



Manchester University NHS Foundation Trust

Withington Community Hospital

Biodiversity Baseline Assessment

2485005

OCTOBER 2023

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EXPERTS IN ECOLOGY

RSK GENERAL NOTES

Project No.: 2485005

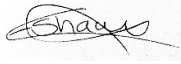
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EXECUTIVE SUMMARY

This assessment is a desk-based exercise using the results of field surveys carried out by RSK Biocensus on 11 January and 11 May 2023 for the site at Withington Community Hospital, Withington, Didsbury in Greater Manchester (OS Grid Reference: SJ 83736 92016). The assessment aims to establish the baseline (pre-construction) ecology of the site and assuming post-construction habitats taken from a proposed site landscaping plan provided by the client (Withington Landscape Sketch produced by Square Yard (reference 2301-SQU-XX-00-DR-L-001, P6).

This report calculates 'biodiversity units' using the Defra Biodiversity Metric 4.0, following the methods set out in Defra's Biodiversity Metric 4.0 User Guidance. The calculations are based on the area (or length), distinctiveness, condition and strategic significance of habitats found on the site. The biodiversity assessment calculation can be found in the accompanying excel document 2485005 - Withington Community Hospital 4.0 (Rev06).

The site comprises four habitat types with a total baseline of 2.38 biodiversity area units and 1.47 terrestrial habitat linear units. There is no aquatic linear habitat present on the site. The baseline condition assessments are listed in *Appendix A*.

Post-development plans indicate that five habitats will be created., The existing mixed scrub will be partially enhanced, however the remaining scrub habitat will either be temporarily or permanently lost as a result of the development. The development currently results in a gain of 0.24 biodiversity area units, which is a total net gain of 10.14% biodiversity area units. However, the proposals do not satisfy the trading rules of the metric and result in -0.17 unit loss of medium distinctiveness habitat (mixed scrub).

However, the development retains all 1.47 terrestrial habitat linear units and creates an additional 0.14 terrestrial habitat linear units, which is a total net gain 9.24% of terrestrial habitat linear units.

This assessment assumes that the line of trees (0.16km) is retained, 0.14km of hedgerow is created, 4 trees (3 medium and 1 small sized) are planted, 0.06ha of introduced shrub is planted, 0.14ha of mixed scrub is planted and 0.17ha of mixed scrub will be enhanced. However, it should be noted that the trading rules are not met as the proposed development replaces an area of scrub with developed land; sealed surface and therefore the above assessment should be agreed with the local planning authority.

This is a significant improvement on the initial proposed design which resulted in a loss of 1.1 biodiversity area units, which was a total net loss of 48.79% biodiversity area units. Therefore, the significant improvement to the net gain assessment demonstrates that the development has made a considerable effort to minimise the biodiversity net loss on site.

Furthermore, the net gain calculation does not consider the additional measures which can be included within the proposed design to improve the site for biodiversity, such as the inclusion of integrated bat and bird boxes, insect hotels, creation of log piles and hedgehog houses. Finally, the proposed species within the landscape design will be native and of local provenance, or to have a proven benefit to biodiversity (e.g., are berry / nut bearing species to promote birds / nectar rich species to encourage invertebrates).

A landscape and ecological management plan (LEMP) should be produced to ensure that the habitats are retained and enhanced as outlined within the BNG assessment, as well as how these habitats should be managed going forward, by providing a 30 year management plan. This can be secured with a suitably worded planning condition.

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1.0 INTRODUCTION

1.1 Purpose of this report

- 1.1.1 This report presents a study of the effects on biodiversity in connection with the removal, creation and enhancement of habitats for a proposed construction of a new endoscopy and cardiorespiratory facility at the Withington Community Hospital, Withington, Didsbury in Greater Manchester (OS Grid Reference: SJ 83736 92016; Figure 1).
- 1.1.2 The proposed development includes the construction of one new building, associated carparking and landscaping.
- 1.1.3 It is understood that Manchester University NHS Foundation Trust want to achieve maximum possible biodiversity net gain within the site, in line with national and local policy, while also achieving the aims of the proposed development. This report will form the basis of collaboration with design contractors to ensure the proposals contain sufficient ecological mitigation and landscaping to meet this target. Where achieving the target within the site boundary may not be possible, further discussions of off-site enhancements or monetary contributions may be required.

1.2 Landscape context

- 1.2.1 The proposed site boundary is c.0.65 ha, and includes sections of mixed scrub, scattered trees, introduced shrubs and sealed surfaces (hardstanding).
- 1.2.2 The site is bordered to the north by the current hospital building and car park, to which the proposed new building will connect. The site it is bordered by major roads and residential dwellings to the east and the south. Buccleuch Lodge, an intermediate care home surrounded by amenity grassland is located to the west of the site. The wider landscape is urban with the residential of areas Withington, West Didsbury, East Didsbury and Wythenshawe. There are pockets of greenspace present, including parks, playing fields and vegetated railway corridors.

2.0 METHODS

2.1 Introduction

- 2.1.1 The Biodiversity Metric 4.0 is designed to quantify biodiversity to inform and improve planning, design, land management and decision-making (Defra, 2023).
- 2.1.2 This study has been carried out as a desk-based exercise, comparing the results of field surveys carried out at the site by RSK Biocensus in January and May 2023 (RSK Biocensus, 2023) with a proposed site landscaping plan and planting plan provided by the client (August 2023). The primary documents consulted as part of this study include:
- 2485005 - Withington Community Hospital - Preliminary Ecological Appraisal Report Rev00 (RSK Biocensus, 2023)
 - Withington Site Wide General Arrangements (2301-SQU-XX-00-DR-L-001-EXTERNAL WORKS GA (P6)), see *Appendix C*.
 - Withington Hospital - Working Space Requirements - *WS01 REV0*, see *Appendix D*.
- 2.1.3 A map of the pre-construction habitats from the ecological appraisal is presented in *Figure 2*. The visit was undertaken by 11 January 2023 and updated on 11 May 2023.

2.2 Biodiversity assessment methods

- 2.2.1 To calculate biodiversity units for the site and assess any changes arising from the proposed development, this study uses methods set out by Defra in their latest Biodiversity Metric 4.0 user guide (Defra, 2023).
- 2.2.2 The Biodiversity Metric uses habitat area as its core measurement, except for linear features where it uses habitat length. Habitat area is multiplied by several factors (distinctiveness, condition, and strategic location) that indicate its quality, and this gives its biodiversity unit value. This can be used for existing and future habitats.
- 2.2.3 Where future habitats are to be enhanced or newly created, the risk of failure is accounted for by applying multipliers for risk factors (difficulty, time to target condition, and off-site risk).
- 2.2.4 The biodiversity value is assessed separately for linear habitats because describing them only by area would result in an underestimate and would therefore fail to ensure adequate compensation for losses. Linear habitats are split into two types: terrestrial, mainly hedgerows and lines of trees; and aquatic, mainly rivers and streams. They are assessed using the same metric, but they cannot be summed together. Therefore, a site can have three biodiversity unit values: one for habitat areas; one for terrestrial linear features; and one for aquatic linear features.

Habitat distinctiveness

- 2.2.5 Habitats are classified using the UK habitat classification system (UKHAB, 2018). The Biodiversity Metric 4.0 pre-assigns each habitat type to a distinctiveness band according to its distinguishing features, i.e., species richness, rarity (at local, regional, national, and international scales), and the degree to which it supports species rarely found in other habitats.
- 2.2.6 On rare occasions, the habitat distinctiveness of a habitat can be altered up or down from the preassigned value. Any alterations must then be fully explained in the condition assessment (*Appendix A*) using evidence relevant to the site, e.g., an increase in distinctiveness because of rare flora or fauna or a decrease in distinctiveness because of significant damage to the habitat.

Habitat condition

- 2.2.7 Habitat condition measures the varying quality of similar habitats against what is perceived to be their optimal state. The Biodiversity Metric 4.0 Technical Annex 1 Condition Assessment Sheets and Methodology (Defra, 2023a) contains condition sheets for all habitats to which the metric can apply. The condition sheets contain a habitat description, contextual information to aid the assessment, and the assessment criteria. The criteria describe what components need to be present for a habitat to be in good, moderate, or poor condition.

Strategic location

- 2.2.8 Strategic location - sometimes called 'strategic significance' - works at a landscape scale, allowing additional value to be added to habitats in 'priority' or 'biodiversity target areas'. They include statutory and non-statutory sites and other areas with biodiversity value or potential), and they are mainly identified from local plans and objectives. If a habitat is within such a target area, a multiplier is applied to increase its value.

Difficulty of creation and restoration

- 2.2.9 The risks associated with creating or enhancing habitats, e.g. owing to management, are known as difficulty factors. The Biodiversity Metric 4.0 contains default values for each habitat based on the average difficulty of creating or enhancing it. Occasionally under exceptional circumstances these can be modified, any deviation from the default value must be fully justified in the condition assessment.

Time to target condition

- 2.2.10 There is often a lag between a habitat being removed and the new compensation habitats achieving their target condition. This gives reduced biodiversity for a time. The Biodiversity Metric 4.0 preassigns the time to target condition based on good practice and typical conditions, and it assigns a multiplier based on the number of years required to achieve it. Using bespoke techniques under unique conditions, or creating compensation habitats prior to impacts taking place, the time to target condition can be adjusted. Any changes must be fully justified in the condition assessment.

Off-site risk

- 2.2.11 Sometimes it is not possible to adequately compensate for loss of biodiversity within the site boundary, so off-site compensation is required. If the off-site compensation is a significant disturbance from the development site, then there will be a local loss of biodiversity and a multiplier is applied to any off-site compensation.

3.0 BIODIVERSITY ASSESSMENT

3.1 Habitat Baseline Description

3.1.1 Detailed results of the site surveys carried out in January and May 2023, as well as the target notes referenced below, are presented in the preliminary ecological appraisal report¹.

3.1.2 The site comprises the following:

W1g6 - Line of trees

3.1.3 Lines of trees demarcate the north-western, southern and south-eastern site boundary. The trees along north-western site boundary are semi-mature and mature, primarily Sycamore (*Acer pseudoplatanus*) with the occasional Beech (*Fagus sylvatica*) (Target Note 2). The trees along southern site boundary, the central trees are young to semi mature and the trees in the north-west section are semi-mature to mature, species include Large-leaved Lime (*Tilia platyphyllo*), Pedunculate Oak (*Quercus robur*) and Sycamore. (Target Note 3). Finally, the trees on the south-east site boundary are semi-mature, species present include Ash (*Fraxinus excelsior*), Horse-chestnut (*Aesculus hippocastanum*) and Sycamore (Target Note 4). Bat boxes have been placed on numerous trees across the site (Target Note 8, Target Note 14).

h3h - Mixed Scrub

3.1.4 Most of the site is mixed scrub interspersed with young, scattered trees. Some trees are above 5m tall, but all trees are very young and leggy and have all been self-seeded. The area has no dominant species, but patches are dominated by Bramble (*Rubus fruticosus* agg.). Other species present include Ash saplings, Beech saplings, Butterfly-bush (*Buddleja davidii*), Cotoneaster (*Cotoneaster* sp.), Dog-rose (*Rosa canina*), Dogwood (*Cornus sanguinea*), Dog-rose (*Rosa canina*), Gorse (*Ulex europaeus*), Grey Willow (*Salix cinerea*), Hawthorn (*Crataegus* spp.), Holly (*Ilex aquifolium*), Horse-chestnut saplings, Silver Birch (*Betula pendula*) and Sycamore (Target Note 1). Ground flora species include Ivy (*Hedera helix*), Field Horsetail (*Equisetum arvense*), Bush Vetch (*Vicia sepium*), Greater Plantain (*Plantago major*), Strawberry (*Fragaria vesca*, introduced variety) (var.), Pendulous Sedge (*Carex pendula*), and Wall Cotoneaster (*Cotoneaster horizontalis*).

3.1.5 While this area does contain a number of tree species, they are predominantly young, with only a few semi-mature and following the UKHabs guidance the area meets the criteria for mixed scrub rather than woodland.

u1b - Developed land sealed surface

3.1.6 Areas of hard standing are currently used as a car park or footpaths (Target Note 7)

¹ 2485005 - Withington Community Hospital - Preliminary Ecological Appraisal Report Rev00 (RSK Biocensus, 2023)

u1b5 - Buildings

- 3.1.7 There is one building located immediately north of the site boundary. It is anticipated that the southern aspect of the building will join to the new building. As such, these external walls were subject to a preliminary roost assessment. The building is the existing Withington Community Hospital and a detailed building description is provided within Section 3.3.7.

u1b6,1160 - Developed land; sealed surface, Introduced shrub

- 3.1.8 There are small areas which have been planted with introduced / ornamental planted shrubs. Species present include: Bamboo (*Bambusa sp.*), Barberry (*Berberis sp.*), Birch (ornamental variety) (*Betula sp.*), Boxed-leaved Honeysuckle (*Lonicera pileate*), Bracken (*Pteridium sp.*), Cherry Laurel (*Prunus laurocerasus*), Cherry (*Prunus sp.*), Cotoneaster, Hebe (*Hebe sp.*), Holly, Horse-chestnut, Snowberry (*Symphoricarpos albus*) and Willow (*Salix sp.*).

3.2 Biodiversity Baseline Calculation

- 3.2.1 For the biodiversity assessment refer to the accompanying excel document.
2485005 - Withington Community Hospital - Biodiversity Baseline Assessment 4.0 (Rev06).xlsm

4.0 BIODIVERSITY ASSESSMENT SUMMARY

4.1 Biodiversity baseline

- 4.1.1 The UKHab map (*Figure 2*) has been used to identify three habitat areas, one terrestrial linear habitat and zero aquatic linear habitat within the c.0.65 ha red line boundary with a total of 2.38 area units, 1.47 terrestrial linear units and 0 aquatic linear units.
- 4.1.2 The condition assessments are provided in *Appendix A*. There were no deviations from the default methods for baseline habitats.
- 4.1.3 The assessment takes into account the temporary loss of areas of scrub during the construction process. These are shown on Withington Hospital – Working Space Requirements – *WS01 REV0*, see *Appendix D*.

4.2 Post-development habitat creation

- 4.2.1 The proposed development (August 2023) was used to determine the areas of habitats retained, created and enhanced. This assessment assumes the following:
 - 0.17ha of mixed scrub will be enhanced;
 - 0.14ha of mixed scrub will be temporarily lost and re-created;
 - 0.27ha of developed land; sealed surface will be created;
 - 0.06ha of introduced shrub will be created;
 - 3 medium trees will be planted;
 - 1 small tree will be planted;
 - 0.14km of non-native and ornamental hedgerow will be created; and
 - All existing trees on the boundary will be retained as part of the proposals.
- 4.2.2 The 0.17ha of retained scrub will be enhanced via the removal of invasive non-native species, this will increase the condition assessment from poor to moderate. The 0.14ha of temporarily lost scrub will be re-created in moderate condition.

4.3 Change in biodiversity value

- 4.3.1 Under the current proposals set out in the proposed landscaping plan (August 2023), there will be a net gain of + 0.24 (+ 10.14%) biodiversity area units and there will be a net gain of + 0.14 (+ 9.24%) terrestrial habitat linear units. This is shown in
- 4.3.2
- 4.3.3
- 4.3.4 *Table 1* below.

Table 1: Change in biodiversity units calculation.

Post-development Biodiversity Area Units		Baseline Biodiversity Area Units		Change in Biodiversity Area Units
2.62	-	2.38	=	+ 0.24 (+ 10.14%)
Post-development Biodiversity Terrestrial Linear Units		Baseline Biodiversity Terrestrial Linear Units		Change in Biodiversity Terrestrial Linear Units
1.61	-	1.47	=	0.14 (+ 9.24%)
Post-development Biodiversity Aquatic Linear Units		Baseline Biodiversity Aquatic Linear Units		Change in Biodiversity Aquatic Linear Units
0.00	-	0.00	=	0.00 (+/- 0%)

5.0 EVALUATION

- 5.1.1 Post-development plans indicate that four area habitats will be created, one habitat will be partially enhanced. As such, the development currently results in a gain of 0.24 biodiversity area units, which is a total net gain of 10.14% biodiversity area units.
- 5.1.2 Some of the existing scrub will either be lost permanently or temporarily as a result of the development. The lost area of scrub will be replaced with a building, areas of hardstanding and introduced shrub. The area of scrub that will be temporarily lost will be recreated in an improved condition (moderate).
- 5.1.3 The development retains all 1.47 terrestrial habitat linear units and creates an additional 0.14 terrestrial habitat linear units, which is a total net gain 9.24% of terrestrial habitat linear units. This assessment assumes that the line of trees (0.16km) is retained, 0.14km of hedgerow is created, 4 trees are planted and 0.17ha of scrub will be enhanced.
- 5.1.4 It should be noted that the current proposed development does not meet BNG habitat trading rules as the BNG assessment requires that the 0.17ha of mixed scrub should be replaced with the same broad habitat type.
- 5.1.5 However, it should be noted that the current proposed development is a significant improvement on the initial proposed design which resulted in a loss of 1.17 biodiversity area units, which was a total net loss of 48.79% biodiversity area units, see Square Yard (2023) Withington Landscape Sketch (reference 2301-SQU-XX-00-DR-L-001, P1). The initial proposed design did achieve a 10.81% net gain in terrestrial linear units, but the significant net loss of biodiversity area units is considerably worse for biodiversity.
- 5.1.6 Furthermore, the proposed landscape design is considered appropriate to the size and scale of the development and the enhancement of the retained scrub provides the smallest net loss to the site, without significantly impacting the design and purpose of the proposed development.
- 5.1.7 Additionally, the net gain calculation does not consider additional measures which could be included within the proposed design to improve the site for biodiversity, such as the inclusion of integrated bat and bird boxes, insect hotels, creation of log piles, hedgehog houses. Finally, the proposed species within the landscape design are anticipated to be native and of local provenance, or to have a proven benefit to biodiversity (e.g., are berry / nut bearing species to promote birds / nectar rich species to encourage invertebrates).
- 5.1.8 Therefore, the significant improvement to the net gain assessment demonstrates that the development has made a considerable effort to minimise the biodiversity net loss on the site.

6.0 RECOMMENDATIONS

- 6.1.1 It is recommended that the proposed development includes integrated bat and bird boxes, insect hotels, log piles and hedgehog houses to further improve biodiversity within the proposed development. Furthermore, it is recommended that the proposed species within the landscape design are native and of local provenance, or to have a proven benefit to biodiversity (e.g., are berry / nut bearing species to promote birds / nectar rich species to encourage invertebrates).
- 6.1.2 Due the type of habitats on the site and proposed size of the development, it is considered that the proposed landscape design is appropriate to the size and scale of the development. However, it should be noted that although the current proposals achieve a net gain, the current assessment does not meet BNG habitat trading rules. Therefore, this assessment should be discussed and agreed with the local planning authority.
- 6.1.3 A landscape and ecological management plan should be produced which details how habitats will be created, enhanced and maintained and monitored following completion of the development. It should cover up to 30 years post development.

REFERENCES

Defra (2023), *The Biodiversity Metric 4.0 User Guide* (March 2023). Natural England

Defra (2023a), *The Biodiversity Metric 4.0: Technical Annex 1 – Condition Assessment Sheets and Methodology* (March 2023). Natural England

RSK Biocensus (2023), *2485005 – Withington Community Hospital Preliminary Ecological Appraisal Report Rev02*

Square Yard (2023) Withington Landscape Sketch produced by Square Yard 004

Square Yard (2023) Withington External Works – Site Wide General Arrangements (reference 2301-SQU-XX-00-DR-L-001-P6)

UKHAB (2018), *UK Habitat Classification Documents*.
<http://ecountability.co.uk/ukhabworkinggroup-ukhab>.

FIGURES

Figure 1 - Site Location Plan

Figure 2 - Existing Habitats



Legend:

Site Boundary

00	17/01/2023	2485005	RG	SP	TW
Rev	Date	Description	Drn	Chk	App

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TITLE: Figure 1:

Site Location Plan

0

30

60

90

Metres

SCALE: 1:2,500 @ A3

N

E

S

W

REV 00



Legend:

- Site Boundary
- UKHab Habitats
 - Mixed Scrub
 - Developed Land; Sealed Surface
 - Other Developed Land; Introduced Shrub
- Line of Trees
- Target Note



00	24/01/2023	2485005	RG	SP	ES
Rev	Date	Description	Drn	Chk	App

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TITLE: Figure 2:
Habitat Plan

SCALE: 1:500 @ A3

REV 00

APPENDIX A – BASELINE DETAILED CONDITION ASSESSMENTS

This appendix presents the condition assessments of the baseline habitats against the condition sheets in the Biodiversity Metric 4.0 technical supplement published by Defra (2023a) any deviations from the published guidance are explained and justified.

Healthland and shrub - Mixed scrub

UKHAB classification	h3h – Mixed scrub		
Distinctiveness	Medium	Area	0.59 ha
Habitat Type Description			
Most of the site is mixed scrub interspersed with young, scattered trees. Using the UKHabs classification system, the species present and the age class of self-seeded trees, results in a classification of mixed scrub rather than woodland. Some trees are above 5m tall, but all trees are very young and leggy and have all been self-seeded. The area has no dominant species, but patches are dominated by Bramble (<i>Rubus fruticosus</i> agg.). Other species present include Ash saplings, Beech (<i>Fagus sylvatica</i>) saplings, Butterfly-bush (<i>Buddleja davidii</i>), Cotoneaster (<i>Cotoneaster</i> sp.), Dog-rose (<i>Rosa canina</i>), Dogwood (<i>Cornus sanguinea</i>), Gorse (<i>Ulex europaeus</i>), Hawthorn (<i>Crataegus</i> spp.), Holly (<i>Ilex aquifolium</i>), Horse-chestnut (<i>Aesculus hippocastanum</i>) saplings, Silver Birch (<i>Betula pendula</i>) and Sycamore (<i>Acer pseudoplatanus</i>).			
Condition Assessment Criteria			
1. The scrub is a good representation of the habitat type it has been identified as, based on its UKHab description (where in its natural range). The appearance and composition of the vegetation closely matches the characteristics of the specific scrub type. At least 80% of scrub is native, and there are at least three native woody species¹, with no single species comprising more than 75% of the cover (except hazel <i>Corylus avellana</i>, common juniper <i>Juniperus communis</i>, sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i>, which can be up to 100% cover). 2. Seedlings, saplings, young shrubs and mature (or ancient or veteran²) shrubs are all present. 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. 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). 5. There are clearings, glades or rides present within the scrub, providing sheltered edges.			
Condition			
Good	Passes 5 of 5 criteria		
Moderate	Passes 3 or 4 of 5 criteria		
Poor	Passes 0, 1 or 2 of 5 criteria		
Condition Result			Poor
Justification			
1. Habitat is representative of mixed scrub UKHab description – Pass 2. There is a mix of ages present, including seedlings, shrubs and mature shrubs and occasional trees – Pass 3. Cotoneaster is present – Fail 4. There are no areas of scattered scrub or grassland, it is an area of scrub with self-seeded trees – Fail 5. The area of scrub is relatively small and does not contain clearings or glades – Fail			

Urban - Introduced shrub

UKHAB classification	u1b6, 1160 - Developed land; introduced shrub.		
Distinctiveness	Low	Area	0.01 ha
Habitat Description			
There are small areas which have been planted with introduced / ornamental planted shrubs. Species present include: Bamboo (<i>Bambusa sp.</i>), Barberry (<i>Berberis sp.</i>), Birch (Ornamental variety) (<i>Betula sp.</i>), Boxed-leaved Honeysuckle (<i>Lonicera pileate</i>), Bracken (<i>Pteridium sp.</i>), Cherry Laurel (<i>Prunus laurocerasus</i>), Cherry (<i>Prunus sp.</i>), Cotoneaster, Hebe (<i>Hebe sp.</i>), Holly (<i>Ilex aquifolium</i>), Horse-chestnut (<i>Aesculus hippocastanum</i>), Snowberry (<i>Symphoricarpos albus</i>) and Willow (<i>Salix sp.</i>).			
Condition Assessment Criteria			
N/A - condition assessment N/A, default multiplier of 1.			
Condition			
Good	N/A		
Moderate	N/A		
Poor	N/A		
Condition Result			N/A
Justification			
N/A			

Urban - Developed land, sealed surface

UKHAB classification	u1b - Developed land; sealed surface, u1b5 - Buildings		
Distinctiveness	V. low	Area	0.05 ha
Habitat Description			
Mixture of buildings, pathways and carpark			
Condition Assessment Criteria			
N/A - fixed at 'poor', default multiplier of 1.			
Condition			
Good	N/A		
Moderate	N/A		
Poor	N/A		
Condition Result			N/A
Justification			
N/A			

Woodland and forest - Line of trees

UKHAB classification	w1g6 - Line of trees		
Distinctiveness	Medium	Area	0.16km
Habitat Type Description			
Lines of trees demarcate the north-western, southern and south-eastern site boundary. The trees along north-western site boundary are semi-mature and mature, primarily Sycamore (<i>Acer pseudoplatanus</i>) with the occasional Beech (<i>Fagus sylvatica</i>). The trees along southern site boundary, the central trees are young to semi-mature and the trees in the north-west section are semi-mature to mature, species include Large-leaved Lime (<i>Tilia platyphyllos</i>), Pedunculate Oak (<i>Quercus robur</i>) and Sycamore. Finally, the trees on the south-east site boundary are semimature, species present include Ash (<i>Fraxinus excelsior</i>), Horse-chestnut (<i>Aesculus hippocastanum</i>) and Sycamore.			
Condition Assessment Criteria			
1. More than 70% of trees are native species. 2. Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide. 3. One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark. 4. There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice. 5. At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.			
Condition			
Good	Passes 5 of 5 criteria		
Moderate	Passes 3 or 4 of 5 criteria		
Poor	Passes 0, 1 or 2 of 5 criteria		
Condition Result			Moderate
Justification			
1. More than 70% are native - Pass 2. The canopy is continuous - Pass 3. Several trees are mature - Pass 4. There is a road immediately south of the trees - Fail 5. The trees are in a healthy condition - Pass			

APPENDIX B – POST CONSTRUCTION DETAILED CONDITION ASSESSMENTS

Healthland and shrub - Mixed scrub - retained and enhanced

UKHAB classification	h3h – Mixed scrub		
Distinctiveness	Medium	Area	0.17 ha
Habitat Type Description			
It is anticipated that the retained areas of scrub will be enhanced via the removal Cotoneaster (<i>Cotoneaster sp.</i>) and management to remove Butterfly-bush (<i>Buddleja davidii</i>) and reduce the frequency of nettle (<i>Urtica dioica</i>) within the scrub. The area should also be managed to encourage wildlife and increase species diversity. This should be detailed within a landscape and ecological management plan for the site.			
Condition Assessment Criteria			
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). 2. There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs. 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. 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). 5. There are clearings, glades or rides present within the scrub, providing sheltered edges.			
Condition			
Good	Passes 5 of 5 criteria		
Moderate	Passes 3 or 4 of 5 criteria		
Poor	Passes 0, 1 or 2 of 5 criteria		
Expected Condition Result			Moderate
Justification			
1. Habitat is representative of mixed scrub UKHab description – Pass 2. There is a mix of ages present, including seedlings, shrubs and mature shrubs and occasional trees – Pass 3. Cotoneaster and Butterfly-bush are removed and other species indicating sub-optimal conditions are reduced – Pass 4. The area is too small to include areas of scattered scrub or grassland – Fail 5. The area of scrub is relatively small and could not contain clearings or glades – Fail			

Healthland and shrub - Mixed scrub -Re-created

UKHAB classification	h3h – Mixed scrub		
Distinctiveness	Medium	Area	0.14 ha
Habitat Type Description			
It is anticipated that an area of scrub will be temporarily lost as a result of the development. It is expected that the scrub will be re-planted with native species and will be managed along with the retained scrub in order to achieve moderate condition.			
Condition Assessment Criteria			
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). 2. There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs. 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.			

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).	
5. There are clearings, glades or rides present within the scrub, providing sheltered edges.	
Condition	
Good	Passes 5 of 5 criteria
Moderate	Passes 3 or 4 of 5 criteria
Poor	Passes 0, 1 or 2 of 5 criteria
Expected Condition Result	
Moderate	
Justification	
1. Habitat is representative of mixed scrub UKHab description - Pass	
2. There is a mix of ages present, including seedlings, shrubs and mature shrubs and occasional trees - Pass	
3. Cotoneaster and Butterfly-bush are removed and other species indicating sub-optimal conditions are reduced - Pass	
4. The area is too small to include areas of scattered scrub or grassland - Fail	
5. The area of scrub is relatively small and could not contain clearings or glades - Fail	

Urban - Introduced shrub

UKHAB classification		u1b6, 1160 - Developed land; introduced shrub.	
Distinctiveness		Low	Area 0.06 ha
Habitat Description			
There are several small areas proposed within the landscape plan which will be planted with introduced / ornamental planted shrubs.			
Condition Assessment Criteria			
N/A - condition assessment N/A, default multiplier of 1.			
Condition			
Good	N/A		
Moderate	N/A		
Poor	N/A		
Condition Result			N/A
Justification			
N/A			

Urban - Developed land, sealed surface

UKHAB classification		u1b - Developed land; sealed surface, u1b5 - Buildings	
Distinctiveness		V. low	Area 0.27ha
Habitat Description			
New hedgerow created for ornamental / screening purposes.			
Condition Assessment Criteria			
N/A - fixed at 'poor', default multiplier of 1.			
Condition			
Good	N/A		
Moderate	N/A		
Poor	N/A		
Condition Result			N/A
Justification			
N/A			

Hedgerow - Non-native and ornamental hedgerow

UKHAB classification	h2b Other hedgerow (non-native and ornamental hedgerow)		
Distinctiveness	V. low	Area	0.14km
Habitat Description			
One hedgerow will be created adjacent to the area of retained scrub on site.			
Condition Assessment Criteria			
N/A - fixed at 'poor', default multiplier of 1.			
Condition			
Good	N/A		
Moderate	N/A		
Poor	N/A		
Condition Result			N/A
Justification			
N/A			

Individual trees - Urban tree

UKHAB classification	U1, 1170 - Built-up areas and gardens - individual trees - Urban tree		
Distinctiveness	Medium	Area	0.114
Habitat Description			
Four individual trees will be planted within the areas of introduced shrub on site. Three medium sized trees and one small tree.			
Condition Assessment Criteria			
1. The tree is a native species (or at least 70% within the block are native species). 2. 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). 3. The tree is mature (or more than 50% within the block are mature). 4. 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. 5. Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark. 6. More than 20% of the tree canopy area is oversailing vegetation beneath.			
Condition			
Good	Passes 5 or 6 criteria		
Moderate	Passes 3 or 4 criteria		
Poor	Passes 2 or fewer criteria		
Condition Result			Poor
Justification			
1. It is unknown if the tree species proposed to be planted will be native - Fail 2. Individual trees automatically pass this criterion - Pass 3. The trees will be allowed to reach maturity (27 years to reach target condition) - Pass 4. The trees are anticipated to be subject to a regular pruning regime due to their vicinity to public spaces / building - Fail 5. Deadwood, cavities, ivy or loose bark are unlikely to be present within 20 - 30 years - Fail 6. All trees are located within areas of introduced shrub so more than 20% of the tree canopy area will be oversailing vegetation beneath - Fail			

Woodland and forest - Line of trees - retained

UKHAB classification	w1g6 – Line of trees		
Distinctiveness	Low	Area	0.161km
Habitat Type Description			
Lines of trees which demarcate the north-western, southern and south-eastern site boundary will be retained and continue to provide ecological value to the site.			
Condition Assessment Criteria			
1. More than 70% of trees are native species. 2. Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide. 3. Includes one or more mature ¹ or veteran ² tree. 4. There is an undisturbed naturally vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other anthropogenic operations. 5. At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.			
Condition			
Good	Passes 5 of 5 criteria		
Moderate	Passes 3 or 4 of 5 criteria		
Poor	Passes 0, 1 or 2 of 5 criteria		
Condition Result			Moderate
Justification			
1. More than 70% are native - Pass 2. The canopy is continuous - Pass 3. Several trees are mature - Pass 4. There is a road immediately south of the trees - Fail 5. The trees are in a healthy condition - Pass			

APPENDIX C - PROPOSED LANDSCAPE DESIGN



- KEY:
- EXISTING TREE RETAINED
 - PROPOSED CONCRETE BLOCK PAVING
TOBERMORE ARTRO OR SIMILAR TBC
 - PROPOSED CONCRETE FLAG PAVING
TOBERMORE TEXTURED FLAG OR SIMILAR TBC
 - PROPOSED BOUND GRAVEL TO SEATING AREAS
COLOUR TBC
 - PROPOSED ASPHALT
TO ENGINEERS SPECIFICATION
 - EXISTING ASPHALT RETAINED
TO BE MADE GOOD AS REQUIRED
 - PROPOSED AMENITY SHRUB PLANTING
SEE PLANTING PLAN FOR DETAILED PROPOSALS
 - BL. PROPOSED BOLLARDS
1100MM HIGH POWDER COATED STEEL - SUPPLIER TBC
COLOUR - GUNMETAL GREY OR SIMILAR
 - PROPOSED FENCE TO PLANT COMPOUNDS
2.1M HIGH TIMBER HIT AND MISS
SUPPLIER TBC
 - PROPOSED SPECIMEN TREE/MULTISTEM SHRUB
SEE PLANTING PLANS FOR DETAILED PROPOSALS
 - PROPOSED MIXED NATIVE HEDGE
PLANTED IN A DOUBLE STAGGERED ROW
 - PROPOSED HEDERA GREEN SCREEN
SUPPLIED BY 'MOBILANE' OR SIMILAR APPROVED
HEIGHT 1.8M

Squareyard

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Address:
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New Hall Hey Road,
Rossendale

GENERAL NOTES:

- DO NOT SCALE FROM THIS DRAWING
- DIMENSIONS GOVERN
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE ON THE DRAWINGS
- ALL DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO ANY CONSTRUCTION
- YD2 SHALL BE NOTIFIED OF ANY DISCREPANCIES

DRAWING NOTES:

P1	DRAFT ISSUE FOR COMMENT/COORDINATION	AV	AV	27/04/2023
P2	DRAFT ISSUE FOR COMMENT/COORDINATION	MG	AV	10/05/2023
P3	DRAFT ISSUE FOR COMMENT/COORDINATION	MG	AV	07/06/2023
P4	DRAFT ISSUE FOR COMMENT/COORDINATION	MG	AV	03/07/2023
P5	DRAFT ISSUE - PARKING AND ACCESS UPDATED	MG	AV	18/07/2023
P6	DRAFT ISSUE - BOLLARDS ADDED	MG		07/08/2023
REV	DESCRIPTION	DRAWN	CHECKED	DATE

PROJECT TITLE

WITHINGTON HOSPITAL
BURTON ROAD
WITHINGTON

DRAWING TITLE

EXTERNAL WORKS
SITE WIDE GENERAL ARRANGEMENT

PROJECT NUMBER

YD2_23_01

DRAWING No.

2301-SQU-XX-00-DR-L-001

SCALE

@ A1

1:250

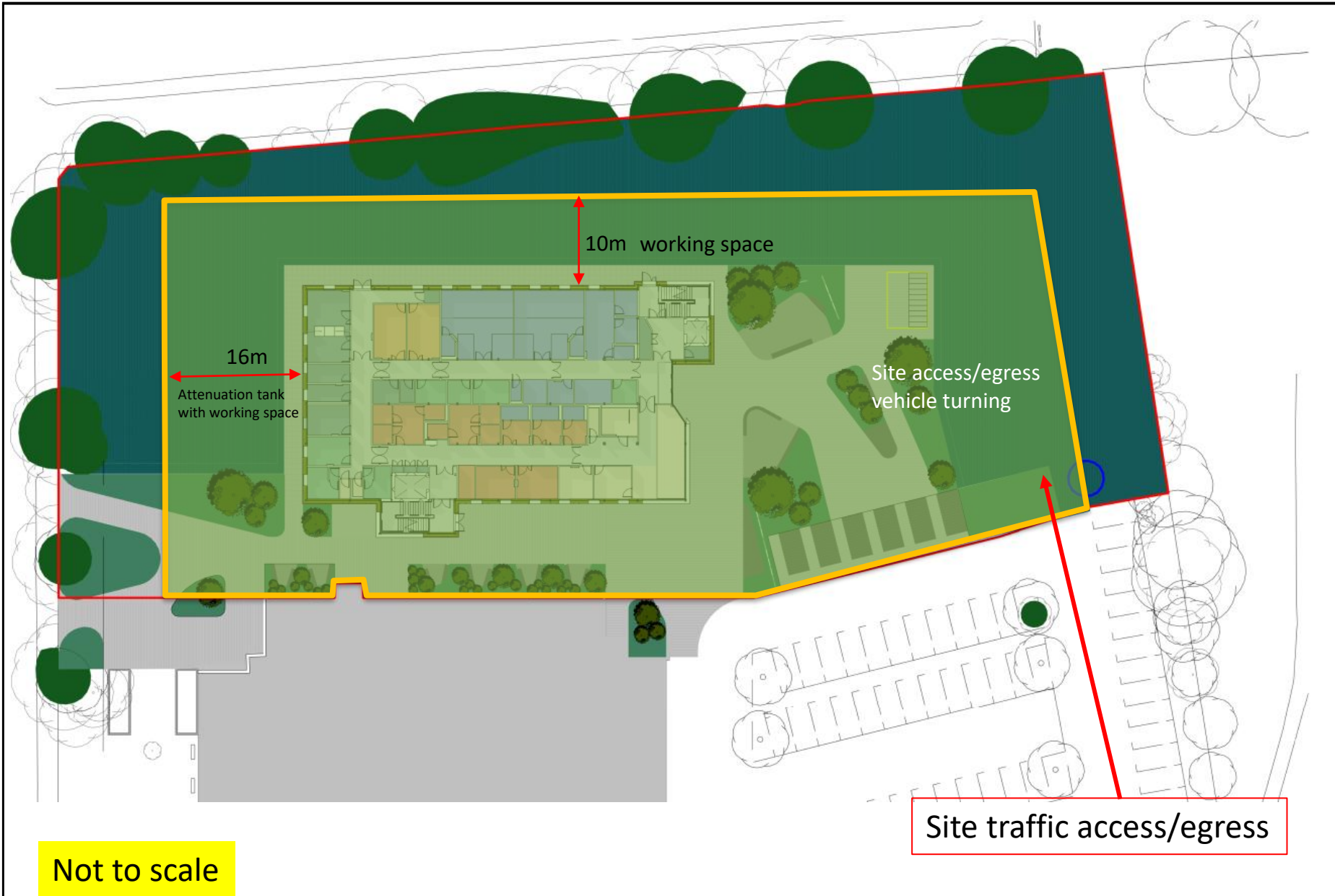
DATE

JUL 2023

REVISION

P6

APPENDIX D - PROPOSED CONSTRUCTION WORKS AREAS



Client



Manchester University
NHS Foundation Trust

Project

Withington Hospital

Drawing

Working space requirements

Prepared By

PV

Date

03/10/23

Drawing Number

WS01

Revision

0





**INVESTORS
IN PEOPLE**