Biodiversity Net Gain Assessment

Land at Audrey Street, Manchester, M9 4DF

One Manchester

Revision B – November 2023

SITE NAME			
Land at Audrey Street, Manchester M9 4DF			
GRID REFERENCE		**DOCUMENT REFERENCE**	
SD8699401489		[LM0118]BNGA[Land at Audrey Street] Rev B	
SITE DESIGNATION		**LOCAL AUTHORITY**	
None		Manchester City Council	
	NAME	**QUALIFICATIONS**	**DATE**
PRINCIPAL AUTHOR	Louisa Molloy	Consultant Ecologist; BSc (Hons)	21/07/2023
REVIEWED BY	Elizabeth McBride	Consultant Ecologist; BSc (Hons); MCIEEM	25/07/2023

REVISION HISTORY			
REVISION	**DATE**	**AUTHOR**	**DESCRIPTION**
A	July 2023	LM	Original based on Schedules and Site – Drawing No. 105 Rev 1 dated 11/11/20.
B	November 2023	LM	Update due to revised layout shown in Schedules and Site Plan – Drawing No. 105 Rev 11 dated 15/06/21

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APPENDIX A

A.1 Pre-Intervention Habitat Plan

A.2 Post Intervention Habitat Plan

A SUMMARY

1 LM Ecology was commissioned by One Manchester in May 2023 to carry out a Biodiversity Net Gain Assessment (BNGA) of a parcel of land at Audrey Street, Manchester M9 4DF.

2 The BNGA was commissioned to support plans to develop the site for housing, which will comprise three blocks of four flats (twelve units total) with associated hard and soft landscaping.

3 The BNGA was carried out using the most recent biodiversity metric - DEFRA Metric 4.0.

4 The purpose of this report is as a supporting document to the DEFRA Metric 4.0 worksheet, and it provides an overview of the pre- and post-development values for the site and how a Biodiversity Net Gain (BNG) can be achieved on-site, if applicable.

5 The proposal plan that this BNGA is based on is as follows:

- Schedules and Site Plan AS-BTP-00-SP-DR-A-3814_105.11 Revision 11 by BTP Architects dated 15th June 2023.

6 In summary, the baseline (pre-intervention) value of the site is 8.57 habitat units and 0.00 hedgerow units. The proposals will result in a post-intervention value of 0.15 habitat units and 0.00 hedgerow units, which is an overall net loss of -98.21% and 0% respectively. A total of 9.27 habitat units are needed to achieve no net loss and a minimum 10% net gain on-site. However, due to the small size of the site there are no opportunities to achieve this gain on-site and the losses will need to be off-set off-site via a suitable mechanism.

7 If a significant number of the existing trees were retained, the total number of habitat units to be off-set would be reduced. However, in any event, unless all existing trees could be retained, some offsetting will be required.

8 The results are valid for up to two years from the date of publication (November 2023) and only for the landscaping shown on the above plan. Any changes to the site layout and/or landscaping plans will require a recalculation to be carried out.

B INTRODUCTION

9 LM Ecology was commissioned by One Manchester in May 2023 to carry out a Biodiversity Net Gain Assessment (BNGA) of a parcel of land at Audrey Street, Manchester, M9 4DF (SD8699401489).

10 The site covers an area of approximately 0.14ha consisting of amenity grassland and twenty-three individual trees.

11 The assessment was commissioned to support plans to develop the site for housing, which will comprise five bungalows with associated hard and soft landscaping. Proposed soft landscaping includes the creation of vegetated gardens around the new dwellings. This BNGA is based on the landscaping shown on *Schedules and Site Plan AS-BTP-00-SP-DR-A-3814_105.11 Revision 11* by BTP Architects dated 15th June 2021.

12 The purpose of this report is to:

- Provide baseline data to classify the type and strategic significance of the habitats prior to development.
- Ensure that the baseline habitat conditions are classified in a robust and consistent manner, so that classification is based on the best data available at the time of the assessment.
- Clearly identify data collection methods and any limitations.
- Calculate the post-development value of the site based on the development proposals.

13 The results are valid for up to two years from the date of publication (November 2023) and only for the landscaping shown on the above plan. Any changes to the site layout and/or landscaping plans will require a recalculation to be carried out.

C PLANNING POLICY AND LEGISLATION

14 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how they should be applied. Chapter 15 states that developers must identify and pursue opportunities for securing measurable net gains for biodiversity.

15 Under the Environment Act 2021, all planning permissions granted in England (with a few exceptions) will have to deliver at least 10% Biodiversity Net Gain. This will become legally enforceable following a transition period.

D METHODOLOGY

D.1 Desk Study

17 A desk study was carried out in July 2023 as part of the Biodiversity Net Gain Assessment. The following information was reviewed:

- Multi-Agency Geographic Information for the Countryside (MAGIC) online database.
- Greater Manchester Combined Authority (GMCA) MappingGM online database.
- Manchester' Local Development Framework Core Strategy Development Plan Document 2012 to 2027
- GMCA Biodiversity Net Gain Guidance for Greater Manchester February 2021

D.2 UK Habitat Survey

18 The site survey was carried out by Louisa Molloy (Consultant Ecologist, BSc (Hons)) and Elizabeth McBride (Consultant Ecologist, BSc (Hons), MCIEEM) on 22nd June 2023, in accordance with the UK Habitat Classification (UKHab) methodology (Butcher, et al., 2020). The habitats within the boundary of the survey site were broadly mapped with the principal habitat types and, where applicable, the dominant plant species identified within each habitat type.

D.3 DEFRA Metric 4.0

19 The Biodiversity Net Gain Assessment was carried out using the DEFRA Metric 4.0.

20 UK Habitat Survey habitats recorded from the site were input into the DEFRA Metric 4.0 worksheet and the baseline (or pre-intervention) biodiversity unit value of each habitat parcel was calculated.

21 The proposed development habitats were mapped and assigned a UK Habitat Survey type and then input into the DEFRA Metric 4.0 worksheet. The biodiversity unit values for the proposed development (or post-intervention) were then calculated using the same method.

22 The change in biodiversity value is calculated by subtracting the pre-intervention values from the post-intervention values to give final values from which it can be determined if the scheme delivers a biodiversity net gain or loss.

23 Metric calculations were undertaken by Louisa Molloy.

24 The assessment is based on CIEEMs Good Practice Principles (Baker, et al., 2019) and Biodiversity Net Gain Report and Audit Templates (CIEEM, 2021).

25 Post-intervention habitats were mapped from the following proposal plan provided by the client:

- Schedules and Site Plan AS-BTP-00-SP-DR-A-3814_105.11 Revision 11 by BTP Architects dated 15th June 2021.

26 The full results of the BNG assessment are provided in the supplied DEFRA Metric 4.0 worksheet. Pre-and post-intervention habitat plans are included in Appendix A as figures A.1 and A.2, respectively.

27 The strategic significance of the habitats was determined via the use of the GMCA MappingGM layer **Greater Manchester Local Nature Recovery Strategy (LNRS) Opportunities, 2021.**

28 Habitat areas and lengths, both pre-and post-intervention, have been measured using QGIS. Whilst every effort has been made to map the habitats as precisely as possible, there may be very minor errors in accuracy.

29 Proposed individual trees have not been included in the post-intervention habitat calculation as per the Biodiversity Metric 4.0 User Guide (Natural England, 2023), which states that *"Where private gardens are created, any tree planting within the created garden should not be included within post-development sheets of the metric. The habitat type 'Urban – Vegetated garden' should be used."*

E ON-SITE PRE-INTERVENTION HABITATS

E.1 Habitats

E.1.1 Modified grassland

31 Modified grassland in the form of species poor regularly mown amenity grassland covering an area 0.1355ha.

32 The grassland passed 4 of the 7 condition criteria, but failed essential criterion A, and has been assessed as being in poor condition.

33 This habitat has a value of 0.31 habitat units.

E.1.2 Individual Urban Trees

E.1.2.1 Medium Trees – Good Condition

34 Three medium sized individual urban trees with a total area of 0.1099ha.

35 These trees passed 5 of the 6 condition criteria and have been assessed as being in good condition.

36 These trees have a value of 1.52 habitat units.

E.1.2.2 Medium Trees – Moderate Condition

37 Twenty medium sized individual urban trees with a total area of 0.7329ha.

38 Nineteen of these trees passed 4 of the 6 condition criteria, and one passed 3. As a result, they have been assessed as being in moderate condition.

39 These trees have a value of 6.74 habitat units.

E.1.3 Artificial unvegetated; unsealed surface

40 A small area of unsurfaced pathway with a total area of 0.0049ha.

41 A condition assessment is not applicable to the habitat type.

42 This habitat has a value of 0.00 habitat units.

E.2 Strategic Significance

43 The site has been identified in a local strategy as an opportunity for tree planting. Therefore, 'Formally identified in local strategy' has been assigned.

E.3 Pre-intervention Biodiversity Value Calculations

44 Based on the data input into the DEFRA Metric 4.0 worksheet, the pre-intervention habitats have a total value of:

- 8.57 habitat units; and
- 0.00 hedgerow units.

F ON-SITE POST-INTERVENTION HABITATS

F.1 Proposals

45 The proposals will involve construction of five bungalows with associated hard and soft landscaping. Proposed soft landscaping includes the creation of vegetated gardens around the new dwellings.

F.1.1 Retained Habitats

46 None of the pre-intervention habitats will be retained.

F.1.2 Habitat Creation

47 The proposals will result in the creation of:

- 0.0691ha of vegetated garden. A condition assessment is not applicable to this habitat type. The habitat will have a value of 0.15 habitat units.
- 0.0713ha of developed land; sealed surface. A condition assessment is not applicable to this habitat type. The habitat will have a value of 0.00 habitat units.

48 No long-term management of the newly created habitats is proposed due to the landscaping forming the private gardens of the new development. However, a standard planning condition, worded as follows, can ensure that any planting within the proposed development is successful:

- If within a period of five years from the date of planting of any tree/hedge/shrub that tree/hedge/shrub, or any replacement, is removed, uprooted or destroyed or dies, or becomes, in the opinion of the Local Planning Authority seriously damaged or defective, another tree/hedge/shrub of the same species and size as that originally planted shall be planted in the same location as soon as reasonably possible and no later than the first available planting season, unless otherwise agreed in writing by the Local Planning Authority.

F.1.3 Habitat Enhancement

49 Habitat enhancement is not applicable to this site.

F.2 Strategic Significance

50 The site has been identified in a local strategy as an opportunity for tree planting. Therefore, ‘Formally identified in local strategy’ has been assigned.

F.3 Post-intervention Biodiversity Value Calculations

51 Based on the data inputted into the DEFRA Metric 4.0 worksheet, the post-intervention habitats have a total value of:

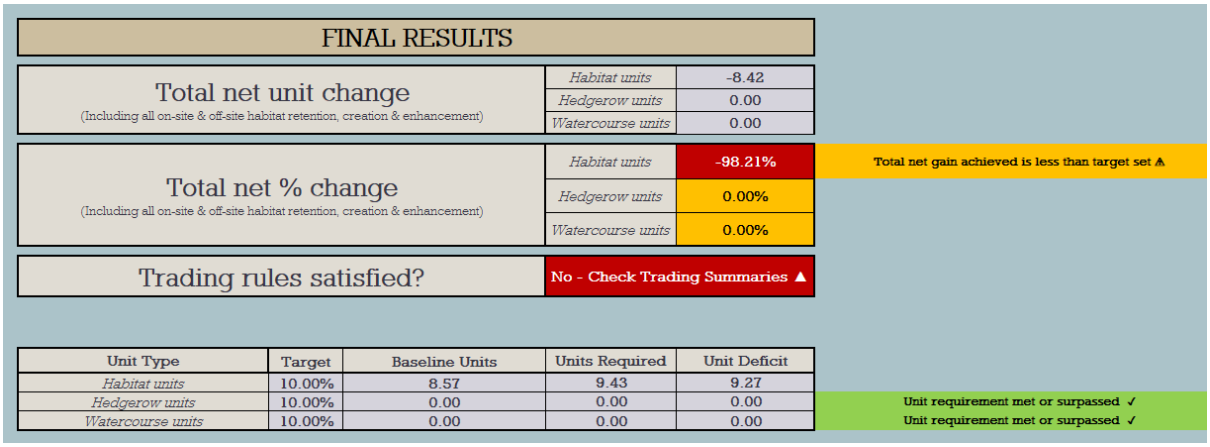
- 0.15 habitat units; and

- 0.00 hedgerow units.

G BIODIVERSITY NET GAIN ASSESSMENT RESULTS

52 Completion of the BNGA using the DEFRA Metric 4.0 shows that the proposals will result in a net loss of -8.42 habitat units (-98.21%) and no net change in hedgerow units.

Figure 1 Screen grab of DEFRA Metric 4.0 final results for Land at Audrey Street



FINAL RESULTS

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-8.42	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-98.21%	Total net gain achieved is less than target set ⚠
	Hedgerow units	0.00%	
	Watercourse units	0.00%	
Trading rules satisfied?		No - Check Trading Summaries ▲	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	8.57	9.43	9.27	
Hedgerow units	10.00%	0.00	0.00	0.00	Unit requirement met or surpassed ✓
Watercourse units	10.00%	0.00	0.00	0.00	Unit requirement met or surpassed ✓

53 The landscaping required to achieve this result is shown on the following plan:

- Schedules and Site Plan AS-BTP-00-SP-DR-A-3814_105.11 Revision 11 by BTP Architects dated 15th June 2021.

54 The implementation of this landscaping can be secured by a standard planning condition.

55 A total of 9.27 habitat units are needed to achieve no net loss and a minimum 10% net gain on-site. However, due to the small size of the site there are no opportunities to achieve this gain on-site and the losses will need to be offset off-site via a suitable mechanism.

56 If a significant number of the existing trees were retained, the total number of habitat units to be offset would be reduced. However, in any event, unless all existing trees could be retained, some offsetting will be required.

57 The results are valid for up to two years from the date of publication (November 2023) and only for the landscaping shown on the above plan. Any changes to the site layout and/or landscaping plans will require a recalculation to be carried out.

H REFERENCES

Baker, J., Hoskin, R. & Butterworth, T., 2019. *Biodiversity net gain. Good practive principles for development. A practical guide.,* London: Ciria.

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[Accessed 24 April 2023].

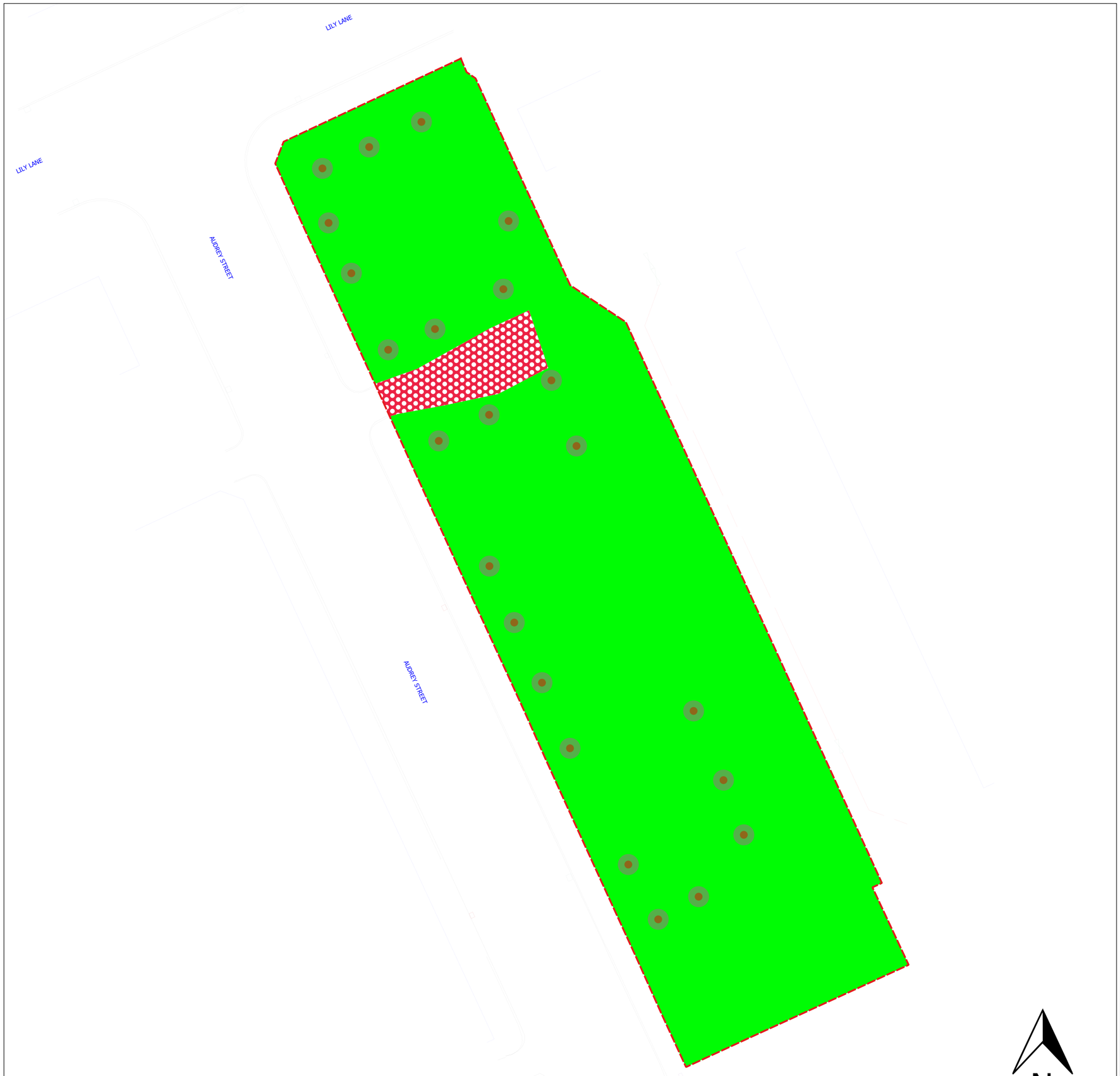
CIEEM, 2021. *Biodiversity Net Gain Report and Audit Templates,* Winchester, UK: Chartered Institute of Ecology and Environmental Management.

Footprint Ecology and WSP, 2021. *GMCA Biodiversity Net Gain Guidance for Greater Manchester February 2021,* Manchester: GMCA.

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Natural England, 2023. *The Biodiversity Metric 4.0 User Guide,* s.l.: Natural England.

APPENDIX A



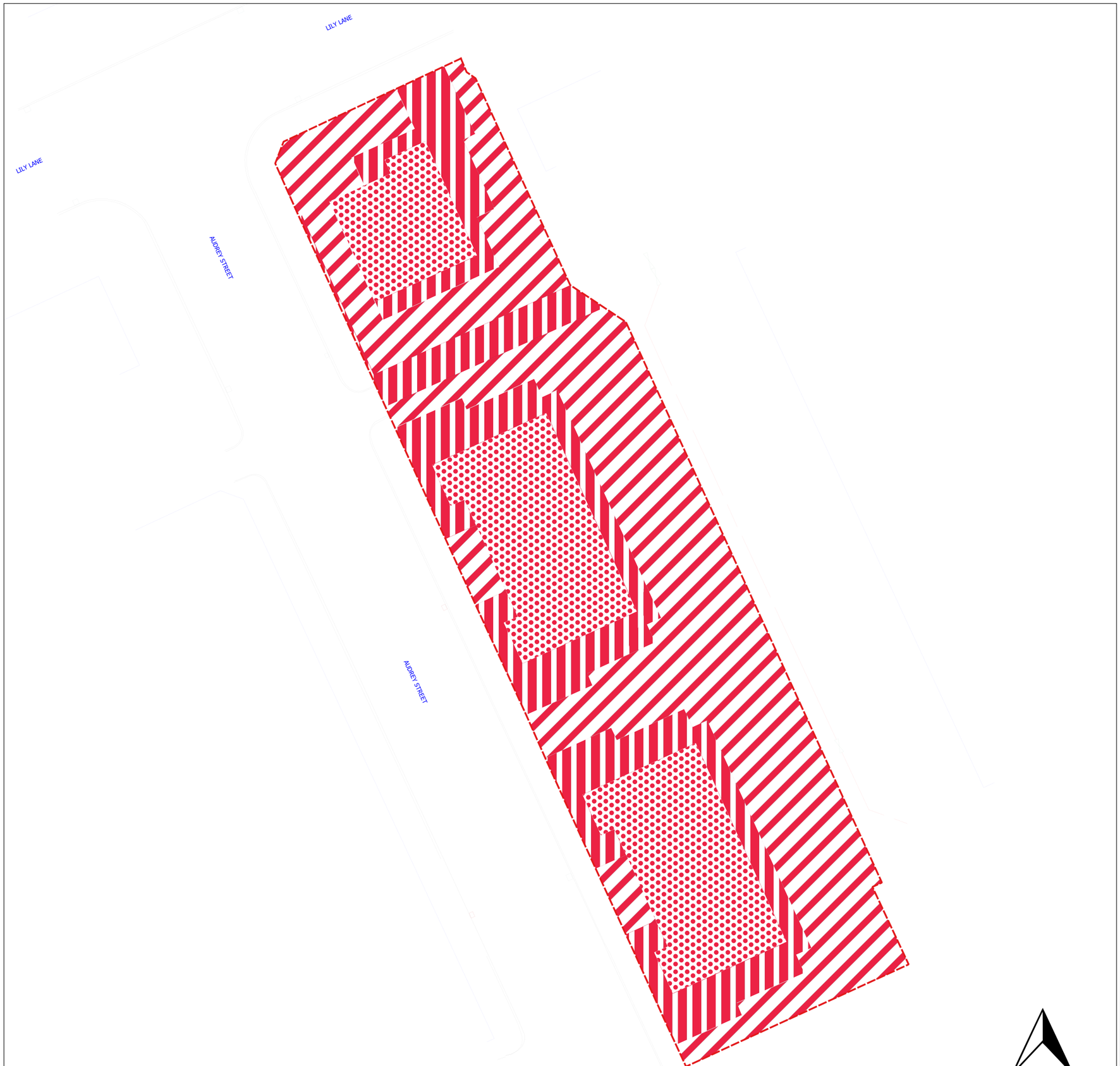
Legend

- Survey boundary
- Modified grassland
- Artificial unvegetated; unsealed surface
- Individual urban trees

Project	Land at Audrey Street, Manchester, M9 4PF
Title	A.1 Pre-intervention Habitat Plan
Client	One Manchester
Date	November 2023
Ref	[LM0118]A.1[REV B]PRE[AS]

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Do not scale from plan.

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Legend

- Survey boundary
- u1 - built-up areas and gardens
- Developed land; sealed surface
- Developed land; sealed surface - buildings

Project	Land at Audrey Street, Manchester, M9 4PF
Title	A.2 Post-intervention Habitat Plan
Client	One Manchester
Date	November 2023
Ref	[LM0118]A.2[REV B]POST[AS]

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