land; sealed surface with ruderal (secondary code 81)
- g4 – Modified grassland with scattered trees (secondary code 32)

Nearly the entire site is paved surface, which was empty at the time of the site visit (**Figs 3-4**). Ruderal vegetation is growing around some of the edges in the cracks but this was not considered to be large enough to be considered a separate habitat for BNG purposes and u1b is more appropriate.

Outside the fenceline on the western boundary of the site is a strip of modified grassland, of which only the area directly under the four trees to be removed was included in the redline boundary (**Fig 5**). The other scattered trees to be retained have been excluded from the redline boundary as they will not be impacted.

Figure 3. Northern portion of the hard standing car park with ruderal vegetation



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Figure 4. Southern portion of the hard standing car park, seen from the western boundary



Figure 5. Modified grassland strip outside the site with scattered trees along fence edge. Four trees are proposed for removal.



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3.1 Baseline Condition Assessment

The developed land; sealed surface does not have a condition assessment as its condition is automatically set to N/A – Other. However, a condition assessment was carried out on the minor section of modified grassland and the block of trees.

3.1.1 Modified grassland

The condition assessment for the modified grassland is shown in **Table 1** and the grassland is considered to be in poor condition.

Table 1. Condition Assessment for modified grassland.

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (these may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.**	No	Under 6m present in the grassland, maintained as amenity grassland where present
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No	Sward all same length
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes	No scrub noted.
D	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.	No	Grass heavily trampled and evidence of garbage/tents of people present below trees.
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	No	Bare ground approximately 30-40% below trees.

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F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Yes	No Bracken noted.
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	Yes	No invasive species noted.
Number of criteria passed			3

Condition Assessment Result (out of 7 criteria)	**Condition Assessment Score**	**Score Achieved ×/✓**
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	✓

3.1.2 Individual trees

The condition of the trees was assessed as a group of trees (**Table 2**). The group of trees was considered to be in good condition. The locations of the trees can be seen in the appended baseline plan.

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Table 2. Condition Assessment for individual trees

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The tree is a native species (or at least 70% within the block are native species).	No	While some native species were present, under 70% of the group were native with Sycamore being dominant.
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).	Yes	
C	The tree is mature (or more than 50% within the block are mature)[1].	Yes	
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.	Yes	
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Yes	Ivy was present on some trees and at least one tree had a minor cavity
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes	
	Number of criteria passed		5

Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score Achieved ×/✓
Passes 5 or 6 criteria	Good (3)	✓
Passes 3 or 4 criteria	Moderate (2)	
Passes 2 or fewer criteria	Poor (1)	

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4.0 PROPOSED CREATED HABITATS & NET GAIN ASSESSMENT

4.1 On-Site Proposals

4.1.1 Habitats

Table 3 indicates those habitats due to be *retained and created* on site with details provided, where appropriate, as to how the necessary condition criteria will be met if relevant.

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Table 3. Non-linear habitats to be *retained and created* on site including details as to the condition assessment criteria that must be met in order to achieve the targeted condition

Habitat Type	Action	Area (ha)	Target Condition	Condition Assessment Notes	Strategic Significance	Location Notes
Modified grassland	Retained	0.0003	Poor	A very small corner of the modified grassland under the existing trees will be retained and is expected to maintain the same poor condition. No specific management is required as poor condition is targeted.	Area / compensation not in local strategy	Western boundary
Other green roof	Created	0.0012	N/A	A green roof is being created on the roof of the amenities building. No condition assessment is required for this habitat and as such it does not require any specific criteria to be met.	Area / compensation not in local strategy	Amenities building
Developed land; sealed surface	Created	0.102	N/A	The majority of the site will be resurfaced as a car park with access and a structured canopy above the charging units and a building comprising the associated substation.	Area / compensation not in local strategy	Car park and substation
Vegetated garden	Created	0.0123	N/A	Some soft landscaping will be created around the edges of the site, likely to include amenity grassland, ornamental shrubs and garden beds. This has all been classified as vegetated garden, which has a low distinctiveness and condition. No specific management is required to maintain condition.	Area / compensation not in local strategy	Perimeters of site

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4.2 Metric Calculation

Following the incorporation of the above measures into the DEFRA Statutory Biodiversity Metric, ***on site there is a net loss of -92.35% (or -0.32 units) in habitat and the trading rules are not satisfied*** (**Fig 6**). It is considered there is further habitat creation or offsetting required to meet BNG rules.

Figure 6. Screenshot of the 'headline results' output from the BNG assessment undertaken for the site using the DEFRA Statutory Biodiversity Metric.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Area habitat units*	-0.32
	Hedgerow units	0.00
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Area habitat units*	-92.35%
	Hedgerow units	0.00%
	Watercourse units	0.00%
Trading rules satisfied?	No - Check Trading Summaries ▲	

4.3 Off-Setting

4.3.1 Unit Deficit

In order to deliver the targeted 10% biodiversity net gain and meet the trading rules, it will be necessary to obtain habitat units from an off-site BNG provider. As shown in **Fig 7**, 0.36 habitat units are required.

Figure 7. Screenshot from the 'headline results' output from the BNG assessment undertaken for the site using the DEFRA Statutory Biodiversity Metric showing the deficit required to achieve 10% gain

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Area habitat units	10.00%	0.35	0.38	0.36
Hedgerow units	10.00%	0.00	0.00	0.00
Watercourse units	10.00%	0.00	0.00	0.00

4.3.2 Trading Rules

The majority of the biodiversity loss is due to the loss of individual trees on the site boundary. A total of 0.34 units of individual trees of medium distinctiveness is to be lost to this (**Fig 8**). As per the trading rules, units must be obtained within the same medium distinctiveness habitat group or by a higher distinctiveness habitat. As such, a minimum of 0.34 units of the 0.36 units required offsite will be for individual trees or a higher distinctiveness habitat.

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Figure 8. Screenshot of the total "medium distinctiveness" biodiversity units lost taken from the BNG assessment undertaken for the site using The Statutory Biodiversity Metric.

Medium Distinctiveness					
Habitat group	Group	On-site unit change	Off-site unit change	Project wide unit change	Cumulative broad habitat change
Cropland - Arable field margins cultivated annually	Cropland	0.00	0.00	0.00	0.00
Cropland - Arable field margins game bird mix	Cropland	0.00	0.00	0.00	
Cropland - Arable field margins pollen and nectar	Cropland	0.00	0.00	0.00	
Cropland - Arable field margins tussocky	Cropland	0.00	0.00	0.00	
Grassland - Other lowland acid grassland	Grassland	0.00	0.00	0.00	0.00
Grassland - Other neutral grassland	Grassland	0.00	0.00	0.00	
Grassland - Upland acid grassland	Grassland	0.00	0.00	0.00	
Heathland and shrub - Blackthorn scrub	Heathland and shrub	0.00	0.00	0.00	0.00
Heathland and shrub - Bramble scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Gorse scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Hawthorn scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Willow scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Hazel scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Mixed scrub	Heathland and shrub	0.00	0.00	0.00	
Lakes - Ponds (non-priority habitat)	Lakes	0.00	0.00	0.00	0.00
Lakes - Reservoirs	Lakes	0.00	0.00	0.00	
Sparsely vegetated land - Other inland rock and scree	Sparsely vegetated land	0.00	0.00	0.00	0.00
Urban - Cemeteries and churchyards	Urban	0.00	0.00	0.00	0.00
Urban - Biodiverse green roof	Urban	0.00	0.00	0.00	
Individual trees - Urban tree	Individual trees	-0.34	0.00	-0.34	-0.34 ⚠
Individual trees - Rural tree	Individual trees	0.00	0.00	0.00	
Woodland and forest - Other Scot's pine woodland	Woodland and forest	0.00	0.00	0.00	0.00
Woodland and forest - Other woodland; broadleaved	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Other woodland; mixed	Woodland and forest	0.00	0.00	0.00	
Intertidal sediment - Littoral coarse sediment	Intertidal sediment	0.00	0.00	0.00	0.00
Intertidal sediment - Littoral sand	Intertidal sediment	0.00	0.00	0.00	
Intertidal hard structures - Artificial hard structures with integrated greening of grey infrastructure (IGGI)	Intertidal hard structures	0.00	0.00	0.00	
		-0.34	0.00	-0.34	

4.3.3 Biodiversity Credits & Spatial Risk Multipliers

It is understood a local bank will be used to obtain the required units. Statutory Biodiversity Credits should only be used as a last resort option where there are no other local schemes available. If it is not possible to obtain any offsite units from a local BNG provider, spatial risk multipliers are also applied to off-site habitat compensation, as shown in **Table 5.** For example, if compensation must be provided Outside, twice as many credits would be required to meet the site requirements.

Table 5. Spatial risk scores and descriptions (as reproduced from Table 9 of the Statutory BNG user guide)

Spatial risk category and score	**Area and hedgerow modules**
Within (1.0)	Compensation is within Local Planning Authority (LPA) boundary or National Character Area (NCA) of impact site
Neighbouring (0.75)	Compensation is outside LPA or NCA of impact site, but within neighbouring LPA or NCA
Outside (0.5)	Compensation is outside LPA or NCA of impact site and outside neighbouring LPA or NCA

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5.0 CONCLUSION

A Biodiversity Net Gain Assessment was carried out by Ecosupport Ltd for the proposed development at Tottenham Hale Station. This concluded that there is a net change of -92.35% for habitats and the trading rules are not satisfied. In order to obtain a 10% net gain and satisfy the trading rules, 0.36 offsite units from a local BNG provider will be obtained, of which 0.34 of the units must come from individual trees (or a higher distinctiveness habitat). With this, the site will meet the requirements for biodiversity net gain.

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6.0 REFERENCES

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APPENDIX 1- MAPS

A – BNG Baseline Habitats



Legend

- Developed land; sealed surface
- Modified grassland
- Pre dev trees
- Site boundary

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Map	BNG Baseline Plan
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Client	Fastned
Date	01/10/2025

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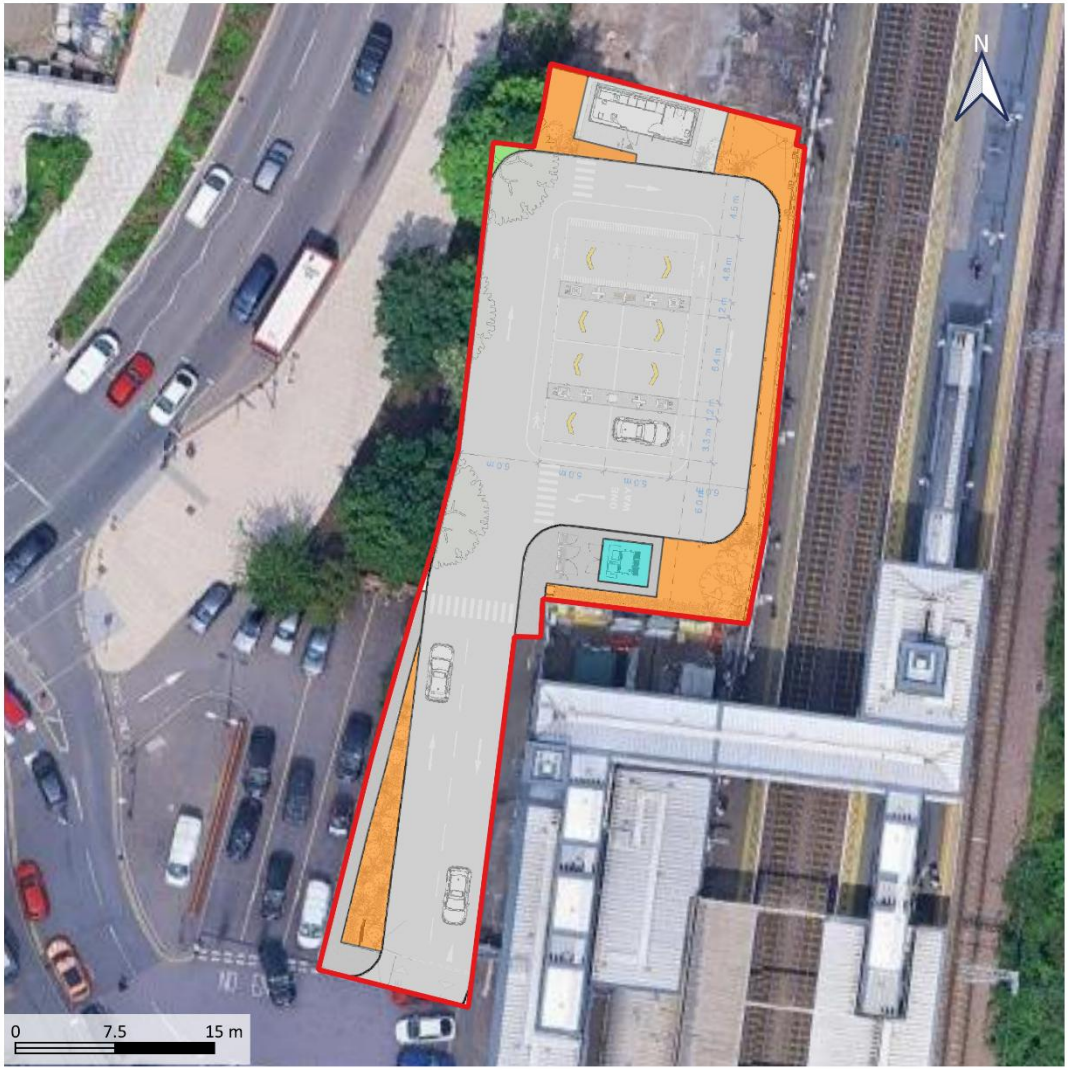
B – BNG Post-Development Habitats



Legend

- Developed land; sealed surface
- Green Roof
- Modified Grassland
- Vegetated Garden
- Site boundary

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Map	BNG Post Development Plan
Site	Tottenham Hale Station
Client	Fastned
Date	10/08/2026

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