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Preliminary Ecological Appraisal

Survey Site:

Thomas's College, Queen's Rd, Richmond Hill, London, TW10 6JP

Client:

Thomas's London Day School – Thomas's College

Survey Date:

7th October 2024

Project:

This report is prepared to inform a planning application with the London Borough of Richmond. The proposal is described as:

New covered MUGA to replace the existing open air MUGA like for like.

PEA survey methodology and legislation can be found in the Arbtech Supplement: **PEA Methodology and Legislation - 2024.**

The survey results and recommendations contained within this report are valid for 18 months. An updated site visit may be required if the report is to be used any longer than 18 months after completion.

The site survey was undertaken by Michelle Huang, BS, MRes DIC (Accredited Agent under Natural England Bat Licence Number: 2019-41480-CLS-CLS).					
Date of Survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (m/s)	Rain
7th October 2024	20.1	62.2	50	0.3	None

Ecological Survey Factor **Conclusion, Impact or Recommendations**	**Detailed using desk study and site survey (carried out under good weather conditions). Any specific limitations noted within its relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.** **See habitat map in *Appendix 1*, location plan in *Appendix 2*, proposal plan in *Appendix 3*, and photos in *Appendix 4.***
Habitats and Plants Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).	
Summary of Survey Findings	The site is centred at National Grid Reference TQ 18465 74038 and has an area of approximately 0.2ha. The site is characterized by a concrete pathway which leads to an existing concrete Multi-Use Games Area (MUGA) surrounded by introduced shrubs, cypress hedges, and various scattered trees. The site is situated within Thomas's College, a secondary school characterised by sealed surfaces (access paths, parking spots, buildings, and the MUGA), areas of modified grasslands, introduced shrubs, and a number of mature trees. The wider landscape comprises urban-built up areas to the north/northwest and green spaces (i.e. Richmond Park and its surrounding areas and golf courses) to all other aspects. **Urban: developed Land, sealed surface [u1b6] – Figures 1-7**

	The site is dominated by sealed surfaces acting as an access road, limited parking spaces, and the MUGA itself. Sealed surfaces are not subject to condition assessments. **Urban: suburban mosaic of developed and natural surface – educational premises open space with introduced shrubs, bare ground, and scattered trees [u1d 814 847 540 32] – Figures 8-10 and 13-18** Introduced shrubs are planted along the western and the majority of the eastern periphery of the existing MUGA. Species comprise Hypericum sp., holly, Japanese laurel, privet, palms, rhododendron, and cherry laurel. Introduced shrubs are not subject to condition assessments. Areas of bare ground are present under the cypress hedges and along the understorey of trees which serves as the entrance from the driveway to the MUGA. Such areas comprise minimal vegetation, including sparse ryegrass and forbs such as white clover, daisies, and dandelions. Scattered trees surrounding the MUGA range from young to mature and comprise mature Austrian pine, redwood, cherry, silver birch, magnolia, alder, gingko, apple, cypress, and lilac. **Heathland and shrub: non-native and ornamental hedgerow [h2b] – Figures 11-12** Two cypress hedges line the northern and southern peripheries of the existing MUGA. Approximate dimensions: 2m tall x 1m wide x 26m (H1) / 18m (H2) long
Foreseen Impacts	Habitats on site comprise sealed surfaces, introduced shrubs, bare ground, scattered trees, and non-native, ornamental cypress hedges. Rhododendron and cherry laurel were identified within the introduced shrubs. Bar the two invasive species, other habitats on site are common and widespread and have low

	ecological value. There are no notable habitats (i.e. protected or notable plant species) within the site but five priority habitats are present within 2km of the site, the closest being deciduous woodlands, woodpasture & parkland, and lowland dry acid grasslands within Richmond Park ~200m southeast of the site. No direct impacts to any notable habitats will occur as a result of the proposed development. However, due to the proximity of the site to scattered trees and cypress hedges, indirect effects such as pollution or tree damage could occur during construction. Tree works are anticipated (i.e. trimming) to facilitate the provisioning of the proposed canopy structure.
Recommendations	Best practice measures to minimise the possibility of pollution must be implemented during construction. Retained trees/hedgerows should be protected in line with the measures outlined in the British Standard "Trees in Relation to Design, Demolition and Construction to Construction - Recommendations" (BS 5837) (2012). A Construction Environment Management Plan (CEMP) may be required for this. A suite of tree surveys, including an Arboricultural Impact Assessment, is recommended.
Locality and Designated Sites	
Summary of Survey Findings	The site is not subject to any designation. There are 2no. statutory designated sites within a 2km radius, the closest of which is the Richmond Park National Nature Reserve (NNR)/Site of Special Scientific Interest (SSSI)/Special Area of Conservation (SAC) located ~200m southeast of the site. Richmond Park is of importance for its diverse deadwood beetle fauna (with stag beetles being an Annex II species that are a primary reason for the selection of

	this site as an SAC) associated with the ancient trees. It also supports the most extensive area of dry acid grassland in Greater London. The other is the Ham Common Local Nature Reserve (LNR) located ~100m south of the site which comprises birch and oak woodlands with wet hollows and acid grasslands. The site is located within the impact risk zone of Richmond Park SSSI but the proposed development is not listed as a possible high risk with regards to this designation. Non-statutory sites within a 2km radius were retrieved from Greenspace Information for Greater London's Sites of Importance to Nature Conservation (SINCs) Open Data (GiGL, 2022). There are 7no. non-statutory sites within 1km of the site, the closest being the Terrace Field and Terrace Garden SINC located ~175m west of the site. The grassland is of moderate diversity. The sward is dominated by cock's-foot and meadow foxtail, with wildflowers including meadow vetchling, common vetch, cow parsley and bulbous buttercup. There are some fine old field maples along the top edge of the field beside the road, and an overgrown hedge at the bottom. A nationally scarce spider, *Philodromus praedatus*, has been found in the roadside trees. Terrace Garden, adjacent to the field, is a more formal park. Here amenity grassland, mature planted trees; shrubberies and flower beds predominate, contrasting with the wilder hay meadow and scrub of the field. These habitats, while of less intrinsic interest than the hay meadow, provide a diversity of habitat structure and more niches for animals and plants dependent on woodland, scrub and trees. In places, the mowing regime has been relaxed, allowing a more diverse vegetation to develop and providing useful habitat for grassland invertebrates.
Foreseen Impacts	No impacts to designated sites are anticipated due to the small scale and distance of the proposed development from such sites (where known) as well as the urban location of the site with surrounding physical barriers.

<table>
<tr><td>Recommendations</td><td>N/A</td></tr>
<tr><td colspan="2">Invasive / Non-native species</td></tr>
<tr><td>Summary of Survey Findings</td><td>No Schedule 9 invasive species were identified on site. Rhododendron (Rhododendron ponticum) and cherry laurel (Prunus laurocerasus) were identified on the site (Figures 17-18). Rhododendron is a Schedule 9 species per the Wildlife and Countryside Act 1981, while cherry laurel is an additional invasive species relevant to London per the London Invasive Species Initiative (LISI).</td></tr>
<tr><td>Foreseen Impacts</td><td>Existing specimens of rhododendron and cherry laurel are understood to be retained in full. As such, no risk of the spread of such species is anticipated.</td></tr>
<tr><td>Recommendations</td><td>No further surveys but remain vigilant.</td></tr>
<tr><td colspan="2">Bats</td></tr>
<tr><td>Summary of Survey Findings</td><td>A review of the MAGIC database revealed 3no. granted European Protected Species Licences (EPSLs) within a 2km radius, which are summarised in the table below.
<table>
<tr><th>EPSL Reference</th><th>Distance from Site</th><th>Species Impacted</th><th>Impacts Granted</th></tr>
<tr><td>2019-43456-EPSMIT</td><td>~850m southwest</td><td>Brown long-eared bat
Soprano pipistrelle</td><td>Damage of a resting place
Destruction of a resting place</td></tr>
<tr><td>2016-25082-EPSMIT</td><td>~1850m southwest</td><td>Brown long-eared bat
Common pipistrelle
Soprano pipistrelle</td><td>Destruction of a resting place</td></tr>
<tr><td>2016-27025-EPSMIT</td><td>~1950m north</td><td>Brown long-eared bat
Serotine
Soprano pipistrelle</td><td>Damage of a resting place</td></tr>
</table>
Scattered trees in close proximity to the existing MUGA provide suitable habitats for foraging and commuting bats. These could also be used by bats dispersing from nearby roosts outside of the site and commuting around the area. However, the site is unlikely to represent a significant foraging or</td></tr>
</table>

	commuting resource for bats in the context of the wider landscape, though bats may utilise habitats within the wider site ownership boundary as a whole for foraging and commuting purposes. Three existing light structures were found along the eastern periphery of the existing MUGA, an example of which is pictured in Figure 20. Habitats in the wider landscape, such as woodland copses, grasslands, linear features such as hedgerows, and water features such as ponds within green spaces such as Richmond Park and neighbouring golf courses provide more ideal habitats for foraging and commuting bats. A dead, unidentified tree is located centrally north of the northern periphery of the MUGA (TQ 18460 74061). There is a knot hole (Figure 19) present on its western aspect approximately 2m above ground level. Due to the uncertain extent of the knot hole, notably whether there are suitable crevice-dwelling features internally, this tree is, at this point, classed as having potential roosting features (PRF).
Foreseen Impacts	The proposed development may lead to an increase in the amount of current lighting of surrounding habitats or the retained building without mitigation. This may disturb commuting bats. The dead tree has a PRF, which could be suitable for roosting bats. If this dead tree will be removed, further survey efforts will be required, as the removal of this tree could result in the destruction of any bat roosts present and could cause disturbance, death, or injury to bats.
Recommendations	A low impact lighting strategy will be adopted within the proposed development. This will be designed in accordance with Guidance Note GN08/23 Bats and Artificial Lighting at Night (Institution of Lighting Professionals, 2023).

	The dead tree, if set for removal, will require an endoscope survey to discern whether the PRF identified is suitable for roosting bats or contain evidence of a roost. The survey is not seasonally restricted and can take place at any time. If the endoscope survey reveals suitability for roosting bats or signs of previous occupancy by bats, the appropriate amount of dusk bat emergence surveys will be required: for low roost suitability (PRF-l), no further emergence surveys required; for high roost suitability (PRF-M), 3no. emergence surveys required with each visit spaced at least three weeks apart during the active bat season (mid-May to September inclusive, with 2no. visits required between mid-May and August inclusive). These emergence surveys will require 2no. surveyors per visit and infrared cameras should be used as an aid. If bat roosts are confirmed an EPSL application to Natural England will be required. The EPSL application requires that surveys have been undertaken within the most recent active bat season and planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission. As the use of tree roost by bats can be extremely transient, regardless of the results of dusk bat emergence survey efforts, an inspection of the features should be undertaken immediately prior to felling by an arborist with qualifications in line with BS8596: surveying for Bats in Trees and Woodlands. If, alternatively, the dead tree will be retained in full, no further survey efforts are required. Enhancement opportunities for bats include: ❖ The installation of 2no. bat boxes, fit on retained, mature trees around the site's boundaries, will provide additional roosting habitats for bats. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. The bat boxes will be a specification suitable for both crevice-

	and void-dwelling species such as the Schwegler 45/2F Bat Box 2FDFP (WildCare) or a similar alternative brand.
Birds	
Summary of Survey Findings	No habitat for schedule 1 birds was observed. Evidence of disused birds' nests were found on mature trees in close proximity to the existing MUGA (Figure 16).
Foreseen Impacts	The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.
Recommendations	Any tree works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged. Precautions should be taken with machinery and noise levels when working close to any active nests so as not to disturb any nearby nesting birds during construction works. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged. Enhancement opportunities for birds include: ❖ Installation of 3no. bird boxes mounted on retained, mature trees along the site's boundaries will provide additional nesting opportunities for birds. Nest boxes should be sheltered from prevailing wind, rain, and strong sunlight, and should be placed on an open aspect with no trees or large shrubs potentially obstructing flight paths.
Herpetofauna	
Summary of Survey Findings	There are no ponds on site, and one pond within a 500m radius (P1, ~250m southeast) which is situated within Richmond Park. Habitats on site are largely unsuitable for great crested newts due to their intensely

	managed nature and lack of connectivity to water features; notably, they are typically found within terrestrial habitats of up to 500m from breeding ponds (Langton et al., 2001). A review of the MAGIC database returned five great crested newt class survey licence returns within a 2km radius, all of which situated within Richmond Park and all detected the presence of great crested newts. The closest pond (P2) is ~1900m southeast of the site. Though semi-natural habitats within Richmond Park provides connectivity from P2 to P1, great crested newts are unlikely to disperse from P1 onto site as they are separated by urban infrastructure such as buildings and tarmacked roads. Given the wider context of the surrounding habitat and the fidelity of great crested newts to ponds and the lack of connectivity of the site from such suitable breeding ponds, they are unlikely to be on site. Common amphibian and reptile species, on the other hand, have a wider terrestrial range in terms of movements and dispersal and are not as bound to ponds or water courses as great crested newts. Introduced shrubs on site provides suitable albeit limited habitats for foraging and sheltering common amphibian and reptiles.
Foreseen Impacts	No impacts are anticipated on great crested newts, as a result of the proposed development as this species is unlikely to be on site. All existing vegetation is set to be retained (bar possible tree pruning works). However, construction works could result in the death or injury of common amphibians or reptiles, if present and crossing the construction zone.

Recommendations	Owing to the nature of the proposed development and the low potential for impacts to great crested newts, further surveys are considered to be disproportionate. A precautionary working method will be implemented for common amphibians and reptiles during construction, including the following measures: ❖ Any rubble piles will be dismantled by hand and debris and brash will be stored on pallets or removed from the site to prevent common amphibians or reptiles from utilising these areas. ❖ Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. ❖ Best practice pollution prevention measures will be implemented to minimise impacts to nearby aquatic habitats that amphibians could use. ❖ Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. ❖ If any common amphibians or reptiles are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance. ❖ In the unlikely event that a great crested newt is identified, works must cease and advise must be sought from a suitably qualified ecologist. Grasslands of longer sward height, compost heaps, or log piles will provide additional suitable habitats for amphibians and reptiles.
Badger	
Summary of Survey Findings	No evidence of badgers was found on site or suspected within 30m of the site boundary. Though such managed modified grasslands in the wider site ownership make for suitable foraging and commuting

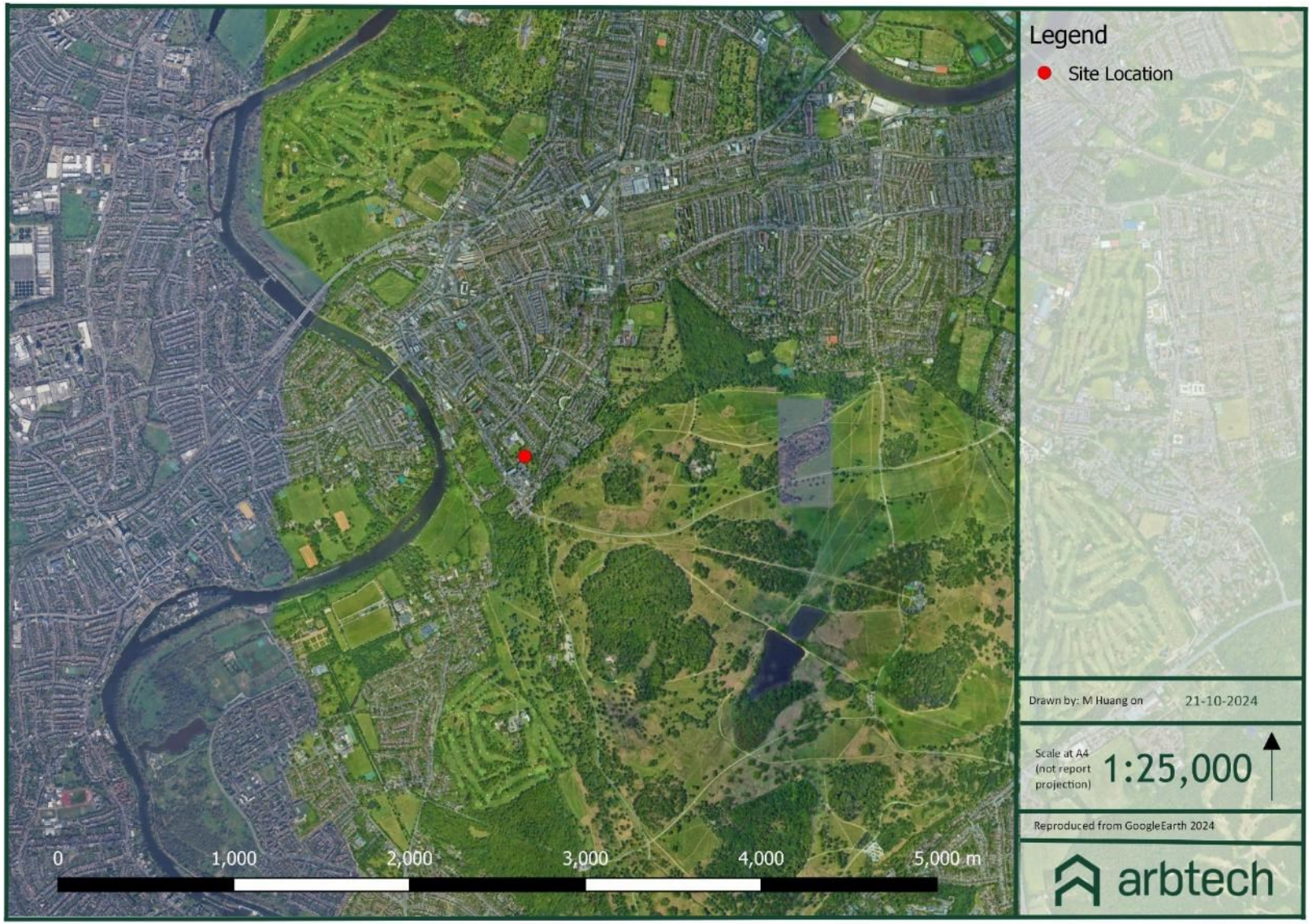
	habitats, badgers are creatures of habit and no established mammal trails, evidence of latrines, or setts were found on or around the site. As such, the presence of badgers has been discounted.
Foreseen Impacts	No impacts are anticipated on badgers as a result of the proposed development.
Recommendations	N/A
Hazel Dormouse	
Summary of Survey Findings	No EPSLs were returned by MAGIC within a 2km radius. The site features no habitats which might provide opportunities for hazel dormouse, such as established woodland or mature, native hedgerows as it is based in an urban setting. Given the wider context of the surrounding habitats, hazel dormice are unlikely to be present on site.
Foreseen Impacts	No impacts are anticipated on hazel dormice as a result of the proposed development.
Recommendations	N/A
Riparian Animals	
Summary of Survey Findings	There are no watercourses on or connected to the site.
Foreseen Impacts	No impacts are anticipated on riparian animals as a result of the proposed development.
Recommendations	N/A
Invertebrates	
Summary of Survey Findings	Introduced shrubs, scattered trees, and the cypress hedges are able to support an assemblage of common invertebrate species. The site is unlikely to support notable invertebrate species.
Foreseen Impacts	All existing vegetation is set to be retained (bar possible tree pruning works). No impacts are anticipated on invertebrates as a result of the proposed development.
Recommendations	Enhancement opportunities for invertebrates include: ❖ Installation of insect hotels.

Other e.g. hedgehog	
Summary of Survey Findings	Hedgehogs are extremely mobile and highly adapted to urban landscapes. There is limited suitability for foraging, commuting, and sheltering hedgehogs on site within the introduced shrubs and cypress hedges and their presence during works cannot be discounted.
Foreseen Impacts	All existing vegetation is set to be retained (bar possible tree pruning works). However, construction works could result in the death or injury of hedgehogs, if present and crossing the construction zone.
Recommendations	A precautionary working method will be implemented during construction, including the following measures: ❖ Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. ❖ The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use. ❖ Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. ❖ If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance. Enhancement opportunities for hedgehogs include: ❖ Installation of gaps under boundary fences to allow hedgehogs to pass through the site.

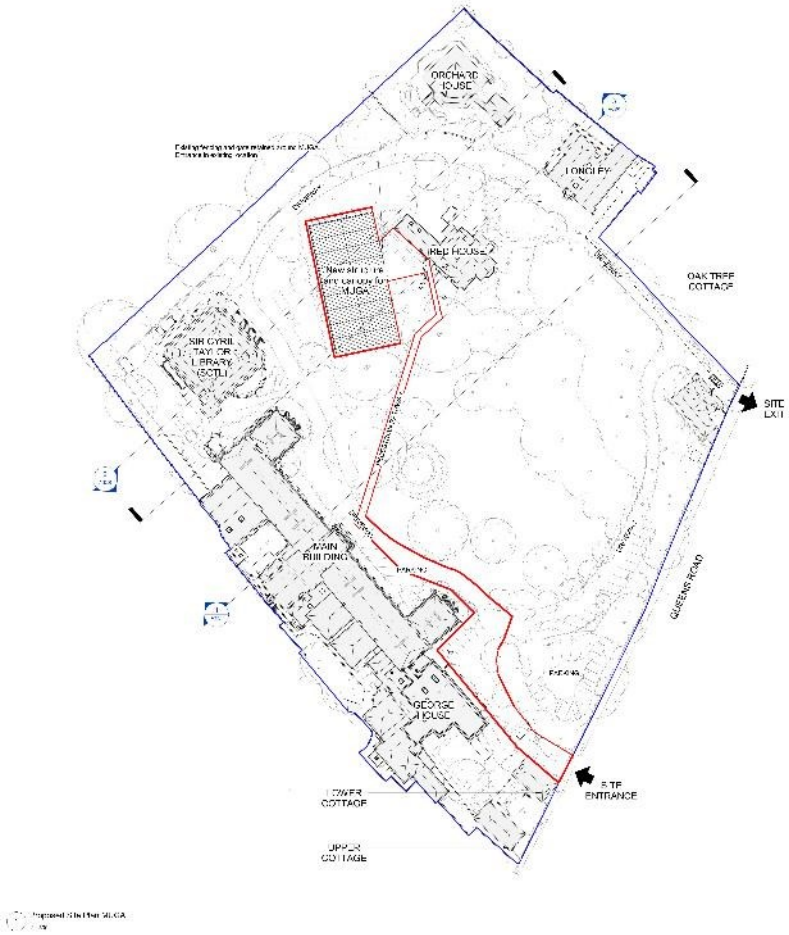
Appendix 1: Survey/Habitat Map

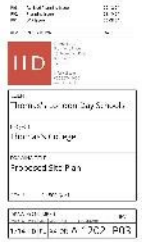

Legend
Site Boundary
Sealed Surface
Introduced Shrub
Bare Ground
Tree
Hedge
Fence
Target Note
Cherry Laurel
Rhododendron
Existing Light
Knothole
Disused Bird's Nest
H1
H2
0
10
20
30
40
50 m
Drawn by: M Huang on 03-12-2024
Scale at A4 (not report projection) 1:250
Reproduced from GoogleEarth 2024
arbtech

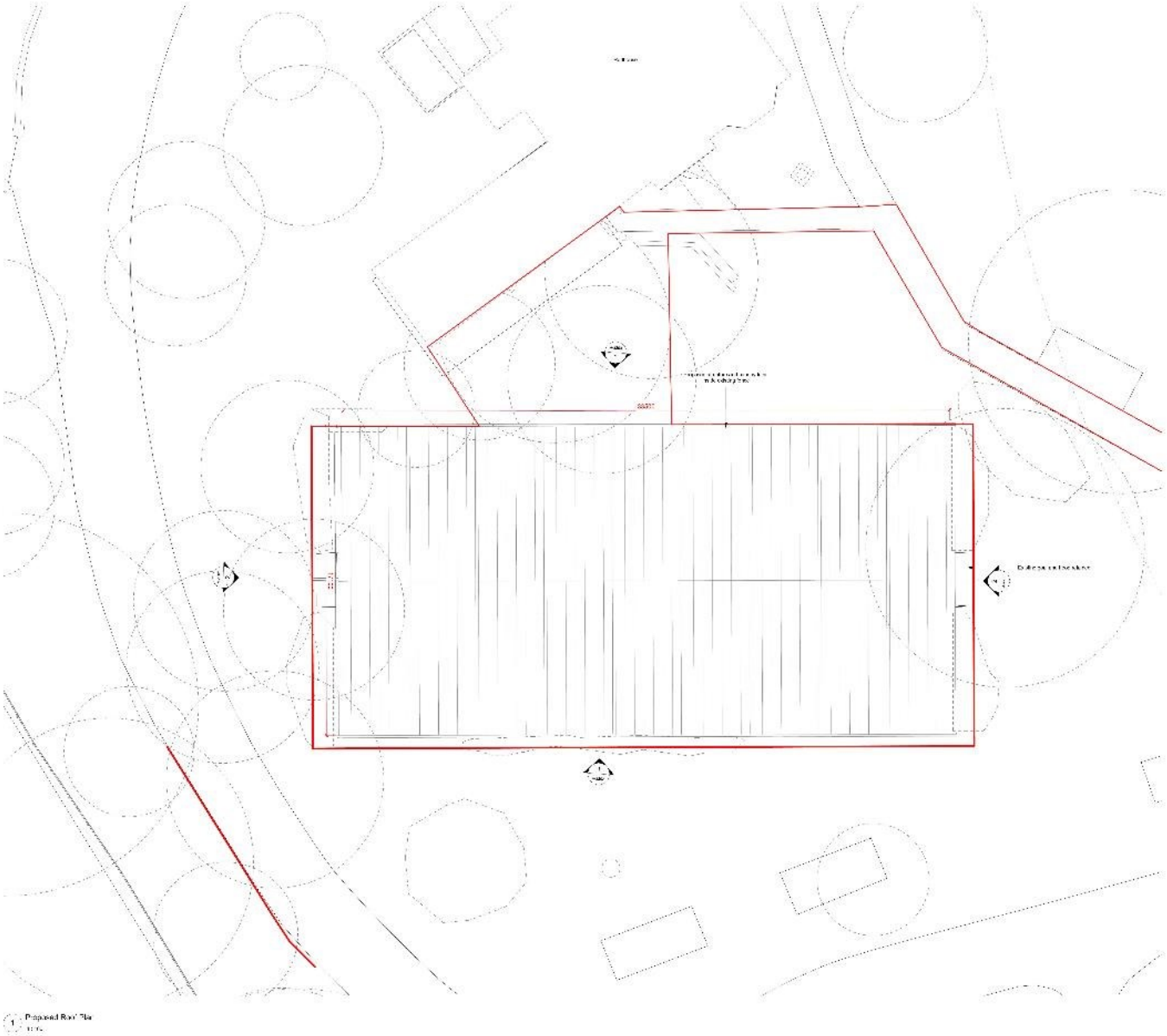
Appendix 2: Location Map



Appendix 3: Proposed Plan






Site Plan Legend
Site Boundary
Thomas's College
Proposed Roof Plan
A 1204
P04

Appendix 4: Photos

Figures 1 (opposite), 2 (bottom left), and 3 (bottom right).

Sealed surface pathway which leads to the existing MUGA, lined with grasslands, trees, hedgerows, and introduced shrubs.

Figures 4 (top left), 5 (top right), 6 (bottom left), and 7 (bottom right).
Existing MUGA from each corner, demonstrating the extent of vegetation in close proximity to the border fence.

Figures 8 (opposite), 9 (bottom left), and 10 (bottom right).

Introduced shrubs surrounding the existing MUGA.

Figures 11 (top) and 12 (bottom).

Cypress hedges H1 (Figure 11) and H2 (Figure 12).

Figures 13 (top left), 14 (top right), 15 (bottom left), and 16 (bottom right).
Scattered trees in close proximity to the MUGA. Disused bird's nests are pictured in Figure 16.

Figures 17 (top left), 18 (top right), 19 (bottom left), and 20 (bottom right).
Target notes: rhododendron, cherry laurel, knothole within dead tree, and existing lights for the MUGA.

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Version Control			
Status	**Issue**	**Name**	**Date**
Final	1.0	Michelle Huang (BS, MRes DIC); Consultant Ecologist	21st October 2024
Updated	2.0	Michelle Huang (BS, MRes DIC); Consultant Ecologist	3rd December 2024