



e3p

Biodiversity Metric Report

B&M Premises – Kingsway, Burnage

Reference: 81-211-R3-1

Date: November 2023



BIODIVERSITY METRIC REPORT

B&M Premises,
Kingsway, Burnage

Prepared for:
Triple Jersey Limited

Report Ref: 81-211-R3-1
Date Issued: 27/11/2023

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QUALITY ASSURANCE

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DATE	November 2023		
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EXECUTIVE SUMMARY

Site Address	B&M Home Store, Kingsway, Burnage, Manchester, M19 1BB				
Co-ordinates	E 386302, N 393152				
Site Area	Approximately 1.5 ha				
Current Site Use	The site predominantly comprised a retail unit with an associated hardstanding car park and amenity grassland road verge. The site is located in predominantly residential area, with residential housing and associated amenities surrounding the site on all aspects. A railway line lies adjacent to the site's western boundary, whilst the A34 Kingsway defines the eastern boundary.				
Proposed Development	Proposals include the development of a residential scheme with associated landscaping.				
Results	The biodiversity metric results show a loss of habitat and a gain in hedgerow units as follows: <table> <tr> <td>Habitat Units</td><td>-0.92</td></tr> <tr> <td>Hedgerow Units</td><td>3.68</td></tr> </table> A loss of 23.08% habitat units and a gain of 608.29% of hedgerow units will be incurred on-site as a result of development.	Habitat Units	-0.92	Hedgerow Units	3.68
Habitat Units	-0.92				
Hedgerow Units	3.68				
Conclusions and Recommendations	The proposed scheme and proposed site plans show a total loss of 0.92 habitat units and a gain of 3.68 hedgerow units as a result of the development. Furthermore, the proposed site plans do not satisfy the trading rules. These can be satisfied by making all the following changes: - Replacing 0.021 ha of modified grassland with moderate condition broadleaved woodland. - Replacing 0.099 ha of modified grassland with moderate condition mixed scrub. - Enhancing 0.004 ha of modified grassland to moderate condition wildflower meadow. - Replacing 6 small trees with 6 medium trees with a girth of >20 cm when planted. Following this, either of the following changes could be implemented to achieve a 10% net gain in habitat units, along with all of the above: - Enhancing the remaining modified grassland (0.0594 ha) to moderate condition wildflower meadow, resulting in a net gain of 0.46 (11.50%) habitat units OR - Replacing a further 2 small trees with 2 medium sized trees (8 medium trees would therefore be needed in total), resulting in a net gain of 0.41 (10.24%) habitat units.				



	Additional species enhancements could be provided on-site, which could include bat and bird boxes, hedgehog houses and hibernacula.
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1. INTRODUCTION

1.1. BACKGROUND

E3P has been instructed by Triple Jersey Limited to undertake a Biodiversity Metric Calculation at B&M Premises, Kingsway, Burnage, hereafter referred to as “the site”.

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

This report should be read in conjunction with ‘Biodiversity Metric 4.0 Calculation Tool - B&M Premises - Kingsway, Burnage.xl’.

1.2. PREVIOUS SURVEYS

E3P undertook a Preliminary Ecological Appraisal on-site in August 2023 (report reference: 81-211-R2). The survey included a Condition Assessment of the on-site habitats. During the survey, the site was found to comprise hedgerow, amenity grassland, broadleaved woodland, a building, dense scrub, poor semi-improved grassland, hardstanding, introduced shrub, scattered scrub and scattered trees.

1.3. SITE LOCATION

The site is located in the predominantly residential area of Burnage, Manchester. An active railway line lies adjacent to the west of the site whilst the A34 Kingsway defines the site’s eastern boundary. Mauldeth Road Primary School is located approximately 30 m west of the site, and Ladybarn Park is located approximately 120 m south. Please see Figure 1.1 for an approximate site location.

FIGURE 1.1 APPROXIMATE SITE LOCATION



1.4. OBJECTIVES

The objectives of the Biodiversity Metric are to:

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

The findings of the calculation are detailed within this report, along with recommendations.



2. METHODOLOGY

2.1. BIODIVERSITY METRIC

Department for Environment, Food and Rural Affairs' (DEFRA) Biodiversity Metric 4.0 2023 version was used to undertake the metric calculation. The metric was undertaken following guidance as detailed within The Biodiversity Metric 4.0 User Guide (Natural England, 2023), the Biodiversity Metric 4.0 Technical Supplement (Natural England, 2022) and the Summary of Changes Biodiversity Metric 3.1 to 4.0 (2023).

This metric was calculated by Zach Squire-Watt. Zach has experience using the Biodiversity Metric Calculation Tool on a number of projects across the UK.

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

2.2. ON-SITE HABITAT BASELINE DATA

The baseline data used to inform the condition assessment was collected on 22nd August 2023 during the Preliminary Ecological Appraisal. The Biodiversity Metric 4.0 – Technical Annex 1 – Condition Assessment Sheets and Methodology (Natural England 2023) was used to undertake the condition assessment. The methodology follows the Biodiversity Metric 4.0 – User Guide (Natural England 2023).

On-site baseline habitats were measured off the Phase 1 Habitat Plan using QGIS. The Root Protection Areas (RPAs) of scattered trees were taken from the Tree Constraints Report produced by E3P in 2023 (81-211-R1). Please see Appendix I for the Phase 1 Habitat Plan.

Phase 1 habitat types were translated into UKHab habitat types using the metrics Technical Data Translation Tool.

2.3. POST DEVELOPMENT HABITAT CREATION

The Landscape Masterplan was used to measure potential habitat creation on-site (Vectordc, 2023, 19260-VL L01). The areas of proposed habitat were measured using QGIS from the PDF drawing. RPAs of proposed trees have been calculated using the Urban Tree Calculator within the metric.

Please see Appendix II for the Landscape Masterplan. A post-development habitat plan has also been created, please refer to Appendix III.

2.4. LIMITATIONS

Some areas on the site are double counted, including root protection zones and areas of habitat, where overlap is shown, however this is not considered to be a major constraint on the metric.



3. RESULTS

3.1. ON-SITE BASELINE CONDITION ASSESSMENT RESULTS

Table 3.1 shows the details of the habitat condition assessment used for input into the metric calculation tool.

TABLE 3.1 HABITAT BASELINE CONDITION ASSESSMENT RESULTS

HABITAT TYPE (PH1)	HABITAT TYPE (UKHAB)	AREA/LENGTH (HA/KM)	CONDITION ASSESSMENT	DESCRIPTION
BUILDINGS/ HARDSTANDING	Urban – Developed land; sealed surface	1.1781	N/A	N/A
BROADLEAVED WOODLAND	Woodland and forest – Other woodland; broadleaved	0.0121	Moderate	Please refer to Appendix IV for the full Condition Assessment.
DENSE SCRUB	Heathland and shrub – Bramble scrub	0.1508	N/A	N/A
INTRODUCED SHRUB	Urban – Introduced shrub	0.0473	N/A	N/A
AMENITY GRASSLAND	Grassland – Modified grassland	0.2251	Poor	Fails Criterion A, which is essential for achieving Moderate or Good condition.
POOR SEMI- IMPROVED GRASSLAND	Grassland – Other neutral grassland	0.0059	Poor	Fails Criterion A, which is essential for achieving Moderate or Good condition.
SCATTERED SCRUB	Heathland and shrub – Mixed scrub	0.0179	Poor	Passes Condition Assessment Criteria C: there is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of sub-optimal condition make up less than 5% of ground cover.



HABITAT TYPE (PH1)	HABITAT TYPE (UKHAB)	AREA/LENGTH (HA/KM)	CONDITION ASSESSMENT	DESCRIPTION
SCATTERED TREES	Individual trees – Urban tree	0.329	Moderate	Passes 4 of 6 condition assessment criteria: ✚ 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). ✚ 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. ✚ More than 20% of the tree canopy area is oversailing vegetation beneath.
HEDGEROW	Native hedgerow	0.1007	Good	No more than 2 failures in total AND no more than 1 failure in any functional group. Please refer to Appendix V for the full condition assessment.



3.2. HABITAT RETENTION

Table 3.2 shows the details of the habitats that are to be retained under the current plans, which include primarily a number of scattered trees and underlying vegetation, as well as a length of pre-existing hedgerow.

TABLE 3.2 HABITAT RETENTION DETAILS

HABITAT TYPE (LANDSCAPE PLAN)	HABITAT TYPE (UKHAB)	AREA (HA)
AMENITY GRASSLAND	Grassland – Modified grassland	0.0674
DENSE SCRUB	Heathland and shrub – Bramble scrub	0.0025
SCATTERED SCRUB	Heathland and shrub – Mixed scrub	0.0016
SCATTERED TREES	Individual trees – Urban tree (T4, T7, T8, G1, T26, T27, T33-56, G3, T58)*	0.178
HEDGEROW	Native hedgerow	0.0726

*Tree references taken from Tree Constraints Report (81-211-R1)



3.3. HABITAT CREATION CONDITION ASSESSMENT

Habitats are indicated on the Proposed Plan, which include a number of residential properties with associated hardstanding and landscaping. Table 3.3 shows the details of the target condition assessment and total areas of habitat creation. It has been assumed that there will be no significant delay in the creation of the proposed habitat features, as such the delay in starting habitat creation has been set to zero.

TABLE 3.3 HABITAT CREATION CONDITION ASSESSMENT RESULTS

HABITAT TYPE (LANDSCAPE PLAN)	HABITAT TYPE (UKHAB)	AREA/LENGTH (HA/KM)	TARGET CONDITION/DESCRIPTION	TARGET TIME TO CONDITION
BUILDINGS/ HARDSTANDING	Urban – Developed land; sealed surface	1.121	N/A	N/A
LAWN TURF	Grassland – Modified grassland	0.2982	Poor Fails Criterion A, which is essential for achieving Moderate or Good condition.	Target time to condition is 1 year.
ORNAMENTAL SHRUB PLANTING	Urban – Introduced shrub	0.0688	N/A	Target time to condition is 1 year.
GRASS SEEDING (RESIDENTIAL GARDENS)	Urban – Vegetated garden	0.773	N/A	Target time to condition is 1 year.
TREES	Individual trees – Urban tree (50, small)	0.2036	Moderate Passes 4 of 6 condition assessment criteria:  The tree is a native species (or at least 70% within the block are native species).	Target time to condition is 27 years.



HABITAT TYPE (LANDSCAPE PLAN)	HABITAT TYPE (UKHAB)	AREA/LENGTH (HA/KM)	TARGET CONDITION/DESCRIPTION	TARGET TIME TO CONDITION
			- 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). - 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. - More than 20% of the tree canopy area is oversailing vegetation beneath.	
HEDGEROW	Species-rich native hedgerow	0.4912	Good - No more than 2 failures in total AND no more than 1 failure in any functional group. Please refer to Appendix V for the full condition assessment.	Target time to condition is 12 years.



3.4. STRATEGIC SIGNIFICANCE

The strategic significance was defined as 'Area not in local strategy, no local strategy'. The site comprised a B&M store, with surrounding scrub and disused habitat. Due to the developed nature of the site and the surrounding area, the site is not anticipated to have significant ecological value.

3.5. BIODIVERSITY UNIT RESULT

The headline results of the metric show a total loss of 0.92 habitat units and a gain of 3.68 hedgerow units as a result of development. Table 3.4 shows the headline results detailed within the Biodiversity Metric.

TABLE 3.4 HEADLINE RESULTS

HEADLINE	CATEGORY	RESULT
TOTAL NET UNIT CHANGE	Habitat Units	-0.92
	Hedgerow Units	3.68
	River Units	N/A
TOTAL NET % CHANGE	Habitat Units	-23.08%
	Hedgerow Units	608.29%
	River Units	N/A

The trading rules of the metric have not been satisfied as habitats lost have not been 'traded up'.



4. CONCLUSIONS AND RECOMMENDATIONS

The proposed scheme and proposed site plans show a total loss of 0.92 habitat units and a gain of 3.68 hedgerow units as a result of the development. A net gain in hedgerow units has therefore been achieved on site. The trading rules have also not been satisfied.

In order to satisfy the trading rules, the following changes would all need to be implemented within the proposed landscape plans:

- ✿ Replacing 0.021 ha of modified grassland with broadleaved woodland.
- ✿ Replacing 0.099 ha of modified grassland with mixed scrub.
- ✿ Enhancing 0.004 ha of modified grassland to moderate condition wildflower meadow.
- ✿ Replacing 6 small trees with 6 medium trees.

Following this, either of the following changes could be implemented to achieve a 10% net gain in habitat units, along with all of the above:

- ✿ Enhancing the remaining modified grassland (0.0594 ha) to moderate condition wildflower meadow, resulting in a net gain of 0.46 (11.50%) habitat units

OR

- ✿ Replacing a further 2 small trees with 2 medium sized trees (8 medium trees would therefore be needed in total), resulting in a net gain of 0.41 (10.24%) habitat units.

Please note that in order to reach their target size, the medium trees must have a girth of >20 cm when planted.

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

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



5. REFERENCES

- ✿ E3P (2023). Preliminary Ecological Appraisal – B&M Premises, Kingsway, Burnage (81-211-R2).
- ✿ E3P (2023). Tree Constraints Report - B&M Premises, Kingsway, Burnage (81-211-R1).
- ✿ National Planning Policy Framework (2021). Ministry of Housing, Communities and Local Government.
- ✿ Natural England Joint Publication JP039. (2023). The Biodiversity Metric 4.0. User Guide. Technical Annex 2.
- ✿ Natural England Joint Publication JP039. (2023). The Biodiversity Metric 4.0. User Guide.
- ✿ Natural England. (2023). The Biodiversity Metric 4.0. Technical Annex 1. Condition Assessment Sheets.
- ✿ Vectordc (2023). Landscape Masterplan (Drawing Reference 19260-VL-L01).

END OF REPORT



APPENDIX I

PHASE 1 HABITAT PLAN



Key:

- Site boundary
- Hedgerow
- Amenity grassland
- Broadleaved woodland
- Buildings
- Dense scrub
- Poor semi-improved grassland
- Hardstanding
- Introduced shrub
- Scattered scrub
- Inaccessible
- Scattered trees
- Field horsetail
- Hollyberry cotoneaster
- Wall cotoneaster

Notes

Issue: 1	Revision: 1	Date: 26/09/2023	Drawn: CB2	Authorised: CK
Client: Triple Jersey Limited			Job No. 81-211	Date: 26/09/2023
			Drawing No. 81-211-001	Scale: 1:2750 @ A4
Job title: B&M Premises, Kingsway, Burnage			Drawing title: Phase 1 Habitat Plan	



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APPENDIX II

LANDSCAPE MASTERPLAN

NOTE:
SURROUNDING CONTEXTUAL BUILDINGS
AND INFORMATION ARE
BASED ON RECEIVED ORDINANCE
SURVEY DRAWINGS AND ARE SHOWN
FOR ILLUSTRATIVE PURPOSES ONLY.
ASSUMED SITE BOUNDARY IS
SUBJECT TO CONFIRMATION



General Notes:

All proposed tree locations are subject to co-ordination with drainage layout and subject to modification depending on the location of underground services and utilities. Drainage engineer to co-ordinate services layout in conjunction with the landscape plan to avoid conflict as much as possible. Allowance to be made at tender stage for the possible requirement for root barriers once the drainage layout is confirmed. CA to be informed immediately once this is available.

SOFT LANDSCAPE SPECIFICATION

NOTE: All soft landscape works to be carried out in accordance with BS4428:1989.

SUBSOIL

All subsoil should be free draining and well aerated and in accordance with BS 8601:2013
Subsoil should be broken up to relieve compaction and aid drainage prior to topsoiling to the following depths:
- For light and non cohesive subsoils: 300mm
- For stiff clay and cohesive subsoils: 450mm
Immediately before spreading topsoil, remove stones larger than 50mm.

TOPSOIL

Existing site won topsoil to be reused for soft landscape areas if sufficient quantities are available and the topsoil meets the criteria for multipurpose topsoil as defined in table 1 of BS3882:2015 specification for Topsoil.

If imported topsoil is required it is to be supplied and spread by the main contractor to the approval of the Landscape contractor, in accordance with the parameters of a multi purpose topsoil as laid out in BS 3882 : 2015. To be a natural sandy loam, of medium texture, with a pH between 5.5 and 7.8, not more than slightly stony and free of pernicious weeds. Subsoil to be well broken up prior to top-soiling to relieve compaction. Topsoil depths should be:
Areas for Ornamental Shrub Planting: minimum 400mm
Areas for cultivated turf: minimum 150mm

Note: Contractor to provide soil testing declaration of analysis certification and sample for inspection & approval prior to delivery of any topsoil to site or for any in-situ soil that is being re-used.

CULTIVATION

Weeds to be prevented from seeding or becoming established by applying a suitable herbicide and allowing the correct time to elapse, as directed by the manufacturer. Compacted soil to be broken up to a depth of 100mm, with any stones, grass tufts or rubbish larger than 50mm in any direction to be removed, leaving a regular and even surface. Suitable slow release fertiliser to be supplied and spread @ 50g/m2 to all planted areas.

CLIMATIC CONDITIONS

Topsoiling should be carried out in the driest conditions possible – cultivation to be carried out when the soil is moist, friable and not waterlogged or frozen. Topsoil should not be handled during or after heavy rainfall or when it is wetter than the plastic limit as defined by BS 3882. Planting should not take place in waterlogged conditions or when the ground is frozen.

SOIL AMELIORANT

Peat-free compost to be spread over ornamental shrub beds @ minimum 50mm depth prior to cultivation. For native planting a 50mm compost layer should be mixed into each whip planting pit only, not spread over the entire bed.

TREES

All trees within shrub beds to be planted in separate pits in accordance with tree planting detail.
All tree planting and post maintenance regimes to comply with BS8545:2014 'Trees from Nursery to Independence in the Landscape' and transported to site in accordance with the HTA Plant Handling Guide: 1996.
All trees to be planted to the original root collar and secured in place with underground guying system in accordance with tree planting detail.
If the trees are planted outside of the planting season then containerised stock to be used in lieu of root balled but the same tree heights are still required - allowance to be made for this at tender stage if required once construction timetable is known and CA informed immediately.

PROPOSED SHRUB PLANTING

All shrubs to be positioned as shown on the drawing and to the density and specification listed in the plant schedule. Planting holes to be 150mm wider than the root spread, have the base ground thoroughly broken up before planting and backfilled with peat free compost.
All shrubs to be equally spaced throughout the planting areas to the specified density in a staggered arrangement unless otherwise noted in the planting schedule.
Contractor to ensure numbers on schedule match those shown on drawing before placing any orders for plants. Any discrepancies to be brought to the attention of the Landscape Architect upon discovery.
Contractor to check on site dimensions of all landscape areas to ensure specified quantities will achieve the specified densities for each species.

NATIVE HEDGE PLANTING

Areas to receive whip planting be cleared of all vegetation and cultivated as described above. Rotavate areas to a minimum depth of 300mm to form an open textured free draining growing medium. Remove all stones and other debris larger than 50mm in any one direction and remove all litter and vegetation matter prior to planting.
Each transplant to be fitted with an appropriate rabbit guard for the size and species and 500 x 500mm biodegradable GT Ecomat by Green-tech or similar approved. To be pruned / maintained as a hedge at a maximum height of 1.4 metres.

GRASSED AREAS

Seeded areas should be sown in accordance with BS 3969:1998: Recommendations for Turf for general purposes and BS 4428-1989 General Landscape Operations.
Height of initial growth: 100mm
Height of first cut: 50mm
Height of growth: The height of growth must not exceed 100mm at any time.
Frequency: Cut as and when necessary to a height of 25mm, using a rotary mower and remove all arisings.
Timing: When grass reaches scheduled height of maximum growth and is reasonably dry.
Application: At the time of each cut, trim all grass edges round the base of trees, manholes etc and remove arisings.
Sweep all adjoining hard areas clear of cuttings and remove.
Weeding: Keep the sward substantially free of broad leaved weeds by applying a suitable selective herbicide.
Fertilizer: March application: 15:10:10 Spring turf fertilizer at 35g/m2.
September application: 5:10:10 Autumn turf fertilizer at

SUBSTITUTIONS:

Upon submission of evidence that certain materials, including plant materials, are not available at the time of the landscape contract, the Landscape Contractor may be permitted to substitute other materials and plants in exceptional circumstances during the contract with an agreed adjustment of prices.
All substitutions shall be of nearest equivalent species and variety to the original specified but shall be subject to approval by the Landscape Architect before any change is made.

TIMES OF YEAR FOR PLANTING:

Landscape works to be carried out during the final possible planting periods prior to practical completion of the building and associated engineering works / car park areas in accordance with the following:

- Native and ornamental trees: During dormant winter period - Late October to late March (only if planted in the planting season otherwise containerised stock to be used).
- Bare root native transplants: During dormant winter period - Late October to April.
- Container grown ornamental and specimen shrubs: At any time if ground and weather conditions are favourable.

MULCH

75mm depth of 8-35mm ornamental bark mulch (peat-free) to be supplied and spread to all planting areas. Finished mulch level to be installed and maintained at 25mm below any adjacent kerbs or paving surfaces.

WEEDING

Weeding should be carried out at each and every maintenance visit. All weeding to planting beds should be carried out using hand methods only. Topping up the mulch to maintain the specified depth is the best method of preventing weeds and will reduce ongoing maintenance time.

MAINTENANCE

All planting areas to be maintained to a high standard by the contractor for 12months after practical completion, to ensure the landscape scheme is successful, and discourage decline of the area.

Minimum frequency of maintenance visits (12 maintenance visits per year):

March to May & September to November - 1No. visit each month
June to August - 2No. visits each month.

Generally, during the first 12months:

- All planting beds to be re-firmed and kept weed free through hand weeding.
- All litter to be picked and removed from landscape areas.
- Mulch to be topped up as required to maintain the specified thickness.
- The condition of all trees is to be regularly checked, with ties and stakes adjusted or replaced as necessary.
- The condition of all rabbit guards / shrub shelters / mulch mats on native whips to be regularly checked and replaced as necessary.
- Shrubs to be pruned at appropriate times of year for each species to promote healthy growth and desirable ornamental features.
- Lawn areas to be cut and maintained in accordance with specification note above.
- All arisings to be removed from site.
- Any defects or plant losses occurring during the first 12 months defects period to be replaced at the contractors expense.

Following the initial 12 month establishment period the maintenance of the landscaping will be taken on by a professional commercial landscape maintenance contractor under a maintenance contract.

GENERAL WATERING

All soft landscaping to be subject to a watering regime which is absolutely essential to ensure the continued success of the scheme, particularly during the initial 12 month establishment period. The watering frequency should be as necessary to ensure the continued thriving of all grass, hedges, trees and ornamental planting but as a minimum should follow the maintenance regime as set out above and be carried out at the time of each maintenance visit. During dry periods it may be necessary to increase watering visits to once per week - if the planting is looking dry please contact Landscape Architect to arrange the extra maintenance visits if necessary. The soil should be checked for dryness using either a soil moisture sensor or by inserting a spade into the ground to a depth of 300mm to observe the appearance of the soil. If the soil is moist there is no need to water but if it is bone dry then watering procedure should be carried out immediately. Water supply should be from potable mains water or an approved alternative. The full depth of topsoil should be wet without loosening or damaging plants. Any compacted soil should be broken up sufficiently to allow water to reach the rootzone.

WATERING TREES

Trees to be watered in accordance with BS 8545-2014 Tree - From Nursery to Independence. Trees should be watered via the installed irrigation / aeration pipes around the base of the trees stem in accordance with the manufacturer's instructions to ensure the water reaches the roots of the tree. Below is a suggested watering regime but this should be used as a guide only and may require modification in times of drought or flood, dependant on the ground conditions at the time, which should be monitored as above:

- March - October: 40 litres to be poured into irrigation pipe on every maintenance visit

REFER TO DRAWING NO. 19260-VL L03 FOR DETAILED
LANDSCAPE LAYOUT TO NORTHERN BOUNDARY



REFER TO DRAWING NO. 19260-VL L02 FOR DETAILED
LANDSCAPE LAYOUT TO SOUTHERN BOUNDARY

REFER TO DRAWING NO's 19260-VL L02 & L03
FOR DETAILED LANDSCAPE LAYOUTS

B-12/10/23	Updated to co-ordinate with Architects latest site plan and comments	FW	AS
A-21/09/23	Updated to co-ordinate with Architects latest site plan	FW	AS
Revisions	Description	Drawn	Check
Project Title	PROPOSED RESIDENTIAL DEVELOPMENT		
	BURNAGE MANCHESTER		
Client	TRIPLE JERSEY LTD		
Status	PLANNING		
Scale	1:500	Drawing Size	A1
Drawn By	DW	Checked By	AS
Date	04/2023		
Drawing Title	LANDSCAPE MASTERPLAN		
Job-Dwg No	19260-VL L01	Rev	B



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APPENDIX III POST-DEVELOPMENT HABITAT PLAN



Key:

- Site boundary
- A Lawn turf to frontage areas
- Hardstanding
- Ornamental shrub planting
- Residential gardens
- Residential plots
- Retained dense scrub
- x Retained scattered scrub
- A Retained amenity grassland
- Retained hedgerow
- Proposed hedgerow
- Proposed scattered trees
- Retained scattered trees

Notes

Issue: 1	Revision: 1	Date: 22/11/2023	Drawn: ZSW	Authorised: CK
Client: Triple Jersey Limited			Job No. 81-211	Date: 22/11/2023
			Drawing No. 81-211-002	Scale: 1 : 2800 @A4
Job title: B&M Premises - Kingsway, Burnage			Drawing title: Post Development Habitat Plan	



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APPENDIX IV BROADLEAVED WOODLAND CONDITION ASSESSMENT

INDICATOR	GOOD (3 POINTS)	MODERATE (2 POINTS)	POOR (1 POINT)	SCORE PER INDICATOR
Age distribution of trees	Three age-classes present.	Two age-classes present.	One age-class present.	2
Wild, domestic and feral herbivore damage	No significant browsing damage evident in woodland.	Evidence of significant browsing pressure is present in 40% or less of whole woodland.	Evidence of significant browsing pressure is present in 40% or more of whole woodland.	3
Invasive plant species	No invasive species present in woodland.	<i>Rhododendron ponticum</i> or cherry laurel <i>Prunus laurocerasus</i> not present, other invasive species <10% cover.	<i>Rhododendron</i> or cherry laurel present, or other invasive species >10% cover.	3
Number of native tree species	Five or more native tree or shrub species found across woodland parcel.	Three to four native tree or shrub species found across woodland parcel.	Two or less native tree or shrub species across woodland parcel.	2
Cover of native tree and shrub species	>80% of canopy trees and >80% of understory shrubs are native.	50 - 80% of canopy trees and 50 - 80% of understory shrubs are native.	<50% of canopy trees and <50% of understory shrubs are native.	2
Open space within woodland	10 - 20% of woodland has areas of temporary open space. Unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted.	21 - 40% of woodland has areas of temporary open space.	<10% or >40% of woodland has areas of temporary open space. But if woodland <10ha has <10% temporary open space, please see Good category.	3
Woodland regeneration	All three classes present in woodland, trees 4 – 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.	One or two classes only present in woodland.	No classes or coppice regrowth present in woodland.	2



INDICATOR	GOOD (3 POINTS)	MODERATE (2 POINTS)	POOR (1 POINT)	SCORE PER INDICATOR
Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback.	11% to 25% mortality and/or crown dieback or low-risk pest or disease present.	Greater than 25% tree mortality and or any high-risk pest or disease present.	3
Vegetation and ground flora	Recognisable NVC plant community at ground layer present, strongly characterised by ancient woodland flora specialists.	Recognisable woodland NVC plant community at ground layer present.	No recognisable woodland NVC plant community at ground layer present.	2
Woodland vertical structure	Three or more storeys across all survey plots or a complex woodland.	Two storeys across all survey plots.	One or less storey across all survey plots.	2
Veteran trees	Two or more veteran trees per hectare.	One veteran tree per hectare.	No veteran trees present in woodland.	1
Woodland disturbance	50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities.	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.	Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.	1
Amount of deadwood	No nutrient enrichment or damaged ground evident.	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground.	More than 1 hectare of nutrient enrichment and or more than 20% of woodland area has damaged ground.	3
Total Score (out of a possible 39)				29



APPENDIX V

BASELINE HEDGEROW

CONDITION ASSESSMENT

ATTRIBUTES AND FUNCTIONAL GROUPINGS		CRITERIA – THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION'	DESCRIPTION	CRITERION PASSED (YES OR NO)
A1.	Height	>1.5 m average along length	"The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees.	Yes
A2.	Width	>1.5 m average along length	"The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees.	Yes
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	"This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth.	Yes
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	No
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	No



ATTRIBUTES AND FUNCTIONAL GROUPINGS		CRITERIA – THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION'	DESCRIPTION	CRITERION PASSED (YES OR NO)
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	Yes
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA ³) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website ⁴ , as well as the BSBI website ⁵ where the 'Online Atlas of the British and Irish Flora' ⁶ contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website ⁷ .	Yes
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g., excessive hedgerow cutting).	Yes



APPENDIX VI PROPOSED HEDGEROW CONDITION ASSESSMENT

ATTRIBUTES AND FUNCTIONAL GROUPINGS		CRITERIA – THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION'	DESCRIPTION	CRITERION PASSED (YES OR NO)
A1.	Height	>1.5 m average along length	"The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees.	Yes
A2.	Width	>1.5 m average along length	"The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees.	Yes
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	"This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth.	Yes
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	Yes
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	No



ATTRIBUTES AND FUNCTIONAL GROUPINGS		CRITERIA – THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION'	DESCRIPTION	CRITERION PASSED (YES OR NO)
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	Yes
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA ³) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website ⁴ , as well as the BSBI website ⁵ where the 'Online Atlas of the British and Irish Flora' ⁶ contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website ⁷ .	Yes
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g., excessive hedgerow cutting).	Yes

