

Updated response to hybrid planning application for demolition and rebuild of The Cambridge Road Estate

Planning Reference 20/02942 FUL

Caroline Shah

This response should be read in its entirety as a single document and should be read alongside my original response dated 16 July 2021.

A. Nineteen possible breaches of planning policies

i. London Plan Policies – possible breaches

1. **SI 7** – Reducing Waste and the Circular Economy
2. **SI 5** – Water Infrastructure
3. **D2** – Infrastructure for Sustainable Densities - A 1 and 2 and D2, B
4. **D9** - Tall Buildings
5. **D12** – Fire Safety
6. **D11** Safety, Security and Resilience to Emergency
7. **T4** – Assessing and Mitigating Transport Impacts
8. **G6 D** - Impact on biodiversity
9. **G7 C** – Retention of trees and appropriate valuation system to be used to evaluate the value of trees to be removed

ii. Possible national and local policy and legislative breaches

10. **The National Planning Policy Framework 2021 (The “NPPF”) Policy 43** which insists that “the right information is crucial to good decision making”
11. **The Town and Country Planning (EIA) Regulations 2017 4 2 (b)**
12. **The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 18 (3) (b) and 18 (3) (c)**
13. **The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 18**
14. **The NPPF 180 (b)** - development on land outside an SSSI that will have a significant adverse effect should not normally be permitted
15. **The NPPF 180** - development that results in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused
16. **The NPPF 182** - “the presumption in favour of sustainable development does not apply where a project is likely to have a significant effect on a habitats site (either alone or in combination with other projects) unless an appropriate assessment has concluded that it will not affect the integrity of the habitat site”
17. **The NPPF Policy 199** - great weight should be given to the conservation of a heritage asset , irrespective of the amount of harm that a development may cause and that the more important the asset, the greater the weight should be.
18. **The NPPF Policy 200** - “any” harm or loss to the significance of a designated heritage asset should require clear and convincing justification
19. **Policy DM 6** of Kingston’s Core Strategy requires that developments “protect and promote” biodiversity

B. BREEAM requirements appear not to be met

- i. BREEAM targeted rating of EXCELLENT**
- ii. Mandatory credits needed for Excellent scores**
- iii. Detailed breakdown of adjustments to scores for Transport & Land Use and Ecology**
 - 1. Transport**
 - a. Very low PTAL rating of Cambridge Road Estate
 - b. No guarantee of improved public transport accessibility in future
 - c. Planned reduction of train services through Norbiton by South West Trains
 - 2. Land Use and Ecology**
 - a. Risks and Opportunities – Survey & Evaluation and Determining Ecological Outcomes
 - b. Managing Negative Impacts on Ecology
 - c. Change and Enhancement of Ecological Value
 - d. Long Term Ecology Management and Maintenance

C. APPENDICES

- i. BREEAM Water Consumption standards
- ii. Schedule Four of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017
- iii. Human Impact on Richmond Park SAC, protected under The Habitats Directive and a Grade I listed park
- iv. Expert Opinion on Impact Pathways for the stag beetle and protected ancient woodlands
- v. BREEAM assessment of evaluation of existing ecological value and conditions

B. i. London Plan Policies – Possible Breaches

1. Policy SI 7 – Reducing Waste and supporting the Circular Economy

- a. In the section “Waste” in Part 7 of the **Sustainable Design and Construction** document, the applicant’s representative refers to London Plan policy 5.17. However, this reference is to the London Plan 2016 which is out of date.

The relevant policy is Policy SI 7 of the London Plan 2021 to which no reference is made.

- b. **The Circular Economy Statement** for the development under Part Two: Policies and Regulations fails to list in its entirety the relevant London Plan policies, listing only points 1 to 3 of part A of policy SI7.

Policy SI 7 (5) is key to this development proposal in that it states that the following are to be achieved, which are NOT demonstrated in the Circular Economy Statement for the proposed development:

“meet or exceed the targets for each of the following waste and material streams:

- a) construction and demolition – 95 per cent reuse/recycling/recovery*
- b) excavation – 95 per cent beneficial use”*

In addition, Policy SI 7 (B) makes clear what a Circular Economy Statement for a referable development should demonstrate, which the Circular Economy Statement for the proposed development does not do. The policy requires the statement to be unambiguous – to say “how” it “will” do the things stated in points one to six, for example in stating “how all materials from demolition and remediation works will be re-used and/ or recycled”, leaving no room for where things may only be “feasible” or “possible”:

- B Referable applications should promote circular economy outcomes and aim to be net zero-waste. A Circular Economy Statement should be submitted, to demonstrate:
- 1) how all materials arising from demolition and remediation works will be re-used and/or recycled
 - 2) how the proposal’s design and construction will reduce material demands and enable building materials, components and products to be disassembled and re-used at the end of their useful life
 - 3) opportunities for managing as much waste as possible on site
 - 4) adequate and easily accessible storage space and collection systems to support recycling and re-use
 - 5) how much waste the proposal is expected to generate, and how and where the waste will be managed in accordance with the waste hierarchy
 - 6) how performance will be monitored and reported.

LONDON PLAN POLICY SI 7 A 5. and B. possible breaches

The **Summary of Key Commitments in the Circular Economy Statement** shows that this London Plan policy requirements is not met in this development. “Commitments” are shown to be no more than **vague indications of possible intent** and do not meet London Plan requirements. A colour coding shows that most of these “commitments” are simply “future considerations”. A proportion of the “commitments” that are meant to have already been made in the development design, are meaningless because they commit the developer to nothing:

Green	Implemented in design
Yellow	To be considered
Orange	Future considerations

For example, the following statements are coloured in green:

“White goods will aim to be energy efficient, with at least a rating of B”, Where possible, external lighting...will be energy efficient and adequately controlled...” and “the appointed contractor will produce

and follow a site specific Sustainable Procurement Plan which ensures that new building materials are selected to ensure that they minimise environmental impact and have low embodied energy”

The term “**where feasible**” occurs **six** times, the term “**where possible**” “**target**” and “**aims**” also **six** times. Other terms used: “**avoiding**” “**where appropriate**” “**minimise**” “**seek to**” “**consideration of opportunities...will be assessed**” “**explore**” “**will be specified**” “**finishes that contaminate will be avoided...unless they serve a specific purpose**”

Perhaps the term that gives most away is “**where there is no impact on cost or performance**”

EXAMPLES:

“Maximum material recovery *where feasible*”

“20% of materials *will seek to include* reused and recycled content!”

The use of RAP *as a significant proportion* of aggregate input in landscaping ***could be considered***”

“*Considerations for opportunities* to use secondary/ recycled aggregates in accordance with BREEAM Waste 02 will be assessed at detailed design”

“Specify materials with increased levels of recycled content *where there is no impact on cost or performance*”

“Steel with a high recycled content will be used *where possible*”

“...the appointed contractor will *regularly monitor* and record the site’s waste reduction performance. This will be *compared against a target benchmark where at least 85%* (by volume) of non-hazardous waste is diverted from landfill.”

“Contractors should explore reusable packaging solutions with key product manufacturers at the earliest opportunity. Solutions *may include*...”

In addition, point 7.52 states that “A **commitment to target** a benchmark of 95% for potential excavation waste...will also be set”

c. Reliance on Countryside Properties’ own corporate strategy and policies to meet Circular Economy requirements is irregular and breaches policy and BREEAM requirements

Rather than rely on meeting London Plan policies and BREEAM requirements, the applicant proposes instead to engage Countryside Properties as the Construction Manager of the development and to rely on the company’s CORPORATE sustainable strategy and policies to “*ensure that the development is delivered in an environmental, responsible, ethical, safe and sustainable manner*” (point 5.3 of Circular Economy statement).

The statement continues by listing what the developer “will consider” doing “where feasible” or “where appropriate” or “where possible” or what it “could” or “may” do “wherever possible” to adopt a circular economy approach to the development.

It cannot be acceptable that the policies and strategy of a private, for-profit company are used as the basis for a public-private development of this size and importance.

2. Policy SI 5 Water Infrastructure

- C Development proposals should:
- 1) through the use of Planning Conditions minimise the use of mains water in line with the Optional Requirement of the Building Regulations (residential development), achieving mains water consumption of 105 litres or less per head per day (excluding allowance of up to five litres for external water consumption)
 - 2) achieve at least the BREEAM excellent standard for the 'Wat 01' water category¹⁶⁰ or equivalent (commercial development)

a. *Policy SI 5 C (1) possible breach*

The Sustainable Design and Construction Statement shows that the proposed development is at significant risk of not meeting the requirements of London Plan policy SI 5 C 1). This is because predicted water consumption is **only 0.1 litres below the required level** and the policy and the standards are ONLY met by:

- fitting restrictors in the console of basin taps or in pipework of taps *where they can easily be removed*
- fitting restrictors on to shower heads *where they can easily be removed*
- specifying water-efficient washing machines or washer-dryers *that may not be fitted or may be replaced by residents*
- an assumption that can not be proven to support water usage that *“all dishwashers will be water efficient”*

In addition, the water use assumptions for washing machines and dishwashers are not meaningful as water is consumed per cycle use of a dishwasher not per place setting and – for most washing machines – by wash and not by kilogram of washing and water consumption from these white goods could therefore be more than 0.1 litres greater than is assumed.

No sensitivity analysis has been performed to consider alternative scenarios.

b. *Policy SI 5 C (2) possible breach*

The development proposals as laid out in the “Water Efficiency Calculator” do not to meet the BREEAM “excellent” standard¹ for the WAT 01 water category because *bath water capacity of 160 litres* appears only to meet “baseline” performance and it appears to need have at least “good” performance for the WAT 01 excellent standard to be met.

In addition, the assumptions made for water use for washing machines and dishwashers do not appear to correspond to or be convertible in to figures that can be compared with the BREEAM standards and cannot be meaningfully included in water usage calculations.

¹ See **Supporting Document One** – BREEAM Water Consumption Standards

3. Policies D2 – Infrastructure for Sustainable Densities - A 1 and 2 and D2, B

Policy D2 A 1) Infrastructure requirements for sustainable densities states that:

“The density of development proposals should: 1) consider, and be linked to, the provision of future planned levels of infrastructure rather than existing levels.”

The planning application being considered takes no account of the planned reduction of peak hour trains through Norbiton, which is clearly in breach of this policy. The assumptions made in the response to Richmond Council’s concerns about the assumptions made about likely future levels of expected train use are based merely on wishful thinking, have no evidence to substantiate them and are not based on any detailed figures showing different scenarios with various levels of population growth and train use.

Policy D2 A 2) goes on to state that the density of development proposals should:

“be proportionate to the site’s connectivity and accessibility by walking, cycling, and public transport to jobs and services (including both PTAL and access to local services)”

The Cambridge Road Estate currently has extremely poor connectivity to jobs and services, with PTAL ratings of zero to 4 across the estate as evidenced earlier in this document.

The nearest green space, The Fairfield, is 10 minutes walk away and is the only local green space also for all the residents currently living in Kingston Town Centre and for the many many hundreds of new residents coming to new towers all around the area. The nearest shopping centre is Kingston Town which is beyond The Fairfield and the planning application has shown itself a shortage of GPs, dentists, nurseries and secondary schools to support this development, let alone the demand that will be made from all the new major developments that will be completed in the next five years or so.

Policy D2. B states that:

“Where there is currently insufficient capacity of existing infrastructure to support proposed densities (including the impact of cumulative development), boroughs should work with applicants and other infrastructure providers to ensure that sufficient capacity will exist at the appropriate time.”

This policy appears to be being breached. Over **3600 new residential units²** have been or are soon to be approved and built in the Kingston Town and Norbiton areas. **At an average occupancy rate of 2.67 people per unit, this equates to 9,612 more people from these developments alone.** The assessments for this planning application alone already show a shortage of senior schools, GPs, dentists, nurseries and parks and green spaces even for the residents of the rebuilt Cambridge Road Estate.

Where are the plans to accommodate so many extra people and the infrastructure and facilities to support them and existing residents, including transport infrastructure improvements? There are none, not even of the phasing of building of the Cambridge Road Estate is taken in to consideration.

The Homebase developers – a development that was being marketed as easily accessible to Kingston by foot and public transport - are now offering people a free car if they buy a flat in the development.

4. Policy D9 Tall Buildings

Policy D9 C. (Impacts) 2 d. states that development proposals must address the impact that a development has in terms of the capacity of the area and its transport network to accommodate the quantum of development in terms of access to facilities, services, walking and cycling networks, and public transport for people living or working in the building. Compliance with this policy is appears not to have been properly demonstrated in the planning application

² Eden Walk 380, Queenshurst 328, The Old Post Office 319, Cambridge Road Estate 1340 (extra), Surrey County Hall 453, Surrey House 115, Canbury Place Car Park 389 and the Old Homebase development 297

5. Policy D12 – Fire Safety

The Buildings B, C and E Fire Statement (The “Fire Statement”) covers the following development for which full planning approval is being sought and which consists of SEVEN high-rise towers and THREE smaller buildings (the “buildings”)

Building B

- Single residential building with Ground to Fifth Floor

Building C

- Block C1 - 12 storeys (39.8m)
- Block C2 - 11 storeys (35.6m)
- Block C3 - 9 storeys (28.5m)

Building E

- Block E1 - 11 storeys (34.8m)
- Block E2 - 11 storeys (35.1m)
- Block E3 - 10 storeys (31.7m)
- Block E4 - 7 storeys (22.8m)
- Block E5 - 3 storeys (10.5m)
- Block E6 - 3 storeys (10.4m)

Possible breaches of fire safety policies D12

Possible Breach of Policy D12 in its entirety exists given the lack of consideration in the Fire Statement of the safety from fire of people continuing to live on the Cambridge Road Estate during the multiple year predicted demolition and construction period for the Buildings. According to the diagram showing fire access, the Fire Statement only covers those residents who live in the Buildings once the whole estate fully operational ie when the development for which only outline permission is currently being sought has also been built.

Strategies and action plans that confirm necessary access by fire engines and space for fire appliances to be positioned on for i. residents remaining on the estate during the demolition and construction phases of the Buildings and ii. living in the Buildings when the demolition and development of the rest of the estate takes place appear to have been completely overlooked

It is particularly worrying that the Fire Statement only considers fire safety at the time when the whole development is fully operational and does not consider at all the impact of the demolition and construction process over a predicted 12 years on residents who will remain or be living on the estate at various times during that period.

Possible Breach of Policy D12 A 1) a

Policy D12 Fire safety

A In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they:

- 1) identify suitably positioned unobstructed outside space:
 - a) for fire appliances to be positioned on
 - b) appropriate for use as an evacuation assembly point

The Fire Statement does not include any information that provides assurance that the developer has identified *suitably positioned unobstructed outside space* appropriate for use as an evacuation fire point. This would be in breach of this policy requirement and point 3.12.4 of Policy D12:

3.12.4 Applicants should also show on a site plan **appropriate evacuation assembly points**. These spaces should be positioned to ensure the safety of people using them in an evacuation situation.

It is critical - given the scale of the development and the phasing of demolition and construction involved- that existing and new residents know at all times that suitable outside space will be available for them to assemble upon safely in the event of a fire.

In addition, **policy requirement 3.12.10** appears to have been breached as there is no evidence that the London Fire Brigade and Metropolitan Police Service (the “Met Police”) has been consulted on the co-

3.12.10 **Fire safety and security measures** should be considered in conjunction with one another, in particular to avoid potential conflicts between security measures and means of escape or access of the fire and rescue service. Early consultation between the London Fire Brigade and the Metropolitan Police Service can successfully resolve any such issues.

ordination of fire, rescue and security measures for this development.

The Met Police has already commented – in their statutory response to the first Regulation 18 consultation on Kingston Council’s new Local Plan³ – on their *concerns for the safety of residents* who are being housed in major new developments without any physical police presence in the form of District Ward Offices that provide a 24/7 base of operation in a local area for the police.

<p>4. State what, if any, consultation has been undertaken on issues relating to the fire safety of the development; and what account has been taken of this.</p>	<p>Consultation with the approving authorities has not been undertaken to date for Building C.</p> <p>Fire strategy development has been undertaken by Jensen Hughes to identify the key fire strategy issues and ongoing input has been provided to assist the design team as they incorporate the fire strategy requirements into their specialist design.</p> <p>The plans will continue to be developed as the scheme progresses and discussion with approving authorities and the local fire and rescue services are undertaken.</p>
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The following statement only is made on the Gateway One Fire Statement:

Possible Breach of D12 A1 a and B5

The Fire Statement shows access to Buildings B, C and E only AFTER the rest of the estate has been built as does the Gateway One Fire Statement. However, these are the first buildings to be erected on the site and it seems that access will be needed by the Fire Brigade and emergency services who may not be able to use the routes shown on the diagram.

- A In the interests of fire safety and to ensure the safety of all building users, development proposals must achieve the highest standards of fire safety ensure that they:
- 1) identify suitably positioned unobstructed outside space:
 - a) for fire appliances to be positioned on
 - 5) how provision will be made within the curtilage of the site to enable fire appliances to gain access to the building

D12 B5

³ Met Police response available through this link: <https://www.shahscott.com/post/are-we-safe-in-kingston>

6. Policy D11 Safety, Security and Resilience to Emergency

There is no evidence that The London Fire Commissioner has been consulted either on the design of the Cambridge Road Estate or on the implications of the phased demolition and construction process for fire safety or that the Met Police has been consulted on security and crime measures:

planning in both design and management. The London Fire Commissioner should be consulted early in the design process to ensure major developments have fire safety solutions built-in. Flooding issues and designing out the effects of flooding are addressed in Chapter 9.

D11 3.11.2

access, air intakes and telecommunications infrastructure). The Metropolitan Police (Designing Out Crime Officers and Counter Terrorism Security Advisors) should be consulted to ensure major developments contain appropriate design solutions, which mitigate the potential level of risk whilst ensuring the quality of places is maximised.

D11 3.11.4

7. Policy T4 – Assessing and Mitigating Transport Impacts

- a. **Policy T4 states in Policy A that** development proposals should reflect and be integrated with current and planned transport access, capacity and connectivity.

Point 10.4.4 goes on to state that new development that will give rise to significant numbers of new trips should be located in places well-connected by public transport, with capacity adequate to support the additional demand, or where there is a realistic prospect of additional access or capacity being provided in time to meet the new demand.

Compliance with this policy appears not to have taken place as no detailed assessment appears to have taken place of train and bus capacity in the area for the increase in people travelling from the *cumulative development* coming forward across the area or of the impact of the planned reduction in peak hour services through Kingston and Norbiton.

- b. **Policy T4 B** requires that transport assessments are submitted with development proposals so as to “ensure that impacts on the capacity of the transport network...are fully assessed”. No comprehensive, recent, updated or detailed assessment has taken place to substantiate the developer’s conclusions that there is ample capacity on public transport to cater for passenger movements from this development. This policy therefore appears to have been breached.
- c. The breach of the need to have carried out an updated assessment is highlighted in **sub-point 10.4.1** which states:

*“10.4.1 It is important that the impacts and opportunities which arise as a result of development proposals are identified and assessed so that appropriate mitigations and opportunities are secured **through the planning process**. Transport assessments are therefore necessary to ensure that planning applications can be **reviewed and assessed** for their specific impacts and for their compatibility with the Healthy Streets Approach.”*

No adverse transport impacts from the cumulative development taking place around Kingston and Norbiton stations, which only have 4 trains an hour in to London and fewer to other destinations, have been identified on the basis that the applicant believes traveller numbers will not return to pre-Covid levels. Were adverse effects identified, this would require the developer to provide mitigation for this scheme as outline in **policy T4 C** such as are required under policy T4 D, which requires that planning permission “will be contingent on the provision of necessary public transport and active travel infrastructure”.

The London Plan in **point 10.4.2** also expects development proposals to take in to account *personal travel*, which the planning application for the Cambridge Road Estate appears not to have done, This is highly relevant in the predicted context where people are working from home and will be likely to be making more personal travel journeys, for example to visit Richmond Park.

10.4.2 *Transport assessments should include an assessment of demand arising from personal travel as well as from potential servicing and deliveries, taking into account the impacts both on all modes of transport including walking and cycling, and on streets as social spaces.*

As already stated in my previous response, the planning application has also not taken in to account travel movements as a result of people using UBERs and other taxis in an environment where car ownership is deterred.

The negative impact of development in terms of poor air quality and noise is also acknowledged in **point 10.4.3** of policy T4.

Given the significant identified but unaddressed problems arising from the potentially deadly mix of overheating, noise and pollution to which some residents of the new Cambridge Road Estate will be exposed, it also seems that **deliveries** of fast food will be high on the estate to avoid the need for cooking, especially in the summer months when overheating, noise and pollution will all be at high levels.

d. *Sustainable movement effect on internationally important wildlife sites has not been assessed*

Point 10.4.1 of policy T4 continues to present a further possible policy breach in that no comprehensive assessment has taken place of the impact of NEW residents on Richmond Park, the internationally important wildlife site for the stag beetle. I attach evidence of the effects of human pressure on the stag beetle and its habitat from international experts in their field.

This issue is particularly important given that the applicant strongly asserts that commuting levels on public transport will not return to pre-Covid levels because people will be working from home several days a week.

If true, this will have a knock on effect in terms of increased exposure of local green spaces to recreational pressure from both new but also from existing Kingston residents. If people are working from home and walking and cycling locally more, they will – by default – visit their local park more often. And the local park for tens of thousands of people in Kingston is an internationally important site for the stag beetle, a Special Area of Conservation under the Habitats Directive.

Point 10.4.1 lays out the requirement that:

“Consideration of the potential impacts on internationally important wildlife sites should also be assessed, where required.”

3,380 extra people accommodated on the estate, each working from home several days a week and walking daily for their exercise, visiting Richmond Park, the only decent public green space that is accessible from the estate, **just three times a week** make an extra **527,314 visits a year** from this development alone.

9,612 new residents just from the developments listed above, each also visiting Richmond Park just three times a week – remember the applicant is asserting that existing residents will not be commuting as much so new residents will also be staying at home – will mean a whopping **1.5 million extra visits** to Richmond Park each year from those SEVEN developments alone.

On top of this, the developer needs to factor in the increase in visitor numbers that has already occurred since Covid. Given the developer’s predictions that people are likely to continue to work from home at least some of the time, data needs to be captured and analysed to understand how much more often people already resident in Kingston have started and continued to visit the park. No such data appears to be available.

There are roughly 50,000 people in Canbury, Tudor, Coombe Hill, Norbiton and Kingston Town Wards that are all walking distance to Richmond Park. If we assume that just 1/5 of these people visit the park three times a week, that will mean a further **1.6 million visits to the park** from these four wards. Given many people walk in the park every day, the figures for visits may well be higher.

Evidence of the adverse impact that humans can have on the integrity of a habitat are highlighted in **Supporting Document Four** where information provided to me from four pre-eminent experts on stag beetles is reproduced.

8. The London Plan policy G6 D which states that development proposals should manage their impact on biodiversity

Given the lack of a methodical approach to assessing the existing quality of biodiversity on and off site and effect of the proposed development on that biodiversity in the future, the lack of and incorrect information used to reach conclusions and the lack of detailed, complete, evidence-based or cumulative analysis to support assumptions made and conclusions reached, it cannot be said with confidence that this development proposal can in any way “manage” its impact on biodiversity

9. The London Plan Policy G7 C which states that development proposals should seek to retain trees and that an appropriate valuation system should be used to evaluate the value of trees to be removed

This process does not appear to have taken place, especially given the possibility that some trees are habitat for the stag beetle and its larvae, which was not properly explored

ii. Possible national and local policy and legislative breaches

10. The National Planning Policy Framework 2021 (The “NPPF”) 43 which insists that “the right information is crucial to good decision making”

11. The Town and Country Planning (EIA) Regulations 2017 4 2 (b)⁴

12. The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 18 (3) (b) and 18 (3) (c)⁵

13. The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 18 (3) (f) and Schedule 4⁶, particularly points 2,3, 4, 5 main text and points e and f, and point 6 of Schedule 4. *Document 26902- Letter of Clarification October 2021* states that:

Cumulative development was considered as part of the ES and the Applicant is not aware of any additional approved developments near to the Site that have been approved since the ES was submitted in November 2020, which could have the potential to result in likely significant effects on the environment in cumulation with the Development.

However, there is no evidence that the environmental effects even of all the development that has been approved in Kingston has been satisfactorily considered in line with policy and legislative requirements.

Where are the assessments that show the number of visits that Richmond Park SAC is likely to suffer each year from new residents living in already approved developments Eden Walk or The Old Post Office, from the Cocks Crescent, Fountain roundabout and Homebase developments in New Malden and where is any assessment of the impact that such an increase in visitors might have on the park’s fragile ecosystems and protected species?

And the same analysis is lacking for Kingston Cemetery and The Hogsmill. The assessment of why the development at Cambridge Road Estate will NOT affect these habitats is woefully lacking in any meaningful analysis or evidence and does not withstand scrutiny when judged against policy and legislative requirements

Statements made such as that there are already many visitors to Richmond Park SAC so more visitors from this and other developments will make no difference are completely unjustified and not substantiated by the evidence since Covid which shows the huge damage caused by soaring numbers of visitors to the Special Area of Conservation⁷.

The 3,380 extra people that are likely to be accommodated on the estate over and above the residents living there now, each working from home several days a week and walking for their exercise, visiting Richmond Park, the only decent public green space that is accessible from the estate, just **three times a week** make an extra 527,314 visits a year from this development alone.

9,612 new residents just from the developments listed above, each also visiting Richmond Park just three times a week – remember the applicant is asserting that existing residents will not be commuting as much so new residents will also be staying at home – will mean a whopping **1.5 million extra visits to Richmond Park each year from those SEVEN developments alone.**

On top of this, the developer needs to factor in the increase in visitor numbers that has already occurred since Covid. Given the developer’s predictions that people are likely to continue to work from home at least some of the time, data needs to be captured and analysed to understand how

⁴ <https://www.legislation.gov.uk/uksi/2017/571/regulation/4/made>

⁵ <https://www.legislation.gov.uk/uksi/2017/571/regulation/18/made>

⁶ <https://www.legislation.gov.uk/uksi/2017/571/schedule/4/made> The schedule is attached as **Supporting Document Two**

⁷ See pictures in **Supporting Document Three**

much more often people already resident in Kingston have started and continued to visit the park. No such data appears to be available.

There are roughly 50,000 people in Canbury, Tudor, Coombe Hill, Norbiton and Kingston Town Wards that are all walking distance to Richmond Park.

If we assume that just 1/5 of these people visit the park three times a week, that will mean a further **1.6 million visits to the park from these four wards**. Given many people walk in the park every day, the figures for visits may well be higher.

This means that the seven new developments coming on track on and near The Cambridge Road Estate, combined with more existing residents working from home – a growing number with dogs – could result in at least 3.1 million more visits to Richmond Park each year

The harm to woodland habitats from recreational pressure arising from developments much further away from a protected habitat than the new Cambridge Road Estate is from Richmond Park SAC is illustrated in the statement made by The Conservation Officer for The City of London Corporation in response to proposed development near Burnham Beeches in 2017:

I provide the City of London's (CoL) response as the neighbouring landowner of Burnham Beeches (BB), designated as SSSI, NNR and SAC. I have looked at the draft plan in relation to policy NR3 (Nature Conservation) and have the following comments on the associated HRA.

Development reference HA19 is situated 3.8km from Burnham Beeches and the proposal is for 175 dwellings. Through work that we have carried out with South Bucks District Council we estimate that this will result in an additional 490 visits to the Beeches and it is our opinion that this is of concern and may adversely impact the integrity of the SAC. We also dispute the comment in Table 12 of the HRA which states that the SAC is largely woodland, which is resilient to recreational disturbance, and also the subsequent conclusion that the plan is unlikely to give rise to specific impacts arising from recreational pressure. While Burnham Beeches SAC is designated for beech woodland rather than birds (as the Thames Basin Heaths) that is not to say that visitor pressure cannot have a negative impact. High visitor numbers results in soil compaction and causes erosion, including around tree roots, which can be detrimental to tree growth. Increased dog numbers in association with visitors add urine and faeces that raise nitrogen levels in the soil as well as adding undesirable chemicals. In addition, vandalism by visitors, even if unintentional, can damage rare habitats such as wood decay in trees. Our work has shown that there is evidence that the tree health is declining and that there have been changes in the lichen flora in recent years and this can be attributed to increased visitor pressure. We would be happy to supply copies of the relevant reports and you might also like to talk with South Bucks District Council who have part funded some of the work.

In addition, since November 2020, developers have submitted a planning application for Canbury Place Car Park, and many other major development proposals are coming forward for decision across Kingston Town.

14. [The NPPF 180 \(b\)](#) which states that development on land outside an SSSI that will have a significant adverse effect should not normally be permitted

15. [The NPPF 180](#) which states that development that results in the loss or *deterioration of irreplaceable habitats* (such as *ancient woodland and ancient or veteran trees*) should be refused

16. [The NPPF 182](#) which states that “the presumption in favour of sustainable development does not apply where a project is likely to have a *significant effect on a habitats site (either alone or in combination with other projects)* unless an appropriate assessment has concluded that it will not affect the integrity of the habitat site”

17. [The NPPF Policy 199](#) which states that great weight should be given to the conservation of a heritage asset, irrespective of the amount of harm that a development may cause and that the more important the asset, the greater the weight should be.

Richmond Park SAC is a Grade I listed Heritage Asset and yet no weight has been given to the conservation of the park. Rather, the illogical conclusion has been reached that – because many people already visit the park – the fact that a large number of additional visits to the park will happen from residents of the proposed development, causing additional harm, is not a matter of concern. This appears to be in clear breach of NPPF 199.

18. [The NPPF Policy 200](#) which states that “any” harm or loss to the significance of a designated heritage asset should require clear and convincing justification

Given that the applicant is denying that the proposed development will cause ANY harm to Richmond Park SAC, a Grade I listed park, it may also be in breach of this policy if the possibility of harm is proved.

19. [Policy DM 6 of Kingston’s Core Strategy](#) requires that developments “protect and promote” biodiversity, The evidence is lacking that this is the case for this development as well as for the development taken in combination with the cumulative effect of other developments coming forward across the local area.

C. BREEAM requirements appear not to be met

i. BREEAM targeted rating of EXCELLENT

Point 4 of the Sustainable Design and Construction Statement states that the development is targeting a BREEAM rating of EXCELLENT which is a score of 70% or more. The BREEAM New Construction 2018 Tracker shows a predicted score of 72.52% for the development.

However, there is strong evidence that many of the credits that the development is predicted to achieve are NOT achievable and that the BREEAM rating of excellent is therefore NOT achievable.

Just taking the two sections Transport and Land Use & Ecology in iii. below, justification can be seen for reducing the overall BREEAM score from **72.50%** by *4.83% for transport* and *13.15% for Land Use & Ecology* to **54.52%**, a score of only **GOOD**.⁸

Assessed Score: 72.50% - Excellent			Adjusted score: 54.52%⁹ - Good	
Section	Current score	Deduct	Issue Assessed	Adjusted evidence-based achievable rating
<u>Transport and Land Use</u>	10/12			
		-2	Current public transport access	
		-1	Future public transport access	
		-1	Planned future SWT service peak hours	
Revised Score				6/12
<u>Ecology</u>¹⁰	12/13			
Risks and Opportunities		-1	Survey and Evaluation: Adequacy of EIA Scoping Report, Biodiversity Impact Assessment and the Final ES Review on Behalf of RBK 4780638	
		-1	Determining the ecological outcomes for the site: Relies on section above and “specific solutions and measures” to protect habitats and species in Richmond Park	
Managing negative impacts on		-1	Planning, liaison, implementation and data: relies on previous two sections having been completed	

⁸ A BREEAM rating of 45 or more is ranked as GOOD; a rating of 55 or more is ranked as VERY GOOD; a rating of 70 or more is ranked as EXCELLENT https://www.breeam.com/BREEAMIntNDR2016SchemeDocument/content/03_scoringrating_all/rat_benmks_all.htm

⁹ Taking the two sections Transport and Land Use & Ecology, justification can be seen for reducing the overall BREEAM score from 72.50% by *4.83% for transport* and *13.15% for Land Use & Ecology* to 54.52%,
A BREEAM rating of 45 or more is ranked as GOOD; a rating of 55 or more is ranked as VERY GOOD; a rating of 70 or more is ranked as EXCELLENT https://www.breeam.com/BREEAMIntNDR2016SchemeDocument/content/03_scoringrating_all/rat_benmks_all.htm

¹⁰ BREEAM Ecology requirements are laid out in **Supporting Document Five**

ecology				
		-2	Managing negative impacts of the project	
Change and Enhancement of Ecological Value		-2	Enhancement of ecology: Has effect on the protected habitats and species of Richmond Park SAC and on stag beetle and their larvae across the whole Cambridge Road Estate site been evaluated	
		-2	Long Term Ecology Management and Maintenance: Do planning and liaison actions make sense? Can the Landscape and Ecology Management Plan be effectively implemented?	
Revised Score				3/13

ii. **Mandatory credits needed for Excellent scores**

MAT 03

In the Executive Summary of the updated Circular Economy Statement for this development proposal, the applicant’s representative states that it is making the following “commitment” that *“100% of timber used on site, including timber used in the construction phase, will be sourced from sustainable forestry sources (eg PEFC and FSC)”*.

This is a mandatory requirement as specified in BREEAM MAT 03 and the UK Government’s Timber Protection Policy.

However, this “commitment” is not present in the “Summary of Key Commitments” and is contradicted by point 7.9 in the section Conserve Resources – Sustainable Procurement which states:

“Where appropriate, timber used on site, including timber used in the construction phase, such as hoarding, fencing and scaffolding, will be sourced from sustainable forestry sources (eg PEFC and FSC)”.

The commitment needs to be guaranteed and consistently applied.

LE 03

This requirement is for a suitably qualified ecologist to do species calculations.

Given that no assessment appears to have been carried out for the possible presence of stag beetle or their larvae on the proposed development site, this requirement cannot be considered to have been met.

WAT 01

This water consumption target needs to be achieved for WST 05 to be met. The representative for the applicant states that exemplary credits will be given when there is a 65% improvement on “a baseline performance”. However, details of the baseline performance are not given.

iii. Detailed breakdown of adjustments to scores for Transport and Land Use and Ecology

1. Transport

Targeted achievable credits of 6 (a reduction of 4 points from those currently predicted) in this area would result in a Category Score for Transport of 7.25% and a reduction alone of the overall attainable BREEAM score by 4.83% to 67.67% which is below the threshold for EXCELLENT

The reasons for the reduction are:

a. **Very low PTAL rating of Cambridge Road Estate**

The *Accessible Index* of the development is given 10 out of a maximum 12 credits. This is not substantiated by evidence.

The estate currently has a very poor PTAL rating as can be seen below, which contradicts the statement in point 13.3 of the Sustainable Design and Construction Statement which relates to the “high PTAL on the site.”

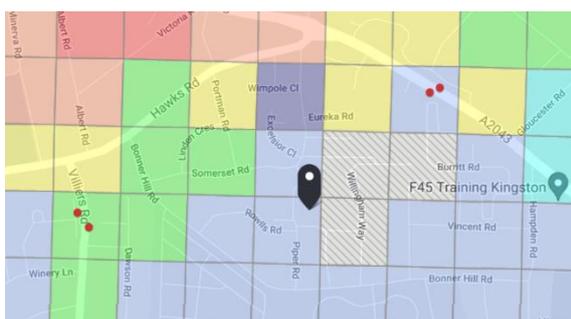
This was confirmed to me in a letter from Kingston Council available on WhatDoTheyKnow.com in which it was stated that:

“approximately half of the estate...achieves a PTAL 4 or 3 rating which represents “good” to “average” accessibility, and the other half achieves a PTAL rating of 2 to 1 representing “poor” to “very poor” accessibility.”

This statement is optimistic to say the least. As can be seen below, some of the estate has a **PTAL of zero**.

The accessibility score for Transport should be reduced by at least two points to reflect the PTAL of the estate and the lack of any firm plans to indicate that the PTAL rating will improve with the development and the vast increase in the number of people using public transport around the area

There is no concrete evidence that the proposed development will increase the PTAL ratings that the estate will be able to achieve. This is especially true given the road configuration in the estate is a reserved matter (see previous response in Appendix A).



Piper Hall, Piper Road, Kingston up X Go

Access level (PTAL) Time mapping (TIM)

PTAL: a measure which rates locations by distance from frequent public transport services.

Map key - PTAL

0 (Worst)	1a
1b	2
3	4
5	6a
6b (Best)	

b. No guarantee of improved public transport accessibility in future

Given that the layout of the new estate has been added as a Reserved Matter to the planning application, there is **no guarantee** that journey times from and to the estate will reduce as predicted manually, as this depends on the final layout of the estate that is agreed. There has also been no verification of the “manual” calculations that have been made. The assumptions about future PTAL levels at the estate are not robust.

Given that the applicant is not asking that the Section 247 Order - which will stop the public highways through the estate - should include provision of new or improved public highways in the development area, this leaves open the possibility that existing public highways through the estate may not be replaced or new ones provided. Similarly, the profile of footpaths through the estate will only be agreed at Reserved Matters stage so there is no guarantee that they will be provided as shown in plans.

The transport credits should be reduced by a further point to reflect the considerable uncertainty regarding any future possible improvements to the PTAL ranking of the new estate

With large scale developments coming forward across Kingston, Norbiton and New Malden, there will be a significant cumulative increase in passenger numbers on public transport which will mean longer waiting and boarding times. This will reduce PTAL ratings. This has not been factored in to the “manual” recalculation of PTALs and therefore undermines the calculation and conclusions reached, which must be ignored

c. Planned reduction of train services through Norbiton by South West Trains

The transport accessibility index score also needs to be reduced by at least one point to take in to account planned CUTS to peak time train services passing through Norbiton Station to and from Teddington from four trains an hour to two trains an hour from 2022 have been ignored in the assessment.

The fact this planned cut in services has been overlooked is confirmed in the letter from Kingston Council “Response to London Borough of Richmond” in which the council clearly states their belief that there will be SIX morning peak hour trains to and from Norbiton, not the FOUR being planned by South West Trains:

2.7 When dividing this by the number of train services which pass through Norbiton during the peak hours, that being 6 via Wimbledon and 2 via Richmond in the AM peak periods, with 4 trains via Wimbledon and 2 trains via Richmond in the PM peak. This equates to approximately an additional 35 people getting on or off the Wimbledon services in the AM peak and 13 people getting on or off the Richmond services. Similarly, in the PM peak there will be an additional 60 people getting on or off the Wimbledon services and an additional 15 people getting on or off the Richmond services. Spread across 10 carriage trains this will be a minimal impact.

2.8 Therefore, it can be summarised that whilst the development results in an increase in the number of two-way railway trips, when dividing this between direction of travel and number of services during the peak hours, the impact on the rail network is minimal.

2. Land Use and Ecology¹¹

There is evidence that the scores for Land Use Ecology should be revised in a way that results in credits for this section on Ecological Value of 4.38% compared to 17.53% originally assigned, taking the BREEAM rating down to 59.35% ignoring any revised transport accessibility ratings

This score is way below the level necessary for the EXCELLENT ranking to be achieved

a. Risks and Opportunities – Survey & Evaluation and Determining Ecological Outcomes

In this section, the development scores a mark of 1/1 for “survey and evaluation” and 1/1 for “determining the ecological outcomes for the site”. Both of these RIBA areas of assessment have already been completed by the applicant. However, neither of the scores attributed is supported by evidence that it is deserved. The correct score for these sections is zero out of two for the reasons given below.

¹¹ BREEAM methodology for assessing ecological value is in **Supporting Document One** at the end of this response

The “Survey and Evaluation” assessment route selection must score ZERO out of 1 credit available.

First, it cannot have achieved any such score because the survey to determine the ecological baseline of the site CANNOT itself have properly established the current and potential ecological value of the Site and its Zone of Influence because **the EIA Scoping Report for the development:**

- does not mention once the likely existence on a large site that is covered in trees and other plants of the stag beetle and its larvae, a creature that is protected under the Wildlife and Countryside Act 1981 and is also a priority species under the UK list of BAP Priority Terrestrial Invertebrate Species 2007 and is afforded further protection under the National Planning Policy Framework Policy 179 (b)
- ignores any need to assess the impact of residents of the new development on protected habitats and species in Richmond Park SAC and the cumulative impact of additional visits from major developments occurring across the area for which Richmond Park SAC is the nearest green space other than a recreation ground or playground
- Did not provide sufficient information for Natural England to reach a definitive conclusion on whether the development could affect a nationally designated ecological site. Natural England’s response drew attention to further requirements that the final Environmental Statement will need to include as well as an Appendix of advice that Kingston Council has chosen not to publish as part of the consultation

Second, the **Biodiversity Impact Assessment** on which the ecological value of the CURRENT site was assessed in order to calibrate the predicted change in ecological value as a result of the development, explicitly **DID NOT** take into account the presence of any protected species or their habitat on the current site. Worse, these have not been covered in any preliminary ecological appraisal or “any other appropriate protected species surveys” which do not exist.

The ecological value of the Cambridge Road Estate has thus been significantly undervalued.

CONSTRAINTS

- 3.13 The assessment methodology does not incorporate ecological features beyond area and linear based habitats. The potential for the site to support protected species, for example, is not captured by this assessment. As such this report should be read in conjunction with all other ecological reports for the site. The mitigation hierarchy in relation to protected and notable habitats and species must be followed. This report should accordingly be read in conjunction with the PEA and any other appropriate protected species surveys.

Third, the **Final ES Review on Behalf of RBK 4780638** confirms that there are no other mitigation measures in place to identify, protect and conserve protected habitats and species that may be affected by the development and any on site **stag beetle presence**, referring only to the preliminary ecological appraisal (which does not mention protected habitats and species or the stag beetle) and the “ecological management plan”. Further a statement in point 6.7.1 of the Final ES Review that *“there will be no significant negative impacts on biodiversity as a result of the Proposed development at construction or operational phase, either alone or in combination with other developments”* and that *“there will be a minor positive impact at the Site or local level on habitats....stag beetle”* is based purely on the assumption that there are at present NO stag beetles or stag beetle larvae on the entire Cambridge Road Estate site and that the provision of log piles in the new development – replacing the green corridors of trees across the site and the many unexplored back gardens – will have a positive impact on stag beetle habitat. This is unsubstantiated nonsense.

The above conclusion is derived from The Biodiversity impact Assessment 26902-Chapter 8 which includes a Preliminary Ecological Appraisal (PEA) of the site. This took the form of a walkover on two days in mid June 2019 with a further walk over in October 2019.

There are several problems¹² with the overall assessment process that was undertaken vis a vis stag beetles:

1. Whilst June is in the mating season for stag beetles, research shows that the exact timing of their emergence is very weather dependent. There can be no guarantee of any sighting on any one – or two – day(s)
2. Stag beetles tend to emerge at dusk. It is not clear whether the walkovers took place at dusk and whether the surveyor was mainly looking for bats, which the Biodiversity Impact Assessment covers in some detail, in which case the much smaller stag beetles could easily have been missed
3. The PEA did NOT cover back gardens. *“Residential gardens were not accessible during the survey. Habitat classification for these gardens has been assumed based on observations whilst onsite and analysis of satellite images”*. Gardens are a prime source of habitat for stag beetles as has been researched extensively by experts such as Maria Fremlin. Satellite images would not show whether stag beetle could have been present in some of the residential gardens. It must be remembered that the larvae can feed off dead wood in fence posts and wood chippings (cf Maria Fremlin)
4. The appraisal states that Richmond Park is 2km from the site in point 8.92 and 8.130. This is incorrect. The park is 1.2 km from the site as the stag beetle flies and is connected to the site via the many back gardens of the Victorian houses that sit between the site and the park.
5. Point 8.7.7 recognises that Richmond Park *“is designated for the stag beetle”*. However, it states that the site is *“already subject to high levels of recreational pressure and managed with this in mind, which given ... vast size ..., is not expected to significantly increase as a result of the Development. Therefore, the impact of the Development on statutory designated sites is considered to be Negligible.”* This is an empty argument – additional visits from this proposal alone could equal 500,000 or more a year. It also ignores the combined effect of this development with others that have already been approved and are being built. There could be 1.5 million visits just from the seven new developments that have been approved or are about to be approved and are starting to come on line across the Kingston Town area. This is hardly a negligible number of new visitors with a negligible effect on the stag beetle’s ancient woodland habitat in Richmond Park,¹³ A *“vast”* area of habitat and biodiversity is soon trampled away and destroyed by millions and millions of feet and bikes and dogs
6. Oddly, the harmful effects of recreational pressure on biodiversity have been assessed and ruled out on Kingston Cemetery and Hogsmill as places either *“not considered to be at risk from the usual recreational pressures associated with areas of parkland”* (Cemetery) or *“the overgrown vegetation makes it difficult to reach the riverbank”* (Hogsmill) so that the impact of the operational phase of the new estate on these habitats is considered to be negligible. Given that this development will take 12 years to complete and given council plans to open the cemetery and the Hogsmill as *“access to nature”* for the Borough’s soaring population, and given the lack of green space in the immediate area, it is unrealistic to assume that there will be negligible recreational pressure on these fragile ecosystems from this development
7. The claim in point 8.157 that there will be negligible negative impact on statutory and non-statutory sites because of *“in particular the provision of significant public realm areas as part of the Development”* is quite ridiculous. Does the representative of the applicant believe that 5.600 people are all going to hang out on the Cambridge Road Estate. And would there really be room for them to do so?
8. In point 8.130, the conclusion that the *“construction phase of the development in statutory designated sites, both in terms of individual phases and as a whole, will almost certainly be negligible”* is based on the mistaken assumption that Richmond Park is more than 2km from the site *“all the sites that are of national value or greater are 2km from the site”* and the fact that there are already high

¹² See **Supporting Document Seven** – Scientific Evidence of harm to stag beetles from this development and Impact Pathways for Richmond Park and the Stag Beetle

¹³ 3,380 extra people accommodated on the estate, each working from home several days a week and walking daily for their exercise, visiting Richmond Park, the only decent public green space that is accessible from the estate, just three times a week make an extra 527,314 visits a year from this development alone.

9,612 new residents just from the developments listed above, each also visiting Richmond Park just three times a week – remember the applicant is asserting that existing residents will not be commuting as much so new residents will also be staying at home – will mean a whopping 1.5 million extra visits to Richmond Park each year from those SEVEN developments alone.

levels of “traffic and noise” in the area, and that the development will be constructed over 12 years. These are all irrelevant or misguided.

9. There are 213 trees scattered across the site providing “green corridors across the Site and the wider area” (point 8.92). The surveyor also states that “In general, the tree provision on Site is less concentrated than the tree provision in the wider area, although it will almost certainly play a role in connecting greenspaces across the wider area”. This is ideal habitat for stag beetles which are not able to fly far in their short lives as mating adults and rely on corridors of scattered habitat for their survival. The urbanisation of the stag beetle’s habitat and development on back gardens is an identified major threat to the stag beetle’s survival in England (source: JNCC)
10. It should be disputed that the trees only have “local” value as asserted in point 8.92 as the stag beetle is an invertebrate of INTERNATIONAL significance and which is protected by national legislation via the Wildlife and Countryside Act. The trees provide travel corridors for this protected species to travel between the internationally designated habitat in Richmond Park and the wider area and therefore have at least NATIONAL if not INTERNATIONAL significance
11. The effect of felling 100 of these trees on the stag beetle has not been assessed despite the fact that the surveyor states in 8.92 that “They are also likely to support common invertebrate species” and in 8.100 that “During the Site Walk-Over element of the PEA, it was concluded that the site had the potential to support the following protected species: Invertebrates”
12. The appraisal is not consistent in its comments and presents no detailed evidence to support its contradictory conclusions. For example, in point 8.125, it states that “despite moderate levels of tree cover across the Site, there is no woodland habitat and very little deadwood to provide a resource for stag beetle larvae.”
13. Detailed conditions need to be laid out for how stag beetles and their larvae will be identified and protected and translocated (as necessary) during the demolition, excavation and construction phases of the development.
14. No assessment is made of how killing and injury to stag beetles and their larvae that are discovered during demolition, excavation and construction phases of the development will be avoided. This is in breach of the Wildlife and Countryside Act.

Fourth, the Final ES Review mentions “implementation of CEMP”. However, this also cannot be effectively carried out because of the failure of the environmental appraisal process to take identify, assess and take account of the effect of the demolition and construction activities of the proposed development on protected habitats and species in the zone of influence of the development and of the stag beetle and its larvae on site.

The excerpt below is from UK government guidance *Planning Advice Note 8, July 2018: “Construction Environmental Management Plans (CEMP)”*. The biodiversity Document dated 16 March 2021 states that the stag beetle “has been considered” and “integrated in to the landscape strategy”. But this is just lip service to protecting the species. The consultant has agreed to put log piles in the new development to replace 100 veteran and other trees and countless back gardens that provided habitat for the stag beetle – which no active attempts have been made to find and the extent of whose presence on site is therefore unknown.

What is the purpose of a CEMP?

The purpose of a CEMP is to;

- Provide effective, site-specific procedures and mitigation measures to monitor and control environmental impacts throughout the construction phase of the project
- Ensure that construction activities so far as is practical do not adversely impact amenity, traffic or the environment in the surrounding area

A CEMP ensures that environmental impacts identified during previously performed environmental studies (e.g. an Environment Impact Assessment (EIA)) or during the scoping phase, will be properly managed and that controls will be put in place to reduce the impacts of the development on the natural and human environment during construction. If no EIA was completed for the project, then the CEMP should detail the extent to which environmental effects, impacts, and risks exist and will be mitigated during the construction phase.

Fifth, under *Protection of Ecological Value in the Sustainable Design and Construction Statement*, the applicant’s representative states in 14.4:

“all site operatives to be made aware of current legislation including the protection of certain species.”

This condition is so vague as to be meaningless. Given protection of the stag beetle is not identified as necessary in the planning application documents, it must also be assumed that this statement is not intended to cover the stag beetle.

This is a major failing as stag beetles are protected under the Wildlife and Countryside Act 1981 (schedule 5 and section 9(5)). The stag beetle is also a priority species under the UK list of BAP Priority Terrestrial Invertebrate Species (2007) and is afforded further protection under NPPF para 179(b).

Accordingly, it is important that any condition that must by legal necessity secure adequate protection of the stag beetle and do so in a way that is sufficiently clear and enforceable.

Sixth, the **lighting strategy for the development** does not refer to the stag beetle and how this species may be affected by lighting from the development, another major omission for a protected species.

There is hence ample evidence that the BREEAM score for this area should be 0/1

Topic	Phase of Implementation	Embedded Mitigation Measure	Additional Mitigation Measure
		including features to encourage sustainable transport methods.	
Biodiversity	Pre-construction	None.	Update PEA and bat scoping surveys for outline elements (phases 2-5), as part of RM planning submissions.
	Construction	Embedded landscape scheme to mitigate for loss of habitat.	Implementation of CEMP.
	Operation	Timing of works or ecological supervision to protect nesting birds.	Ecological Management Plan. Lighting Strategy.

If the “survey and evaluation” section of the assessment has a score of 0/1, the “**Determining the ecological outcomes for the site**” section of the assessment must by default have a BREEAM score of 0/1 as a score of 1/1 is dependent on the previous section attaining a predicted score of 1/1.

In addition, the following criteria cannot have been met because required “specific solutions and measures” to protect habitats and species in Richmond Park and to protect and conserve stag beetles and their larvae on site have *not been identified, appraised and selected* because Richmond Park SAC and the stag beetle and its larvae were never identified as needing protection and conserving in the EIA Scoping Report:

b. Managing Negative Impacts on Ecology

RIBA Stage 2 has already occurred. Based on the failure to carry out LUE 2 to the required standards and criteria, LUE 3 “**Planning, liaison, implementation and data**” must also by default be deemed to have failed and this section should have a score of ZERO out of THREE.

a. Planning, liaison, implementation and data

Land Use and Ecology	Lue 03	Managing negative impacts on ecology	Prerequisite - Identification and understanding the risks and opportunities					
				To achieve this credit the credits under LE 02 must be achieved.	-	-		
			Planning, liaison, implementation and data	RIBA 2 Roles and responsibilities will be clearly defined, allocated and implemented to support successful delivery of project outcomes at an early enough stage to influence the concept design or design brief. Site preparation and construction works will be planned and implemented at an early project stage to optimise benefits and outputs. The project team will implement the solutions, and measures that have been selected (see LE 02) during site preparation and construction works.	1	1		
Managing negative impacts of the project	Route two only: Negative impacts from site preparation and construction works will be managed according to the hierarchy and either: - No overall loss of ecological value has occurred (2 credits) OR - The loss of ecological value has been limited as far as possible (1 credit)	2	2					

Nothing can be “clearly defined” and no “successful delivery of project outcomes” can be achieved because some key required outcomes of the project have been overlooked. Optimisation of benefits and outputs can not be defined in a way that responds to legislative and policy requirements.

This section should therefore have a score of ZERO out of ONE.

b. Managing negative impacts of the project

Managing negative impacts of the project		Route two only: Negative impacts from site preparation and construction works will be managed according to the hierarchy and either: - No overall loss of ecological value has occurred (2 credits) OR - The loss of ecological value has been limited as far as possible (1 credit)	2	2

There is no evidenced justification that there will be “no overall loss of ecological value” from this project, which is needed for 2/2 points to be targeted. *The failure to mention even once the stag beetle in the EIA Scoping Report means the current ecological value of the site has been undervalued.* There have consequently been no actions identified or implemented to protect and conserve this species during site preparation and construction. This means that this section cannot realistically even be awarded a score of 1/ 2, because loss of ecological value will not have been “*limited as far as possible*”.

This section should therefore have been awarded a score of 0/2

c. Change and Enhancement of Ecological Value

- Enhancement of Ecology**

It is inconceivable that a positive change in ecological value as a result of the project can be deemed to be achievable when the effect on the protected habitats and species of Richmond Park SAC and on stag beetle and their larvae across the whole Cambridge Road Estate site has not been assessed and no action taken to protect and conserve these habitats and species

Change and enhance ecological val	Liaison, implementation and data collation	Route two only: The project team will implement the solutions and measures selected in a way that enhances ecological value in the following order: - On site, and where this is not feasible; - Off site within the zone of influence.	1	1
	Enhancement of ecology	Route two only: Credits will be awarded on a scale of 1 to 3, based on the calculation of the change in ecological value occurring as a result of the project.	3	2
Prerequisite - Roles and				

The section on “Enhancement of Ecology” should have a score of 0/3 indicating no positive change in the ecological value of the site.

This results in a score for LUE 4 of 1/ 4

d. Long Term Ecology Management and Maintenance

Lue 05	Long term ecology management and maintenance	Planning, liaison, data, monitoring and review management and maintenance	<p>The project team will liaise and collaborate with representative stakeholders to:</p> <ul style="list-style-type: none"> - Monitor and review implementation and the effectiveness; - Develop and review management and maintenance solutions, actions or measures. <p>The monitoring and reporting of on the ecological outcomes/successes for site implemented at the design and construction stage and the arrangements of ongoing management of the new landscape and habitats will be reviewed. Also, the ecological value of the site and its relationship to its zone of influence and any linked sustainable activities will be maintained.</p> <p>As part of the tenant or building owner information supplied a section on Ecology and Biodiversity to inform the owner or occupant of local ecological features will be included.</p>	1	1
		Landscape and ecology management plan	<p>A landscape and ecology management plan will be developed in accordance with BS 42020:20131 covering the first five years.</p> <p>The landscape and management plan will be updated as appropriate to support maintenance of the ecological value of the site.</p>	1	1

- **“Planning, liaison etc”** It is impossible for the following action to take place because it makes no sense: **“the ecological value of the site and its relationship to its zone of influence and any linked sustainable activities will be maintained”**.

In addition, the fact that the effect of the development on protected habitats and species and on the protected stag beetle and its larvae has been overlooked makes this section meaningless. This omission also means that the stag beetle and its larvae and protected habitats and species in Richmond Park SAC will not by default be covered in information to tenants and building owners about “local ecological features”

This section of LUE5 should have a rating of 0/1

- **Landscape and Ecology Management Plan**

This cannot meet the requirements of BS42020-20131 because the ecological information accompanying the planning application is incomplete as laid out above and the planning authority cannot have confidence in the information when they consider this development that potentially affects biodiversity in the shape of protected species and habitats

This section of LUE 5 should therefore also have a score of 0/1

The section LUE 5 should therefore

BS 42020 – a code of practice for biodiversity in planning and development

BS 42020 is a standard developed by BSI in association with biodiversity experts and stakeholders from across all sectors. The standard provides clear recommendations and guidance to ensure that actions and decisions taken at each stage of the planning process are informed by sufficient and appropriate ecological information.

This standard therefore seeks to:

- promote transparency and consistency in the quality and appropriateness of ecological information submitted with planning applications, and applications for other regulatory approvals;
- give planning authorities and other regulatory bodies greater confidence in the information when they consider proposals for development that potentially affects biodiversity; and
- encourage proportionality and a good environmental legacy following development.

APPENDICES

Supporting Document One: BREEAM Water Consumption Standards

Source: BREEAM

Table - 24: Equivalent terminal fitting consumption standards

Fitting	Baseline	Good	Excellent
Showers	14 litres per minute	8 litres per minute or less	6 litres per minute
Baths	200 litre capacity to overflow	140 litre capacity to overflow or less	140 litre capacity to overflow or less
WCs	6 litres effective flushing volume	4 litres effective flushing volume or less	3 litres effective flushing volume or less
Bathroom and WC room Taps	12 litres per minute	5 litres per minute or less	3 litres per minute or less
Kitchen and Utility Room Taps	12 litres per minute	5 litres per minute or less	5 litres per minute or less
Dishwashers	17 litres per cycle	13 litres per cycle	12 litres per cycle
Washing Machines	90 litres per use	60 litres per use	40 litres per use

2	from 107 to < 118	<ul style="list-style-type: none"> • All Bathroom and WC room fittings specified to 'Excellent' <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • All Bathroom fittings Specified to 'Excellent' and WC room fitting specified to 'Good' <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • All Bathroom fittings, kitchen and utility fittings specified to 'Good'. 	BREEAM Excellent
2.5	from 96 to < 107	<ul style="list-style-type: none"> • All kitchen, bathroom, utility room and WC room fittings specified to 'Good' <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • All bathrooms, kitchens and utility rooms specified to 'Excellent' 	

Supporting Document Two: Schedule Four of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017

SCHEDULE 4 INFORMATION FOR INCLUSION IN ENVIRONMENTAL STATEMENTS

Regulation 18(3)

1. A description of the development, including in particular:
 - (a) a description of the location of the development;
 - (b) a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases;
 - (c) a description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used;
 - (d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases).
 2. A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.
 3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.
 4. A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.
 5. A description of the likely significant effects of the development on the environment resulting from, inter alia:
 - (a) the construction and existence of the development, including, where relevant, demolition works;
 - (b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;
 - (c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;
 - (d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);
 - (e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;
 - (f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;
 - (g) the technologies and the substances used.
- The description of the likely significant effects on the factors specified in regulation 4(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project, including in particular those established under Council Directive 92/43/EEC(1) and Directive 2009/147/EC(2).
6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.
 7. A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.
 8. A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to EU legislation such as Directive 2012/18/EU(3) of the European Parliament and of the Council or Council Directive 2009/71/Euratom(4) or UK environmental assessments may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.
 9. A non-technical summary of the information provided under paragraphs 1 to 8.
 10. A reference list detailing the sources used for the descriptions and assessments included in the environmental statement.

Supporting Document Three – Human Impact on Richmond Park SAC, protected under The Habitats Directive and a Grade I listed park



Supporting Document Four: Expert Opinion on Impact Pathways for the stag beetle and protected ancient woodlands

Impact Pathways for the internationally and nationally-protected species, the stag beetle, and for the ancient woodlands of Richmond Park SAC which is 1.19 km as the crow flies from The Cambridge Road Estate

1. Michael Ulyshen

“Saproxylic Beetles as indicator species for dead wood amount and temperature in beech wood forests – Lachat et al 2012”

“Insights into the ecology, genetics and distribution of *Lucanus Elaphus*, M Ulyshen et al 2017”

“Chapter 4: Diversity and Ecology of Stag Beetles, Ta-I-Huang”

“Introduction to the Diversity, Ecology and Conservation of Saproxylic Insects – M Ulyshen”

- Best indicator of habitat quality
- A large amount of dead wood is compulsory for the conservation of the species
- The diversity of the dead wood in terms of size and quality is equally important as its volume (Brin et al 2009; Ranus and Johnson 2007; Siitonen 2011)
- “Regarding quality, different diameters, decay stages, tree species, sun exposures and the presence of polypores are necessary for a high diversity of saproxylic beetles”
- *Attracted to electric lights*
- Species found in wide range of log sizes in association with wide range of rot types, white rot, brown rot and very high moisture content
- Feed on cellulosic material highly colonised by fungi and other microorganisms
- Lucanids inhabit and feed on wood decayed by wood-rotting fungi, Araya 1993; St Germain 2007, Abe 2000
- Kuranouchi et al 2006 – presence of Nitrogen-fixing microbes associated with stag beetle; Tanahashi – importance of direct nutrient acquisition; destruction of suitable habitats by human activities – main threat
- Importance of fungi and wood variety;
- Cellulase digestion must be aided by symbiotic microorganisms;
- Microbes degrade lignocellulose;
- a large proportion of the nitrogen requirements of many wood-feeding insects comes from nitrogen-fixing prokaryotic endosymbionts within their guts (Ulyshen 2015);
- Fungi are thought to be the main source of nutrition for certain “wood-feeding” passalid (Mishima et al. 2016) and lucanid (Tanahashi et al. 2009) beetles, for example.

2. Arno Thomaes

Comment: Increased number of people trampling stag beetles might have an effect on the population, at least it is a lethal effect that should be taken into account for the Habitats directive. Building upon a stag beetle site is very detrimental for the population and needs to be taken into account. Habitats directive prescribes that the one making plans that could effect the species or habitats must prove the effect of the plan is not significant, not the other way around. Need a plan to study and compensate for loss of habitat (Colin Hawes)

“Ebert 2011 Translocatie”

“Umsetzung von mit Hirschkäfer-Larven besetzten Baumwurzeln” Ebert and Muller

Email correspondence

Translocating stag beetle sites in Germany.

3. Maria Fremlin

Statement:

“Richmond did have a significant number of records. Further unpublished analysis of the data revealed the following for 2005:

1. *Gardens occupied 23% of the land in London*
2. Stag beetle records correlated best with the total area of domestic buildings *PLUS gardens*, 0.65.
3. After that the best correlation was with the total garden area, 0.61.”

“It obvious that by paving gardens and building more houses is very unfavourable to stag beetles.”

http://maria.fremlin.de/stagbeetles/london_veluwe.html

“Stag beetle (*Lucanus cervus*, (L., 1758), Lucanidae) urban behaviour, 2009

“London 2005 Stag Beetle Hunt, Report for Greater Stag Beetle (*Lucanidae*) Michelle Margot” London Wildlife Trust

Email correspondence

Evidence that stag beetles can survive in a heavily-used woodchip footpath

“Up until June 21, the main cause of death was by predators; after, was caused mainly by human activities” “the females suffered most casualties caused by human activities as they walk much more than the males (Hawes 2004a)” Richmond Park: “Most sightings, 293 and 235 respectively, were of dead beetles, mostly predated by *Corvidae*, which are very abundant in the park.” “However the importance of large and relatively old, suburban gardens (pre-1914) as a significant habitat for stag beetles had already been highlighted during the 1997 south London survey (Frith 1999).”

“Their obvious main threat is loss of habitat due to urban development, closely followed by habitat disturbance, and this is a very complex situation that deserves to be studied further.”

“1/5th of the total area of London is made up of private gardens and therefore the survival of this species probably depends on people providing suitable dead wood habitat (in the form of log piles, tree stumps, or replenished woodchip mounds) in their front and backyards.” “As expected, the majority of stag beetle sightings were from private gardens”

	<p>“Stag beetles are commonly spotted on roads and pavements. They are thought to be attracted to the warm surfaces of tarmac and were sighted on high streets and in supermarket car parks. <i>Here they are vulnerable to being run over or trodden on.</i>”</p>
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Other sources of information	
JNCC Report by UK under Article 17 92/43 EEC June 13 -18: STAG BEETLE	Long Term trend for stag beetle – Uncertain; High Pressure and Threat from construction or modification in urban areas and removal of dead or dying wood. Mentions small dispersal range and risk from fragmentation of habitat
Epping Forest District Council website about air pollution threat to Epping Forest and lack of agreed mitigation strategy (as of 7 August 2020)	<p>April 2020 “The Council, Natural England and the Conservators have committed to continue to work together to identify a satisfactory solution and have been meeting on a regular basis over the past few months. As these matters involve highly technical and scientific considerations, compiling the evidence required to address the concerns raised by Natural England and the Conservators, and as set out in the Inspector’s advice, has taken many months. This evidence now needs to be remodelled and reassessed in order to further update the HRA and develop an Air Quality Mitigation Strategy. This further work is progressing well and it is anticipated that the Council will be in a position to publish a draft Mitigation Strategy for the Council’s Cabinet to consider in July 2020.</p> <p>Currently there is no agreed approach as to how the effect of air pollution needs to be mitigated where development proposals anywhere in the District would result in an increase in Average Annual Daily Traffic (AADT) on roads within 200m of the EFSAC. However, the Council and other partner organisations continue to work together to devise an air quality mitigation strategy (“AQMS”) that is acceptable to NE, taking account of the Local Plan Inspector’s advice. In the absence of an approved AQMS, where individual development proposals have been supported by evidence which clearly demonstrates that there would be no net increase in AADT Natural England has confirmed that the Council is in a position to grant planning permission (subject to the acceptability of all other relevant planning considerations). The Council has now determined a small number of planning applications in line with this advice.</p>
Richmond Park SAC – COSA 31 May 2016	Supporting habitat – decaying wood: This target may also be applicable to off-site habitat which may provide important larval habitat to support the SAC population” “local gardens, parks and trees are important to help maintain the stag beetle population if dead timber is present and may help to connect the SAC population with bigger colonies”
Burnham Beeches Recreation Report, Effect of urbanisation and human activity on ancient woodland	Effects of trampling, litter, pollution, damage and destruction by fire, removal of dead wood, tree climbing, soil compaction and other human activity on ancient woodland
Richmond Park SAC draft Conservation Objectives 2008	Draws attention to the time lag between a plan being agreed and a consequent adverse effect on the integrity of a site. A site may be in favourable condition but a plan could still be deemed to have an adverse effect on that site’s integrity
	Requirement that woodland pasture should not suffer “any reduction in an area and consequent fragmentation”
	Requirement to monitor the woodland pasture in Richmond Park once every 6 year monitoring cycle
	Site specific targets: Deadwood no more than 5% decline Number of veteran trees

	<p>Quality of fallen dead wood more than 20cmdbh No of trees with attached dead wood over 20 cm dbh</p>
Richmond Park HRA 2014 Point 4.27	<p>“The SAC is known to be a popular destination for recreational activities and the qualifying stag beetle could be affected by trampling”</p> <p>The HRA considers the number of new residents in the plan rather than the number of visits such residents will make</p>
Arno Thomaes – 2018 Dispersal of Stag Beetle	<p>Male mean distance 250m and 144 m Female daily distance travelled less than 1 m to 241 m Important for effect of fragmentation of habitat</p>
Richmond Park HRA of Local Plan 2016 pt 3.28	<p>Assumes a 2km travel distance for the stag beetle Stag beetles are attracted to artificial light</p>
Pt 3.36	<p>Wimbledon Common heathland is particularly vulnerable to increases in air pollution. Acknowledges sensitivity to air pollution of stag beetle’s habitat No traffic forecast data for Richmond 8.9% of Wimbledon Common within 200m of A3 which exceeds limits for No2. A308 and A3050 “could fail in future”</p>
Pt 3.42	
Pt 3.44	
Maria Fremlin: Urban Survival	<p>Larval habitat of stag beetle is vulnerable to disturbance. Relocation not good. Thrive in urban gardens</p>
Arno Thomaes – Dispersal of the Stag Beetle	<p>“larval habitat should be available in sufficient amount and with high temporal and spatial continuity” “We advise providing stepping stones with suitable habitat every 100 m and never more than 1 km away in order to maintain or expand a self-sustaining meta population.” Need for broad-leaved habitat with sun exposure</p>
Bionomics and distribution of the stag beetle by Colin Hawes	<p>60 different hosts in UK. Beetles found in railway sleepers, bark chippings, fence posts, wood chippings. Unclear whether “such small wood sources are able to provide a long term habitat, where there are similar posts in an area, or at least corridors for dispersal or whether such populations will inevitably die out”</p> <p>Predation: magpie, fox, shrew, kestrel, badger</p> <p>“largest perceived threat ...is believed...to be man...the loss of habitat in urban areas and management techniques being the main factor in the decline in numbers”</p> <p>“It might be possible that a restricted habitat in the UK has contributed to the evolution of the increased larval instar number”</p> <p>On habitat and numbers: “This cannot be stated unequivocally here since it is possible that surveys may do more to survey monitor presence than actual habitat and there will be more urban records in countries such as the UK where survey effort is high”</p> <p>“Aggregated distributions of insects are extremely common in nature (Holt 2005) and area again a likely reflection of habitat availability. However, for lucanus cervus, such distributions may be important for the survival of the species. Dispersal distances are limited and may be as low as a few 100 metres. This if distances between hotspots exceed dispersal distances, the</p>

	<p>insect may not exist in a meta population context, meaning the risk of local extinction is high (Kunin and Gaston 1993).</p> <p>KEY POINT: Conservation plans must take in to account distances between populations and the dispersal ability of the stag beetle</p> <p>Human activity a cause of mortality – road traffic, habitat destruction</p> <p>Importance of the urban garden</p>
Can we successfully monitor a population density decline of the elusive invertebrate? A statistical power analysis 2018 Thomaes	Need for at least 240 1 hour monitoring transect walks on 40 to 100 transects
Colin Hawes: Mark release recapture study 2000	Need for continuity of dead wood at know stag beetle locations and log piles built far away from stag beetle populations , especially those that are isolated, seem less likely to be colonised and might well be a waste of conservation effort
Woodland Trust – Impacts of nearby development on ancient woodland 2012	Effect of recreation – small scale fragmentation; Edge effect
Hendriks and Mendez: Larval ecology of the stag beetle 2018	“Harder wood decreased the amount of wood processed and pellets produced. In addition, fungal mycelia were more accessible in other deeding substrates. This is important because mycelia contain protein that increases larval growth” Tan 2005
Wimbledon Common SSSI assessment of air pollution	<p>This habitat type is considered sensitive to changes in air quality.</p> <p>Nitrogen deposition at this SAC currently exceeds site relevant critical loads. Exceedance of these critical values for air pollutants may modify the chemical status of its substrate, accelerating or damaging plant growth, altering its vegetation structure and composition and causing the loss of sensitive typical species associated with it.</p> <p>Critical Loads and Levels are recognised thresholds below which such harmful effects on sensitive UK habitats will not occur to a significant level, according to current levels of scientific understanding. There are critical levels for ammonia (NH3), oxides of nitrogen (NOx) and sulphur dioxide (SO2), and critical loads for nutrient nitrogen deposition and acid deposition. There are currently no critical loads or levels for other pollutants such as Halogens, Heavy Metals, POPs, VOCs or Dusts. These should be considered as appropriate on a case-by-case basis. Ground level ozone is regionally important as a toxic air pollutant but flux-based critical levels for the protection of semi-natural habitats are still under development.</p> <p>It is recognised that achieving this target may be subject to the development, availability and effectiveness of abatement technology and measures to tackle diffuse air pollution, within realistic timescales.</p>
A literature review of the urban effects on lowland heaths and their wildlife 2005	Effects of trampling, cats, dogs, disturbance, noise
Wimbedon and Putney Commons Annual Conservation Report 2016/17	With regards to the management work that has been carried out on the heathland during the lifetime of the Commons’ HLS agreement, the NVC study has summarised that while <i>‘it was clear that heathland management has been going on</i>

	<p><i>over a considerable timeframe, there is still a considerable amount of work needed to maintain the open area of the heathland currently found on the Commons.”</i></p> <p><i>“Unfortunately, as confirmed in the Commons’ NVC study, overall, the majority of the Commons grasslands are species poor, and as such, most of the 13 grassland sites that were measured were found to be extremely high in nutrients.”</i> “Through evidence from NE’s soil sampling and through the work completed for the Commons’ NVC report, a common theme that has emerged from both pieces of work has been the high level of nutrients found on areas of the Commons’ grassland and the effects that disturbance may be having on these sites.”</p> <p><i>“With reference to The Plain, while the NVC survey recognised that ‘visitors do appear to take note of the signage on The Plain and stay on paths throughout uncut grassland areas’, for the Commons grassland sites in general, high recreational usage, particularly dog walking has been cited as a factor that will add to the nutrient levels of grassland and therefore damage the integrity of these sites. It should however be noted that dogs cannot be entirely blamed for nutrient inputs as air pollution and the subsequent atmospheric nitrogen deposition were also cited in the NVC report as another potential factor that could cause further harm to many of the Commons’ most sensitive areas.”</i></p>
Ecological report for Wimbledon Common 2018	Disturbance of skylarks; no lucanus cervus noted

Further expert opinion regarding the Stag Beetle

Colin Hawes BSc (Hons), Dip Env Ed, C. Biol, FRSB

30 years studying stag beetle, author and co-author of number of papers; given many presentations in UK and across Europe

One of only two respected research authorities on the stag beetle

Source – Fieldwork and experiments published and not yet published. List of publications available

<p>1. “Stag beetles exist as metapopulations, small and scattered populations in a fragmented landscape”</p>	<p>“Mobility is crucial yet this species shows limited dispersal and may be incapable of reaching suitable but distant habitats. Although it may be difficult to identify strict distance thresholds, there is little doubt that isolation and the small size of many habitat “patches” (stumps etc) limit the survival ability of stag beetle populations.</p> <p>“Thus the species is vulnerable especially as the larval habitat and sole food source (subterranean, dead, decaying broadleaf wood) seems to be decreasing (eggs are not laid in coniferous wood; <i>white-rot decay wood</i> is essential whereas red-rot wood is never used)</p> <p>“Radio-telemetric experiments with tagged beetles have shown that stag beetles <i>do not disperse far from their natal site</i>” “Female stag beetles often move no further than their natal site”</p> <p>adults. Males have a greater propensity to be on the wing than females and usually fly at a height of 3 m or above (Mamonov, 1991; Hawes, 2005). Females spend most of their active time on the ground searching for suitable habitat in which to oviposit, and if they take flight, this is at 1–2 m above ground (Hawes, 2008). One encouraging feature of the road transect data is that</p> <p>Source: Non-invasive monitoring methods for larvae and adult stag beetle, Hawes, Gange et al 2011 Also: Flight capacity of the stag beetle 2011 (video)</p>
<p>2. “Adult stag beetles are threatened by vehicular and other human traffic which causes large numbers to be killed on roads, bridleways and footpaths”</p>	
<p>3. “Stag beetles (adults and larvae) are also taken in large numbers by predators”</p>	<p>“The primary predators of adults are birds (especially magpies and other corvids) and hedgehogs. Larvae are dug up and eaten by badgers.</p>
<p>4. “Constraints on stag beetle</p>	<ul style="list-style-type: none"> • “Limited dispersal • Too low accumulated degree day (ADD) temperatures

distribution expansion”	<ul style="list-style-type: none"> • Soil type and depth • Underlying geology • Absence of subterranean decaying broadleaf wood”
5. “Stag beetle distribution correlates closely with regions that have the highest ADD temperature ie the south-east and south of the UK”	
6. Soils types	<p>“Soils that stag beetles burrow down through to lay their eggs are mainly loams and improved soil of a good depth in gardens</p> <p>“Underlying geology determines the overlying soil type eg soils above chalk are usually very thin ie not deep enough to attract females that can lay their eggs up to 40cm below grounds”</p>
7. Female characteristics	<p>“Females search for subterranean decaying broadleaf wood when they emerge from underground at their natal site in mid-May. If they fiind unoccupied decaying wood nearby (they may have only crawled a short distance, between 2-20 metres before finding suitable egg-laying wood that is not already occupied by larvae) they will burrow immediately to lay their eggs. In the absence of unoccupied decaying wood, the females will travel further and occasionally fly to new sites”</p> <p>“Occupation and distribution are entirely due to females”</p>
8. JNCC report on stag beetles	“has left out a large amount of research data”
9. Life cycle	<p>97% of a stag beetle's life is spent underground, first as a larva (growth takes several years), then as a pupa (approx. six weeks) and finally as an adult (8 to 9) months.</p> <p><i>Removal of their habitat at any time during their subterranean existence will destroy a stag beetle colony</i></p> <p>On emerging above ground, if not predated, adults live a maximum of four weeks.</p>
Mark-Release Capture Study Hawes 2008	<p>The limited dispersal of <i>L. cervus</i> suggests that when considering conservation measures for the species, of prime importance is ensuring the continuity of suitable dead wood at known stag beetle locations. Dead wood in the form of logs or log piles (see: “Stag beetle friendly gardening”, published by the People’s Trust for Endangered Species) should be used continually to replenish decaying wood at such sites. Logs and log piles built too far away from stag beetle populations, especially those that are isolated, seem less likely to be colonized and might well be a waste of conservation effort.</p> <p>Observations and analysis of capture and recapture data seem to indicate that stag beetle dispersal is limited, especially in the case of female beetles and when there is a plentiful supply of suitable dead, decaying wood close to the site of their emergence. If the majority of female beetles present at other locations show a similar limited dispersal, then this behaviour needs to be taken into account when planning for the conservation of this species. It is suggested that such effort should be focused on using suitable dead wood, in the form of logs or log piles, to continually replenish decaying wood at known stag beetle emergence sites.</p>

SUMMARY of Impact Pathways of this development on Richmond Park SAC

1. *Habitat impact pathways for ancient woodland in Richmond Park SAC*

- litter and effect on habitat, includes beer from cans, spirits from discarded bottles, food waste (42 tonnes collected in Richmond Park in June 2020 alone: source Richmond Park authorities),
- dog fouling – nutrient enrichment from faeces and urination,
- fires,
- trampling,
- Visitor numbers causing effective widening of paths as existing paths do not cater for numbers of people on foot, bike and increasing numbers of pushchairs and other wheeled contraptions. See Richmond Park Management Strategy 2019 to 2029 for stresses on habitats caused by human activity
- removal of dead wood,
- destruction of ancient and veteran trees by climbing and removing limbs;
- trampling of root zone of ancient trees,
- Compaction of soil from footfall
- attract corvids who predate stag beetle
- Spread of disease from plant pathogens
- Spread of non-native species
- Pollution from run off that can affect trees and fragile ecosystem including fungi on which stag beetle rely to digest wood
- Loss of vegetation cover
- Harvesting of wood
- Public pressure for more facilities; paths surfaced, cafes, events, easier access
- Fragmentation: loss of supporting habitats as development occurs all around the Park, particularly in Roehampton and across Kingston
- Isolation: lack of connectivity with other woodland or semi-natural habitat
- Hydrology: Changes in water availability and flow linked to increased hard surfacing in surroundings
- Air quality: Changes in air quality and increased pollution (e.g. from local traffic increases) and air pollution (identified as issue for Richmond Park ancient woodland by NE)

Supporting Document Five

BREEAM assessment of evaluation of existing ecological value and conditions

Framework Tasks	Objectives	Detail of the objective
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; margin-right: 5px;">Handover</div> <div style="border: 1px solid #ccc; padding: 5px; margin-right: 10px; text-align: center;"> <div style="background-color: #ccc; padding: 2px; font-weight: bold; margin-bottom: 5px;">Task</div> <div style="font-size: 2em; font-weight: bold; margin: 0;">1</div> </div> <div> <p>Assessment and evaluation of existing ecological value and condition</p> <p><i>Note: Task content applied as appropriate to the assessment scheme, sector and built environment lifecycle stage)</i></p> </div> </div>	<p>To collate and assess baseline ecological information about the site and associated areas.</p> <p>To evaluate and gain an understanding of the existing ecological value (including benefits / risks).</p>	<ol style="list-style-type: none"> 1) Collate and assess information about the site and associated areas to identify the existing ecological value and condition. This should consider the following: <ol style="list-style-type: none"> a. Determining the zone of influence for the site b. Current flora, fauna (including permanent and transient species) and habitat characteristics (including but not limited to ecological features in or on built structures) c. Habitat connectivity and fragmentation d. Neighbouring land/habitat e. Recent and historic site condition f. Existing management and maintenance levels/arrangements g. Existing ecological initiatives in the associated area h. Identification of, and consultation with, relevant stakeholders impacted/ affected by the site. <p><i>Note: Any statutory protection/requirements particularly protected or designated areas relating to the site, local Biodiversity Action Plans or equivalent and local guidance should be reviewed and considered as part of this Task.</i></p> 2) Conduct an evaluation to establish the: <ol style="list-style-type: none"> a. Value of the site and, where relevant, the associated area in terms of: <ol style="list-style-type: none"> i. Ecological benefits ii. Biodiversity and ecosystem services benefits b. Direct and indirect risks to ecological value: <ol style="list-style-type: none"> i. Direct risks include those from, human activity (e.g. construction work), habitat fragmentation, diseased species or those which may be harmful ii. In-direct risks include water, noise, light pollution, etc. c. Qualitative ecological thresholds d. Impact of the proposed design/works/operation on site.

Monitoring and review