Armada Way

Plymouth, Devon

Biodiversity Net Gain Assessment

67CA09-YGS-ZZ-XX-RP-J-009 BNG Design Stage Report

Prepared For: YGS Environmental Consultants Ltd (on behalf of Plymouth City Council)

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Contents

Page

1.0 INTRODUCTION 3
Site Description 4
Proposals 4
Relevant Policy and Legislation 5
Aims of this report 7
2.0 DESIGN COMPARISON 9
3.0 BIODIVERSITY IMPACT ASSESSMENT METHODS 12
Survey Methods 12
BNG Assessment 13
4.0 BASELINE CONDITIONS 15
Important Ecological Features 15
Strategic Significance 15
On-Site Baseline Habitats 16
On-Site Baseline Condition Assessment 16
5.0 POST-DEVELOPMENT HABITATS 19
On-Site Proposed Design 19
On-Site Target Habitat Conditions 21
Off-Site Habitats 23
6.0 BIODIVERSITY IMPACT ASSESSMENT RESULTS 24
Summary Results - Prior to Offsetting 24
Implications of Transferring to the Statutory Biodiversity Metric 25
Final Results - With Offsetting 27
7.0 IMPLEMENTATION, MANAGEMENT AND MONITORING 29
8.0 GOOD PRACTICE PRINCIPLES FOR DEVELOPMENT 34

Figures

Figure 1: Site location and approximate boundary 3
Figure 2: Baseline habitats and habitat unit values within the survey area 17
Figure 3: Proposed post-development habitats and habitat unit values within the survey area 20

Tables

Table 1: Design Comparison 10
Table 2: Site Baseline Biodiversity Assessment 18
Table 3: Post-development Biodiversity Assessment 22
Table 4: Summary of Biodiversity Metric Results Prior to Offsetting 24
Table 5: Differences in calculations for individual trees – the 'Tree Helper' tool 26
Table 6: Summary of Biodiversity Metric Results 28
Table 7: Implementation of Soft Landscape Plans 29
Table 8: Appraisal against Good Practice Principles 34

Appendices

Annex A: Development Proposals - Soft Landscape General Arrangement Plans
Annex B: Baseline Habitat Condition Assessment
Annex C: Statutory Biodiversity Metric Input and Results Tables
Annex D: Predicted Habitat Condition Assessment

Executive Summary

Commission

The Environment Partnership (TEP) was commissioned by YGS Environmental Consultants (YGS) on behalf of Plymouth City Council to undertake a Biodiversity Net Gain (BNG) assessment of Armada Way located in Plymouth City Centre.
The BNG Assessment is entirely voluntary on the part of Plymouth City Council. The Armada Way project does not require planning permission and therefore does not (nor will it be) subject to the mandatory BNG delivery requirements.
The Defra Statutory Biodiversity Metric was applied to calculate the biodiversity impacts and determine the net gain outputs.
Plymouth City Council has voluntary set a desired target of 20% net gain for the project.

Design Comparison

Before completing the Biodiversity Impact Assessment to determine BNG results for the current landscape design, a comparison was made of the 'representative' biodiversity values of the current design against the previous design.
The comparison was completed by entering each design (inclusive of new and retained habitats) into the 'baseline' section of the Statutory Biodiversity Metric, complying with the rules of the metric for both designs.
In this comparison the current design represents a betterment in biodiversity value, between the two designs only.
(Note this comparison does not and is not intended to represent biodiversity net change for the project as it relates to the existing baseline).

Baseline

The project area measures 2.487ha and comprises the Public Realm of Armada Way in Plymouth city centre. The habitat baseline was informed by:

- Tree survey completed by YGS in late 2021 (YGS Arboricultural Impact Assessment (Report No: 67CA09-YGS-ZZ-XX-RP-J-010);
- Walkover survey completed in July 2022 by TEP;
- UKHab habitat survey completed in December 2022 by Simon Geary Ecology Services as part of a Preliminary Ecological Assessment (PEA);
- Updated tree survey completed by YGS in January 2024 (Report No 67CA09-YGS-ZZ-RP-J-012)

Habitat condition assessments for baseline habitats were completed to inform this assessment, based on the combination of the findings from the above.
Tree condition assessments for existing and proposed trees were completed in consultation with YGS.
There were no significant constraints to the baseline surveys or condition assessments.

Post-Development

The post-development habitats were interpreted from the following proposal drawings:

- Studio Agora/Rathbone Associates Drawing Ref: 67CA09-STA-ZZ-XX-DR-L-40-001 Proposed Soft Landscape Plan All Zones
- Studio Agora/Rathbone Associates Drawing Ref: 67CA09-STA-ZZ-XX-DR-L-30-001 Proposed GA Masterplan All Zones

Habitat translations into UKHab were discussed with Studio Agora/Rathbone Associates.
Impacts on existing trees and condition assessments for proposed trees were discussed with YGS.

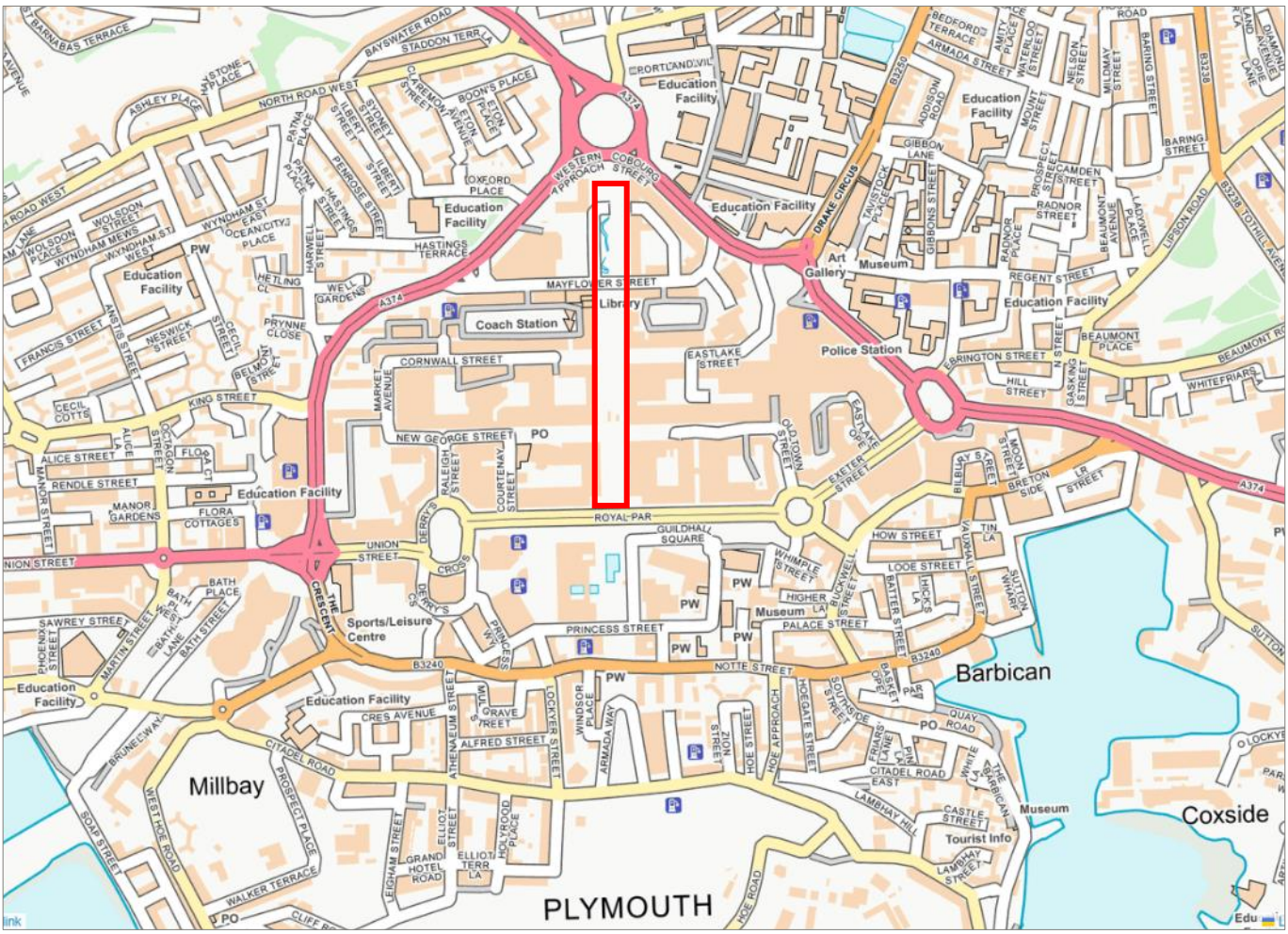
	Tree removal across the site and habitat removal beneath the trees in Zone 1 were completed in March 2023. Landscape installation is not anticipated to commence until October 2024. Consequently, habitat creation delays of between two and three years were applied to delivery of habitat creation and enhancement measures.
Outcome	Under Option A, the SBM calculated a **net loss** of -4.22 BU (-41.15%) and under Option B, the SBM calculated a net loss of -0.37 BU (-6.73%) for area habitats. The SBM Trading Rules under both Options were not satisfied for habitats, due to net losses in Type A1 habitats (individual trees). Both Options calculated a **net gain** of +0.96 hedgerow units (>20% target).
Offsetting	Biodiversity **offsetting is required** for habitats. In addition to the proposed translocation of four trees offsite, additional tree planting (on or off site) is required to deliver the target 20% net gains with Trading Rules satisfied. An estimated 525nr additional trees are estimated to be required, to be planted in appropriate location(s) offsite.

1.0 Introduction

1.1 The Environment Partnership (TEP) was commissioned in July 2022 by YGS Environmental Consultants Ltd (YGS) to undertake a Biodiversity Net Gain (BNG) Assessment for the proposed regeneration of Armada Way in Plymouth City Centre. This previous iteration of the BNG Assessment was reported in TEP Report Ref 9597.010 (Version 6, March 2023). TEP was subsequently commissioned in December 2023 to update the BNG Assessment based on a new landscape design.

1.2 The project area is located along Armada Way, from North Cross Roundabout in the north to Royal Parade in the south. Figure 1 shows the location of the site in the wider landscape. Only public realm aspects are included within the project, buildings facades facing the project area are excluded.

Figure 1: Site location and approximate boundary



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Site Description

1.3 The project area comprises a linear urban public realm dominated by paving and other hard surfacing with pockets and raised bed areas with tree and introduced shrub planting. A sealed cobbled swale runs through part of the project area.

1.4 The project area is divided into four zones:

- Zone 1: North Cross roundabout to Mayflower Street;
- Zone 2: Mayflower Street to Cornwall Street;
- Zone 3: Cornwall Street to New George Street; and
- Zone 4: New George Street to Parade Road.

1.5 Tree removal was implemented across the site in early 2023. Habitat removal beneath the trees was also implemented in Zone 1 during this time. Habitats beneath trees removed from Zone 2 and Zone 3 were retained. For the purposes of this BNG Assessment, tree removal across the site and habitat removal in Zone 1 were assumed to be completed by March 2023.

Proposals

1.6 The regeneration aims to replace this key route through the city centre with a new linear urban park that provides a clear visual link to the sea, the original ambition of Armada Way.

1.7 Regeneration proposals have been subject to public consultation. The current landscape design is illustrated at Annex A. The proposed design plans comprise:

- Studio Agora/Rathbone Associates Drawing Ref: 67CA09-STA-ZZ-XX-DR-L-40-001 Proposed Soft Landscape Plan All Zones; and
- Studio Agora/Rathbone Associates Drawing Ref: 67CA09-STA-ZZ-XX-DR-L-30-001 Proposed GA Masterplan All Zones.

1.8 Proposals will require removal of virtually all existing public realm features within the project area, including the majority of trees. Tree removal from across the project area and habitat removal from Zone 1 has already been completed (March 2023).

1.9 New features will include play and mixed use games areas for all ages, water-based play space, improved amenity settings, attractive resting places, refurbishment of the Braille Garden, Phoenix fountain and sundial, a new running water feature and linear tree planting. The design accounts for climate change and focusses on a tree stock more appropriate and resilient to an urban setting.

1.10 The project does not require planning permission. This BNG Assessment is a voluntary approach adopted by Plymouth City Council for the project.

1.11 Plymouth City Council has set a desired target of 20% net biodiversity gain for this project.

Relevant Policy and Legislation

Environment Act 2021

1.12 The Environment Act 2021 received Royal Assent on 9th November 2021 and includes a mandatory 10% biodiversity net gain on all Town and Country Planning Act 1990 developments. Mandatory 10% net gain will come into force on 12th February 2024 for major developments, with minor developments having an extended transition period until 2nd April 2024. Other types of development (for example, deemed permissions or permissions granted under a Local Development Order) are not (yet) subject to mandatory BNG.

1.13 Relevant secondary legislation includes:

- The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024[1]
- The Biodiversity Gain Requirements (Exemptions) Regulations 2024[2]
- The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024[3]
- The Biodiversity Gain Site Register Regulations 2024[4]

National Planning Policy Framework (NPPF)

1.14 Paragraph 180(d) of the revised NPPF (2023)[5] states that "*Planning policies and decisions should contribute to and enhance the natural and local environment by […] minimising impacts on and providing net gains for biodiversity […]*". The Government 25-year Environment Plan states that government will "[…] embed environmental net gain principle for development".

1.15 Guidance published by the government[6] states that net gain in planning is "*a way of creating and improving natural habitats. BNG makes sure development has a*

1 *https://www.legislation.gov.uk/uksi/2024/50/contents/made*
2 *https://www.legislation.gov.uk/uksi/2024/47/contents/made*
3 *https://www.legislation.gov.uk/uksi/2024/48/contents/made*
4 *https://www.legislation.gov.uk/uksi/2024/45/contents/made*
5 *https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf*
6 *https://www.gov.uk/government/collections/biodiversity-net-gain*

measurably positive impact ('net gain') on biodiversity, compared to what was there before development".

1.16 In terms of measuring net gain, the guidance requires use of a statutory biodiversity metric[7] to measures (a) how many units a habitat contains before development; and (b) how many units are needed to replace the units of the habitat lost and to achieve 10% BNG.

Local Policies

1.17 Devon LPAs have worked with Natural England and other partners to produce the Devon BNG guidance[8]. Devon County Council expect applicants to provide 10% net gain in line with the Environment Act and advice from Natural England, although Individual LPAs within Devon may produce their own guidance setting out specific local requirements.

1.18 Planning Policy Dev26 in the Plymouth and South West Devon Joint Local plan 2014 – 2034 (Adopted March 2019)[9] relates to protecting and enhancing biodiversity and geological conservation within the Plan Area. DEV26.5 relates specifically to Biodiversity Net Gain and states "*Net gains in biodiversity will be sought from all major development proposals through the promotion, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of legally protected and priority species populations. Delivery of net gains in biodiversity should be designed to support the delivery of the identified biodiversity network that crosses the Plan Area and links the city of Plymouth to the countryside and coast, as well as the network within the city itself. The level of biodiversity net gain required will be proportionate to the type, scale and impact of development...".*

1.19 The Plymouth and South West Devon Supplementary Planning Document (Adopted July 2020)[10] (SPD) provides further guidance for BNG assessments for developments in paragraphs 7.88 to 7.109. Of particular relevance, paragraph 7.88 states "*The LPAs will consider a 10 percent increase in biodiversity units when applying the Defra Biodiversity Metric to be policy compliant.*" The guidance references good practice when applying BNG to development and, at paragraph 7.107, sets out for the components of the Biodiversity Network for the Joint Plan Area. Further information relating to determining

7 *https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides*

8 Devon County Council (July 2022). Devon Planning Guidance for Biodiversity Compensation and Net Gain. *https://www.devon.gov.uk/environment/wp-content/uploads/sites/112/2022/07/Devon-BNG-Guidance-at-July-2022.pdf*

9 West Devon Borough Council, South Hams District Council and Plymouth City Council. Plymouth and South West Devon Joint Local plan 2014 – 2034 (Adopted March 2019) *https://www.plymouth.gov.uk/sites/default/files/JLP AdoptedVersion.pdf*

10 West Devon Borough Council, South Hams District Council and Plymouth City Council. Plymouth and South West Devon Supplementary Planning Document (Adopted July 2020) *https://www.plymouth.gov.uk/sites/default/files/JLPSPD2020FINALred.pdf*

'strategic significance' value within the Biodiversity Metric is provided in Appendix 6 of the SPD.

1.20 Policy DEV28 states "*Development should be designed so as to avoid the loss or deterioration of woodlands, trees or hedgerows. If the loss of trees, woodlands or hedgerows, cannot be avoided, new native and locally appropriate trees and hedgerows will be secured as mitigation to ensure they contribute to a 'net gain*'. *Mitigation should be delivered on site, but if this is not achievable, offsite compensation will be required to provide a net gain in canopy cover in line with local standards."*

1.21 Policy GRO6 of the Plymouth Plan 2014-2034 (adopted January 2021) states "*The City will ensure that the natural environment is fully considered and embedded in the delivery of the city's vision for growth. The Natural Network will consist of a functional network of green and blue spaces that support a high quality of life for communities as well as providing an attractive environment for investment, space for nature to thrive and increased resilience to the impacts of climate change. The Natural Network includes public open space, allotments, play areas, woodlands, trees, playing pitches, Local Green Spaces, statutory and non-statutory designated sites, Strategic Greenspace Areas, Undeveloped Coast, Strategic Landscape Areas, Protected Landscape Areas, marine areas*." The policy continues with a series of five key measures aimed to deliver Plymouth's natural network.

Aims of this report

Design Comparison

1.22 Section 2.0 of this report provides a simple comparison of the biodiversity values of the landscape designs for the current design against the previous design. This comparison has been completed as a technical exercise only and does not represent the biodiversity impact assessment of the current design. The purpose of undertaking this comparison was to demonstrate how the current landscape design performs in regards biodiversity value against the previous version. This comparison was made on the basis of both designs being treated 'as-built', excluding any influences from the changes to biodiversity metric calculations that have arisen since the previous iteration of the BNG assessment (changes to the biodiversity metric calculator tool, changes to rules of the biodiversity metric and changes in project timelines, notably timescales for delivery of habitat creation). The design comparison is demonstrative only, and is not intended to calculate the biodiversity impact of the project.

Biodiversity Impact Assessment of Current Design

1.23 Sections 3.0 to 6.0 of this report detail the methods, baseline conditions and post-development conditions and calculates the anticipated biodiversity impact of the current landscape design.

1.24 The previous iteration of the BNG assessment applied Version 3.1 of the Biodiversity Metric tool, which has since been superseded by two later versions. The Statutory Biodiversity Metric is the current published version and has been applied to inform this assessment. While this project does not fall under the mandatory requirements of BNG delivery, the Statutory Biodiversity Metric has been applied as best practice.

1.25 Ordinarily, a Landscape Management Plan and a Biodiversity Net Gain Plan would also be required to support this BNG Assessment. As this project does not require planning permission and the BNG Assessment is undertaken as a voluntary measure by Plymouth City Council for the project, these plans do not form part of this assessment. Such plans may, however, be produced at a later date if desired by Plymouth City Council.

2.0 Design Comparison

2.1 Plymouth City Council requested a comparison of the biodiversity values between the previous and current proposed landscape designs for Armada Way:

- Previous proposals - Studio Agora/Rathbone Associates 'Soft Landscape General Arrangement' plan Drawing Ref: 67CA09-STA-ZZ-XX-DR-L-4520-001
- Current proposals - Studio Agora/Rathbone Associates 'Proposed Soft Landscape Plan All Zones' Drawing Ref: 67CA09-STA-ZZ-XX-DR-L-40-001.

2.2 Since the previous BNG Assessment, the published biodiversity metric calculator tool (and associated guidance) has changed. Furthermore, project timescales have also changed, notably timing for delivery of habitat creation.

2.3 To provide a direct comparison of biodiversity value between the current and previous designs, both were inputted into the Statutory Biodiversity Metric 'baseline' calculations, on the premise they are 'as-built'. Both calculations apply the proposed landscape features, translated into UKHab habitat types, and the condition and measurements, inclusive of trees retained or enhanced within the post-development setting for each design.

2.4 Table 1 presents calculations for the previous and current landscape designs and representative biodiversity unit values for area and hedgerow habitats for each. Both current and previous designs use the same 'palette' of landscape features. Translation of the landscape features into UKHab was identical, as were assignment of habitat distinctiveness, condition and strategic significance (methods for these processes are explained further in Section 3.0 of this report). Habitat area measurements, excluding individual trees, and linear measurements were transferred for proposed habitats from each design based on their footprints calculated directly from the landscape design plans. In the case of tree measurements, in accordance with the rules of the Statutory Biodiversity Metric, counts of trees (new and retained) for both designs were tallied according to tree size class and condition category and these tallies were entered into the Tree Helper tool within the Statutory Biodiversity Metric for each design and the resulting tree measurements were then used in the respective metric calculations.

2.5 This comparison exercise serves to demonstrate that the current landscape design does provide greater 'as-built' net biodiversity value than the previous design, all other factors (project timescales, establishment periods etc) being equal. The current design is therefore confirmed to represent a 'betterment' of biodiversity value than the previous design (in the order of 17%, proportionally between the two designs only).

Table 1: Design Comparison

Landscape Feature	Habitat Type	Distinctiveness	Strategic Significance	Condition	Previous Design (67CA09-STA-ZZ-XX-DR-L-4520-001)		Current Design (67CA09-STA-ZZ-XX-DR-L-40-001)	
					Measure	Representative** Biodiversity Unit (BU) Value	Measure	Representative** Biodiversity Unit (BU) Value
All other areas	Developed land; sealed surface	V.Low	Low	N/A	1.893ha	0.15	1.918ha	0.00
Reeds	Bioswale	Low	Low	Fairly good	0.036ha	0.18	0.040ha	0.20
Rill	Bioswale	Low	Low	Poor	0.038ha	0.08	0.029ha	0.06
Ornamental grass / herbaceous planting	Introduced shrub	Low	Low	N/A	0.075ha	0.15	0.118ha	0.24
Rain garden	Rain garden	Low	Low	Fairly good	0.166ha	0.83	0.136ha	0.68
Amenity lawn	Modified grassland	Low	Low	Poor	0.104ha	0.21	0.066ha	0.13
Reinforced grass	Modified grassland	Low	Low	Poor	0.038ha	0.08	0.017ha	0.03
Shade tolerant wildflower meadow	Other neutral grassland	Medium	Low	Moderate	0.110ha	0.88	0.145ha	1.16
Clipped block hedge	Mixed scrub	Medium	Low	Poor	0.027ha	0.11	0.017ha	0.07
Individual trees	Urban Tree	Medium	Low	Good	0.012ha (3nr small)	5.37	0.029ha (3nr small, 1nr medium)	0.34
Individual trees	Urban Tree	Medium	Low	Moderate	0.672ha (153nr small, 3nr medium)	0.55	0.839ha (162nr small, 11nr medium)	6.71

Landscape Feature	Habitat Type	Distinctiveness	Strategic Significance	Condition	Previous Design (67CA09-STA-ZZ-XX-DR-L-4520-001)		Current Design (67CA09-STA-ZZ-XX-DR-L-40-001)	
					Measure	Representative** Biodiversity Unit (BU) Value	Measure	Representative** Biodiversity Unit (BU) Value
Individual trees	Urban Tree	Medium	Low	Poor	0.138ha (34nr small)	0.18	0.122ha (26nr small, 1nr medium)	0.49
Clipped / loose formal hedge	Non-Native and Ornamental Hedge	Low	Low	Poor	0.45km	0.45	1.06km	1.00
Soft landscape (vegetated) net area					0.594ha		0.569ha	
Total number trees retained / enhanced (within project area)					24nr		39nr	
Total number trees planted (within project area)					169nr		165nr	
Total estimated length of hedge planting (within project area)					0.45km		1.06km	
Representative total biodiversity unit value of area habitats (including individual trees)					**8.58****		**10.11****	
Representative total biodiversity unit value of hedgerow habitats					**0.45****		**1.06****	

2.6 ** NOTE the above comparison only presents a means to compare the different post-development schemes, as if they were 'as-built' in lieu of any of other habitat delivery factors or considerations. **The biodiversity unit values presented in Table 1 are not the actual biodiversity unit values for the project and do not represent any calculation of net gains compared to existing baseline habitats**. The unit values calculated in Table 1 are representative, comparable only between the two designs. Habitat delivery timescales, timings for new or enhanced habitats to reach their target conditions and several other factors must be accounted for when calculating the actual biodiversity impact of the current project design. The biodiversity impact assessment for the current project design is presented in Sections 3.0 to 6.0 of this report.

3.0 Biodiversity Impact Assessment Methods

Survey Methods

Desk Study

3.1 A search of pre-existing information relating to statutory and non-statutory wildlife designations and habitats of conservation priority was undertaken in August 2022. Sources included Devon County Council, Natural England and Environment Agency data, accessed via the Devon County Council environment viewer and MAGIC websites.

Habitat Survey

3.2 A habitat walkover was completed by an experienced ecologist[11] in July 2022. Preliminary Ecological Appraisal (PEA) was subsequently completed by Simon Geary Ecology Services in December 2022. The PEA included a habitat survey completed in accordance with the UK Habitat Classification system (UKHab), extended to include preliminary appraisal for protected and notable species.

3.3 Digitisation of the baseline area and linear based habitats was undertaken by a TEP Associate Ecologist[12] in accordance with the UK Habitat Classification User Manual (2020)[13], informed by the July 2022 walkover survey and December 2022 PEA. Habitat types were mapped according to the dominant vegetation communities noted within each habitat parcel or feature.

Tree Survey

3.4 A survey of trees on the site was conducted by YGS between 30th October and 3rd November 2021[14]. The survey was by means of inspection from ground level in accordance with BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations. The presence of Tree Preservation Orders, Conservation Areas, Ancient Woodland and Veteran Trees was ascertained by YGS during the course of their

11 CEcol MCIEEM MemMBA with over 20 years' experience of ecological surveys, Preliminary Ecological Appraisal and Ecological Impact Assessment

12 CEnv MICEEM Certified to FISC Level 4 with over 20 years' experience of ecological surveys, Preliminary Ecological Appraisal and Ecological Impact Assessment

13 UKHab (2023) UK Habitat Classification Version 2.0 (at *https://www.ukhab.org/*)

14 YGS Environmental Consultants Ltd (2021) Plymouth Better Places Baseline Tree Survey Report, for Plymouth City Council, November 2021

tree survey. The survey was updated by YGS in January 2024[15] (following removal of the majority of trees in early 2023).

Habitat Condition Assessment

3.5 Condition assessment of area and linear habitats and urban trees present, pre-development, was undertaken by a TEP Associate Ecologist[12], applying guidance forming part of the Statutory Biodiversity Metric[6].

3.6 The condition assessment of area and linear based habitats was informed by the habitat walkover survey and PEA, but in consideration of the exceptionally dry season experienced in 2022, a precautionary approach was adopted where appropriate for individual condition criteria.

3.7 The condition assessment of urban trees was informed by the tree survey data provided by YGS Ltd and in consultation with YGS Ltd.

BNG Assessment

3.8 The site's baseline habitats have been assessed using the Statutory Biodiversity Metric and technical guidance[6]. The assessment was undertaken by TEP Principal and Associate Ecologists[12] between July 2022 and January 2024, as an iterative process while post-development designs have been revised and refined.

3.9 The Statutory Biodiversity Metric is a tool designed to enable developers to measure the change in biodiversity across their site. It determines if there will be net gain, net loss or no net loss of biodiversity following completion of their development and any subsequent management regime.

3.10 To calculate the change in biodiversity value across a site, a site survey is undertaken by a suitably qualified ecologist to determine the habitats present on site, their location, size, and condition. This information is then digitised and the resulting information fed into Statutory Biodiversity Metric.

3.11 Note that while area calculations may be entered into the metric calculation tool using more than two decimal places, the 'Total area' at the bottom of the 'Area' columns will not display more than two decimal places. As a consequence of this rounding built into the metric calculation tool, there may be minor deviations between individual feature areas and site total areas. Similar minor deviations between individual feature biodiversity unit

15 Tree Survey Update January 2024 YGS Report No 67CA09-YGS-ZZ-RP-J-012

scores and total units delivered may also be displayed. This is unavoidable due to the in-built mechanics of the metric. Any such minor deviations do not represent errors.

3.12 The principles of biodiversity net gain as set out in the Biodiversity Net Gain Good Practice Guidelines[16] have been considered throughout this process, as discussed in Section 8.0.

Determining Strategic Significance

3.13 Strategic significance was determined through a thorough desktop review of local planning policy and other relevant documentation. This included the Plymouth and South West Devon Joint Local plan, the Plymouth and South West Devon Supplementary Planning Document and the 'Ecology and Geology' and 'Nature Recovery Network' layers of Devon County Council Environment Viewer[17].

Post-Development Calculations

3.14 Post-development calculations have been based on the Armada Way proposals plans presented in Annex A and the Tree Protection Plan and tree schedules presented within the YGS Arboricultural Method Statement (AMS)[14], updated by the YGS Tree Survey (January 2024)[15].

3.15 Target condition has been assessed based on the number of criteria which can reasonably be achieved for each habitat type, considering management opportunities and levels of public access. Target condition for urban trees has been calculated in consultation with YGS. Target conditions for area and linear habitats and urban trees were calculated applying the condition assessment guidance presented in the Statutory Biodiversity Metric - Technical Supplement.

3.16 Delays of either two or three years to habitat creation have been applied to trees in Zones 1 to 3 and to habitats in Zone 1. These delays reflect the anticipated timescales between the tree and habitat removal (March 2023) and the implementation of landscaping:

- Zone 1: Tree transplantation spring 2024, installation of landscaping October 2024;
- Zone 2: Vegetation removal June 2024, installation of landscaping April 2025;
- Zone 3: Vegetation removal March 2025, tree transplantation spring 2024, installation of landscaping July 2025;
- Zone 4: Completion of landscaping December 2025.

16 CIEEM, IEMA & CIRIA (2019). Biodiversity Net Gain. Good Practice Principles for Development. A Practical Guide.
17 *https://www.devon.gov.uk/environment/environmental-maps* [Accessed July-August 2022]

4.0 Baseline Conditions

Important Ecological Features

4.1 No statutory or non-statutory designated sites are located within the site boundary for the proposed development.

4.2 The desktop search identified three internationally significant statutory wildlife sites within 10km of the Site:

- Plymouth Sound and Estuaries Special Area of Conservation (SAC) - 800m south;
- Tamar Estuaries Complex Special Protection Area (SPA) - 3.9km west; and
- Blackstone Point SAC – 9.7km southeast.

4.3 There are nine nationally significant statutory wildlife sites within 5km of the site:

- Plymouth Sound Shores and Cliffs Site of Special Scientific Interest (SSSI) – 1.4km southeast;
- Richmond Walk SSSI – 1.6km west;
- Wallsend Industrial Estate SSSI – 1.7km southeast;
- Western King SSSI – 1.8km southwest;
- Faraday Road SSSI – 2km east;
- Mount Wise SSSI – 2.1km southwest;
- St John's Lake SSSI – 3.9km west;
- Billacombe SSSI – 4km east; and
- Kingsand to Sandway Point - 4.9km southwest.

4.4 There are no statutory locally designated sites such as Local Nature Reserves present within 2km of the site.

4.5 Review of MAGIC and the Devon County Council's Environment Viewer websites identified no non-statutory wildlife sites or notable habitats within or adjacent to the site.

4.6 No irreplaceable habitats are present within or adjacent to the site.

Strategic Significance

4.7 The site is not allocated for nature conservation within the local plans. With respect to the Nature Recovery Network layer in the Environment Viewer, no existing conservation priority habitats or Nature Recovery Areas were identified within or linking with the site.

4.8 The entire site is identified within the 'Habitat Suitability' area of the Devon Nature Recovery Network Map for 'Lowland Dry Acid Grassland with woodland W10' (Primary Habitats) and 'Lowland Meadow with woodland W10' (Secondary Habitat). The Devon Local Nature Partnership describes the Habitat Suitability layer as habitats most suited to the physical characteristics of that 'area' based on underlying geology, soils and landscape. Primary habitats are those most likely to be present in an 'area' if it was in a near-natural state. Secondary habitats represent the next most likely habitat. However, considering the extremely urban nature of the site, within the city centre, the site is not considered to be in a 'near-natural state'.

4.9 Overall, the site is considered to be of low strategic significance for nature conservation. All area and linear based habitats and urban trees are therefore assigned as "Area/compensation not in local strategy/ no local strategy" within the Statutory Biodiversity Metric.

On-Site Baseline Habitats

4.10 The site area measures 2.491ha and largely consists of hardstanding, with amenity grassland, introduced shrub and scattered trees with smaller areas of other habitats including SUDS pools, bare ground, ornamental hedgerows and a fountain.

4.11 As described at paragraph 1.5, tree removal across the site has already been completed, in addition to removal of habitats from Zone 1. Habitats remain across the rest of the site, along with trees identified for retention (including enhancement) or transplantation. For the purposes of this BNG Assessment, the baseline is applied to habitats prior to removal. Habitat creation delays are applied to account for the time duration between removal and subsequent installation of new landscaping.

4.12 Baseline habitats, net areas and resulting habitat unit values calculated using the Statutory Biodiversity Metric are presented in Figure 2.

On-Site Baseline Condition Assessment

4.13 The condition assessment criteria scores and details of the condition assessment for baseline habitats are provided in Annex B. Condition assessment of the existing urban trees was informed by the YGS tree survey data, additional consultation with YGS and survey findings from the PEA.

4.14 Table 2 summarises the on-site baseline habitat assessment. Further information is presented in the Assessor Comments column within the completed Statutory Biodiversity Metric (Annex C).

Figure 2: Baseline habitats and habitat unit values within the survey area

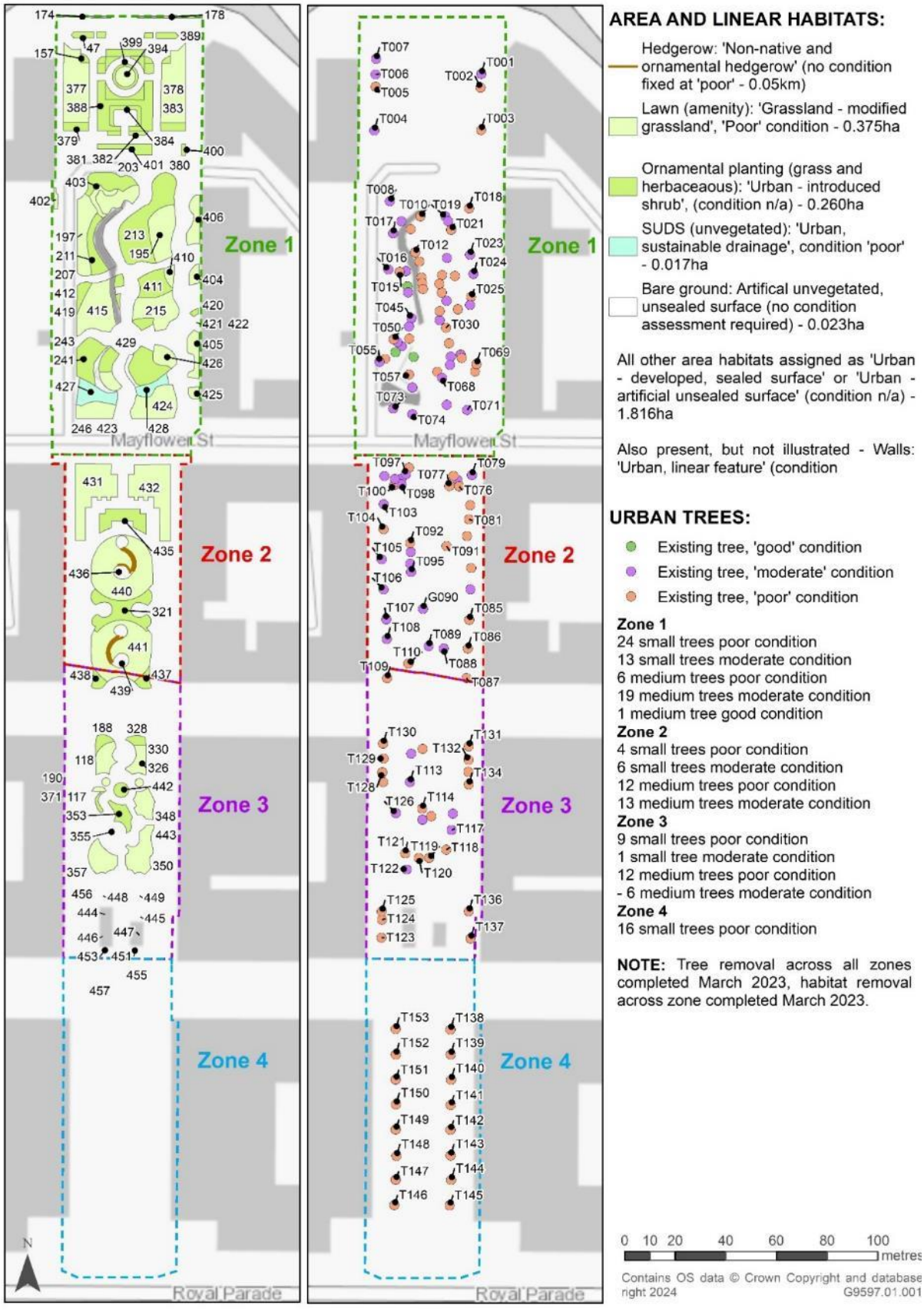


Table 2: Site Baseline Biodiversity Assessment

Habitat Type	Measure	Distinctiveness	Condition	Strategic Significance	Biodiversity Units (BU)
Area Habitats					
Developed land; sealed surface	1.816ha	V.Low	N/A	Low	0.00
Introduced shrub	0.260ha	Low	N/A	Low	0.52
Modified grassland	0.375ha	Low	Poor	Low	0.75
Artificial unvegetated, unsealed surface	0.023ha	V.Low	N/A	Low	0.00
Sustainable drainage system	0.017ha	Low	Poor	Low	0.03
Urban Tree	0.704ha**	Medium	Poor	Low	2.80**
Urban Tree	0.700ha**	Medium	Moderate	Low	5.57**
Urban Tree	0.049ha**	Medium	Good	Low	0.59**
Linear Habitats					
Non-Native and ornamental hedgerow	0.05km	Low	Poor	Low	0.05

** NOTE: Area measures for individual trees in the Statutory Biodiversity Metric must use the 'Tree Helper' tool built into the metric calculator. This tool applies a 'proxy' area according to four size classes of tree, determined by stem diameter at breast height (DBH), to represent the biomass of the individual tree. The previous iteration of the biodiversity assessment (applying Version 3.1 of the metric tool) used the actual RPA measurements for the urban trees within the site, as calculated from the Tree Survey. This explains the apparent change in baseline habitat measures between this iteration and the previous iteration of the BNG Assessment. (The net area of the urban trees within the project area was calculated 0.682ha, compared to 1.445ha calculated for the current assessment).

5.0 Post-Development Habitats

On-Site Proposed Design

5.1 The proposed scheme comprises a linear green park with a central axis footpath and a grand boulevard in the south leading to the waterfront. Proposed habitats will offer biodiversity and/or amenity value and will consist of a range of grasslands and sustainable urban drainage features with soft and hard landscaping providing a mix of amenity, play and resting spaces.

5.2 Post-development landscape proposals are presented in Appendix A. Proposed habitats translated into UKHab for the purposes of this BNG Assessment are illustrated in Figure 3. Explanation of the translation from the masterplan proposals (Annex A) to the UKHab classification system are summarised in Table 3 (with further detail relating to target conditions summarised in Table 7).

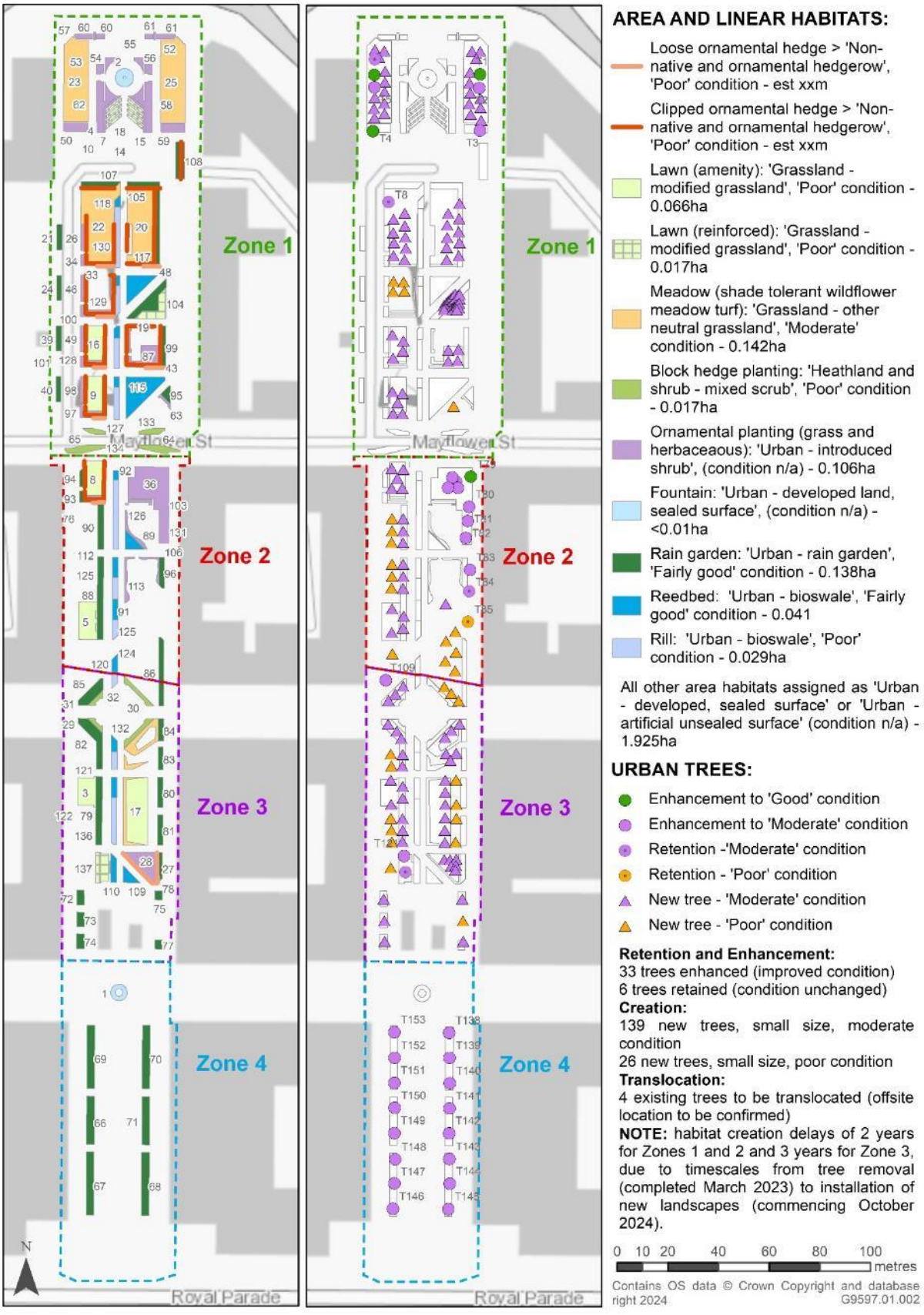
5.3 It is assumed from discussions with YGS that all remaining baseline habitats, other than the 39 trees identified for retention/enhancement and the 4 trees identified for translocation, will be lost within the project proposals.

5.4 The tree stock was understood to be generally inappropriate to their urban setting, with several causing damage to the built environment and numerous trees suffering from previous inappropriate management, damage and historic poor planting conditions. The majority of trees have now been removed. Of the 39 trees to be retained, 33 will be enhanced to a better condition by merit of their improved new setting within the proposed scheme in addition to the adoption of a long-term management plan that will deliver more sympathetic management and maintenance for the retained and new stock.

5.5 The Statutory Biodiversity Metric 'Tree Helper' tool was used to calculate net areas for new urban trees proposed in the post-development landscape. All new trees were assumed to be within the 'small' size class in accordance with current guidance.

5.6 The proposals include replacement planting of 165 new trees. Of these, 113 trees will possess a girth of 20-25cm (approximate dbh of 8cm) and 33 trees will possess a girth of 35-40cm (approximate dbh of 12.5cm). The new trees will therefore be mature at planting, approximately 7-8m tall. Considering the planting sizes, species and likely growth rates, those trees planted with an approximate girth of 35-40cm would reach the 'medium' size within a 30 year time frame. This would deliver an additional net gain above that presently calculated. However, in accordance with current guidance, all new trees are set to the 'small' size class for the purposes of this BNG assessment.

Figure 3: Proposed post-development habitats and habitat unit values within the survey area



On-Site Target Habitat Conditions

5.7 Target condition of area and linear based habitats and urban trees proposed have been calculated in consultation with YGS and have also been reviewed during the iterative assessment process by Plymouth City Council.

5.8 Proposed post-development habitats and habitat unit values are illustrated in Figure 3. Details of the target condition assessment for post-development habitats are presented in Annex D and summarised in Table 3.

5.9 The proposed urban trees are predicted to have either 'poor' or 'moderate' condition. Note that this condition assessment does not signify health or viability of a tree nor does it correspond to tree retention categories (refer to the AMS for further information), but applies specific criteria that, in combination, seek to represent the biodiversity value of the tree. Such criteria include if the tree is native or non-native and what proportion of the ground below the canopy is vegetated, for example. Of the 165 new trees to be planted, 26 are predicted to achieve 'poor' condition and 139 'moderate' condition.

5.10 The Statutory Biodiversity Metric calculation tool applies a 'final time to target condition' of 10 years for trees of 'poor' condition and 27 years for moderate 'condition' trees. Given advanced size at planting, average growth rates and predicted condition categories, it can be confirmed with confidence therefore that the proposed new tree planting will deliver the biodiversity net gains predicted by the Statutory Biodiversity Metric calculation tool within these identified establishment periods.

5.11 A time delay of two years has been applied for habitat creation in Zone 1. A time delay of two years has been applied for tree planting in Zones 1 and 2 and a delay of three years has been applied for tree planting in Zone 3. It is understood that habitat creation in Zones 2 and 3 will be implemented within one year of habitat loss. No delay or advancement in habitat creation is therefore anticipated for these zones. Standard times to target conditions from the point of habitat creation and tree planting are applied automatically within the metric.

5.12 The projected post-development habitat assessment as calculated within the Statutory Biodiversity Metric calculation tool is summarised at Table 3.

Table 3: Post-development Biodiversity Assessment

Landscape Feature	Habitat Type	Measure	Distinctiveness	Projected Condition	Strategic Significance	Habitat Delay (yrs)	Biodiversity Units (BU)
Area Habitats Created							
Reeds	Bioswale	0.040ha	Low	Fairly good	Low	2 (Zone 1 only)	0.12
Rill	Bioswale	0.029ha	Low	Poor	Low	2 (Zone 1 only)	0.04
Ornamental grass / herbaceous planting	Introduced shrub	0.118ha	Low	N/A	Low	2 (Zone 1 only)	0.22
Rain garden	Rain garden	0.136ha	Low	Fairly good	Low	2 (Zone 1 only)	0.58
Amenity lawn	Modified grassland	0.066ha	Low	Poor	Low	2 (Zone 1 only)	0.12
Reinforced grass	Modified grassland	0.017ha	Low	Poor	Low	2 (Zone 1 only)	0.03
Shade tolerant wildflower meadow	Other neutral grassland	0.145ha	Medium	Moderate	Low	2 (Zone 1 only)	0.91
Clipped block hedge	Mixed scrub	0.017ha	Medium	Poor	Low	2 (Zone 1 only)	0.06
All other areas	Developed land; sealed surface	1.918ha	V.Low	N/A	Low	2 (Zone 1 only)	0.00
Individual trees	Urban Tree	0.106ha	Medium	Poor	Low	2 (Zones 1 and 2)	0.27
Individual trees	Urban Tree	0.566ha	Medium	Moderate	Low	3 (Zone 3)	1.60
Area Habitats Enhanced							
Individual trees	Urban Tree	0.191ha	Medium	Moderate	Low	2 (Zones 1 and 2) 3 (Zone 3)	1.20

Landscape Feature	Habitat Type	Measure	Distinctiveness	Projected Condition	Strategic Significance	Habitat Delay (yrs)	Biodiversity Units (BU)
Individual trees	Urban Tree	0.029ha	Medium	Good	Low	2 (Zones 1 and 2) 3 (Zone 3)	0.29
Area Habitats Retained							
Individual trees	Urban Tree	0.008ha	Medium	Moderate	Low	n/a	0.65
Individual trees	Urban Tree	0.016	Medium	Poor	Low	n/a	0.07
Linear Habitats							
Clipped / loose formal hedge	Non-Native and Ornamental Hedge	1.06km	Low	Poor	Low	2 (Zone 1 only)	1.00

Off-Site Habitats

Transplantation

5.13 Four trees are proposed for transplanting: T045 in Zone 1 and T119, T120 and T125 in Zone 3. Receptor locations are yet to be confirmed. For the purposes of this BNG Assessment, it is presumed that the trees would be transplanted into soft landscape with appropriate aftercare and long-term management. Enhancement of the target condition of T119, T120 and T125 would therefore be anticipated as a consequence of transplantation (changing from 'poor' condition to 'moderate'), while the target condition of T045 would remain at 'moderate'.

5.14 Transplantation has been accounted for within the Statutory Biodiversity Metric by assuming 'loss' of the trees from the project area and 'creation' of trees within an offsite location. This is considered an appropriate approach as the risk multipliers applied for 'creation' within the metric calculations would account for practical risk of the transplantation process.

6.0 Biodiversity Impact Assessment Results

6.1 The biodiversity assessment has been undertaken using the Statutory Biodiversity Metric calculation tool to quantify the change in biodiversity units for the planning application area between the pre-development baseline and post-development retained, enhanced and created habitats.

Summary Results - Prior to Offsetting

6.2 Detailed results of the assessment are provided in the Statutory Biodiversity Metric presented at Annex C. The summary headline results, calculated from the metric prior to the inclusion of the additional offset requirements described at paragraphs 5.13 to 6.16, are presented at Table 4.

Table 4: Summary of Biodiversity Metric Results Prior to Offsetting

On-site baseline	*Habitat units*	10.26
	Hedgerow units	0.05
	Watercourse units	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	6.16
	Hedgerow units	1.00
	Watercourse units	0.00
On-site net change (units & percentage)	*Habitat units*	-4.10
	Hedgerow units	0.95
	Watercourse units	0.00
Off-site net change (units & percentage)	*Habitat units*	0.12
	Hedgerow units	0.00
	Watercourse units	0.00
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-3.98
	Hedgerow units	0.95
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-38.77%
	Hedgerow units	1893.48%
	Watercourse units	0.00%
Trading rules satisfied?		No - Check Trading Summaries ▲

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	20.00%	10.26	12.31	6.03
Hedgerow units	20.00%	0.05	0.06	0.00
Watercourse units	20.00%	0.00	0.00	0.00

6.3 Table 6 demonstrates that the project would, in the absence of additional offsetting, result in a net loss of biodiversity value. A shortfall of 6.03 habitat units was calculated, representing a net loss of 38.85%. The Trading Rules were not satisfied as a consequence the net loss of Type A1 habitats, specifically 'individual trees'.

Implications of Transferring to the Statutory Biodiversity Metric

6.4 The previous iteration of the BNG Assessment for the Armada Way project applied the Biodiversity Metric V3.1. The BNG Assessment for the current design has been updated applying the Statutory Biodiversity Metric, which is the current published version (and which will be the mandatory metric for applicable projects as of 12th February 2024). The transfer of the BNG Assessment to the Statutory Metric therefore applies best practice, even though the BNG Assessment is not (and would not be) a mandatory requirement for the Armada Way project.

6.5 The previous iteration of the BNG Assessment calculated net gains in excess of 20% in the absence of offsetting. The current iteration calculates net loss of -38.85% for area habitats. The proposals have been revised since the previous iteration of the BNG Assessment, but these changes in layout are considered minor overall.

6.6 The net loss calculated for the current scheme (Table 6) is a consequence of the different mechanics of the Statutory Biodiversity Metric (specifically, differences in the way measures for individual trees are recorded) in combination with the early tree and habitat removal which has resulted in delays being applied to habitat creation (taken from the point of habitat removal). As explained in Section 2.0 of this report, the current landscape design does present a 'betterment' in biodiversity value of the final scheme compared with the previous design.

Measurements for individual trees

6.7 While transfer from the previous metric version to the Statutory Biodiversity Metric has not resulted in significant changes for linear habitats or most area habitats, a key change in the rules of the Statutory Biodiversity Metric requires application of the 'Tree Helper' tool within the metric calculator to measure areas for individual trees.

6.8 As explained in the note below Table 2, the application of the Statutory Biodiversity Metric requires the application of the Tree Helper tool to calculate area values for individual trees (urban or rural). The Tree Helper tool requires existing individual trees to be categorised by size class (small, medium, large or very large) and by condition (poor, moderate or good). Multipliers are then applied to the resulting count of trees, calculating the net habitat area for individual trees in each size class and condition category. While the size

class is based upon stem diameter, this approach is not intended to calculate 'root protection areas' in any strict sense. The intention is to capture the biomass volume of an individual tree.

6.9 The consequence of this different approach however has been to more than double the effective net area of the individual tree baseline habitats from the previous iteration, with a corresponding scaling up the baseline Biodiversity Unit (BU) values. Table 5 summarises the differences between urban tree area and BU value calculations between the previous and the current metrics.

Table 5: Differences in calculations for individual trees – the 'Tree Helper' tool

Tree condition	RPA calculated from tree survey applied in V3.1	Corresponding BU Value	Proxy habitat area calculated by SBM Tree Helper tool	Corresponding BU Value
Poor	0.315ha	1.26	0.704ha	2.8
Moderate	0.350ha	2.80	0.700ha	5.57
Good	0.017ha	0.20	0.049ha	0.59
Total	**0.682ha**	**4.26**	**1.454ha**	**8.96**

6.10 Furthermore, under the rules of the Statutory Metric, newly planted trees must be considered 'small' unless the tree is physically within the larger size classes at the time of planting. Advanced age of nursery stock cannot be used to apply an 'advanced habitat creation' factor.

6.11 It should be noted, however, that even if the previous approach to calculating the habitat areas for individual trees within the baseline were applied to the current BNG Assessment, the outcome would still result in a net loss of biodiversity value (albeit a smaller loss). This is due to the second fundamental difference in the current BNG Assessment – the habitat creation delay – discussed below.

Habitat Creation Delay

6.12 As noted in preceding sections and captured in Table 3, a habitat creation delay has been applied in this BNG Assessment. Since the previous iteration, tree removal and some habitat removal has been completed within the project area. All trees not identified for retention or transplantation have been felled. For the purposes of the metric calculations, this habitat removal was assumed to be completed in March 2023.

6.13 Landscape installation is not anticipated in Zone 1 until October 2024, in Zone 2 until April 2025and in Zone3 until July 2025. Consequently, habitat creation delays for tree planting

in these zones have been applied as two years for Zones 1 and 2 and for three years for Zone 3. Habitat delays for other area habitats have been applied within Zone 1. No habitat delays have been applied for area habitats within other zones as the anticipated timescales would result in less than 12 months between removal of the existing landscape and installation of the new landscape. No habitat creation delays have been applied to translocation of trees, as this process is assumed to be immediate.

6.14 The application of delays of up to three years in habitat creation has resulted in an overall reduction of the biodiversity unit value of the final landscape scheme as a consequence of penalty weightings within the metric calculations.

Final Results - With Offsetting

6.15 Based on the summary results of the BNG Assessment (Table 4), offsetting is required for area habitats, specifically Type A1 habitats - individual trees. A deficit of 6.04 habitat units was calculated by the Statutory Biodiversity Metric as the unit shortfall.

6.16 This BNG Assessment has therefore included an indicative offset scenario to determine the offset requirement for the project to deliver the voluntary target of 20% net gains. The assumptions applied for offsetting requirements were as follows:

- Small trees (DBH 75-300mm) would be planted, these including whips to small standards within planting groups, but preferably at least large feathered if trees are to be planted individually or in visually prominent locations (staked and guarded if appropriate to location);
- Trees to achieve moderate condition (native or non-native species, specimens planted in a good state of health and planted into soft landscaping);
- Based on the above parameters and the unit shortfall identified from the BNG calculations, the minimum number of new trees needed for project to deliver 20% net gain target would be 525;
- A net area of approximately 1.4ha is assumed, which accommodates up to 5m spacing assuming all trees would be planted as 'individuals', however denser spacing (to min 1.5m) could be appropriate to create small stands/groups/lines;
- Planting is assumed to occur within amenity grass site(s). There would be no change to the underlying baseline habitat (new planted trees would simply oversail).
- The offset may be delivered at a single site or multiple sites; and
- Planting is assumed to be delivered by March 2025 (up to a two year habitat creation delay).

6.17 The additional offset is calculated to be representative of 525 new trees of a ‘small’ size and with a target condition of ‘moderate’ as described at paragraph 6.16. Location(s) for

delivering this additional offset are yet to be identified. The summary headline results taken from the metric which include this additional offset requirement are presented at Table 6.

Table 6: Summary of Biodiversity Metric Results

On-site baseline	*Habitat units*	10.26
	Hedgerow units	0.05
	Watercourse units	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	6.16
	Hedgerow units	1.00
	Watercourse units	0.00
On-site net change (units & percentage)	*Habitat units*	-4.10
	Hedgerow units	0.95
	Watercourse units	0.00
Off-site net change (units & percentage)	*Habitat units*	6.21
	Hedgerow units	0.00
	Watercourse units	0.00
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	2.11
	Hedgerow units	0.95
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	20.53%
	Hedgerow units	1893.48%
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	20.00%	10.26	12.31	0.00
Hedgerow units	20.00%	0.05	0.06	0.00
Watercourse units	20.00%	0.00	0.00	0.00

6.18 Assuming the additional offset requirement is delivered as described in Section 4, the results of the BNG Assessment indicate a net gain of +20.45% for area-based habitats and a net gain of +1893.48% for linear habitats.

7.0 Implementation, Management and Monitoring

7.1 This BNG assessment has been undertaken in support of plans for the regeneration of Armada Way in Plymouth City Council and as discussed in the previous sections.

7.2 The detail of the implementation of habitat enhancement and creation actions are provided in the proposals plans at Annex A which set out the planting types for the site.

7.3 The BNG results set out in Table 6 of Section 6.0 are contingent upon the implementation of the soft landscape arrangement achieving the habitat types and conditions as specified within the BNG metric, as illustrated in Figure 3 and as set out in Section 5.0. Table 7 summarises the assumptions made regarding implementation of the soft landscaping proposals, following previous discussions with the landscape design team (Studio Agora and Rathbone Partnership, with YGS Environmental Consultants providing additional advice regarding trees).

Table 7: Implementation of Soft Landscape Plans

Soft Landscape Feature Proposed (Annex A)	BNG Metric Habitat Type Proposed (Figure 3)	Target Condition (Annex C)	Polygon / Feature ID (Figure 3 and Annex C)	Total Measure or Count
"Clipped bulk hedge" 0.6m high, density @ 8-10 per m2, groups of x3 per species	"Heathland and shrub, Mixed scrub" Continuous (>90%) cover, less than 5m tall, comprising native woody shrub/scrub species, no Schedule 9 listed species, no single species to be dominant.	"Poor" • At least three native woody species, with no one species comprising >75% cover; and • Absence of invasive non-native species and sub-optimal species make up <5% of ground cover	29, 30, 31, 32, 64, 65, 133, 134	0.017ha
"Rain garden planting" density @ 8-10 per m2	"Urban, Rain garden" Planted with deep rooted plants and grasses to capture rain water runoff.	"Fairly Good" • Varied vegetation structure providing opportunities for wildlife. A single ecotone should not account for more than 80% of the area; • Native rich mixes, but will also include non-	21, 24, 39, 40, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 88, 90, 93, 94, 95, 96, 99, 104, 105, 107, 108	0.136ha

Soft Landscape Feature Proposed (Annex A)	BNG Metric Habitat Type Proposed (Figure 3)	Target Condition (Annex C)	Polygon / Feature ID (Figure 3 and Annex C)	Total Measure or Count
		native plants that will be beneficial to wildlife; and • Absence of invasive non-native species.		
"Ornamental grass / herbaceous planting zones" Density @ 10-12 per m2	"Urban, Introduced shrub" Non-native tall phanerophytes, mid-phanerophytes or low phanerophytes planted in garden or park setting.	N/A condition assessment not required. Should avoid invasive non-native species and maximise species of benefit to wildlife and structural diversity where possible.	15, 18, 26, 27, 28, 33, 34, 35, 36, 37, 38, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 76, 87, 92, 97, 98, 100, 101, 102, 103, 106, 113, 131, 138	0.118ha
"Amenity lawn turf" Pre-grown robust Tillers Area Turf	"Grassland, modified grassland" Vegetation dominated by a few fast-growing grasses on fertile neutral soils.	"Poor" • Cover of scrub <20%; • Cover of bare ground <10%; • Cover of bracken <20%; and • Absence of invasive non-native species.	3, 5, 8, 9, 16, 17	0.066ha
"Reinforced grass" (concrete unit as staccato in seeded grass or pre-grown crate system)	"Grassland, modified grassland" Vegetation dominated by a few fast-growing grasses on fertile neutral soils.	"Poor" • Cover of scrub <20%; • Cover of bare ground <10%; • Cover of bracken <20%; and • Absence of invasive non-native species.	4, 6, 7, 10, 11, 12, 13, 14, 19, 137	0.017ha
"Meadow" Pre-grown Boston Seed shade tolerant wildflower turf – approx. 40 UK native wildflower species, shade and drought tolerant,	"Grassland, other neutral grassland" Neutral grasslands that are neither lowland or upland hay meadow. Generally includes	"Moderate" • Must average more than 9 species per m2; • Wildflowers must be indicative of neutral soil for the habitat type and be easily visible throughout the sward; • Cover of bare ground less than 5%; • Cover of bracken <20%;	20, 22, 23, 25, 132, 135, 136	0.145ha

Soft Landscape Feature Proposed (Annex A)	BNG Metric Habitat Type Proposed (Figure 3)	Target Condition (Annex C)	Polygon / Feature ID (Figure 3 and Annex C)	Total Measure or Count
established height 30-75cm	species rich, rank and/or unmanaged swards on neutral soils.	▸ Cover of scrub <5%; ▸ No physical damage from excessive poaching or machinery etc; and ▸ Absence of invasive non-native species.		
"Reeds" Density @ 6 per m2	"Bioswale" Vegetated and gently sloped feature designed to manage water runoff, filter pollutants and increase rainwater filtration.	"Fairly Good" ▸ Varied vegetation structure providing opportunities for wildlife. A single ecotone should not account for more than 80% of the area; ▸ Native rich mixes, but will include non-native plants that will be beneficial to wildlife; ▸ Absence of invasive non-native species; and ▸ Water table is at or near the surface throughout the year.	89, 91, 109, 110, 111, 112, 114, 115, 116, 117, 118, 119, 120, 121, 139	0.040ha
"Rill"	"Bioswale" Vegetated and gently sloped feature designed to manage water runoff, filter pollutants and increate rainwater filtration.	"Poor" ▸ Absence of invasive non-native species; and ▸ Water table is at or near the surface throughout the year.	122, 123, 124, 125, 126, 127, 128, 129, 130	0.029ha
Retained / enhanced trees	"Urban Trees" Trees enhanced in condition by merit of improved setting and long-term management.	"Good" ▸ Continuous canopy; and ▸ Little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use, trees retain >75% of expected canopy for their age range and height.	T001, T004, T006, T079	4nr trees

Soft Landscape Feature Proposed (Annex A)	BNG Metric Habitat Type Proposed (Figure 3)	Target Condition (Annex C)	Polygon / Feature ID (Figure 3 and Annex C)	Total Measure or Count
		Also, <u>at least three</u> of the following: • Native species (new / retained trees); • Mature (reaches at least 2/3 expected height for the species – retained trees only); • Micro-habitats for birds, mammals, insects are present e.g. deadwood, cavities, ivy, loose bark (retained trees only); • More than 20% of canopy oversails vegetation beneath (new / retained trees).		
Retained / enhanced trees	"Urban Trees" Trees retained in situ and trees enhanced in condition by merit of improved setting and long-term management.	"Moderate" • Continuous canopy; and • Little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use, trees retain >75% of expected canopy for their age range and height. Also, <u>at least one</u> of the following: • Native species (new / retained trees); • Mature (reaches at least 2/3 expected height for the species – retained trees only); • Micro-habitats for birds, mammals, insects are present e.g. deadwood, cavities, ivy, loose bark (retained trees only); • More than 20% of canopy oversails vegetation beneath (new / retained trees).	T002, T003, T005, T007, T008, T075, T076, T077, T078, T080, T081, T082, T083, T084, T109, T118, T121, T122, T138, T139, T140, T141, T142, T143, T144, T145, T146, T147, T148, T149, T150, T151, T152, T153	34nr trees
New specimen trees	"Urban Trees" New trees with girths of either 18-20cm or 40-45cm at time of planting		5nr Chanticleer Callery Pear 6nr Cockspur Hawthorn 4nr Common Alder 5nr Cut Leaved Alder 10nr Double Crimson Hawthorn 10nr Golden Birch 26nr Himalayan Birch 27nr Lienco Field Maple 6nr London Plane (topiary roof form) 10nr Mayfield Maidenhair 4nr New Horizon Elm 1nr Scots Pine 3nr Silver Birch 6nr Silver Lime 6nr Snowy Mespilus (Juneberry) 9nr Stone Pine 1nr Tree of Heaven	139nr 'small' trees

Soft Landscape Feature Proposed (Annex A)	BNG Metric Habitat Type Proposed (Figure 3)	Target Condition (Annex C)	Polygon / Feature ID (Figure 3 and Annex C)	Total Measure or Count
Retained / enhanced trees	"Urban Trees" Trees retained in situ	"Poor" • Continuous canopy; • Little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use, trees retain >75% of expected canopy for their age range and height.	T085	1nr tree
New specimen trees	"Urban Trees" New trees with girths of either 18-20cm or 40-45cm at time of planting		1nr Chanticleer Callery Pear 1nr Judas Tree 6nr London Plane (topiary roof form) 4nr New Horizon Elm 1nr Norway Maple 3nr Stone Pine 10nr Turkish Hazel	26nr 'small' trees
"Clipped formal hedge"	"Hedge Ornamental Non Native"	"Poor" • Hedges are projected to be maintained without gaps between canopy and ground level and along lengths. Hedges projected to fail other condition criteria (presumed to comprise non-native species and will be located within urban park context).	Linear habitats	Est. 450m

8.0 Good Practice Principles for Development

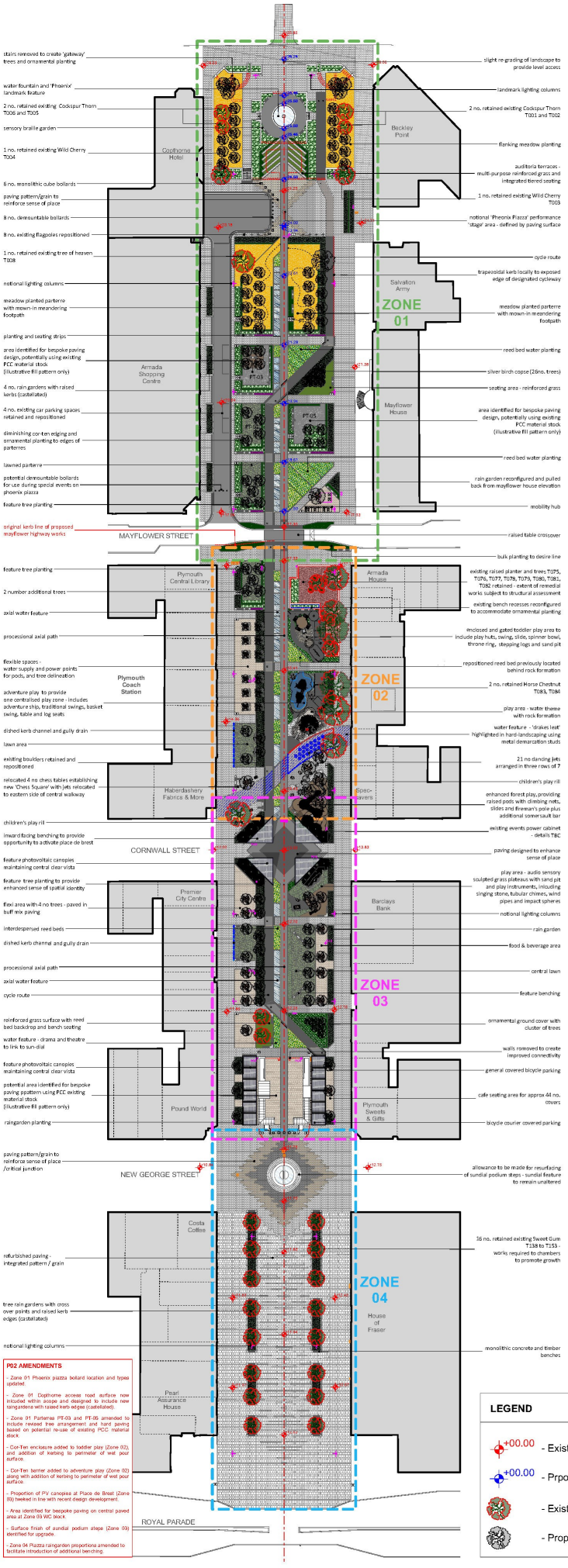
8.1 An appraisal of the project against the ten good practice principles for BNG is set out in Table 8.

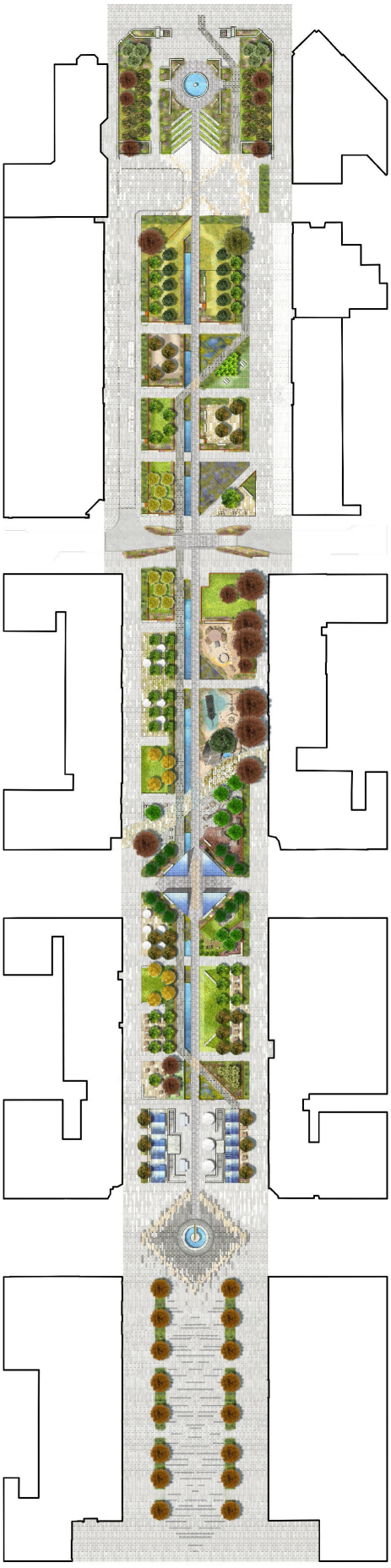
Table 8: Appraisal against Good Practice Principles

Good Practice Principle	Commentary
1. Apply the mitigation hierarchy	Proposals, and particularly tree removal requirements, were subject to thorough consideration of the existing stock and how this would work with plans for regeneration of Armada Way. Tree survey showed that only 22% of the trees were considered suitable for long term retention. It was also identified that existing trees were causing damage to the built environment, with 42% of trees considered to be causing either minor or visually identifiable damage or will do so in future. Current design increases tree retention to 39nr. Trees retained or enhanced including the only category A tree (of high quality) within the project boundary, 31 (33%) category B trees (trees of moderate quality or value capable of making a significant contribution to the area for 20 or more years) and 7 (14%) category C trees. Of these, 33 trees will also be enhanced post-development, compared to their baseline condition assessment. A further four trees (2 category B and 2 category C) will be transplanted to a suitable location offsite.
2. Avoid losing biodiversity that cannot be offset by gains elsewhere	No irreplaceable habitats or protected areas will be lost or affected by this application.
3. Be inclusive and equitable	Discussions have been held between the designers, client and local planning authority in order to agree on the design. Council led scheme has involved community consultation and design changes have been implemented as a consequence of this consultation, including additional tree retention and alterations to proposed specimen tree species.
4. Address risks	A considered approach to target condition has been taken in order to ensure that these are achievable, thereby reducing the risk of failure during the 30 years of management. New tree planting will provide significantly better rooting systems to promote healthier trees, with limited on-going maintenance (limb removal, pollarding etc) whilst the integration of a sustainable drainage system with the new tree pits will ensure trees receive the amount of water and nutrients they require to prosper. Management and monitoring, to be included within a landscape and habitat management plan, will ensure remedial action is taken to enable target conditions to be achieved.
5. Make a measurable Net Gain contribution	With additional offsetting identified, the project would result in a net gain of 2.11 BU (20.53%) for area habitats and a net gain of 0.95 BU (1893.48%) for hedgerow habitats within the site.
6. Achieve the best outcomes for biodiversity	The creation of new habitats within the site will maximise the opportunities for biodiversity within this urban area. Of particular significance, the new trees

Good Practice Principle	Commentary
	are selected from varieties that will be more suited to urban environments and will be planted using modern best practice techniques that will best support establishment of the new tree stock. Mature and semi-mature trees are to be retained and larger sized specimens are to be included within the planting proposals, giving biodiversity a 'head start'. Furthermore, a number of existing trees to be retained will have their poor planting situations (imposed by the past planting scheme) enhanced and long-term management will encourage vitality and longevity of the trees.
7. Be additional	The creation of new types of habitat, including meadow grassland, mixed native shrub planting, biodiverse rain gardens and reedbed and their management for biodiversity for the next 30 years will add value to this urban area.
8. Create a Net Gain legacy	The BNG approach adopted for Armada Way is entirely voluntary on the part of Plymouth City Council. The project is not (nor will it be) subject to mandatory BNG requirements for development. New planting, including tree planting, will improve bio-resilience to pests and climate change including increasing temperatures, drought and extreme weather events, something which the current over provision and monoculture of particular species does not enable. The increased species diversity will provide year round interest including bark texture, leaf, flower/fruit, scent, autumn colour and more usable areas of shade during hot weather to align with the proposed new uses of Armada Way. The new trees will be planted with staggered lifespans to enable future replacement in a phased manner so that large scale replacement in a short period of time will not be needed. The landscape and habitat management plan and the targets and monitoring it includes will ensure that habitats achieve and are maintained at their predicted target condition, ensuring a net gain legacy for habitats on the site.
9. Optimise sustainability	The retained and newly planted trees will contribute to urban cooling and will also attenuate rainfall, slowing down absorption by the soil and preventing localised flooding. The grassland, introduced shrub, rain garden and bioswale habitats will provide diverse and vibrant greenspace which will be enjoyed by local residents and visitors to the city bringing benefits for physical and mental wellbeing. There is intention to reuse the timber from felled trees to create natural play spaces in the city centre and surroundings, as well as explore other opportunities, as well as the provision of timber. The Council is also looking at opportunities to translocate some additional trees which are of an appropriate size and suitably to be moved and will be reusing healthy shrubs in other parks or offering to the public for donation. It should be noted though that this translocation is additional – this measure is not required to deliver the net gains predicted for the proposed scheme.
10. Be transparent	This report provides a transparent method for the (voluntary) BNG assessment ensuring that all stakeholders can follow the process through.

Annex A: Development Proposals - Soft Landscape General Arrangement Plans





INDICATIVE PRESENTATION PLAN
(WORKING CAD PLAN TAKES PRECEDENCE)

LEGEND

- +00.00 - Existing Levels
- +00.00 - Prposed Levels
- Existing Trees Retained
- Proposed New Trees

P02 AMENDMENTS

- Zone 01 Phoenix piazza bollard location and typea updated.
- Zone 01 Cophorne access road surface now included within scope and designed to include new raingardens with raised kerb edges (castellated).
- Zone 01 Parterres PT-03 and PT-05 amended to include revised tree arrangement and hard paving based on potential re-use of existing PCC material stock.
- Cor-Ten enclosure added to toddler play (Zone 02), and addition of kerbing to perimeter of wet pour surface.
- Cor-Ten barrier added to adventure play (Zone 02) along with addition of kerbing to perimeter of wet pour surface.
- Proportion of PV canopies at Place de Brest (Zone 03) tweeked in line with recent design development.
- Area identified for bespoke paving on central paved area at Zone 03 WC block.
- Surface finish of sundial podium steps (Zone 03) identified for upgrade.
- Zone 04 Piazza raingarden proportions amended to facilitate introduction of additional benching.

GENERAL NOTES

Check all dimensions on site. Do not scale from this drawing. Report any discrepancies and omissions to Studio Agora Architects.

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DESIGN/SKETCH DESIGN

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AREA CALCULATIONS

The areas shown are approximate only and have been measured off preliminary drawings as the likely areas at the current state of design using the stated option from the Code of Measuring Practice 6th edition (RICS/RIVA). These may be effected by future design development and construction tolerances or the result of surveys for existing buildings. Take account of these factors before planning any financial or property development purpose or strategy and seek confirmation of latest areas before decision making.

3RD-PARTY INFORMATION

This drawing includes information provided by independent surveyors and/ or consultants to whom all enquiries shall be made. Studio Agora Architects accept no liability for its content or accuracy.

Client:

PLYMOUTH CITY COUNCIL

Rev	Comment	Date	By	Chk
P01	PRELIMINARY RECOMMENCEMENT ISSUE	10.11.2023	DC	LF
P02	UPDATES AS PER LIST OF AMENDMENTS	28.11.2023	DC	LF

Internal Project Number: 22101

Project: ARMADA WAY PUBLIC REALM, PLYMOUTH

N

Drawing Number: 67CA09-STA-ZZ-XX-DR-L-30-001

rathbonepartnership chartered landscape architects

Drawing Title: PROPOSED GENERAL ARRANGEMENT MASTERPLAN - ALL ZONES

Scale @ A0:	Date Drawn:	Drawn by:	Checked by:	Suitability:	Revision:
1:500	09.11.2023	DC	LF	D2	P02

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excavation/soil preparations and protection

existing soft zones retained (Phoenix Sensory Garden & retained trees):
protect existing soils inviolta, no access or storage allowed/direct Heras fencing around entire zones & tree canopies
limited removal of protective fencing only for execution of the works locally

ornamental soft landscape *with* **treepits within soft landscape & Parterres** *(entire Parterre zone)*:
reduce dig 1000 to offsite tip **or** raise levels to form Parterre equivalent
ensure freely draining subbase, import specified topsoil/subsoil
protect from storage or any use other than soft landscape works once soiling implemented

ornamental **soft landscape** *without* **treepits**:
reduce dig 500 to offsite tip or raise levels to form Parterre equivalent
ensure freely draining subbase, import specified topsoil/subsoil
protect from storage or any use other than soft landscape works once soiling implemented

bulk hedge:
reduce dig 1000 to offsite tip
ensure freely draining subbase, import specified topsoil/subsoil
protect from storage or any use other than soft landscape works once soiling implemented

shallow SUDS raingardens *and* **Play soft landscape strips**:
SUDs to JUBB design/specification
reduce dig 500 +100JUBB depth to offsite tip, import drainage layer/specified soil
protect from storage or any use other than soft landscape works once soiling implemented

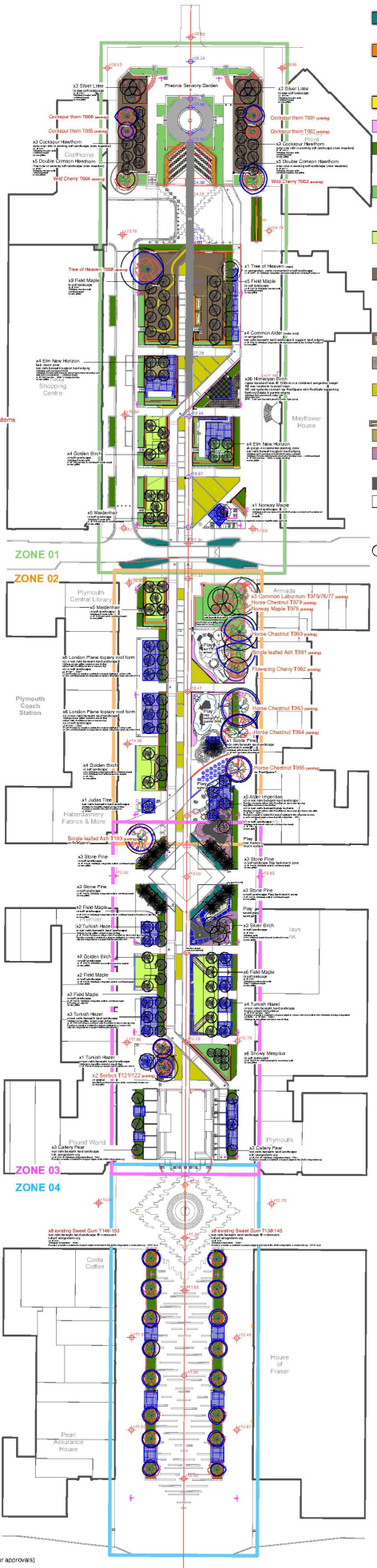
deep SUDS raingardens *and* matching/abutting CycleWay **soft landscape strip**:
SUDs to JUBB design/specification
reduce dig 1000 +100JUBB depth to offsite tip, import drainage layer/specified soil
protect from storage or any use other than soft landscape works once soiling implemented
(dig depth is determined by system supporting hard landscape)

all SUDS raingardens with treepits:
SUDS to JUBB design/specification
reduce dig 1320 (245hard /75/400/600) +100JUBB depth to offsite tip, import drainage layer/specified soil
protect from storage or any use other than soft landscape works once soiling implemented
(dig depth is determined by system supporting hard landscape)
NB all treepits require 1000deep soil

all new treepits in hard landscape:
reduce dig 1355 (280hard [85thk] + 215RootDirector]/75airdeck/400/600RootSpace)
+100JUBB to offsite tip, import drainage layer/specified soil
protect from storage or any use other than soft landscape works once soiling implemented
(dig depth is determined by system supporting hard landscape & treepit depth)
NB all treepits require 1000deep soil

lawns
reduce dig 500 to offsite tip or raise levels to form Parterre equivalent
ensure freely draining subbase, import specified topsoil/subsoil
protect from storage or any use other than soft landscape works once soiling implemented
NB all treepits require 1000deep soil

NB
- finished soft landscape **levels** are determined by abutting hard landscape finished surface levels (+10 or -50 or flush according to location)
- no geotextile or membrane beneath mulch (gravel or bark)
- refer to specific cross-section details when available
- anticipated excavation depths for RootSpace will evolve at detail design RIBA4b stage
- all **soiling** in dry conditions, laid to even running levels and a single plan, without humps or dips
- **cultivations/planting** within **RPAs** or in existing planters retained must be **by-hand**, aware of/avoiding damage to existing root systems



soft finishes & build-up

clipped block hedge @ 300crs in groups of x3 same species
50barkmulch on imported natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on 600subsoil on freely draining subbase
finished levels -50below paving retaining edge
temporary protective fencing to inner face or on diagonal

clipped formal hedge 600wide, x2 rows @ 300crs, staggered, in groups of x3 same species
50barkmulch on imported natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on 600subsoil on freely draining subbase in **Parterres**
50barkmulch on existing soils where extant & freely draining in **Phoenix Garden**, finished levels flush
50barkmulch on imported natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on 600subsoil on freely draining subbase in **ornamental gardens**, finished levels flush
75gravel topping on full depth GreenBlueUrban ArborSoilHydroMAX, depths as **raingardens**, finished levels -50below paving retaining edge
temporary protective fencing to inner face

loose ornamental hedge 800wide, x3 rows @ 300crs, staggered
75gravel topping on GreenBlueUrban ArborSoilHydroMAX (600deep) on freely draining subbase at ground level beside **Parterres**, finished levels -50below paving retaining edge

600wide gravel strip beside Cycleway *and* to Play Zone perimeter, planted to rear beside Cor Ten, gravel visible to front
75gravel topping on GreenBlueUrban ArborSoilHydroMAX, depths as **raingardens**, finished levels -50below paving retaining edge

rain garden planting @ 12m²
75gravel topping on GreenBlueUrban ArborSoilHydroMAX in **raingardens** 500deep or 1000deep, finished levels -50below paving retaining edge
on 100drainage layer to JUBB design/specification
temporary protective fencing to inner edge until establishment where deemed vulnerable
Everedge Cor Ten 150 raingarden for raingarden gravel retention beside soft landscape (see annotation & planting plans)

ornamental grass/herbaceous planting @ 9m²
50barkmulch on imported natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on 600subsoil on freely draining subbase in **Parterres**
50barkmulch on imported natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on 600subsoil (500deep*) on freely draining subbase, to zones at **ground level**, finished levels flush
50barkmulch on existing soils where extant (or imported make up levels as above*) & freely draining in **Phoenix Garden**, finished levels flush
temporary protective fencing to inner edge until establishment where deemed vulnerable

Tillers Arena Turf amenity lawn turf (laid to falls) pre grown
@ https://www.tillersturf.co.uk/landscape-turf
on imported natural sandy loam soils or GreenBlueUrban RootSoil: 200topsoil on 300subsoil on freely draining subbase with finished levels +10above paving/hard edges
temporary protective fencing to perimeter until establishment

Boston Seeds shade tolerant wildflower meadow turf, pre grown
@ https://www.bostonseeds.com/products/wildflower-plants/wildflower-turf-1/shady-place-wildflower-turf.html
where extant in **Phoenix Garden**: strip existing grass turf to 100depth and re-lay upsidedown *insitu*, after tree planting, finished levels +10above paving/hard edge
where **not** extant: lay turf on imported **poor fertility** natural sandy loam soils laid to top 200topsoil above existing soils, after tree planting, on freely draining subbase with finished levels finished levels +10above paving/hard edge
all turf laid to even constant falls, with temporary protective fencing to perimeter until establishment where deemed vulnerable

mown path (mower width)

Boston Seeds Landscape34 wildflower Turf to lawn banks, pre grown
@ https://www.bostonseeds.com/products/uk-native-wildflower-turf.html

reinforced **pregrown** Golpa turf unit system cut to fit, finished levels flush with paving/hard/unit edge laid to a single plane
38unit on 100RootscreenTG030 sand/soil) *@ http://www.geosyn.co.uk/product/golpla-grass-gravel-reinforcement*
on GreenBlueUrban 200RootSafe *@ https://greenblue.com/gb/products/rootsafe* filled with Type3
on existing fill or imported soils where treepits

reeds @ 5m²
specific aggregate layers in tray (Fill & planter, rejoining Fill)
container grown planted within aggregate/finished levels set -50below paving retaining edge
no soil/no mulch
to OCMiS design/specification

100barkmulch to footfall wear locations & mowing strips
on geotextile to bench perimeter in lawn/meadow 600wide, finished levels flush with edges/lawn
@ https://melcourt.co.uk/products/ornamental-bark-mulch/

300barkmulch in **Play zones** on geotextile over natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on 600subsoil on freely draining subbase
finished levels flush with edges/lawn
@ https://melcourt.co.uk/products/ornamental-bark-mulch/

rubber crumb safety surface
to Studio Agora design/specification

Cor Ten
600high fins generally (safety/planting protection)
1400high fins to Place de Brest (to read above bulk planting)
+100 above Parterre highest corner ground level (cladding/horizontal top/safety)
to Studio Agora design/specification

selected **specimen trees** & accessories

in hard landscape with GreenBlueUrban RootSpace beneath:
GreenBlueUrban grille/Tray/RootDirector/ArborVent/RootSpace/Arborguy/RootRain Precinct *@ https://greenblue.com*
imported natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on 600subsoil in soil cells
on 100drainage layer to JUBB design/specification on freely draining subbase
underground guying
gravel topping to flush with treegrille surface

in raingardens and with GreenBlueUrban RootSpace adjacent:
GreenBlueUrban ArborVent/RootSpace/Arborguy/ReRootRibbed300/RootRain Urban *@ https://greenblue.com*
75thick gravel topping, 20e loose-tipped & tamped
imported GreenBlueUrban ArborSoilHydroMAX
on 100drainage layer to JUBB design/specification on freely draining subbase
underground guying

in soft landscape:
combined treepits to full depth
50barkmulch @ centred 1200e or to entire tree-groups (as indicated, using planting mulch where extant) on imported or on improved existing soils (as indicated above), 400topsoil on 600subsoil
GreenBlueUrban RootRain Urban
on freely draining subbase
underground guying

GreenBlueUrban tube irrigation RootRain Urban or Precinct per tree: watering by hand from stand pipes (all Zones)
to OCMiS design/specification 50litres tree^{-1} day^{-1}: watering by Rill system (Zones 1-2-3, not Zone 4)

tree pits = minimum growing soil medium per tree, utilising an entire planted or lawned zone or Parterre or as combined pits
treepit layouts adapted to suit context

ulg GreenBlueUrban RootSpace soil cell **system** 1075deep (75/400/600 or 75/400 above underground tank)
@ https://greenblue.com/gb/products/rootspace/
on 100drainage layer to JUBB design/specification on freely draining subbase
with 200wide gravel surround
refer to specific drawings
NB do **not** install membrane barriers between soil cells & raingardens

standpipe waterpoints (with covers flush to finished levels) WP
to OCMiS/EDP design/layout/specification

retained existing trees protected by Heras fencing at RPA
NB no change in levels
to YGSEnvironmental tree protection specification

maintenance notes
also refer to separate **specific schedules** on plans & **LEMP**

clipped block hedge 750high (3* back batter to open elevations with horizontal top)
weed x3 per year/Grp x2 per year for years 1-2, thereafter x1/remove arisings to PCC compost
replenish barkmulch x2 per year

clipped formal hedge minimum 1100high from fall-risk side &/or +1000 above Cor Ten top,
3* back batter to elevations with horizontal top
weed x3 per year/Grp x2 per year for years 1-2, thereafter x1/remove arisings to PCC compost
replenish barkmulch x2 per year

loose ornamental hedge
weed x3 per year/firm annually, remove arisings to PCC compost
replenish gravel topping x2 per year

raingardens
hand weed x2 monthly April-October/remove arisings to PCC compost
December remove dead/degenerating plant remains (but leave sturdy stems/seedheads)
February remove remaining grass/perennial seedheads & stems
replenish gravel topping x2 per year

ornamental grass/herbaceous planting zones
hand weed x2 monthly March-November/remove arisings to PCC compost
replenish barkmulch x2 per year

amenity lawn turf (laid to shallow falls)
rotary mow every two weeks April-October/let arisings fly/strim tree bases with shield or up to mulch bases
ensure flush R end of raised Parterres & egress points off path system
repairs to desnrishes

shade meadow/wildflower 34 turfs
strim x2 per year, once early spring (to keep sward open) & later autumn (after self-seeding)
remove arisings to PCC compost

mown path
rotary mow every two weeks April-October/single mower width/remove arisings to PCC compost

reinforced grass
strim as/if needed occasionally/remove arisings to PCC compost
reseed/turf as necessesary

reeds
hand weed x2 a year spring & autumn/remove arisings to PCC compost
check inlets/outlets are free

Play mulch
rake to make even x52 per year (weekly)
check efficacy & replenish barkmulch x6 per year or as required to maintain safe play surface

footfall mulch
replenish all barkmulch x2 per year

specimen trees
water monthly or as needed
monthly check for damage & seek expert advice

all areas
x2 visits per month to keep litter-free/clean & tidy/remove detritus to PCC tip
x2 visits October-November to sweep clear of leaves & remove arisings to PCC compost
final checks & actions end of November/early December each year for 30years

tree planting
dimensions in mm

tree set out to follow architects/engineers coordinates, aligned to geometry, in straight lines
hard landscape paving set-out determines tree location and treegrill location
plant at Nursery root-collar depth, supply to site only when required for planting directly in the ground without delay,
temporarily protect with hessian from wind/sow/evaporation and water as required.
peat or peat based products are **not** permitted.
artificial fertilisers are **not** permitted.
All topsoil zones (400thick when cultivated & settled) to incorportate to full depth 100thick PAS compost, with 50thick composed woodchip above

all products/systems to '**or similar/equal approved**'.

plant within minimum treepits dimensions: these follow **arborist advice** to supply required soil volume per tree species & desired mature size

underground guying: GreenBlueUrban ArborGuy system, driven or attached to concrete deadmen with x3 straps, gauge to suit tree size
@ https://greenblue.com/gb/products/arborguy/

feed at planting: GreenBlueUrban RootStart mycorrhiza
@ https://greenblue.com/gb/products/rootstart/

soft landscape mulch: place 120de to minimum 50depth around trees in lawn areas
Melcourt Ornamental: barkmulch to soft planted locations
@ https://melcourt.co.uk/products/ornamental-bark-mulch
hard landscape mulch: place 20e clean gravel as mulch beneath tree grilles, to flush with soffit
raingarden topping: place 20e clean gravel as mulch & percolation layer, average c.75thick to surface of raingardens

root barriers:
GreenBlueUrban ReRoot Ribbed300 adjacent kerb edge
GreenBlueUrban ReRoot Flat2000 **placed adjacent to underground services** only where deemed essential.
@ https://greenblue.com/gb/solutions/root-management/

soft landscape planting locations
natural soils incorporating 10depth recycled compost PAS100 throughout topsoil layer
use salvaged topsoil where/if possible: these require soil-test ***prior to a decision to use*** assessing structure/nutrients and necessary amelioration according to Soil Test Report
where soils are imported:
pH-neutral blended-sand-loam topsoil with natural high organic content (to BS3882 2015 revised) and certified free of toxins/contaminants over imported subsoil (to **BS8601**) *or* GreenBlueUrban equivalents

tree schedule
dimensions in cm
minium sizes quoted
semi-mature selected specimens (species/supply dependent), true to form for species

Zone1

x14	*Acer campestre* Lienco	Lienco Field Maple	25-30girth
x1	*Acer platanoides*	Norway Maple	40-45girth
x1	*Ailanthus altissima*	Tree of Heaven	40-45girth
x4	*Alnus glutinosa*	Common Alder	25-30girth
x4	*Betula ermanii*	Golden Birch	25-30girth
x26	*Betula utilis jacquemontii* Doorenbos	Himalayan Birch	18-20girth container
x6	*Crataegus crusgalli*	Cockspur Hawthorn	25-30girth
x10	*Crataegus laevigata* Pauls Scarlet	Double Crimson Hawthorn	25-30girth
x5	*Ginkgo biloba* Mayfield	Maidenhair Tree	25-30girth
x8	*Tilia tomentosa* Brabant	Silver Lime	40-45girth
x8	*Ulmus* New Horizon	New Horizon Elm	25-30girth
total new **x85**			
x4		Cockspur Thorn	existing retained T001/002-005/006
x2		Wild Cherry	existing retained T003/004
x1		Tree of Heaven	existing retained T008

Zone2

x5	*Alnus glutinosa* Imperialis	Cut Leaved Alder Tree	25-30girth
x4	*Betula ermanii*	Golden Birch	25-30girth
x1	*Cercis siliquastrum*	Judas Tree	25-30girth
x5	*Ginkgo biloba* Mayfield	Maidenhair Tree	25-30girth
x1	*Pinus sylvestris*	Scots Pine	45-50girth
x12	*Platanus hispanica*	London Plane (topiary roof form)	25-30girth
total new **x28**			
x3		Common Laburnum	existing retained T075/76/77
x1		Norway Maple	existing retained T078
x5		Horse Chestnut	existing retained T079/80/83/84/85
x1		Single leafed Ash	existing retained T081
x1		Flowering Cherry	existing retained T082

Zone3

x13	*Acer campestre* Lienco	Lienco Field Maple	25-30girth
x6	*Amelanchier lamarckii*	Snowy Mespilus (Juneberry)	25-30girth
x2	*Betula ermanii*	Golden Birch	25-30girth
x3	*Betula pendula*	Silver Birch	40-45girth
x10	*Corylus colurna*	Turkish Hazel	25-30girth
x12	*Pinus pinea*	Stone Pine	25-30girth
x5	*Pyrus calleryana* Chanticleer	Callery Pear	40-45girth
total new **x52**			
x1		Single leafed Ash	existing retained T109
x2		Sorbus sp.	existing retained T121/122

Zone4

x16	Sweet Gum	existing retained T138-153

total retained x37
total new x165
total trees **x202**

sizes & **soil volumes** to YGSEnvironmental advice

drawing **NOTE**

- all levels & all hard construction details/supporting structures to architect/engineers design/specification
- all drainage/subsurface elements to engineers design/specification
- all aspects of hard landscape (retaining walls/membranes/geotextiles/existing or new compacted subbase are inferred
- vertical sides to excavations required in all situations (to achieve volumes), in existing fill or new compacted fill
- **do not set out** or construct directly from this drawing unless instructed (follow architect set-out dims/coordinates)
- finished soft levels follow hard landscape finished levels -50 or +10 or flush as specified
- follow proprietary systems details/specification/workmanship at all times where these are used (invite suppliers advice/inspection for approvals)
- construction details will evolve responding to site investigations & build
- ensure haunching/root barriers/geotextiles are not visible after finishes -50 below paving lip
- mitigate against any contamination from works during construction at all times; apply clean work practices & cover up to protect installation

GENERAL NOTES

Check **all dimensions on site.** Do not scale from this drawing. Report any discrepancies and omissions to Studio Agora Architects.

This Drawing is Copyright ©

DESIGN/DUTY OF DESIGN

Unless stated otherwise these drawings shown are subject to detailed site survey investigations and legal definition the CDM Regulations and the comments and/or approval of the various relevant Local Authority Officers Statutory Undertakers - Fire Officers Engineers and the like. They are copyright project specific and confidential and not just to be used or copied in any way without the expressa consent of Studio Agora Architects.

AREA CALCULATIONS

The areas shown are approximate only and have been measured off preliminary drawings as the likely areas at the current state of design using the stated option from the Code of Measuring Practice 4th edition (RICS/RVA). These may be affected by future design development and construction tolerances or the result of surveys for existing buildings. Take account of these factors before planning any financial or property development purpose or strategy and seek confirmation of latest areas before decision making.

3RD-PARTY INFORMATION

This drawing includes information provided by independent surveyors and/or consultants to whom all enquiries shall be made. Studio Agora Architects accept no liability for its content or accuracy.

Client:
PLYMOUTH CITY COUNCIL

Rev	Comment	Date	By	Chk
P01	PRELIM. PRICING ISSUE & LEMP/BNG	05.12.23	AR	LF
P02	PRELIM. PRICING ISSUE & LEMP/BNG refreshed to Origin-set/waterdrop/CorTen principles/brush/Key-t	10.12.23	AR	LF

Internal Project Number:
22101

Project:
ARMADA WAY PUBLIC REALM,
PLYMOUTH

Drawing Number:
67CA09-STA-ZZ-XX-DR-L-40-001

rathbonepartnership
chartered landscape architects

Drawing Title:
PROPOSED SOFT LANDSCAPE PLAN - ALL ZONES
soft GA/planting types/soils/cells/typical maintenance

Scale @ A0	Date Drawn:	Drawn by:	Checked by:	Suitability:	Revision:
1:500	05 .12.23	AR	LF	D1	P02

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Annex B: Baseline Habitat Condition Assessment

Survey Cover Sheet			
Survey date/s	October - November 2021 July 2022 December 2022	**Site name or location**	Plymouth
Weather conditions	Fine, dry	**Project or development name**	Armada Way
Surveyor name	YGS Environmental Consultants Ltd TEP Ltd Simon Geary Ecology Services Ltd	**On-site or off-site**	On site
Survey reference	Plymouth Better Places Baseline Tree Survey Report (YGS, November 2021) Armada Way Public Realm, Plymouth - Preliminary Ecological Appraisal (PEA) Report incorporating a bat tree roost assessment. Final Report (Simon Geary Ecology Services Ltd) December 2022	**Reason for assessment (if not baseline condition survey)**	Tree surveys and Preliminary Ecological Assessment to inform proposed re-design of the Public Realm

Notes

Habitat condition assessment informed by combination of walkover completed by TEP in July 2022 and UKHab Survey completed by SGES Ltd.

Tree condition assessment informed by combination of data from YGS Environmental Consultants Ltd Tree Survey and SGES Ltd UKHab survey.

With the exception of amenity grass (modified grassland), two small temporary SUDS and the urban trees, the habitats within the site were confirmed to be restricted to urban types: (a) sealed surface, ornamental shrub, or building that do not require condition assessment; and (b) ornamental non-native hedgerow for which condition is fixed at poor.

Site or location	Condition sheets	Total number of condition sheets used, or habitat parcels	Number of parcels of each condition achieved					Notes
			Good	Fairly Good	Moderate	Fairly Poor	Poor	
On-site	**Grassland low distinctiveness**	28 parcels					28	
On-site	**Individual trees**	Small size	0		20		53	
		Medium size	3		38		30	
		Large site	0		0		0	
		Very Large site	0		0		0	
On-site	**Urban - SUDS feature**	2 parcels					2	

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)

UK Habitat Classification (UKHab) Habitat Type

Grassland - Modified grassland

Habitat Description

Small areas of modified (amenity) grassland within urban setting (city centre). UKHab g4, 66, 210, 1100, 1220

On-site or off-site, site name and location	Armada Way	**Survey date and Surveyor name**	October - November 2021 - YGS Environmental Consultants Ltd July 2022 - TEP Ltd December 2022 Simon Geary Ecology Services Ltd
		Survey reference (if relating to a wider survey)	Plymouth Better Places Baseline Tree Survey Report (YGS, November 2021) Armada Way Public Realm, Plymouth - Preliminary Ecological Appraisal (PEA) Report incorporating a bat tree roost assessment. Final Report (Simon Geary Ecology Services Ltd) December 2022
Limitations (if applicable)	None reported		

Condition Assessment Criteria		**Habitat parcel reference**																													**Notes (such as justification)**
		Grid reference	42	43	67	81	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	
		Criterion passed (Yes or No)																													
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.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	species poor amenity turf
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.	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	mown short and uniform
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.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	mown short and uniform - amenity space, no scrub present
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.	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	compaction from amenity use
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	erosion from amenity use
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	mown short and uniform -
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	mown short and uniform -
	Essential criterion achieved (Yes or No)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
	Number of criteria passed	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	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)	✓

Suggested enhancement interventions to improve condition score

Footnotes

Footnote 1 – Creeping thistle *Cirsium arvense* , spear thistle *Cirsium vulgare* , curled dock *Rumex crispus* , broad-leaved dock *Rumex obtusifolius* , common nettle *Urtica dioica* , creeping buttercup *Ranunculus repens* , greater plantain *Plantago major* , white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris* .

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – Wildlife and Countryside Act 1981 (as amended).

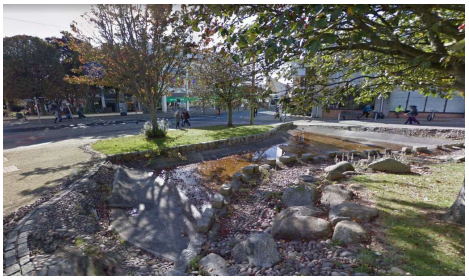
Condition Sheet: URBAN Habitat Type

Habitat Types

Sparsely vegetated land - Ruderal/Ephemeral
Sparsely vegetated land - Tall forbs
Urban - Allotments
Urban - Biodiverse green roof
Urban - Bioswale
Urban - Cemeteries and churchyards
Urban - Facade-bound green wall
Urban - Ground based green wall
Urban - Intensive green roof
Urban - Open mosaic habitats on previously developed land
Urban - Rain garden
Urban - Sustainable drainage system (SuDS)
Urban - Vacant or derelict land
Urban - Bare ground

Habitat Description

Two areas standing water (on hard core, no vegetation, part of SUDS) and ornamental fountain (below mappable size in isolation).



July 2022 (left) - features dry. December 2022 UKHab survey (SGES Ltd) did not identify presence of standing water. Google Streetmap imagery (right) confirms temporary water present at least occasionally.

On-site or off-site, site name and location	On-site Armada Way	**Survey date and Surveyor name**	October - November 2021 - YGS Environmental Consultants Ltd July 2022 - TEP Ltd December 2022 Simon Geary Ecology Services Ltd
		Survey reference (if relating to a wider survey)	Plymouth Better Places Baseline Tree Survey Report (YGS, November 2021) Armada Way Public Realm, Plymouth - Preliminary Ecological Appraisal (PEA) Report incorporating a bat tree roost assessment. Final Report (Simon Geary Ecology Services Ltd) December 2022
Limitations (if applicable)	None reported		

Condition Assessment Criteria		**Habitat parcel reference**										**Notes (such as justification)**
		239	255									
		Grid reference										
		Criterion passed (Yes or No)										
Core Criteria - must be assessed for **all urban habitat types**:												
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	N	N									no vegetation
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	N	N									no vegetation
C	Invasive non-native plant species (listed on Schedule 9 of WCA[1]) and others which are to the detriment of native wildlife (using professional judgement)[2] cover less than 5% of the total vegetated area[3]. **Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).**	Y	Y									no vegetation
Additional Criteria - must be assessed for **Bioswale and SuDS** habitat types only:												
E1	Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife[4].	N	N									no vegetation
E2	The vegetation is comprised of plant species suited to wetland or riparian situations.	N	N									no vegetation
Essential criteria relevant for habitat type achieved (Yes or No)		N	N									
Number of criteria passed		1	1									

Condition Assessment Result	**Condition Assessment Score**	**Score Achieved ×/✓**	

Condition Sheet: URBAN Habitat Type											
Results for **Bioswale or SuDS** (requiring assessment of **5 criteria** - core criteria plus additional criteria specified for habitat type):											
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes all additional criteria	Good (3)										
• Passes 3 or 4 of 5 criteria; OR • Passes 5 of 5 criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)										
• Passes 2 or fewer of 5 criteria.	Poor (1)	Y	Y								

Suggested enhancement interventions to improve condition score

Footnotes

Footnote 1 – Wildlife and Countryside Act 1981 (as amended).

Footnote 2 – Sources of information about detrimental non-native species can be found on the GB Non-native Species Secretariat (GBNNSS) website:
Home » NNSS (nonnativespecies.org)
and Natural England Access to Evidence page should also be checked for up-to-date information:
Horizon-scanning for invasive non-native plants in Great Britain - NECR053 (naturalengland.org.uk)
For criterion C – For green roof habitat types only – buddleia *Buddleja davidii* should be assessed alongside Schedule 9 species. This species impairs the health of the local ecosystem
Alternative plants » NNSS (nonnativespecies.org)

Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Types

Individual trees – Urban trees
Individual trees – Rural trees
Complete a condition sheet for each tree or block of trees.

Habitat Description	On-site or off-site, site name and location	Limitations (if applicable)
City centre trees, all considered to be individual trees for purposes of metric - although some 'adjacent' trees may touch. 144nr trees in total (71 medium size and 73 small size), range of ages. Majority are non-native. Planted into sealed surfaces (paved) or amenity grassland.	On-site Armada Way, Plymouth	None reported

Survey date and Surveyor name
October - November 2021 - YGS Environmental Consultants Ltd July 2022 - TEP Ltd December 2022 Simon Geary Ecology Services Ltd

Survey reference (if relating to a wider survey)
Tree Survey Data Extracted from YGS Environmental Consultants Ltd Arboricultural Method Statement Ref 67CA09-YGS-ZZ-XX-RP-J-010. Wildlife data (e.g. criteria E) extracted from Simon Geary Ecological Services PEA

Condition Assessment Criteria					
A	B	C	D	E	F
The tree is a native species (or at least 70% within the block are native species).	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).	The tree is mature (or more than 50% within the block are mature)[1].	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.	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	More than 20% of the tree canopy area is oversailing vegetation beneath.

TREE HELPER			
	Number of trees for each condition state		
Tree Size Class	Poor (0,1 or 2 out of 6)	Moderate (3 or 4 out of 6)	Good (5 or 6 out of 6)
Small (75-300mm)	53	20	0
Medium (301-600mm)	30	38	3
Large (601-900mm)	0	0	0
Very Large (901+mm)	0	0	0

Habitat parcel ref.	Zone	Common Name	Scientific Name	Variety	Ht (m)	Nr. Stems	Stem DBH (mm)	Multi-stem DBH (mm)	RPA (m2)	RPA_r (m)	Life Stage	Criterion passed (Yes or No)						Nr Criteria Passed	Condition	Size Class	Impact
G009	1	Fan Palm	*Trachycarpus fortunei*		5	1	310		10.2		Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Lost
G090	2	Common Holly, Feather Palm	*Ilex aquifolium, Cordyline sp.*		6	1	250		48.8		Early Mature	Pass	Pass	Fail	Fail	Fail	Pass	3	Moderate	Small	Lost
T001	1	Cockspur Thorn	*Crataegus crus-galli*		6	1	300		40.72	3.6	Mature	Fail	Pass	Pass	Fail	Pass	Pass	4	Moderate	Small	Enhanced
T002	1	Cockspur Thorn	*Crataegus crus-galli*		4	1	220		21.24	2.6	Semi Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Enhanced
T003	1	Wild Cherry	*Prunus avium*		6	1	310		43.01	3.7	Early Mature	Pass	Pass	Fail	Fail	Fail	Fail	2	Poor	Medium	Enhanced
T004	1	Wild Cherry	*Prunus avium*		5	1	250		28.27	3	Semi Mature	Pass	Pass	Fail	Fail	Pass	Fail	3	Moderate	Small	Enhanced
T005	1	Cockspur Thorn	*Crataegus crus-galli*		5	1	260		30.19	3.1	Early Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Enhanced
T006	1	Cockspur Thorn	*Crataegus crus-galli*		6	1	270		32.17	3.2	Mature	Fail	Pass	Pass	Fail	Pass	Pass	4	Moderate	Small	Enhanced
T007	1	Cockspur Thorn	*Crataegus crus-galli*		6	1	390		69.4	4.7	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Lost
T008	1	Tree of Heaven	*Ailanthus altissima*		10	1	590		158.4	7.1	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Retained
T010	1	Apple	*Malus sp.*		6	1	370		60.82	4.4	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Lost
T011	1	Whitebeam	*Sorbus aria*		4	1	160		11.34	1.9	Semi Mature	Pass	Pass	Fail	Fail	Fail	Fail	2	Poor	Small	Lost
T012	1	Purple Cherry Plum	*Prunus cerasifera 'Pissardi'*		4	1	120		6.158	1.4	Young	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Lost
T013	1	Whitebeam	*Sorbus aria*		5	1	200		18.1	2.4	Semi Mature	Pass	Pass	Fail	Fail	Fail	Fail	2	Poor	Small	Lost
T014	1	Swedish Whitebeam	*Sorbus intermedia*		7	1	380		66.48	4.6	Mature	Pass	Pass	Pass	Fail	Fail	Pass	4	Moderate	Medium	Lost
T015	1	Amelanchier	*Amelanchier sp.*		3	1	100		4.524	1.2	Semi Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Lost
T016	1	Contorted Willow	*Salix sp.*		10	1	460		95.03	5.5	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Lost
T017	1	Sumac	*Rhus sp.*		2	1	60		1.539	0.7	Young	Fail	Pass	Fail	Pass	Fail	Pass	3	Moderate	Small	Lost
T018	1	Contorted Willow	*Salix sp.*		9	1	350		55.42	4.2	Early Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Medium	Lost
T019	1	Whitebeam	*Sorbus aria*		7	1	340		52.81	4.1	Mature	Pass	Pass	Pass	Fail	Fail	Pass	4	Moderate	Medium	Lost
T020	1	Whitebeam	*Sorbus aria*		8	1	330		50.27	4	Early Mature	Pass	Pass	Fail	Fail	Fail	Pass	3	Moderate	Medium	Lost
T021	1	Feather Palm	*Cordyline sp.*		3	1	120		6.158	1.4	Semi Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Lost
T022	1	Whitebeam	*Sorbus aria*		8	1	390		69.4	4.7	Mature	Pass	Pass	Pass	Fail	Fail	Pass	4	Moderate	Medium	Lost
T023	1	Silver Maple	*Acer saccharinum*		12	1	430		84.95	5.2	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Lost
T024	1	Silver Maple	*Acer saccharinum*		12	1	430		84.95	5.2	Mature	Fail	Pass	Pass	Pass	Fail	Pass	4	Moderate	Medium	Lost
T025	1	Pear	*Pyrus sp.*	Ornamental	6	1	170		12.57	2	Semi Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Lost
T026	1	Birch	*Betula sp.*		7	2	150	150, 80	12.57	2	Semi Mature	Fail	Pass	Fail	Pass	Fail	Pass	3	Moderate	Small	Lost
T027	1	Birch	*Betula sp.*		7	3	130	130, 40, 40	9.079	1.7	Semi Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Lost
T029	1	Apple	*Malus sp.*	Fasitigiata	8	1	370		60.82	4.4	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Lost
T030	1	Swedish Whitebeam	*Sorbus intermedia*		6	1	180		15.21	2.2	Semi Mature	Pass	Pass	Fail	Fail	Fail	Fail	2	Poor	Small	Lost

Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Types

Individual trees – Urban trees
Individual trees – Rural trees
Complete a condition sheet for each tree or block of trees.

Habitat Description	On-site or off-site, site name and location	Limitations (if applicable)
City centre trees, all considered to be individual trees for purposes of metric - although some 'adjacent' trees may touch. 144nr trees in total (71 medium size and 73 small size), range of ages. Majority are non-native. Planted into sealed surfaces (paved) or amenity grassland.	On-site Armada Way, Plymouth	None reported

Survey date and Surveyor name
October - November 2021 - YGS Environmental Consultants Ltd July 2022 - TEP Ltd December 2022 Simon Geary Ecology Services Ltd

Survey reference (if relating to a wider survey)
Tree Survey Data Extracted from YGS Environmental Consultants Ltd Arboricultural Method Statement Ref 67CA09-YGS-ZZ-XX-RP-J-010. Wildlife data (e.g. criteria E) extracted from Simon Geary Ecological Services PEA

Condition Assessment Criteria					
A	B	C	D	E	F
The tree is a native species (or at least 70% within the block are native species).	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).	The tree is mature (or more than 50% within the block are mature)[1].	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.	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	More than 20% of the tree canopy area is oversailing vegetation beneath.

TREE HELPER			
	Number of trees for each condition state		
Tree Size Class	Poor (0,1 or 2 out of 6)	Moderate (3 or 4 out of 6)	Good (5 or 6 out of 6)
Small (75-300mm)	53	20	0
Medium (301-600mm)	30	38	3
Large (601-900mm)	0	0	0
Very Large (901+mm)	0	0	0

Habitat parcel ref.	Zone	Common Name	Scientific Name	Variety	Ht (m)	Nr. Stems	Stem DBH (mm)	Multi-stem DBH (mm)	RPA (m2)	RPA_r (m)	Life Stage	Criterion passed (Yes or No)						Nr Criteria Passed	Condition	Size Class	Impact
T031	1	Whitebeam	*Sorbus aria*		8	1	320		45.36	3.8	Early Mature	Pass	Pass	Fail	Fail	Fail	Pass	3	Moderate	Medium	Lost
T032	1	Whitebeam	*Sorbus aria*		8	1	300		40.72	3.6	Early Mature	Pass	Pass	Fail	Fail	Fail	Fail	2	Poor	Small	Lost
T033	1	Apple	*Malus sp.*	Fasitigiata	8	1	370		60.82	4.4	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Lost
T034	1	Swedish Whitebeam	*Sorbus intermedia*		7	1	280		36.32	3.4	Early Mature	Pass	Pass	Fail	Fail	Fail	Fail	2	Poor	Small	Lost
T035	1	Purple Cherry Plum	*Prunus cerasifera 'Pissardi'*		6	1	210		19.63	2.5	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Lost
T036	1	Lawson Cypress	*Chamaecyparis lawsoniana*		7	1	230		24.63	2.8	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Lost
T038	1	Japanese Maple	*Acer palmatum*		4	6	80	**80**, 50, 40, 40, 40, 30	7.069	1.5	Young	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Lost
T039	1	Japanese Maple	*Acer palmatum*		6	5	140	**140**, 110, 100, 100, 50	24.63	2.8	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Lost
T040	1	Japanese Maple	*Acer palmatum*		6	3	90	**90**, 50, 50	6.158	1.4	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Lost
T042	1	Japanese Maple	*Acer palmatum*		6	3	180	**180**, 180, 130	36.32	3.4	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Lost
T043	1	Whitebeam	*Sorbus aria*		8	1	320		45.36	3.8	Mature	Pass	Pass	Pass	Pass	Fail	Pass	5	Good	Medium	Lost
T044	1	Whitebeam	*Sorbus aria*		8	1	330		50.27	4	Mature	Pass	Pass	Pass	Fail	Fail	Pass	4	Moderate	Medium	Lost
T045	1	Whitebeam	*Sorbus aria*		7	1	310		43.01	3.7	Early Mature	Pass	Pass	Fail	Fail	Fail	Pass	3	Moderate	Medium	Transplant
T046	1	Swedish Whitebeam	*Sorbus intermedia*		6	1	250		28.27	3	Early Mature	Pass	Pass	Fail	Fail	Fail	Pass	3	Moderate	Small	Lost
T047	1	Apple	*Malus sp.*	Fasitigiata	8	1	350		55.42	4.2	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Lost
T048	1	Swedish Whitebeam	*Sorbus intermedia*		7	1	320		45.36	3.8	Early Mature	Pass	Pass	Fail	Pass	Fail	Pass	4	Moderate	Medium	Lost
T049	1	Rowan	*Sorbus aucuparia*		4	1	90		3.801	1.1	Young	Pass	Pass	Fail	Fail	Fail	Pass	3	Moderate	Small	Lost
T050	1	Japanese Maple	*Acer palmatum*		3	3	100	**100**, 100, 100	13.85	2.1	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Lost
T052	1	Swedish Whitebeam	*Sorbus intermedia*		8	1	330		50.27	4	Mature	Pass	Pass	Pass	Pass	Fail	Pass	5	Good	Medium	Lost
T054	1	Cherry	*Prunus sp. 'Cherry'*		4	1	180		15.21	2.2	Semi Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Lost
T055	1	Rowan	*Sorbus aucuparia*		6	1	130		8.042	1.6	Semi Mature	Pass	Pass	Fail	Fail	Fail	Pass	3	Moderate	Small	Lost
T056	1	Swedish Whitebeam	*Sorbus intermedia*		7	1	410		75.43	4.9	Mature	Pass	Pass	Pass	Pass	Fail	Pass	5	Good	Medium	Lost
T057	1	Apple	*Malus sp.*		6	1	300		40.72	3.6	Early Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Lost
T058	1	Swedish Whitebeam	*Sorbus intermedia*		7	1	350		55.42	4.2	Early Mature	Pass	Pass	Fail	Fail	Fail	Pass	3	Moderate	Medium	Lost
T059	1	Blue Cedar	*Cedrus atlantica glauca*		9	1	240		26.42	2.9	Semi Mature	Fail	Pass	Fail	Pass	Fail	Pass	3	Moderate	Small	Lost
T061	1	Blue Cedar	*Cedrus atlantica glauca*		7	1	250		28.27	3	Semi Mature	Fail	Pass	Fail	Pass	Fail	Pass	3	Moderate	Small	Lost
T062	1	Blue Cedar	*Cedrus atlantica glauca*		7	1	180		15.21	2.2	Semi Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Lost
T065	1	Common Holly	*Ilex aquifolium*		4	2	130	80, **130**	10.18	1.8	Semi Mature	Pass	Pass	Fail	Fail	Fail	Pass	3	Moderate	Small	Lost
T067	1	Blue Cedar	*Cedrus atlantica glauca*		10	1	340		52.81	4.1	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Medium	Lost
T068	1	Swedish Whitebeam	*Sorbus intermedia*		7	1	210		19.63	2.5	Semi Mature	Pass	Pass	Fail	Fail	Fail	Pass	3	Moderate	Small	Lost

Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Types

Individual trees – Urban trees
Individual trees – Rural trees
Complete a condition sheet for each tree or block of trees.

Habitat Description	On-site or off-site, site name and location	Limitations (if applicable)
City centre trees, all considered to be individual trees for purposes of metric - although some 'adjacent' trees may touch. 144nr trees in total (71 medium size and 73 small size), range of ages. Majority are non-native. Planted into sealed surfaces (paved) or amenity grassland.	On-site Armada Way, Plymouth	None reported

Survey date and Surveyor name
October - November 2021 - YGS Environmental Consultants Ltd July 2022 - TEP Ltd December 2022 Simon Geary Ecology Services Ltd

Survey reference (if relating to a wider survey)
Tree Survey Data Extracted from YGS Environmental Consultants Ltd Arboricultural Method Statement Ref 67CA09-YGS-ZZ-XX-RP-J-010. Wildlife data (e.g. criteria E) extracted from Simon Geary Ecological Services PEA

Condition Assessment Criteria					
A	B	C	D	E	F
The tree is a native species (or at least 70% within the block are native species).	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).	The tree is mature (or more than 50% within the block are mature)[1].	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.	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	More than 20% of the tree canopy area is oversailing vegetation beneath.

TREE HELPER			
	Number of trees for each condition state		
Tree Size Class	Poor (0,1 or 2 out of 6)	Moderate (3 or 4 out of 6)	Good (5 or 6 out of 6)
Small (75-300mm)	53	20	0
Medium (301-600mm)	30	38	3
Large (601-900mm)	0	0	0
Very Large (901+mm)	0	0	0

Habitat parcel ref.	Zone	Common Name	Scientific Name	Variety	Ht (m)	Nr. Stems	Stem DBH (mm)	Multi-stem DBH (mm)	RPA (m2)	RPA_r (m)	Life Stage	Criterion passed (Yes or No)						Nr Criteria Passed	Condition	Size Class	Impact
T069	1	Flowering Cherry	*Prunus sp.*		4	1	240		26.42	2.9	Semi Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Lost
T070	1	Honey locust	*Gleditsia triacanthos*		6	1	270		32.17	3.2	Semi Mature	Fail	Pass	Fail	Pass	Fail	Fail	2	Poor	Small	Lost
T071	1	Swedish Whitebeam	*Sorbus intermedia*		6	1	370		60.82	4.4	Mature	Pass	Pass	Pass	Fail	Fail	Pass	4	Moderate	Medium	Lost
T072	1	Swedish Whitebeam	*Sorbus intermedia*		6	1	370		60.82	4.4	Mature	Pass	Pass	Pass	Fail	Fail	Pass	4	Moderate	Medium	Lost
T073	1	Swedish Whitebeam	*Sorbus intermedia*		6	1	300		40.72	3.6	Mature	Pass	Pass	Pass	Fail	Fail	Pass	4	Moderate	Small	Lost
T074	1	Apple	*Malus sp.*	Fasitigiata	8	1	310		43.01	3.7	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Lost
T075	2	Common Laburnum	*Laburnum anagyroides*		4	1	210		19.63	2.5	Early Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Enhanced
T076	2	Common Laburnum	*Laburnum anagyroides*		4	1	170		12.57	2	Semi Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Enhanced
T077	2	Common Laburnum	*Laburnum anagyroides*		3	1	120		6.158	1.4	Semi Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Enhanced
T078	2	Norway Maple	*Acer platanoides*	Crimson King	12	1	410		75.43	4.9	Mature	Fail	Pass	Pass	Pass	Fail	Pass	4	Moderate	Medium	Retained
T079	2	Horse Chestnut	*Aesculus hippocastanum*		15	1	520		120.8	6.2	Mature	Fail	Pass	Pass	Fail	Pass	Fail	3	Moderate	Medium	Enhanced
T080	2	Horse Chestnut	*Aesculus hippocastanum*		15	1	500		113.1	6	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Enhanced
T081	2	Single Leafed Ash	*Fraxinus excelsior f. diversifolia*		15	1	390		69.4	4.7	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Enhanced
T082	2	Flowering Cherry	*Prunus sp.*		5	1	330		50.27	4	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Enhanced
T083	2	Horse Chestnut	*Aesculus hippocastanum*		16	1	540		132.7	6.5	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Enhanced
T084	2	Horse Chestnut	*Aesculus hippocastanum*		16	1	520		120.8	6.2	Mature	Fail	Pass	Pass	Fail	Pass	Fail	3	Moderate	Medium	Retained
T085	2	Horse Chestnut	*Aesculus hippocastanum*		10	1	370		60.82	4.4	Early Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Medium	Retained
T086	2	Horse Chestnut	*Aesculus hippocastanum*		10	1	380		66.48	4.6	Early Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Medium	Lost
T087	2	Single Leafed Ash	*Fraxinus excelsior f. diversifolia*		12	1	380		66.48	4.6	Early Mature	Fail	Pass	Fail	Fail	Pass	Fail	2	Poor	Medium	Lost
T088	2	Swedish Whitebeam	*Sorbus intermedia*		7	1	250		28.27	3	Early Mature	Pass	Pass	Fail	Fail	Fail	Pass	3	Moderate	Small	Lost
T089	2	Sitka Spruce	*Picea sitchensis*		5	1	110		5.309	1.3	Young	Fail	Pass	Fail	Pass	Fail	Pass	3	Moderate	Small	Lost
T091	2	Sorbus	*Sorbus thuringiaca*		9	1	510		116.9	6.1	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Lost
T092	2	Sorbus	*Sorbus thuringiaca*		8	1	380		66.48	4.6	Early Mature	Fail	Pass	Fail	Fail	Pass	Fail	2	Poor	Medium	Lost
T093	2	Sorbus	*Sorbus thuringiaca*		8	1	430		84.95	5.2	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Lost
T094	2	Sorbus	*Sorbus thuringiaca*		8	1	390		69.4	4.7	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Lost
T095	2	Sorbus	*Sorbus thuringiaca*		8	1	410		75.43	4.9	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Lost
T096	2	Sorbus	*Sorbus thuringiaca*		8	1	440		88.25	5.3	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Lost
T097	2	Common Laburnum	*Laburnum anagyroides*		7	1	230		24.63	2.8	Early Mature	Fail	Pass	Fail	Fail	Pass	Pass	3	Moderate	Small	Lost
T098	2	Common Laburnum	*Laburnum anagyroides*		8	1	230		R	R	Semi Mature	Fail	Pass	Fail	Fail	Pass	Pass	3	Moderate	Small	Lost

Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Types

Individual trees – Urban trees
Individual trees – Rural trees
Complete a condition sheet for each tree or block of trees.

Habitat Description	On-site or off-site, site name and location	Limitations (if applicable)
City centre trees, all considered to be individual trees for purposes of metric - although some 'adjacent' trees may touch. 144nr trees in total (71 medium size and 73 small size), range of ages. Majority are non-native. Planted into sealed surfaces (paved) or amenity grassland.	On-site Armada Way, Plymouth	None reported

Survey date and Surveyor name
October - November 2021 - YGS Environmental Consultants Ltd July 2022 - TEP Ltd December 2022 Simon Geary Ecology Services Ltd

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Condition Assessment Criteria					
A	B	C	D	E	F
The tree is a native species (or at least 70% within the block are native species).	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).	The tree is mature (or more than 50% within the block are mature)[1].	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.	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	More than 20% of the tree canopy area is oversailing vegetation beneath.

TREE HELPER	Number of trees for each condition state		
Tree Size Class	Poor (0,1 or 2 out of 6)	Moderate (3 or 4 out of 6)	Good (5 or 6 out of 6)
Small (75-300mm)	53	20	0
Medium (301-600mm)	30	38	3
Large (601-900mm)	0	0	0
Very Large (901+mm)	0	0	0

Habitat parcel ref.	Zone	Common Name	Scientific Name	Variety	Ht (m)	Nr. Stems	Stem DBH (mm)	Multi-stem DBH (mm)	RPA (m2)	RPA_r (m)	Life Stage	Criterion passed (Yes or No)						Nr Criteria Passed	Condition	Size Class	Impact
T099	2	Common Laburnum	*Laburnum anagyroides*		7	1	270		R	R	Early Mature	Fail	Pass	Fail	Fail	Pass	Pass	3	Moderate	Small	Lost
T100	2	Common Laburnum	*Laburnum anagyroides*		8	1	290		38.48	3.5	Early Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Lost
T101	2	Norway Maple	*Acer platanoides*	Crimson King	10	1	360		58.09	4.3	Early Mature	Fail	Pass	Fail	Pass	Fail	Pass	3	Moderate	Medium	Lost
T102	2	Horse Chestnut	*Aesculus hippocastanum*		15	1	490		109.4	5.9	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Lost
T103	2	Horse Chestnut	*Aesculus hippocastanum*		15	1	560		141	6.7	Mature	Fail	Pass	Pass	Fail	Pass	Pass	4	Moderate	Medium	Lost
T104	2	Horse Chestnut	*Aesculus hippocastanum*		15	1	480		105.7	5.8	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Lost
T105	2	Horse Chestnut	*Aesculus hippocastanum*		13	1	450		91.61	5.4	Mature	Fail	Pass	Pass	Fail	Pass	Fail	3	Moderate	Medium	Lost
T106	2	Horse Chestnut	*Aesculus hippocastanum*		12	1	460		95.03	5.5	Mature	Fail	Pass	Pass	Fail	Pass	Fail	3	Moderate	Medium	Lost
T107	2	Horse Chestnut	*Aesculus hippocastanum*		12	1	480		105.7	5.8	Mature	Fail	Pass	Pass	Fail	Pass	Fail	3	Moderate	Medium	Retained
T108	2	Horse Chestnut	*Aesculus hippocastanum*		12	1	510		116.9	6.1	Mature	Fail	Pass	Pass	Fail	Pass	Fail	3	Moderate	Medium	Lost
T109	3	Single Leafed Ash	*Fraxinus excelsior f. diversifolia*		12	1	410		75.43	4.9	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Enhanced
T110	2	Sorbus	*Sorbus thuringiaca*		7	1	340		52.81	4.1	Early Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Medium	Lost
T111	3	Sycamore	*Acer pseudoplatanus*	Purpurea	10	1	460		95.03	5.5	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Lost
T112	3	Sorbus	*Sorbus sp.*		8	1	320		45.36	3.8	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Lost
T113	3	Sorbus	*Sorbus sp.*		8	1	420		78.54	5	Mature	Fail	Pass	Pass	Fail	Pass	Fail	3	Moderate	Medium	Lost
T114	3	Japanese Maple	*Acer palmatum*		5	5	210	80, 110, 150, **210**, 80	40.72	3.6	Early Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Lost
T115	3	Austrian Pine	*Pinus nigra*		9	2	310	**310**, 230	66.48	4.6	Early Mature	Fail	Pass	Fail	Pass	Fail	Fail	2	Poor	Medium	Lost
T116	3	Austrian Pine	*Pinus nigra*		10	1	430		84.95	5.2	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Lost
T117	3	Sorbus	*Sorbus thuringiaca*		6	1	250		28.27	3	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Small	Lost
T118	3	Sorbus	*Sorbus thuringiaca*		6	1	260		30.19	3.1	Semi Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Enhanced
T119	3	Japanese Maple	*Acer palmatum*		4	8	130	80, 80, 60, 50, 50, **130**, 120, 110	30.19	3.1	Early Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Transplant
T120	3	Japanese Maple	*Acer palmatum*		4	4	100	70, 70, **100**, 80	11.34	1.9	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Transplant
T121	3	Sorbus	*Sorbus sp.*		6	1	270		32.17	3.2	Semi Mature	Fail	Pass	Fail	Fail	Fail	Pass	2	Poor	Small	Enhanced
T122	3	Sorbus	*Sorbus thuringiaca*		6	1	380		66.48	4.6	Mature	Fail	Pass	Pass	Fail	Fail	Pass	3	Moderate	Medium	Retained
T123	3	Cappadocian Maple	*Acer cappadocicum*		7	1	320		45.36	3.8	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Medium	Lost
T124	3	Horse Chestnut	*Aesculus hippocastanum*		10	1	450		91.61	5.4	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Lost
T125	3	Silver Maple	*Acer saccharinum*		9	1	330		50.27	4	Early Mature	Fail	Pass	Fail	Fail	Pass	Fail	2	Poor	Medium	Transplant
T126	3	Silver Birch	*Betula pendula*		12	1	310		43.01	3.7	Mature	Pass	Pass	Pass	Fail	Fail	Fail	3	Moderate	Medium	Lost
T127	3	Horse Chestnut	*Aesculus hippocastanum*		9	1	370		60.82	4.4	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Lost
T128	3	Flowering Cherry	*Prunus sp.*		7	1	390		69.4	4.7	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Lost

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TREE HELPER			
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Very Large (901+mm)	0	0	0

Habitat parcel ref.	Zone	Common Name	Scientific Name	Variety	Ht (m)	Nr. Stems	Stem DBH (mm)	Multi-stem DBH (mm)	RPA (m2)	RPA_r (m)	Life Stage	Criterion passed (Yes or No)						Nr Criteria Passed	Condition	Size Class	Impact
T129	3	Horse Chestnut	*Aesculus hippocastanum*		14	1	580		153.9	7	Mature	Fail	Pass	Pass	Fail	Fail	Fail	2	Poor	Medium	Lost
T130	3	Cappadocian Maple	*Acer cappadocicum*		7	1	240		26.42	2.9	Semi Mature	Fail	Pass	Fail	Fail	Pass	Fail	2	Poor	Small	Lost
T131	3	Cappadocian Maple	*Acer cappadocicum*		6	1	290		38.48	3.5	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Lost
T132	3	Horse Chestnut	*Aesculus hippocastanum*		8	1	340		52.81	4.1	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Medium	Lost
T133	3	Cappadocian Maple	*Acer cappadocicum*		6	1	260		30.19	3.1	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Lost
T134	3	Horse Chestnut	*Aesculus hippocastanum*		9	1	390		69.4	4.7	Early Mature	Fail	Pass	Fail	Fail	Pass	Fail	2	Poor	Medium	Lost
T135	3	Silver Birch	*Betula pendula*		12	1	320		45.36	3.8	Mature	Pass	Pass	Pass	Fail	Fail	Fail	3	Moderate	Medium	Lost
T136	3	Cappadocian Maple	*Acer cappadocicum*		7	1	320		45.36	3.8	Early Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Medium	Lost
T137	3	Field Maple	*Acer campestre*		6	1	230		24.63	2.8	Semi Mature	Pass	Pass	Fail	Fail	Fail	Fail	2	Poor	Small	Lost
T138	4	Sweet Gum	*Liquidambar styraciflua*		9	1	220		21.24	2.6	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T139	4	Sweet Gum	*Liquidambar styraciflua*		9	1	220		21.24	2.6	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T140	4	Sweet Gum	*Liquidambar styraciflua*		9	1	200		18.1	2.4	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T141	4	Sweet Gum	*Liquidambar styraciflua*		9	1	210		19.63	2.5	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T142	4	Sweet Gum	*Liquidambar styraciflua*		8	1	210		19.63	2.5	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T143	4	Sweet Gum	*Liquidambar styraciflua*		8	1	200		18.1	2.4	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T144	4	Sweet Gum	*Liquidambar styraciflua*		7	1	200		18.1	2.4	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T145	4	Sweet Gum	*Liquidambar styraciflua*		7	1	180		15.21	2.2	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T146	4	Sweet Gum	*Liquidambar styraciflua*		7	1	200		18.1	2.4	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T147	4	Sweet Gum	*Liquidambar styraciflua*		8	1	230		24.63	2.8	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T148	4	Sweet Gum	*Liquidambar styraciflua*		8	1	210		19.63	2.5	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T149	4	Sweet Gum	*Liquidambar styraciflua*		8	1	210		19.63	2.5	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T150	4	Sweet Gum	*Liquidambar styraciflua*		10	1	220		21.24	2.6	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T151	4	Sweet Gum	*Liquidambar styraciflua*		9	1	230		24.63	2.8	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T152	4	Sweet Gum	*Liquidambar styraciflua*		10	1	280		36.32	3.4	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced
T153	4	Sweet Gum	*Liquidambar styraciflua*		9	1	220		21.24	2.6	Semi Mature	Fail	Pass	Fail	Fail	Fail	Fail	1	Poor	Small	Enhanced

Annex C: Statutory Biodiversity Metric Input and Results Tables

Armada Way

Headline Results

On-site baseline	*Habitat units*	10.26		
	Hedgerow units	0.05		
	Watercourse units	0.00		
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	6.16		
	Hedgerow units	1.00		
	Watercourse units	0.00		
On-site net change (units & percentage)	*Habitat units*	-4.10	-39.98%	On-site net gain is less than target set ⚠
	Hedgerow units	0.95	1893.48%	
	Watercourse units	0.00	0.00%	
Off-site baseline	*Habitat units*	5.76		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	11.97		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site net change (units & percentage)	*Habitat units*	6.21	107.81%	
	Hedgerow units	0.00	0.00%	
	Watercourse units	0.00	0.00%	
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	2.11		
	Hedgerow units	0.95		
	Watercourse units	0.00		
Spatial risk multiplier (SRM) deductions	*Habitat units*	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		

FINAL RESULTS

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	2.11
	Hedgerow units	0.95
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	20.53%
	Hedgerow units	1893.48%
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	20.00%	10.26	12.31	0.00
Hedgerow units	20.00%	0.05	0.06	0.00
Watercourse units	20.00%	0.00	0.00	0.00

Project Name: Armada Way	Map Reference: G9597.01.001
A-1 On-Site Habitat Baseline	

Area habitat summary	
Total Net Unit Change	2.11
Total Net % Change	20.53%
Trading Rules Satisfied	Yes ✓

	Existing area habitats				Distinctiveness	Condition	Strategic significance	Required Action to Meet Trading Rules	Ecological baseline							Bespoke compensation agreed for losses of VHDH or irreplaceable habitat	Comments
Ref	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)					Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area habitat lost	Units lost		User comments
1	Urban	Developed land; sealed surface	No	1.815629	V.Low	N/A - Other	Area/ compensation not in local strategy/ no local strategy	Compensation Not Required	0.00			0.00	0.00	1.82	0.00		Various surfaces - tarmac, hard standing and paving. Also Cobbled surfaces of swale, unvegetated but mostly mortared (presumably for water retention).
2	Urban	Introduced shrub	No	0.26	Low	Condition Assessment N/A	Area/ compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	0.52			0.00	0.00	0.26	0.52		Limited planting palate - non-native. All habitats presumed lost, although some existing planting beds will be retained but modified and replanted.
3	Grassland	Modified grassland	No	0.375	Low	Poor	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	0.75			0.00	0.00	0.38	0.75		Amenity grassland. Hard used and worn with compaction and erosion of sward in places. All habitats presumed lost, although some existing planting beds will be retained but modified and replanted.
4	Urban	Artificial unvegetated, unsealed surface	No	0.023	V.Low	N/A - Other	Area/ compensation not in local strategy/ no local strategy	Compensation Not Required	0.00			0.00	0.00	0.02	0.00		Some areas of bare ground, but limited. All habitats presumed lost, although some existing planting beds will be retained but modified and replanted.

	Existing area habitats				Distinctiveness	Condition	Strategic significance	Required Action to Meet Trading Rules	Ecological baseline								Bespoke compensation agreed for losses of VHDH or irreplaceable habitat	Comments
Ref	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)					Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area habitat lost	Units lost			User comments
5	Urban	Sustainable drainage system	No	0.017	Low	Poor	Area/ compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	0.03			0.00	0.00	0.02	0.03			Temporary and shallow water holding sections at ends of swales. Dry at time of survey but known from online imagery (Google Streetview) to hold water at times. Unvegetated and sealed surface. Artificial sides/banks. No vegetation (aquatic, marginal or emergent). Sealed surface, when exposed, is within public access walkways. Temporary water holding areas during heavier rainfall events.
6	Individual trees	Urban tree	No	0.195432196	Medium	Poor	Area/ compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	0.78		0.024429024	0.00	0.10	0.17	0.68			Zone 1 - 65 trees total; 30 poor condition. Of these 0 to be retained, 3 to be enhanced, 0 to be transplanted, remainder removed. Tree removal completed March 2023. Landscape installation October 2024
7	Individual trees	Urban tree	No	0.362363863	Medium	Moderate	Area/ compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	2.90	0.032572	0.012214512	0.26	0.10	0.32	2.54			Zone 1 - 65 trees total; 32 moderate condition. Of these 2 to be retained, 3 to be enhanced, 1 to be transplanted (offsite), remainder removed. Tree removal completed March 2023. Tree translocation (T045) spring 2024. Landscape installation October 2024
8	Individual trees	Urban tree	No	0.048858049	Medium	Good	Area/ compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	0.59			0.00	0.00	0.05	0.59			Zone 1 - 65 trees total; 3 good condition. All lost. Tree removal completed March 2023. Landscape installation October 2024
9	Individual trees	Urban tree	No	0.207646708	Medium	Poor	Area/ compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	0.83	0.016286	0.077358578	0.07	0.31	0.11	0.46			Zone 2 - 35 trees, 16 poor condition. Of these 1 retained, 7 enhanced. Tree removal completed March 2023. Landscape installation Apr2025

Ref	Existing area habitats				Distinctiveness	Condition	Strategic significance	Required Action to Meet Trading Rules	Ecological baseline								Bespoke compensation agreed for losses of VHDH or irreplaceable habitat	Comments
	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)					Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area habitat lost	Units lost		User comments
10	Individual trees	Urban tree	No	0.232075733	Medium	Moderate	Area/ compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	1.86	0.032572	0.016286016	0.26	0.13	0.18	1.47		Zone 2 - 35 trees, 19 moderate condition. Of these 2 retained, 1 enhanced. Tree removal completed March 2023. Landscape installation Apr2025
11	Individual trees	Urban tree	No	0.232075733	Medium	Poor	Area/ compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	0.93		0.024429024	0.00	0.10	0.21	0.83		Zone 3 - 28 trees, 21 poor condition. Of these 0 retained, 3 enhanced, 3 to be transplanted (offsite). Tree removal completed March 2023. Tree transplantation spring 2024. Landscape installation Jul 2025
12	Individual trees	Urban tree	No	0.101787602	Medium	Moderate	Area/ compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	0.81	0.016286		0.13	0.00	0.09	0.68		Zone 3 - 28 trees, 7 moderate condition. Of these 1 retained, rest removed. Tree removal completed March 2023. Landscape installation Jul 2025
13	Individual trees	Urban tree	No	0.065144065	Medium	Poor	Area/ compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	0.26		0.065144065	0.00	0.26	0.00	0.00		Zone 4 - 16 trees, poor condition, all retained and enhanced Completion December 2025
		Total habitat area		3.94					10.26	0.10	0.22	0.72	0.99	3.62	8.55		
		Site Area (Excluding area of individual trees, green walls, intertidal hard structures)		2.49													
										Total area lost (excluding area of individual trees, green walls and intertidal hard structures)					2.49		

Project Name: Armada Way	Map Reference: G9597.01.002
A-2 On-Site Habitat Creation	

Area habitat summary	
Total Net Unit Change	2.11
Total Net % Change	20.53%
Trading Rules Satisfied	Yes ✓
Area Check	Area Acceptable ✓

	Post intervention habitats											
				Distinctiveness	Condition	Strategic significance	Temporal multiplier		Difficulty multipliers	Habitat units delivered	Comments	
Ref	Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation		User comments	
1	Urban	Developed land; sealed surface	1.918175	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	0	Low	0.00	Whole site - remaining area to comprise hard landscaping, assigned as 'sealed surface' although there will be differential paving, permeable surfaces, mulch, gravel etc.	
2	Urban	Introduced shrub	0.0707	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	2 years delay in starting habitat creation	3	Low	0.13	Zone 1 - Ornamental planting (grass/herbaceous). Vegetation removal completed March 2023, landscape installation anticipated October 2024. (2 year delay)	
3	Grassland	Modified grassland	0.019245	Low	Poor	Area/compensation not in local strategy/ no local strategy	2 years delay in starting habitat creation	3	Low	0.03	Zone 1 - Amenity lawn. Vegetation removal completed March 2023, landscape installation anticipated October 2024 (2 year delay)	
4	Grassland	Modified grassland	0.011115	Low	Poor	Area/compensation not in local strategy/ no local strategy	2 years delay in starting habitat creation	3	Low	0.02	Zone 1 - Reinforced lawn. Vegetation removal completed March 2023, landscape installation anticipated October 2024 (2 year delay)	

	Post intervention habitats										
				Distinctiveness	Condition	Strategic significance	Temporal multiplier		Difficulty multipliers		Comments
Ref	Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation	Habitat units delivered	User comments
5	Grassland	Other neutral grassland	0.129831	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	2 years delay in starting habitat creation	7	Low	0.81	Zone 1 - Shade tolerant native wildflower meadow. Vegetation removal completed March 2023, landscape installation anticipated October 2024 (2 year delay)
6	Heathland and shrub	Mixed scrub	0.010623	Medium	Poor	Area/compensation not in local strategy/ no local strategy	2 years delay in starting habitat creation	3	Low	0.04	Zone 1 - Clipped bulk hedge (native species mix). Vegetation removal completed March 2023, landscape installation anticipated October 2024 (2 year delay)
7	Urban	Bioswale	0.023461	Low	Fairly Good	Area/compensation not in local strategy/ no local strategy	2 years delay in starting habitat creation	4	Medium	0.07	Zone 1 - Reedbeds. Vegetation removal completed March 2023, landscape installation anticipated October 2024 (2 year delay)
8	Urban	Bioswale	0.013324	Low	Poor	Area/compensation not in local strategy/ no local strategy	2 years delay in starting habitat creation	3	Medium	0.02	Zone 1 - Rill (unvegetated). Vegetation removal completed March 2023, landscape installation anticipated October 2024 (2 year delay)
9	Urban	Rain garden	0.040538	Low	Fairly Good	Area/compensation not in local strategy/ no local strategy	2 years delay in starting habitat creation	6	Low	0.16	Zone 1 - Rain garden planting. Vegetation removal completed March 2023, landscape installation anticipated October 2024 (2 year delay)
10	Urban	Introduced shrub	0.046819	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.09	Rest of site - Ornamental planting (grass/herbaceous). Less than 12 months between vegetation removal and landscape installation for Zones 2, 3 and 4. Anticipated completion Dec 2025

	Post intervention habitats											
				Distinctiveness	Condition	Strategic significance	Temporal multiplier		Difficulty multipliers		Comments	
Ref	Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation	Habitat units delivered	User comments	
11	Grassland	Modified grassland	0.04665	Low	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.09	Rest of site - Amenity lawn. Less than 12 months between vegetation removal and landscape installation for Zones 2, 3 and 4. Anticipated completion Dec 2025	
12	Grassland	Modified grassland	0.006146	Low	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.01	Rest of site - Reinforced lawn. Less than 12 months between vegetation removal and landscape installation for Zones 2, 3 and 4. Anticipated completion Dec 2025	
13	Grassland	Other neutral grassland	0.015184	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	5	Low	0.10	Rest of site - Shade tolerant native wildflower meadow. Less than 12 months between vegetation removal and landscape installation for Zones 2, 3 and 4. Anticipated completion Dec 2025	
14	Heathland and shrub	Mixed scrub	0.006764	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.03	Rest of site - Clipped bulk hedge (native species mix). Less than 12 months between vegetation removal and landscape installation for Zones 2, 3 and 4. Anticipated completion Dec 2025	
15	Urban	Bioswale	0.016593	Low	Fairly Good	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	2	Medium	0.05	Rest of site - Reedbeds. Less than 12 months between vegetation removal and landscape installation for Zones 2, 3 and 4. Anticipated completion Dec 2025	

	Post intervention habitats										
				Distinctiveness	Condition	Strategic significance	Temporal multiplier		Difficulty multipliers		Comments
Ref	Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation	Habitat units delivered	User comments
16	Urban	Bioswale	0.016093	Low	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Medium	0.02	Rest of site - Rill (unvegetated). Less than 12 months between vegetation removal and landscape installation for Zones 2, 3 and 4. Anticipated completion Dec 2025
17	Urban	Rain garden	0.095645	Low	Fairly Good	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	4	Low	0.41	Rest of site - Rain garden planting. Less than 12 months between vegetation removal and landscape installation for Zones 2, 3 and 4. Anticipated completion Dec 2025
18	Individual trees	Urban tree	0.325720326	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	2 years delay in starting habitat creation	29	Low	0.93	Zone 1 - 85 new trees planted, 80 in 'moderate' condition, 5 in 'poor' condition (generally as a result of location within hard landscape rather than soft landscape, in combination with 'non-native' status, but wildlife friendly species selected for pollinators and birds. Tree removal completed Mar23. Landscape installation Oct24 (2 year delay)

	Post intervention habitats										
				Distinctiveness	Condition	Strategic significance	Temporal multiplier		Difficulty multipliers		Comments
Ref	Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation	Habitat units delivered	User comments
19	Individual trees	Urban tree	0.02035752	Medium	Poor	Area/compensation not in local strategy/ no local strategy	2 years delay in starting habitat creation	12	Low	0.05	Zone 1 - 85 new trees planted, 80 in 'moderate' condition, 5 in 'poor' condition (generally as a result of location within hard landscape rather than soft landscape, in combination with 'non-native' status, but wildlife friendly species selected for pollinators and birds.Tree removal completed Mar23. Landscape installation Oct24 (2 year delay)
20	Individual trees	Urban tree	0.085501586	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	2 years delay in starting habitat creation	29	Low	0.24	Zone 2 - 28 new trees planted, 21 in 'moderate' condition, 7 in 'poor' condition (generally as a result of location within hard landscape rather than soft landscape, in combination with 'non-native' status, but wildlife friendly species selected for pollinators and birds. Tree removal completed Mar23. Landscape installation Apr2025 (2 year delay)

	Post intervention habitats										
				Distinctiveness	Condition	Strategic significance	Temporal multiplier		Difficulty multipliers		Comments
Ref	Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation	Habitat units delivered	User comments
21	Individual trees	Urban tree	0.028500529	Medium	Poor	Area/compensation not in local strategy/ no local strategy	2 years delay in starting habitat creation	12	Low	0.07	Zone 2 - 28 new trees planted, 21 in 'moderate' condition, 7 in 'poor' condition (generally as a result of location within hard landscape rather than soft landscape, in combination with 'non-native' status, but wildlife friendly species selected for pollinators and birds. Tree removal completed Mar23. Landscape installation Apr2025 (2 year delay)
22	Individual trees	Urban tree	0.154717155	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	3 years delay in starting habitat creation	30	Low	0.43	Zone 3 - 52 new trees planted, 38 in 'moderate' condition, 14 in 'poor' condition (generally as a result of location within hard landscape rather than soft landscape, in combination with 'non-native' status, but wildlife friendly species selected for pollinators and birds. Tree removal completed Mar23. Landscape installation Jul25 (3 year delay)

	Post intervention habitats											
				Distinctiveness	Condition	Strategic significance	Temporal multiplier		Difficulty multipliers			Comments
Ref	Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation	Habitat units delivered		User comments
23	Individual trees	Urban tree	0.057001057	Medium	Poor	Area/compensation not in local strategy/ no local strategy	3 years delay in starting habitat creation	13	Low	0.14		Zone 3 - 52 new trees planted, 38 in 'moderate' condition, 14 in 'poor' condition (generally as a result of location within hard landscape rather than soft landscape, in combination with 'non-native' status, but wildlife friendly species selected for pollinators and birds. Tree removal completed Mar23. Landscape installation Jul25 (3 year delay)
	Total habitat area		3.16							3.95		
	Site Area (Excluding area of individual trees, green walls, intertidal hard structures)		2.49									

Project Name: Armada Way	Map Reference: G9597.01.002
A-3 On-Site Habitat Enhancement	

Area habitat summary	
Total Net Unit Change	2.11
Total Net % Change	20.53%
Trading Rules Satisfied	Yes ✓

		Post intervention habitats													
	Baseline habitats	Proposed Habitat (Broad habitat pre-populated but can be overridden)		Change in distinctiveness and condition		Area (hz)	Distinctiveness	Condition	Strategic significance	Temporal risk multiplier		Difficulty risk multipliers	Habitat units delivered	Comments
Baseline ref	Baseline habitat	Proposed Broad Habitat	Proposed habitat	Distinctiveness change	Condition change				Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of enhancement		User comments
6	Individual trees - Urban tree	Individual trees	Urban tree	Medium - Medium	Poor - Moderate	0.024429024	Medium	Moderate	Area/ compensation not in local strategy/ no local strategy	Standard time to target condition applied	16	Low	0.15	Zone 1 = 3 trees enhanced from poor to moderate condition (improved setting and/or health)
7	Individual trees - Urban tree	Individual trees	Urban tree	Medium - Medium	Moderate - Good	0.012214512	Medium	Good	Area/ compensation not in local strategy/ no local strategy	Standard time to target condition applied	16	Low	0.13	Zone 1 = 3 trees enhanced from moderate to good condition (improved setting and/or health)
9	Individual trees - Urban tree	Individual trees	Urban tree	Medium - Medium	Poor - Moderate	0.077358578	Medium	Moderate	Area/ compensation not in local strategy/ no local strategy	Standard time to target condition applied	16	Low	0.48	Zone 2 = 7 trees enhanced from poor to moderate condition (improved setting and/or health)
10	Individual trees - Urban tree	Individual trees	Urban tree	Medium - Medium	Moderate - Good	0.016286016	Medium	Good	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	16	Low	0.17	Zone 2 = 1 tree enhanced from moderate to good condition (improved setting and/or health)
11	Individual trees - Urban tree	Individual trees	Urban tree	Medium - Medium	Poor - Moderate	0.024429024	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	16	Low	0.15	Zone 3 = 2 trees enhanced from poor to moderate condition (improved setting and/or health)
13	Individual trees - Urban tree	Individual trees	Urban tree	Medium - Medium	Poor - Moderate	0.065144065	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	16	Low	0.41	Zone 4 = 16 trees enhanced from poor to moderate condition (improved setting and/or health)
				Total habitat area		0.22							1.49	

Project Name: Armada Way	Map Reference:

D-1 Off-Site Habitat Baseline

Area habitat summary	
Total Net Unit Change	2.11
Total Net % Change	20.53%
Trading Rules Satisfied	Yes ✓

	Existing area habitats									Ecological baseline								Bespoke compensation agreed for losses of VHDH or irreplaceable habitat	Comments	Off-site reference
Ref	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance	Required Action to Meet Trading Rules	Spatial risk multiplier	Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area habitat lost	Units lost		User comments	
1	Grassland	Modified grassland	No	0.04	Low	Moderate	Area/ compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	Compensation inside LPA boundary or NCA of impact site	0.16	0.04		0.16	0.00	0.00	0.00	n/a	CALCULATION EXERCISE to account for unknown site (probably amenity grassland) for translocation. Assume four trees at 10m-20m spacing = an area of up to 20mx20m (0.04ha). No change to underlying baseline habitat (translocated trees will simply oversail).	OFF1
2	Grassland	Modified grassland	No	1.4	Low	Moderate	Area/ compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	Compensation inside LPA boundary or NCA of impact site	5.60	1.4		5.60	0.00	0.00	0.00	n/a	CALCULATION EXERCISE offsite location(s) for new tree planting offset needed to deliver project target of 20% net gain - location(s) currently unknown. Habitat assumed to comprise amenity grassland. Estimated area for tree planting allows for up to 5m spacing (assuming all trees would be planted as 'individuals', however denser spacing would be appropriate to create smalls stands etc). Small trees (whips to small standards, preferably large feathered, staked and guarded if appropriate to location) to achieve moderate condition (native or non-native, good	OFF2

Ref	Existing area habitats				Distinctiveness	Condition	Strategic significance	Required Action to Meet Trading Rules	Spatial risk multiplier	Ecological baseline							Bespoke compensation agreed for losses of VHDH or irreplaceable habitat	Comments	Off-site reference
	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)						Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area habitat lost	Units lost		User comments	
																		health, planted in soft landscaping). No change to underlying baseline habitat (new planted trees will simply oversail). May comprise single site or multiple smaller sites.	
		Total habitat are		1.44						5.76	1.44	0.00	5.76	0.00	0.00	0.00			

Site Area (Excluding area of individual trees, green walls, intertidal hard structures)	1.44

Total area lost (excluding area of individual trees, green walls and intertidal hard structures)	0.00

Project Name: Armada Way	Map Reference:
D-2 Off-Site Habitat Creation	

Area habitat summary	
Total Net Unit Change	2.11
Total Net % Change	20.53%
Trading Rules Satisfied	Yes ✓
Area Check	Area Acceptable ✓

	Post intervention habitats												
							Temporal multiplier		Difficulty multipliers	Spatial risk multiplier		Comments	
Ref	Broad Habitat	Proposed habitat	Area (ha)	Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation	Spatial risk category	Habitat units delivered	User comments	Ref
1	Individual trees	Urban tree	0.040715041	Medium	Moderate	Area/ compensation not in local strategy/ no local strategy	Standard time to target condition applied	27	Low	Compensation inside LPA boundary or NCA of impact site	0.12	CALCULATION EXERCISE - Transplanting T45 (medium, moderate) and T119, T120 (small, poor) and T124 (medium, poor) to offsite receptor (location TBC). T119, T120 and T124 subsequently enhanced from poor to moderate (T45 remains at moderate) = total 2 medium trees, moderate condition and 2 small trees, moderate condition. Translocation anticipated spring 2024. No delay in habitat creation applied (translocation).	OFF1
2	Individual trees	Urban tree	2.137539642	Medium	Moderate	Area/ compensation not in local strategy/ no local strategy	2 year delay in habitat creation	29	Low	Compensation inside LPA boundary or NCA of impact site	6.09	CALCULATION EXERCISE - minimum number of new trees needed for project to deliver 20% net gain target = 525. Assume planting would occur within amenity grass site(s). Allows for up to 5m spacing (assuming all trees would be planted as 'individuals', however denser spacing (to min 1.5m) would be appropriate to create smalls stands/groups/lines). Small trees (whips to small standards in groups, but preferably at least large feathered if planted individually or in visually prominent locations, staked and guarded if appropriate to location) to achieve moderate condition (native or non-native, good health, planted in soft landscaping). No change to underlying baseline habitat (new planted trees will simply oversail). May comprise single site or multiple smaller sites. Assumes planting delivered by March 2025.	OFF2
	Total habitat area	2.18									6.21		

Site Area (Excluding area of individual trees, green walls, intertidal hard structures)	0

Project Name: Armada Way	Map Reference: G9597.01.001
B-1 On-Site Hedge Baseline	

Hedgerow summary	
Total Net Unit Change	0.95
Total Net % Change	1893.48%
Trading Rules Satisfied	Yes ✓

	Existing hedgerow habitats			Distinctiveness	Condition	Strategic significance	Required Action to Meet Trading Rules	Ecological baseline							Comments
Ref	Hedge number	Habitat type	Length (km)	Distinctiveness	Condition	Strategic significance		Total hedgerow units	Length retained	Length enhanced	Units retained	Units enhanced	Length lost	Units lost	User comments
1	1	Non-native and ornamental hedgerow	0.01	V.Low	Poor	Area/compensation not in local strategy/ no local strategy	Same distinctiveness band or better	0.01			0.00	0.00	0.01	0.01	Low, short, managed ornamental hedge, delineating part of an urban landscape feature.
2	2	Non-native and ornamental hedgerow	0.02	V.Low	Poor	Area/compensation not in local strategy/ no local strategy	Same distinctiveness band or better	0.02			0.00	0.00	0.02	0.02	Low, short, managed ornamental hedge, delineating part of an urban landscape feature.
3	3	Non-native and ornamental hedgerow	0.01	V.Low	Poor	Area/compensation not in local strategy/ no local strategy	Same distinctiveness band or better	0.01			0.00	0.00	0.01	0.01	Low, short, managed ornamental hedge, delineating part of an urban landscape feature.
4	4	Non-native and ornamental hedgerow	0.01	V.Low	Poor	Area/compensation not in local strategy/ no local strategy	Same distinctiveness band or better	0.01			0.00	0.00	0.01	0.01	Low, short, managed ornamental hedge, delineating part of an urban landscape feature.
5			0.05					0.05					0.05	0.05	

Project Name: Armada Way	Map Reference: G9597.01.002
B-2 On-Site Hedge Creation	

Hedgerow summary	
Total Net Unit Change	0.95
Total Net % Change	1893.48%
Trading Rules Satisfied	Yes ✓

		Proposed habitats		Distinctiveness	Condition	Strategic significance	Temporal multiplier		Difficulty risk multipliers		Comments
Ref	New hedge number	Habitat type	Length (km)	Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation	Hedge units delivered	User comments
1		Non-native and ornamental hedgerow	0.336	V.Low	Poor	Area/compensation not in local strategy/ no local strategy	2 year delay in starting habitat creation	3	Low	0.30	Zone 1 (vegetation removed March 2023, tree translocation spring 2024, landscape installation October 2024). Clipped formal and loose non-native hedgerows.
2		Non-native and ornamental hedgerow	0.41	V.Low	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.40	Zone 2 (vegetation removal Jun 2024, landscape installation April 2025). Clipped formal and loose non-native hedgerows.
3		Non-native and ornamental hedgerow	0.31	V.Low	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.30	Zone 3 (vegetation removal March 2025, landscape installation July 2025). Loose non-native hedgerows.
			1.06							1.00	

Annex D: Predicted Habitat Condition Assessment

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)						
UKHab Habitat Type(s)						
Grassland - Modified grassland						
Site name/location	Armada Way, Plymouth	**Onsite/offsite**	On site	**Onsite/offsite**	On site	
		Unique polygon reference	4, 6, 7, 10, 11, 12, 13, 14, 19, 137	**Unique polygon reference**	3, 5, 8, 9, 16, 17	
		Landscape feature	LAWN - REINFORCED ('modified grassland')	**Landscape feature**	LAWN - AMENITY ('modified grassland')	
Condition Assessment Criteria		**Condition Achieved (Y/N)**	**Notes/Justification**	**Condition Achieved (Y/N)**	**Notes/Justification**	
1	There must be 6-8 species per m2. If a grassland has 9 or more species per m2 it should be classified as a medium distinctiveness grassland habitat type. **NB - this criterion is essential for achieving moderate condition.**	N	Amenity grass mix - species poor	N	Amenity grass mix - species poor	
2	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 insects, birds and small mammals to live and breed.	N	Mown for amenity use	N	Mown for amenity use	
3	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Y	Mown for amenity use	Y	Mown for amenity use	
4	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.	N	High access area	N	High access area	
5	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	N	Reinforced	Y	Maintained	
6	Cover of bracken less than 20%.	Y	Maintained	Y	Maintained	
7	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	Y	Maintained	Y	Maintained	
Essential criterion 1 achieved (Y/N)		N		N		
Number of criteria passed		3		4		
Condition Assessment Result	**Assessment Score**	**Condition Achieved**		**Condition Achieved**		
Passes 6 or 7 of 7 criteria including passing essential criterion 1	Good (3)					
Passes 4 or 5 of 7 criteria including passing essential criterion 1	Moderate (2)					
Passes 0, 1, 2 or 3 of 7 criteria; OR 4, 5 or 6 of criteria but failing criterion 1	Poor (1)	"Poor"		"Poor" although passes 4 criteria, is presumed to fail criterion 1.		

Condition Sheet: GRASSLAND Habitat Type (medium, high & very high distinctiveness)

UKHab Habitat Type(s)			
Grassland - Other neutral grassland			
Site name/location	Armada Way, Plymouth	**Onsite/offsite**	On site
Landscape Feature	Shade tolerant wildflower meadow turf (Boston Seeds)	**Unique polygon reference**	20, 22, 23, 25, 132, 135, 136
		Type	OTHER NEUTRAL GRASSLAND

	Condition Assessment Criteria	Condition Achieved (Y/N)	Notes/Justification
1	The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward. **NB - This criterion is essential for achieving moderate condition for non-acid grassland types only.**	Y	g3c maintained as meadow grassland, with no public access except if mown path provided through plot.
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	N	Small areas, mowing unlikely to achieve significant 'within plot' structural diversity, other than path mown through. But sward structure could be varied between plots for greater diversity across the whole.
3	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Y	Maintained
4	Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	Y	Maintained
5	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of species indicative of sub-optimal condition1 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.	Y	Maintained
Additional Group (Non-acid types only)			
6	There are greater than 9 species per metre squared. **NB - This criterion is essential for achieving good condition (non-acid grassland types only**).	Y	Maintained - floristic diversity should be feasible to maintain through management (including occasional 'top up' seeding if required) but as a precaution, moderate condition assumed.
	Criterion 1 Achieved (Essential for good condition for non-acid grassland) (Y/N)		Y
	Number of criteria passed		5

Condition Assessment Result	Condition Assessment Score	Condition Achieved
Non-acid grassland Types		
Passes 5 of 6 criteria, including essential criterion 1 and 6.	Good (3)	
Passes 3 or 4 of 6 criteria, including essential criterion 1.	Moderate (2)	"Moderate" although passes 5 criteria, "moderate" condition selected as precautious approach to reflect urban context.
Passes 0, 1, 2 criteria of 6 criteria; OR Passes 3 or 4 criteria excluding criterion 1 and 6	Poor (1)	

Suggested enhancement interventions to improve condition score

Notes

Footnote 1 - Species indicative of sub-optimal condition for this habitat type include:
Creeping thistle *Cirsium arvense* , spear thistle *Cirsium vulgare* , curled dock *Rumex crispus* , broad-leaved dock *Rumex obtusifolius* , common nettle *Urtica dioica* , creeping buttercup *Ranunculus repens* , greater plantain *Plantago major* , white clover *Trifolium repens* , cow parsley *Anthriscus sylvestris* .

Condition Sheet: URBAN Habitat Type

UKHab Habitat Type

Urban - Bioswale
Urban - Rain garden

Site name/location	Armada Way, Plymouth	**Onsite/ offsite**	On site	**Onsite/ offsite**	On site	**Onsite/ offsite**	On site
		Unique polygon reference	21, 24, 39, 40, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 88, 90, 93, 94, 95, 96, 99, 104, 105, 107, 108	**Unique polygon reference**	89, 91, 109, 110, 111, 112, 114, 115, 116, 117, 118, 119, 120, 121, 139	**Unique polygon reference**	122, 123, 124, 125, 126, 127, 128, 129, 130
		Landscape Feature	RAIN GARDENS	**Landscape Feature**	REEDBEDS	**Landscape Feature**	RILL (Bioswale)
		Type	Urban - rain gardens	**Type**	Urban - bioswale	**Type**	Urban - bioswale

	Condition Assessment Criteria	**Condition Achieved (Y/N)**	**Notes/Justification**	**Condition Achieved (Y/N)**	**Notes/Justification**	**Condition Achieved (Y/N)**	**Notes/Justification**
CORE CRITERIA - applicable to **all urban habitat types:**							
1	Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single ecotone (i.e. scrub, grassland, herbs) should not account for more than 80% of the total habitat area.	Y	Diverse structure will be developed by diverse planting mixes. Bug hotels also to be incorporated.	Y	Created to mimic pocket naturalistic reedbeds	N	Majority is likely to lack vegetation
2	There is a diverse range of flowering plant species, providing nectar sources for insects. These species may be either native, or non-native but beneficial to wildlife. **NB - To achieve GOOD condition, criterion 2 must be satisfied by native species only (rather than non-natives beneficial to wildlife). Note that Biodiverse green roofs are exempt from this requirement, and can include non-native sedums, as set out in footnote 1.**	Y	Will include a high proprtion of native species, but will also likley include visually aesthetic non-native although these will be wildlife friendly species	Y	Will include a mostly native species, but will also likley include visually aesthetic non-native although these will be wildlife friendly species	N	Will likely lack vegetation
3	Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area. **NB - To achieve GOOD condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).**	Y	Maintained	Y	Maintained	Y	Maintained
ADDITIONAL CRITERION - only applicable to **Bioswale and SUDS** habitat types:							
4b	The water table is at or near the surface throughout the year. This could be open water or saturation of soil at the surface.			Y	Maintained	Y	Maintained
	Essential criterion 2&3 achieved? (must be achieved to score a good condition for non biodiverse green roofs) (Y/N)	N			Y		N
	Number of criteria passed	3			4		2

Condition Assessment Result	**Condition Assessment**	**Score Achieved ×/**	**Score Achieved ×/**	**Score Achieved ×/**
If 3 criteria assessed:				
• Passes 3 of 3 core criteria; AND • Meets the requirements for good condition within criteria 2 and 3	Good (3)			
• Passes 2 of 3 core criteria; OR • Passes 3 of 3 core criteria but does not meet the requirements for good condition within criteria 2 and 3	Moderate (2)	"Fairly good" - cannot achieve "good" as C2 will not be wholly satisfied with native species, but will include a high proportion of natives and the non-natives will be selected for wildlife benefit. "Fairly good" condition is considered appropriate considering urban nature of the habitat and the design intentions.		
• Passes 0 or 1 of 3 core criteria	Poor (1)			
If 4 criteria assessed:				
• Passes 3 of 3 core criteria; AND • Meets the requirements for good condition within criteria 2 and 3; AND • Passes additional criterion 4a or 4b	Good (3)			
• Passes 2 or 3 of 4 criteria; OR • Passes 4 of 4 criteria but does not meet the requirements for good condition within criteria 2 and 3	Moderate (2)		"Fairly good" - cannot achieve "good" as C2 will not be wholly satisfied with native species, but will include a high proportion of natives and the non-natives will be selected for wildlife benefit. "Fairly good" condition is considered appropriate considering urban nature of the habitat and the design intentions.	
• Passes 0 or 1 of 4 criteria	Poor (1)			"Poor" - although passes 2 criteria, is assumed to be unvegetation and therefore "poor" condition is considered most appropriate.

Suggested enhancement interventions to improve condition score

Notes

Footnote 1: For **Biodiverse green roofs only** - experience has shown that a range of sedums species (native, naturalised, and non-native) support wildflowers during hot periods. Therefore, for Criteria 2 a Biodiverse green roof can have non-native sedums and still achieve Good condition.

Footnote 2: For Criteria 3 – For **green roof habitat types only** - *Buddleja davidii* should be assessed alongside Schedule 9 species. This species impairs the health of the local ecosystem and reduces the biodiversity potential of the roof. It is also a sign that a roof has not be planted and seeded correctly in sub-sequent years.

Condition Sheet: SCRUB Habitat Type				
UKHab Habitat Type				
Heathland and shrub - Mixed scrub				
Site name/location		Armada Way, Plymouth	**Onsite/offsite**	Onsite
			Unique polygon reference	29, 30, 31, 32, 64, 65, 133, 134
Landscape Feature		Clipped bulk hedge	**Type**	Heathland and shrub - mixed scrub
Condition Assessment Criteria			**Condition Achieved (Y/N)**	**Notes/Justification**
1	Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover).		Y	Proposed to comprise native species (hawthorn, holly and hornbeam)
2	There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs.		N	Newly planted, likely to be of similar age/size
3	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition make up less than 5% of ground cover.		Y	No invasives would be included in the planting mix and landscape management would prevent occurance
4	The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).		N	Maintained as a trimmed features within an urban setting
5	There are clearings, glades or rides present within the scrub, providing sheltered edges.		N	Maintained as individual 'bulk' features within an urban setting
Number of criteria passed			2	

Condition Assessment Result	**Condition Assessment Score**	**Condition Achieved**
Passes 5 of 5 criteria	Good (3)	
Passes 3 or 4 of 5 criteria	Moderate (2)	
Passes 0, 1 or 2 of 5 criteria	Poor (1)	"Poor"

Footnote 1 - Species indicative of sub-optimal condition for this habitat type include: tree-of-heaven *Alianthus altissima* , holm oak *Quercus ilex* , turkey oak *Quercus cerris* , creeping thistle *Cirsium arvense* , common nettle *Urtica dioica* , cherry laurel *Prunus laurocerasus* , snowberry *Symphoricarpos* spp., buddleia *Buddleja* spp., cotoneaster *Cotoneaster* spp., Spanish bluebell *Hyacinthoides hispanica* (or hybrids).

Condition sheet: HEDGEROW Habitat Types			
UKHab Habitat Type			
Hedge Ornamental Non-Native Hedgerow			
Site name/Location	Armada Way, Plymouth	**Onsite/offsite**	Onsite
		Unique polygon reference(s)	N/A (ref Figure 3)
Landscape Feature	Clipped formal hedge Loose formal hedge	**Type**	NON-NATIVE ORNAMENTAL HEDGE
Condition Assessment Criteria			
No assessment required - condition fixed at Poor. *Note, although formal hedges are currently proposed to comprise native species (hawthorn, holly and hornbeam), given the formal maintenance and setting of these features, 'ornamental non-native hedgerow' is selected for the purposes of the BNG metric as a precautious approach.*			

Condition Sheet: URBAN TREES Habitat Type												
UKHab Habitat Type(s)												
Individual Trees - Urban trees												
Site name/location		Armada Way, Plymouth										
Landscape Feature		Specimen trees			Type	Individual trees - Urban trees						

Condition Assessment Summary				Condition Assessment Criteria						
Condition Assessment Result	Condition Assessment Score	Condition Achieved	Nr Trees	The tree is a native species (or at least 70% within the block are native species).	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).	The tree is mature (or more than 50% within the block are mature).	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.	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	More than 20% of the tree canopy area is oversailing vegetation beneath.	
Passes 5 or 6 of 6 criteria	Good (3)	Proposed Specimen Trees Onsite	0							
		Proposed Specimen Trees Offsite (new / translocated)	0							
		Retained Trees	4							
Passes 3 or 4 of 6 criteria	Moderate (2)	Proposed Specimen Trees Onsite	139							
		Proposed Specimen Trees Offsite (new / translocated)	529							
		Retained Trees	34							
Passes 0, 1 or 2 of 6 criteria	Poor (1)	Proposed Specimen Trees Onsite	26							
		Proposed Specimen Trees Offsite (new / translocated)	0							
		Retained Trees	1							

Onsite / Offsite	Impact	Ref	Common Name	Girth at planting (cm)	Size Class	A	B	C	D	E	F	Target Condition
Zone 1	New	1	Silver Lime	40-45	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	2	Silver Lime	40-45	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	3	Silver Lime	40-45	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	4	Silver Lime	40-45	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	5	Silver Lime	40-45	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	6	Silver Lime	40-45	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	7	Double Crimson Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	8	Double Crimson Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	9	Double Crimson Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	10	Double Crimson Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	11	Double Crimson Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	12	Double Crimson Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	13	Double Crimson Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	14	Double Crimson Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	15	Double Crimson Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	16	Double Crimson Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	17	Cockspur Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	18	Cockspur Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	19	Cockspur Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	20	Cockspur Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	21	Cockspur Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	22	Cockspur Hawthorn	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	23	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	24	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	25	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	26	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	27	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	28	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	29	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	30	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	31	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	32	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	33	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	34	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	35	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	36	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	37	Tree of Heaven	40-45	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	38	Common Alder	25-30	Small	Y	Y	N	Y	N	Y	Moderate
Zone 1	New	39	Common Alder	25-30	Small	Y	Y	N	Y	N	Y	Moderate
Zone 1	New	40	Common Alder	25-30	Small	Y	Y	N	Y	N	Y	Moderate
Zone 1	New	41	Common Alder	25-30	Small	Y	Y	N	Y	N	Y	Moderate
Zone 1	New	42	New Horizon Elm	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 1	New	43	New Horizon Elm	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 1	New	44	New Horizon Elm	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 1	New	45	New Horizon Elm	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	46	Himalayan Birch	18-20	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	47	Golden Birch	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	48	Golden Birch	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	49	Golden Birch	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	50	Golden Birch	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	51	New Horizon Elm	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	52	New Horizon Elm	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	53	New Horizon Elm	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	54	New Horizon Elm	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	55	Mayfield Maidenhair Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	56	Mayfield Maidenhair Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	57	Mayfield Maidenhair Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate

Onsite / Offsite	Impact	Ref	Common Name	Girth at planting (cm)	Size Class	A	B	C	D	E	F	Target Condition
Zone 1	New	58	Mayfield Maidenhair Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	59	Mayfield Maidenhair Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	New	60	Norway Maple	40-45	Small	N	Y	N	Y	N	N	Poor
Zone 2	New	61	Mayfield Maidenhair Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	62	Mayfield Maidenhair Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	63	Mayfield Maidenhair Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	64	Mayfield Maidenhair Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	65	Mayfield Maidenhair Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	66	London Plane (topiary roof form)	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 2	New	67	London Plane (topiary roof form)	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 2	New	68	London Plane (topiary roof form)	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 2	New	69	London Plane (topiary roof form)	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 2	New	70	London Plane (topiary roof form)	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 2	New	71	London Plane (topiary roof form)	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 2	New	72	London Plane (topiary roof form)	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	73	London Plane (topiary roof form)	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	74	London Plane (topiary roof form)	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	75	London Plane (topiary roof form)	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	76	London Plane (topiary roof form)	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	77	London Plane (topiary roof form)	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	78	Golden Birch	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	79	Golden Birch	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	80	Golden Birch	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	81	Golden Birch	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	82	Judas Tree	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 2	New	83	Scots Pine	40-45	Small	Y	Y	N	Y	N	N	Moderate
Zone 2	New	84	Cut Leaved Alder Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	85	Cut Leaved Alder Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	86	Cut Leaved Alder Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	87	Cut Leaved Alder Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	New	88	Cut Leaved Alder Tree	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	89	Stone Pine	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	90	Stone Pine	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	91	Stone Pine	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	92	Stone Pine	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	93	Stone Pine	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	94	Stone Pine	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	95	Stone Pine	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	96	Stone Pine	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	97	Stone Pine	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	98	Stone Pine	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	99	Stone Pine	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	100	Stone Pine	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	101	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	102	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	103	Turkish Hazel	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	104	Turkish Hazel	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	105	Silver Birch	40-45	Small	Y	Y	N	Y	N	Y	Moderate
Zone 3	New	106	Silver Birch	40-45	Small	Y	Y	N	Y	N	N	Moderate
Zone 3	New	107	Silver Birch	40-45	Small	Y	Y	N	Y	N	N	Moderate
Zone 3	New	108	Golden Birch	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	109	Golden Birch	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	110	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	111	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	112	Turkish Hazel	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	113	Turkish Hazel	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	114	Turkish Hazel	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	115	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	116	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	117	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	118	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	119	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	120	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	121	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	122	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	123	Lienco Field Maple	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	124	Turkish Hazel	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	125	Turkish Hazel	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	126	Turkish Hazel	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	127	Turkish Hazel	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	128	Turkish Hazel	25-30	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	129	Snowy Mespilus (Juneberry)	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	130	Snowy Mespilus (Juneberry)	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	131	Snowy Mespilus (Juneberry)	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	132	Snowy Mespilus (Juneberry)	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	133	Snowy Mespilus (Juneberry)	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	134	Snowy Mespilus (Juneberry)	25-30	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	135	Chanticleer Callery Pear	40-45	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	136	Chanticleer Callery Pear	40-45	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	137	Chanticleer Callery Pear	40-45	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	138	Chanticleer Callery Pear	40-45	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	New	139	Chanticleer Callery Pear	40-45	Small	N	Y	N	Y	N	N	Poor
Zone 3	New	140	Chanticleer Callery Pear	40-45	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	Enhanced	T001	Cockspur Thorn	na	Small	N	Y	Y	Y	Y	Y	Good
Zone 1	Enhanced	T002	Cockspur Thorn	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	Enhanced	T003	Wild Cherry	na	Medium	Y	Y	N	Y	N	Y	Moderate
Zone 1	Enhanced	T004	Wild Cherry	na	Small	Y	Y	N	Y	Y	Y	Good
Zone 1	Enhanced	T005	Cockspur Thorn	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 1	Enhanced	T006	Cockspur Thorn	na	Small	N	Y	Y	Y	Y	Y	Good
Zone 1	Retained	T007	Cockspur Thorn	na	Medium	N	Y	Y	Y	N	Y	Moderate
Zone 1	Retained	T008	Tree of Heaven	na	Medium	N	Y	Y	Y	N	Y	Moderate
Zone 2	Enhanced	T075	Common Laburnum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	Enhanced	T076	Common Laburnum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	Enhanced	T077	Common Laburnum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 2	Retained	T078	Norway Maple	na	Medium	N	Y	Y	Y	N	Y	Moderate
Zone 2	Enhanced	T079	Horse Chestnut	na	Medium	N	Y	Y	Y	Y	Y	Good
Zone 2	Enhanced	T080	Horse Chestnut	na	Medium	N	Y	Y	Y	N	Y	Moderate
Zone 2	Enhanced	T081	Single leafed Ash	na	Medium	N	Y	Y	Y	N	Y	Moderate
Zone 2	Enhanced	T082	Flowering Cherry	na	Medium	N	Y	Y	Y	N	Y	Moderate
Zone 2	Enhanced	T083	Horse Chestnut	na	Medium	N	Y	Y	Y	N	Y	Moderate
Zone 2	Retained	T084	Horse Chestnut	na	Medium	N	Y	Y	Y	Y	N	Moderate
Zone 2	Retained	T085	Horse Chestnut	na	Medium	N	Y	N	Y	N	N	Poor
Zone 3	Enhanced	T109	Single leafed Ash	na	Medium	N	Y	Y	Y	N	N	Moderate
Zone 3	Enhanced	T118	Sorbus sp.	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	Enhanced	T121	Sorbus sp.	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 3	Retained	T122	Sorbus sp.	na	Medium	N	Y	Y	Y	N	Y	Moderate
Zone 4	Enhanced	T138	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T139	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T140	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T141	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T142	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T143	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate

Onsite / Offsite	Impact	Ref	Common Name	Girth at planting	Size Class	A	B	C	D	E	F	Target Condition
Zone 4	Enhanced	T144	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T145	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T146	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T147	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T148	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T149	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T150	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T151	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T152	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Zone 4	Enhanced	T153	Sweet Gum	na	Small	N	Y	N	Y	N	Y	Moderate
Offsite	Transplant	T45	Whitebeam	na	Medium	Y	Y	N	Y	N	Y	Moderate
Offsite	Transplant	T119	Japanese Maple	na	Small	N	Y	N	Y	N	Y	Moderate
Offsite	Transplant	T120	Japanese Maple	na	Small	N	Y	N	Y	N	Y	Moderate
Offsite	Transplant	T125	Silver Maple	na	Medium	N	Y	N	Y	Y	Y	Moderate
Offsite	New	n/a	Unknown - minimum 525 newly planted trees required to achieve target 20% net gains with Trading Rules satisfied	≤20	Small	Y/N	Y	N	Y	N	Y	Moderate

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