

OUTLINE PLANNING APPLICATION, WITH MATTERS RESERVED IN RESPECT OF APPEARANCE, FOR NEW RESIDENTIAL-LED DEVELOPMENT

RESPONSE TO KEG REPRESENTATIONS

READING GOLF CLUB, KIDMORE END ROAD, EMMER GREEN, READING

**ON BEHALF OF FAIRFAX (READING) LIMITED AND READING GOLF
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1.0 INTRODUCTION

1.1 The purpose of this report is to respond to the representations submitted by Keep Emmer Green (KEG).

1.2 We have been through the representations in detail, identifying each of the points made. They have been considered and a response provided by the appropriate specialist consultant within the development team. It is not the intent of this response to repeat the detail set out in the planning application documentation, rather reference will be made to the original text in the application document as necessary.

1.3 This response is structured to follow the structure of the KEG representation, so, for example, not all the planning-related responses are in the planning section as some planning points were stated in the Social section. The remainder of this report is structured as follows:

- Chapter 2 – Response to Planning Section
- Chapter 3 – Response to Transport Section
- Chapter 4 – Response to Landscape Section
- Chapter 5 – Response to Social Section
- Chapter 6 – Response to Ecology and Conservation Section
- Chapter 7 – Response to Water and Drainage Section
- Chapter 8 – Response to Pollution Section
- Chapter 9 – Response to Energy Section
- Chapter 10 – Response to Trees Section

2.0 PLANNING SECTION

Policy Compliance

With Policy CA1b

- 2.1 There is no contention that the development proposals do not fully comply with Policy CA1b, in that the scheme provides some 257 dwellings rather than the 130 dwellings stated in the policy allocation and therefore the provision of the golf function on the remainder of the site is not provided for. However, we contend that firstly, there are several strong material considerations that outweigh the non-compliance of the scheme, and secondly and importantly, the proposals do meet the other criteria listed in the policy wording as well as numerous Council policy, strategy and Infrastructure Delivery Plan aspirations.
- 2.2 The material considerations pertinent to the consideration of the scheme are outlined in detail in Section 9 of the Planning Statement which accompanies the application, the key points of which are as follows:
- The scheme will deliver much needed housing in the Borough and North Reading in particular – refer also to Section 5 of this response in relation to the mix and type of housing.
 - It provides much needed family-sized housing with gardens in stark contrast to the recently approved housing in the borough – again refer to Section 5 of this response.
 - The golfing facility is not needed; there are a surplus of local golf courses and the proposals are supported by England Golf and Sport England – refer below to points below and to Section 4 of this response.
 - The scheme provides 3.6ha of usable public open space, not including further areas of street planting and SuDS, which are also publicly accessible within the scheme. As set out in the Planning Statement, significant, additional further open space is also provided within the SODC land.

Open Space and Policy EN8

- 2.3 KEG states that if Policy CA1b was fully complied with, there would be about 8.4 hectares of open space accessible to the public. As set out in Section 9 of the Planning Statement, the existing golf course was excluded from RBC's own Open Space Strategy, which formed part of the evidence base of the Local Plan. The land was discounted as both Public Open Space (POS) and Local Green Space (LGS), the latter of these designations being that identified for its value to the local community.
- 2.4 The decision made not to designate the golf course as POS or LGS was made by RBC on grounds that it was not accessible to the wider public and, on this basis, it can be further implied that the land is not considered to hold sufficient value to the local community.
- 2.5 It is important to state that access to all land within the proposed application area is for the golf club alone to determine in much the same way that local residents determine access to their own private spaces. In this manner, were 130 dwellings to be proposed as is provided for in Policy CA1b, then there would be nothing required by the policy that would result in the change of status and value of the remaining land. Golfing use of the site would be retained, as the policy prescribes, and therefore the land would remain inaccessible to the wider public and the current low actual value to the local community would remain unaltered.
- 2.6 By contrast, the 3.51 hectares of POS proposed in the scheme will be accessible to the public, both new residents and the wider community, providing access to a Local Area of Play, as well as spaces for leisure and relaxation. With SuDS and street planting areas, which are both publicly accessible, this figure increases to 4.07ha. In addition, over 4ha will be retained as garden spaces, this being highly comparable in nature to that currently on site, i.e. there and partially visible, accruing wider benefit but not for public use. Just under 4ha (3.92ha) will be used for built form and infrastructure. On this basis, there is a clear balance to advocate the loss of undesignated, inaccessible open space, as this can be reconciled against the benefits of opening up the site for greater,

actual public benefit.

- 2.7 The nature of the RGC site, which is effectively landlocked by residential development on three sites up to the Borough boundary, means that very few people within Emmer Green gain any current benefit, save for a small number with a view. Against this, all Emmer Green and some Caversham residents will gain local access to the site. This is a strong material consideration, given that parts of the immediate locality suffer from lack of access to green spaces within the 400m buffer identified in the Council's Open Spaces Strategy. The development also accords with Sport England's Active Design Principles and has been supported on this basis as well as in recognition of the wider course legacy committed to.

Policy RL6

- 2.8 Policy RL6 is not specific to RGC but is a borough-wide policy which seeks to protect existing leisure and recreational facilities. The presumption is, quite rightly, in favour of retaining such facilities. However, the protection is not cast in stone; the policy sets out what needs to be demonstrated in order to permit the loss of such facilities. The loss of such facilities can therefore be policy compliant, and we would argue that this is the case in this instance. The responses from England Golf and Sport England, very much demonstrate the significant consideration given to the loss of the facility, the provision of replacement facilities and the legacy left at the site in Emmer Green, which has resulted in support for the proposals.
- 2.9 The position in relation to the need to retain the golf facilities at RGC is set out in detail in the Planning Statement and addressed further below. It is contended that this case meets the criteria of Policy RL6, and the proposals are therefore compliant with policy in this regard.

Future intentions for the wider site in SODC

- 2.10 The proposals for RGC comprise that specified in the Planning Statement and

that currently being brought forward as the Reading Family Golf Centre (RFGC). With so little in the way of leisure facilities in North Reading, particularly families, it is hoped that the RFGC will be well patronised; it is within easy walking and cycling distance and connections are being put in place to enable this.

Position of Reading Golf Club

- 2.11 RGC has put in place a credible, considered and endorsed business plan for its future. England Golf and Sport England have reviewed the plans and have supported these, which have also taken into consideration the financial position of the club and therefore the various proposals made for the current course and that at The Caversham.
- 2.12 As has been noted in previous submissions, RGC has been restricted from opening for early morning golf due to local objections regarding noise from mowers. Additionally, attempts to buy additional land for golf in the locality were similarly thwarted by local objection. In the same manner, lack of local patronage contributed to RGC's financial position and therefore the decision to move from Emmer Green.

Precedent for development on the RBC/SODC border

- 2.13 The concern of KEG that this proposed development could lead to further developments in the area is understood. However, planning law is well versed on this matter and whilst other development proposals can be sited as being of relevance and comparable in the determination process, ultimately every planning application has to be determined on its own merits based on the site specifics, the scheme proposals and the planning policy circumstances at that time. Approval of this current planning application does not mean that other development proposals around North Reading would be automatically approved.

Dereliction

- 2.14 The KEG response refers to Clayfield Copse as an alternative approach as to how the site could be managed. However, this would require a community group to physically and financially manage the RGC site, and we understand that this is also not the case at Clayfield Copse in terms of funding.
- 2.15 Clayfield Copse is owned by Reading Borough Council and ultimately the management and funds required for management are the responsibility of the Council. Volunteers are indeed utilised for many works, but this cannot be guaranteed.
- 2.16 RGC has put in place very credible, considered plans for management of its land as set out in Section 9 of the Planning Statement. It also draws attention to the fact that its land is in private ownership.

3.0 TRANSPORT SECTION

- 3.1 Please see following document by Stantec entitled 'Transport Response to Keep Emmer Green Objection', dated 19th March 2021.

TECHNICAL NOTE

Job Name: Reading Golf Club
Job No: 45675
Note No: 5500/TN07
Date: 19/03/21
Prepared By: Dale Harvey
Subject: Transport Response to Keep Emmer Green Objection

1. Introduction

- 1.1. This note has been prepared to respond to comments raised relating to traffic and transport by the local group Keep Emmer Green (KEG) in their objection to the Reading Golf Club planning application to Reading Borough Council (RBC) ref:210018.
- 1.2. The structure of this note is as per the KEG traffic and transport objection document to enable a direct response to queries raised. Therefore, the following sections are titled to match the KEG report.

2. Questionable Data in the Applicants Plan

- 2.1. As set out in Table 4.5 of the Transport Assessment (TA), there are 499 car parking spaces on site. This number is as required based on RBCs parking standards.
- 2.2. RBCs parking standards are set on local factors such as accessibility and car ownership, therefore it is reasonable to assume that 499 cars may well be on site in total. However, not all cars will be in use at the same time and will not all depart/arrive at the development during peak hours. There are many surveys across the country contained within the TRICS database that show traffic levels generated by residential developments are not solely directly proportionate to the amount of car parking provided. Other factors also affect vehicle trip generation such as a sites accessibility and demographic. Traffic generation of the site has been based on a robust industry standard approach, agreed with RBC, using data sets and information such as the TRICS database, Department for Transport National Travel Survey, Census data (at a local scale), provision of local facilities and accessibility of the site via sustainable modes of transport.
- 2.3. The use of garages as parking spaces complies with RBC parking standards. 101 garages have been included as parking spaces, which will be built at 7m x 3m as per RBC parking standards for residential development. RBC request the larger sized garages so that they can accommodate both vehicle parking and storage so that they are useable spaces to avoid additional on-street parking overspill.

DOCUMENT ISSUE RECORD

Technical Note No	Rev	Date	Prepared	Approved (Project Director)
45675/5500/TN007	-	26/03/21	Dale Harvey	Phil Brady

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- 2.4. The LinSig model results of the Prospect Street/Peppard Road signalised junction are based on the day that the traffic survey was undertaken. Peak hour traffic and congestion in Reading fluctuates significantly and is affected by different aspects that are out of RBC's control such as road traffic accidents and emergency roadworks. It is not the developers obligation to take such factors into account. We have taken an industry standard approach to the assessment, agreed with RBC, to survey an agreed study area on a typical day in neutral month, e.g., not during school holidays. These surveys form the basis of the assessment.
- 2.5. National Planning Policy Framework states:
- In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*
- *a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
 - *b) safe and suitable access to the site can be achieved for all users; and*
 - *c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.*
- 2.6. Part C is of relevance to this point. It is the developers obligation to not create a significant impact on the transport network. It is not the developers obligation to solve existing congestion issues, nor design for one off emergency events.
- 2.7. The predicted impact of traffic generated by the development is seen as a comparison between a completion year assessment with and without development. In this instance, the completion year is assumed as 2026. Please refer to TA paragraph 7.5.10 which sets out the impact of development traffic in the morning peak hour of four additional queuing vehicles, which is considered insignificant impact. However, as set out in TA paragraph 7.5.11, there is greater impact in the PM peak hour with an increase of 14 queuing vehicles. As stated in TA paragraph 7.5.12, the developer is providing mitigation for this predicted impact by contributing an appropriate amount of funds to RBC to upgrade the traffic signals to better manage traffic at the junction. This approach is agreed with RBC as suitable to mitigate impact from development traffic and therefore is not considered to constitute a significant impact in terms of NPPF. It also complies with RBC policy TR3 as the impact is not considered to have a material detrimental impact on the functioning of the transport network.
- 2.8. Table 8.6 and 8.7 of the Traffic and Transport ES chapter do contain an arithmetic error. The percentage impacts are incorrectly shown, but it is noted that the vehicle numbers are correct. Please refer to the Traffic and Transport ES Chapter Addendum where this arithmetic error has been corrected. The conclusions of the ES chapter are unaffected.
- 2.9. The TRICS database has been used to determine person trip rates, and has not been used to determine car driver mode share. It is acknowledged that mode share of person trips varies across the country and is affected by factors such as location, accessibility and public transport services. However, the amount of people trips generated by housing development relates more to unit types and sizes. Therefore, sites with bungalows were removed from the TRICS results as these could potentially be retirement properties and therefore not provide a representative person trip rate for this development.

TECHNICAL NOTE

3. Impact on Kidmore End Road

- 3.1. The largest increase in peak hour traffic on Kidmore End Road is predicted between the residential site access junction and Grove road at 131 and 153 vehicles in the AM and PM peak hours respectively. On average across the hour a little over two cars per minute. Due to the relatively low traffic flow on Kidmore End Road surveyed in 2019, 200 and 189 vehicles in the AM and PM peak hours respectively, the increase in trips does show as a relatively large percentage increase. However, the total flow predicted on Kidmore End Road, existing plus development, is still a relatively low peak hour flow for a single carriageway. Junction assessments in the TA confirm this, with a predicted increase in queue on Kidmore End Road of 1 vehicle in both peak hours, demonstrating that the road and junction can cope with the low flow of traffic.
- 3.2. However, the large percentage increase does require mitigation as part of the ES in terms of severance to pedestrians. This has been mitigated by delivering raised, informal crossing locations on Kidmore End Road. These crossings also provide a route that avoids pinch points on the footway. See Appendix B of the TA, response to RBC comments for further detail on this point.
- 3.3. There is a section of Kidmore End Road where parked vehicles create a narrowing and essentially a one way working section of carriageway. Traffic surveys were undertaken to understand how much delay this causes. The results are summarised in Table 3.3 of the TA which shows average delay to be relatively low. In fact, this narrowing essentially acts as a traffic calming feature on a residential road close to a play area, primary school and secondary school. The increase in traffic flow due to development is not considered sufficient to require widening of the carriageway to two way.
- 3.4. The results of the junction assessments show that the development is not predicted to create a material detrimental impact to the functioning of the highway network and therefore does not breach policy TR3.
- 3.5. Paragraph 8.3.51 of the ES sets out the likely HGV movements relating to construction traffic, as a worst case. These are between 10 and 25 two-way trips per day, not 100 as stated by KEG. Please refer to paragraphs 8.3.44 to 8.3.51 for more information on this.
- 3.6. Construction traffic will create a temporary impact, however this can and will be managed through a Construction Environmental Management Plan (CEMP). Construction traffic (HGVs) will be limited to off peak periods and will not be permitted to access the site, and travel along Kidmore End Road, during the busier peak hours. Therefore, it will not cause a detrimental impact to delay on Kidmore End Road.
- 3.7. A CEMP will be secured via condition and will set out all appropriate routes, controls, rules and mitigation required to create the least impact possible. As part of this, RBC can check road condition before and after construction and reasonably request repairs are undertaken if evidently caused by construction traffic.
- 3.8. This is an industry standard approach to dealing with construction traffic and therefore not considered a planning issue.

4. Wider Traffic Issues

- 4.1. As set out previously, it is the developers obligation to not create a significant impact on the transport network. It is not the developers obligation to solve existing congestion issues, nor design for one off emergency events. The assessment seeks insignificant impact from development traffic, not to improve traffic across north Reading. The assessment is based on an industry standard approach and agreed with RBC.

TECHNICAL NOTE

- 4.2. Cumulative impacts of other developments in the area have been accounted for in the TA through the use of TEMPro. Background traffic growth, relating to growth in jobs and housing, is included and added onto the base year surveys to create the assessment year which is a reference case for the development traffic impacts to be compared against. This is an industry standard approach and agreed with RBC.

5. Construction Traffic

- 5.1. See response above – paragraph 3.5 to 3.8.

6. Traffic Within the Proposed Development

- 6.1. The spine road has been designed inline with RBC residential design guidance. Refer to TA Appendix B response to RBC comments for further detail on this point.
- 6.2. An emergency access is provided via the health centre access and droppable bollards. Please refer to TA paragraph 4.2.8.
- 6.3. Access to private land situated in South Oxfordshire District Council (SODC) does not form part of this planning application.

7. This Development is Not Accessible by Sustainable Transport

- 7.1. As set out in section 6 of the TA, this development site is considered accessible via sustainable modes of travel and show that the proposals do meet the requirements set out in NPPF to promote sustainable transport.
- 7.2. The Travel Plan that supports this application is in line with government requirements and will be enforced by the council through a legal Section 106 agreement.
- 7.3. The mode share in the TA for cycling has been based on local data for trips that currently occur. Therefore, the issues listed are taken into account in the assessment, leading to a robust estimate of car trips.
- 7.4. Figure 6.1 of the RBC Transport Strategy 2036 shows that mode share for trips to and from Reading Town Centre have changed dramatically over the years with many more people choosing to travel sustainably and less people driving. There is a 54% increase in cycle trips to/from the town centre over the last ten years (pre-pandemic). This is a huge figure and demonstrates a change in habits and attitude within the town towards sustainable travel. Therefore, it is hoped that the number of people cycling would actually be greater than assessed and in fact car trips would in turn be lower than predicted as more people may be encouraged to cycle.
- 7.5. Please refer to section 4.2 of the TA. Reading buses are not objecting to the development.

4.0 LANDSCAPE SECTION

- 4.1 Please see following document by fabrik entitled 'Landscape and Visual / Landscape Design Response to KEG comments', dated 24th March 2021.

D2743 Reading Golf Club, Reading

LANDSCAPE AND VISUAL / LANDSCAPE DESIGN RESPONSE TO KEG COMMENTS

1.0 Introduction

- 1.1 This note has been prepared to provide a response to the 'Landscape and Leisure' section of KEG's objection to outline application 210018 and in particular the comments regarding the LVIA and Landscape DAS as set out in Appendix A – Report by Bettina Kirkham.

2.0 Landscape

- 2.1 The comments in this section primarily relate to the effects arising from the proposals to the setting of the AONB, the landscape value and the assessment of effects. These comments are responded in detail in the following pages under section 5.0.
- 2.2 *According to Fabrik's methodology the change from that of extensive open golf course to dense housing has a major/moderate adverse effect on the surrounding houses, given the number of properties affected. It therefore does NOT comply with Policy CC8.*

Response: Policy CC8 deals with safeguarding the amenity to prevent detrimental impact on the living environment of the existing residential properties. However, it also provides guidance of a back-to-back 20 metres between dwellings which has been achieved in the scheme proposals.

3.0 Site Design

- 3.1 *The proposed health centre and flats are shown to be 12.5m high to ridge. There are no 3-storey buildings in the area and these planned buildings would be visually dominant especially on Kidmore End Road. We assert that this development would be wholly out of keeping with the local character of Kidmore End Road and the surrounding settlement.*

Response: Refer to Figure 2.1 in the landscape DAS. Three storey buildings are present along Peppard Road associated with the parade of shops and therefore within the vicinity of the Site. A three storey gable ended building, which sits taller than the adjacent two storey dwellings, exists on Kidmore End Road to the south of the Site. In addition, the health centre is set back from the main building line in Kidmore End Road, thus reducing perception of scale. Furthermore, the main bulk of the Listed Building of Caversham Park is three storey, if not greater in height in comparison with modern equivalents. It is a key feature of the local townscape. The contextual environment therefore certainly contains three storey built form and is therefore characteristic of the local townscape.

- 3.2 *The design seeks to protect some existing trees although in several cases, new homes are sited too close to these trees and overshadowing will cause future issues (see Appendix A). New planting is also proposed but much of it is sited such that it will be at risk of removal. Similarly, green buffers are proposed but these impinge on new gardens and will be at risk.*

Response: The Arboricultural Consultant has provided specific advice on matters relating to existing trees and has held numerous meetings with officers to agree the principles accordingly. The majority of the existing tree stock will be retained and protected and this

retention principally relates to the high quality trees on site. It is further noted that it is the Golf Club that has been responsible for the planting and stewardship of the majority of these trees.

In terms of proposed trees, these are all a minimum 5m away from the centre of the stem to the edge of any building structures. This has been carefully considered in relation to relevant building standards and in relation to the anticipated shading from the particular tree species anticipated at maturity. The proposed tree planting is located wholly within the areas of public realm and includes large tree species along the spine road, which will be maintained and managed accordingly by an estate management plan to ensure their successful establishment and longevity. There is no reliance on planting in rear gardens.

Furthermore, to state also that new planting will be at risk of removal is conjecture. New planting must be properly maintained in order to successfully establish & grow on, in the years following completion of the development. Provision will be made, via an appropriately worded planning condition, for ongoing care and maintenance and for trees which fail (for whatever reason) to be replaced, if/when this occurs.

- 3.3. *The proposed plan does NOT have an effective green link, despite the applicant's claim and it being a condition of CA1b.*

Response: Local Plan paragraph 4.2.61 clarified that Green Links either denote an existing link or indicate the potential link providing connectivity for wildlife between ecologically important areas. It states that: "It should not necessarily be interpreted as a precise line, rather it may indicate an indicative potential connection between areas." The proposed Green Link in the scheme was to demonstrate the continuous tree planting along the centre of the Site, together with the ponds and bio-rich grass planting to provide wildlife values and a connection with the wider areas. To the east of the Site the green link is shown crossing many rear gardens. The green link therefore is consistent with the existing townscape to the east and comprising POS and rear gardens.

The above response is also repeated relative to Bettina Kirkham's commentary.

4.0 Open Space

- 4.1 *It is self-evident that the proposed development would result in loss of open space, contrary to EN8. The Policy is very clear that it applies to all open space in the Borough, whether publicly or privately owned, yet the applicant appears to be inferring that, because the RGC land is privately owned, it cannot count (see Appendix E). It is also clear that no replacement open space will be created. The golf course at CHGC (SODC) and the undeveloped (SODC) part of the RGC site are both already open spaces.*

The applicant argues that the development will provide new public open space within the development site. However, these areas are fragmented and realistically would only be of limited benefit, mainly to residents in the new development. They would not provide amenity or recreational value to the wider community and they certainly do not match the scale and character of the existing open space.

Response: It is agreed that under Policy EN8, Reading Golf Course is classified as open space. However, part of the golf course has already been allocated for residential development under CA1b, therefore, part of this open space has already lost its integrity. The proposals have maximised the opportunities to create an integrated settlement edge and public accessible open space within the development and aim to provide a community living. The layout has been sensitively designed and heavily driven by the retention of the existing trees. The scale of the current, undesignated open space (the golf course) is larger than the publicly-accessible open space provided in the proposals. However, in reality, the open space only serves the paid members. Whilst the open spaces in the proposals are smaller in scale, it is an inclusive design for the benefit of public use, which is of particular pertinence given existing shortfall in accessible open space within the immediate locality.

Further detail is providing within the Planning response to KEG's objection, as well as Section 9 of the Planning Statement.

5.0 Report by Bettina Kirkham

5.1 Comments on CA1b

- 5.1.1 *The Local Plan sets out the value given to the open space of the golf course. The plan was only recently adopted and there have been no changes to the site or its context since that time to justify a change in approach in landscape or visual terms.*

Response: We assume this is referring to the Local Plan Policy EN8 - Undesignated Open Space. We concur that the grounds of Reading Golf Club naturally falls within this policy. This policy does not, however, prevent the loss of space, rather it establishes a preference for retention, but also a series of policy hurdles to navigate to enable applications for development of this land to come forward. Our detailed response to this matter is provided within Section 9 of the Planning Statement, which also references the Council's own position regarding the site as set out in its Open Spaces Strategy.

It is notable that the eastern part of the golf course is allocated for residential development under Policy CA1b, so there is already an acknowledgement of loss of some of the open space on the golf course within Reading Borough.

In value terms, as with any green field site, the landscape value of the landscape elements and then the overall landscape value has been assessed in the LVIA. Overall, we have judged the value of the character of the site as being medium, considering the combination of low and high value features and elements within the site. The Site is not covered by a landscape designation at the national and regional level, therefore, it does not score high value.

- 5.1.2 *Reading's commitment to open space, tree quality and planting and bio-diversity is set out in their recent strategies. If more open space is needed, as suggested by the applicant in offering land within South Oxfordshire, it should be within the Borough and in close proximity to the existing residents to serve that community, not 800m from the nearest access point on Kidmore End Road. The proposals provide nothing to contribute to the important current sports and leisure function of the golf course land in Reading.*

Response: To serve the proposed development 1.96ha of open space is required (excluding sport). The proposals deliver 3.57ha of public open space wholly within Reading Borough and within the Site. This includes the pocket park, amenity green space and natural / semi-natural space and accessed from Kidmore End Road. A contribution to off-site sports provision has been offered to RBC as part of the proposed planning obligations. On this basis, no additional open space is required to serve the proposed development and the proposals therefore exceed that necessary on site by 1.61ha.

With the exception of the off-site contributions for sport, the other off-site measures within the Borough relate to the delivery of improved biodiversity. This acknowledges the Council's own aspirations within its Biodiversity Action Plan, as well as localised planting that has occurred elsewhere within Emmer Green. Whilst other proposals are not not within the RBC administrative area, the benefits of tree planting, allotments and publicly accessible open spaces will be appreciated by the Reading residents; such type of benefits do not stop at borough boundaries, as evidenced by local use of this land during the first lockdown and the connections of this land to Bugs Bottom and through to Kidmore End Road. In particular, the planting of trees adjacent to Cucumber Wood, lies at the head of a local valley that extends into the centre of Reading. The planting of trees beyond the Site whilst in another authority does therefore contribute to the existing setting to Reading.

Further detail regarding our approach to Biodiversity is provided in the document entitled 'Response to Keep Emmer Green objection on grounds of Ecology and Conservation', dated 18th March 2021.

5.3 Green links

- 5.3.1 *There is no continuous green space through the centre of the development, although this appears to be an aspiration by the applicant. Starting from the western end of the site in the red line area, the open space is severed by three roads and taken up by 2 SUDS ponds. This area is also disconnected from the open space to the south by housing. A reasonable area of open space links to the main central space. However east of here the landscape forms part of the main access road corridor with very limited potential for open recreation. To keep the best trees on the site, the scheme also includes small pockets of open space. Although welcomed, these are isolated and enclosed.*

Response: There is no requirement for a continuous green link through the site in policy terms. The landscape concept is driven in part by Policy EN12 Green Link which runs through the site. The proposed Green Link in the scheme demonstrates the continuous tree planting along the centre of the Site, together with the ponds and bio-rich grass planting to provide wildlife values and a connection with the wider areas. To the east of the site the Green Link is shown crossing many rear gardens. The Green Link within the site therefore is consistent with the existing townscape to the east and comprising POS and rear gardens.

A previous iteration of the design proposed a more continuous green link along the eastern edge of the site, but this was amended to respond to comments on layout by the Design Review Panel.

- 5.3.2 *It is suggested that the proposed open space would benefit the wider Emmer Green community. No direct landscape links are proposed and access would have to be down the new estate road. Access into the Emmer Green Primary School playing fields is shown but as these are now gated and fenced, general access is unlikely to be welcomed. The on-site open space will be of benefit to the new residents but use by the wider community would depend on for whom this open space is managed. The new residents may not welcome general use of their open space if they are paying a management company to look after it.*

Response: The proposals create a safe and accessible built environment with a range of stimulating open spaces that encourage community interaction. Footpaths are provided along the new access roads within the development. The access to Emmer Green Primary School is offered for use and both the School and the Council have been contacted regarding this matter to see whether this would be of interest.

In terms of management of the open spaces, this will be no different to other residential developments, where the general public could still use the space.

- 5.3.3 *Access into South Oxon is now provided via two cycle/pedestrian routes. These could be low key but equally, if supported by RBC and SODC, could lead to the construction of 3-4m wide paved routes if use is expected to be heavy (as an alternative to Highdown Hill Road or Kidmore End Road). This could affect tree and hedgerows on these routes and urbanise the existing rural character.*

Response: The approach to provision of the National Cycle Routes and RBC Strategic Cycle Routes in the locality, most notably through Bugs Bottom, demonstrates that environmentally sensitive solutions can be found that reconcile the benefit enjoyed by provision of greater connectivity with the need to protect and properly manage green spaces.

5.4 Tree planting

- 5.4.1 *Street trees and new planting in the open spaces are to be welcomed. These do not however justify the development and are not a benefit as they simply replace what is there now. The open space setting of the trees completely changes to that of a closely developed housing estate. Some trees are shown planted close to the adjoining new houses where at best they will have to be small species, at worst may be removed by the future residents. Although welcomed, these trees cannot be relied on to survive in the long term.*

Response: We disagree with the statement that: “are not a benefit as they simply replace what is there now...” 122no. trees are proposed to be removed, 90 of them are low quality and 11 of them are unsuitable for retention, based on arboricultural advice. These will be replaced by new tree stock. The selection and location of species has been discussed at length with the Council’s Arboricultural Officer. As much as the positive impact will be less when the tree stock is young, as with the planting of any tree, their environmental benefit, with positive maintenance and management, will only be fully realised in the medium to long term. The location of the proposed planting has been carefully considered further in the re-submission to address the ‘zone of influence’ of the proposed tree at maturity relative to

required building standards and in relation to the anticipated shading from that tree anticipated at maturity.

5.5 Private gardens

- 5.5.1 *This part of Emmer Green is characterised by large gardens with extensive shrubbery and trees. The proposed much smaller gardens, which will need to be mostly enclosed by close boarded fencing, are not in keeping with the local character.*

Response: Garden size to be commented by the Architect.

In terms of the garden boundary treatment, the garden fencing facing the public realm areas is shown as hedging in the masterplan. The treatment of private garden boundaries between each plot are not included in the submission, as this is an outline application and the details can be agreed through the RMA.

5.6 Comments on the Landscape Design and Access Statement (LDAS)

- 5.6.1 *Although this is written by Fabrik, qualified landscape architects, little is said about the baseline landscape and visual conditions on the site and its context. In addition to the above points, I have the following further comments.*

Response: The detailed landscape baseline and visual conditions are recorded in the LVIA chapter. To avoid repentance, the DAS has only included a brief summary of the findings.

- 5.6.2 *A short characterisation of the site is included under para 1.5. This does not recognise the scale of the open space within Reading at the golf course. When you are on site it appears as an extensive and very attractive open space, punctuated by trees. You are largely unaware of the adjoining settlement as houses are set back well behind trees, hedges and shrubbery. The golf course blends into the adjacent course in South Oxfordshire with its dry valleys and woodland patches. It is a quiet tranquil oasis devoid of lighting at night except around the club house.*

Response: The use of the term 'attractive' is in our opinion subjective. The open space is already reduced through the allocated site CA1b is in place. It is agreed that some of the houses are set back behind trees, hedges and shrubbery, however, a number closely border the course and are highly visible. Other properties, particularly those towards the northern end of Eric Avenue, on Highdown Hill Road and within Brooklyn Drive are more significant in scale and in many instances have been designed (including several knockdown and rebuilds or vertical extensions) to benefit from views across the Golf Course. As such, these properties are readily discernible, not simply through vegetation gaps and it is therefore somewhat obtuse to suggest no direct link with the adjacent urban form. (More internal site photos can be found in LVIA appendix. Photograph 5, 10 and 13 demonstrate the findings.)

The golf course is still a man-made and manicured landscape which continues into the dry valleys and levelled valley slopes within South Oxfordshire.

- 5.6.3 *No mention is made of the renowned international founding designer of the Golf Course, James Baird, who as well as a successful golfer, designed or contributed to up to 400 courses.*

His contribution is encapsulated by the James Braid Golfing Society. He was succeeded by Harry Colt, described by Golf Monthly as one of the greatest golf course designers of all time. He too was followed by Phillip Mackenzie Ross, another renowned course designer. The course is described as a beautiful gem in many golfing websites. This reflects a course of high landscape value, for its heritage, design associations, its attractiveness and leafy setting and also its contribution to the open space and character of north Reading.

Response: The assessment of the landscape value complies with the methodology, which has been agreed with the officers at RBC. The judgements on value correlate with the criteria set out in the LVIA Methodology Appendix Table 1, which takes account of planning designations, heritage assets and views experienced from the locations identified in guidebooks and on maps (in accordance with GLVIA3 (para 6.37). Whilst the landscape value also takes into account of non-statutory designations and other values to society, which may be expressed by the local community or consultees, however, the golf course cannot be classified as high value according to the methodology, as the category of high value is referring to landscape at the national or regional level. In this context, the site was also not to be considered of such high value further to scrutiny during the Local Plan process; RBC allocated the eastern part of the proposed application site for residential development.

- 5.6.4 *The site is not typical urban fringe, as suggested in the LDAS, with connotations of degradation. It is quality amenity landscape set within spacious well treed housing. It does not strongly contrast with the adjoining open countryside into which the golf course extends, including Chiltern dry valleys, woodlands, trackways, plateau ridges, and hedgerows. Well laid out golf courses are also feature of the landscape character of this part of the Chilterns.*

Response: The Site is bound by the settlement edge to the east, south and the west (including dwellings and community buildings). This is the settlement of Reading, albeit the sub-district of Emmer Green. Emmer Green itself is sub-urban in character. It is not a rural village or hamlet. The Site lies on the edge of the settlement and therefore the settlement fringe. Golf Courses are typically found on the settlement edge or fringe. There is no statement in the LDAS to suggest that it is a degraded landscape.

The Site lies between rows of residential dwellings, a retirement home, a local surgery, a school and community buildings. Whilst the golf course does extend into the dry valleys and woodland to the north, the landscape has also been modified to flatten out the sloping topography and is not a pristine rural Site.

- 5.6.5 *The design objectives are the basic mitigation that you would expect for a scheme of 257 houses: retention of TPO trees, required provision of open space, replacement tree planting, SUDs, pedestrian and cycle routes. These are not landscape benefits.*

Response: Unlike other typical green field sites, the existing trees are a key feature and constraint of the Site. The development parcels have been sensitively placed in order to retain the characteristic lines of trees which have been supplemented with additional trees to reflect the tree pattern of the golf course. The open space, replacement tree planting, SuDs, pedestrian and cycle routes provide an outdoor living opportunity to the residents and the wider local community. These are all local benefits on a course that is currently only accessible by its membership.

The arrangement of the built form has allowed space for both the retention and enhancement of the Site's vegetated framework. It also creates over 3.5ha public open space, which exceeds the policy requirement. This calculation excludes the area proposed for SUDs.

Furthermore, additional tree planting to the north of the site, will be of benefit to the contextual landscape.

- 5.6.6 *Para 3.3 and Figure 3 refer to the woodland planting off-site in Oxfordshire. This planting is of no benefit to Reading Borough's Tree Strategy.*

Response: For this particular site, a bespoke solution to address the RBC Tree Strategy has been taken. Whilst the compensatory tree planting to address the shortfall of replacement planting lies outside of the administrative boundary, the benefits of tree planting does not simply stop at administrative boundaries. There is a long tradition of 'borrowing the landscape' in design terms. There are significant benefits of planting a new woodland adjacent to Cucumber Wood, at the head of a valley landscape that extends into Reading and there will be indirect benefits to the Borough through planting in this location.. As with any planting, there will be some losses and over time and the woodland would need to be selectively thinned to ensure the even development of the tree canopy. There is an opportunity for this woodland to be a future ancient woodland and therefore an extension to Cucumber Wood. Furthermore, this planting will benefit from active management to ensure its successful maturation, this in a location which is visible from the neighbouring public rights of way and from the dwellings that back on to the golf course.

As with the planting of any tree, their environmental benefit, with positive maintenance and management, will only be fully realised in the medium to long term.

- 5.6.7 *The northern edge of the development is shown with a very narrow band of vegetation which appears like a hedge with a couple of trees. This is insufficient as a buffer to integrate the edge of the development into the landscape of the wider golf course within the setting of the AONB or to screen the development. Concerns were raised in 2020 by SODC in this regard.*

Response: From a landscape and visual perspective, views of the northern edge of the Site from the wider SODC, including the AONB, from public vantage points are limited by the combination of topography, built form and vegetation. There are no direct views into the northern edge of the Site from public vantage points or any dwellings with views specifically designed to focus on this northern boundary. Furthermore, the land to the north is privately owned by the golf club. As such, no specific landscape mitigation measures were identified along this edge, other than individual tree planting to intersperse the built form.

5.7 Comments on LVIA

- 5.7.1 *Although the methodology and figures are produced by Fabrik, the LVIA has been written by Temple who are not landscape architects and have no landscape expertise. This alone undermines the validity of the LVIA. The following comments apply to the site itself. My comments on the LVIA in respect to the land within South Oxfordshire are set out later. There have been no changes to the LVIA in the new application but they have submitted some Addendum. These consistently down play the impacts remains. They have not identified any*

improvements as a result of the changes. The story is just of losses – 4 existing trees and 0.06 less POS.

Response: The LVIA was prepared by fabrik, chartered landscape architects and co-ordinated by Temple. The work has been reviewed by chartered landscape architects with over 20 years' experience of working on a range of EIA projects, including greenfield sites. Therefore, the validity of the LVIA is not undermined.

In terms of impacts, as with many developments, the most significant effects are those which occur on the site itself or in the close proximity to the Site. This is often the case for landscape and visual receptors which is then considered in the overall planning balance. In our opinion, we have set out that effects on the site landscape receptors would range between minor to major adverse through both construction and operation. Effects on the surrounding visual receptors would also vary depending on their position relative to the site, whether immediately adjacent or set back and also in terms of the degree of openness of the view.

However, to say that there are no benefits is not strictly correct. There will be benefits arising through:

- the planting of the additional woodland area (which can be implemented early on in the construction phase, rather than as is usual with landscape works at the end of the construction programme. Whilst this is proposed as compensation for the removal of trees within the application site, this will lead to positive effects on landscape character beyond the site boundary;
- increase of publicly accessible routes through the site;
- provision of publicly accessible green space which exceeds the policy requirement; and
- replacement of low category trees with new tree stock which overall will maintain the longevity of the tree stock within the site.

The proposals introduce new built form to an existing man-made landscape which is already influenced by the existing settlement edge and for which it has been determined that the CA1b allocation is acceptable in policy terms.

5.8 Policy

Although the LVIA lists the policies it makes no attempt to assess the impact of the development against these policies.

Response: ES Chapters typically do not provide an assessment against policy. That is the purpose of the planning statement and more detail is provided specifically in Section 9 of that document.

5.9 Valued Landscape

I suggested in my response in 2020 that the landscape could be regarded as a valued landscape under 170 a) because of the wording to CA1b. Carolyn Jenkins, Landscape Services Manager, does not say it is a valued landscape as such but she does describe the site as high

quality open space, because of the landscaped setting through which the golf course meanders. In terms of its existing landscape contribution, it brings the green belt right into a residential suburb. The LVIA Addendum concludes that the site: Whilst providing a settlement fringe green landscape, it is not a pristine rural landscape and is at the lower end of the value scale relative to NPPF Para 170 a. This suggests that the authors consider this landscape does fall within the remit of NPPF 170a. If so, it gains the protection of 170a: protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan).

Kidmore End NDP proposes to include the golf course land in South Oxon within their Local Value Landscape policy LPLV and also sets out evidence that the land is within the setting of the AONB. The NDP completed its Regulation 14 Consultation in January 2021.

Response:

Firstly, the use of the term green belt is misleading in the above. The golf course is not designated as a Green Belt, nor does it border any national or regional landscape designation, whether in Reading Borough or South Oxfordshire. In addition, there are no on-site landscape designations.

To clarify, we are not suggesting in the LVIA that the site landscape falls within the remit of NPPF Para 170a, but that this forms the starting point to considering value. Para 170a refers to the protection and enhancement of valued landscapes in a manner commensurate with their statutory status or identified quality in the development plan(Emphasis added). Figure 3 of the LVIA shows an extract of the Reading Borough Council Local Plan Proposals Map. The eastern section of the golf course is allocated for residential development and identifies a route for an existing or proposed green link. It is a private golf course. It is not designated as a local green space. It is therefore at the lower end of the value scale, especially considering its settlement edge location.

Furthermore, RBC has considered such matters in allocating the eastern section of the site for residential development. As such, the future baseline of the Site is expected to change.

The proposed compensatory tree planting adjacent to Cucumber Wood is within SODC administrative area and does not form part of the planning application. Similarly, the open spaces proposed and uses within this area does not require planning permission. As such, the application focuses on that proposed within the site and to any of-site mitigation within RBC administrative area. In this regard, an assessment of the land to the north has not been prepared relative to the setting of the AONB and on these grounds the second part of the KEG paragraph on the valued landscape matter is misleading relative to the application site. A separate response to the Kidmore End Neighbourhood Plan has been made regarding the proposed Local Value Landscape policy LPLV, which is considered inconsistent with National, Regional and Local Plan policy.

5.10 Baseline landscape character

- 5.10.1 *Like the LDAS, the LVIA underestimates the landscape value of the site. Collectively, the TPO trees on site, the open swathes of well managed grassland, the well vegetated boundaries and large garden setting and the corner Local Wildlife Site / Local Nature Reserve create a valuable and considerable area which is open space by definition. Lack of public accessibility does not devalue its landscape quality. It is however enjoyed visually and for informal dog walking by a large local community.*

Response: The landscape value has been assessed in line with the methodology. The methodology has been accepted by RBC officers. As stated in the LVIA chapter, the landscape character value of Reading Golf Club overall is judged to be Medium, taking into account of the settings of landscape elements, such as the Ancient Woodland and valley floor. This represents the combination of the local designations.

Whilst it may be used for informal dog walking, as stated previously, this golf course is private ground, so unless the dog walker is a member, it is not open for informal dog walking by the local community save for along the Public Right of Way which exists across the 10th hole, which is in South Oxfordshire and does not form part of the application site.

The proposals create new public footpaths across the Site, providing an improvement for access locally, as well as a series of linkages through the land in South Oxfordshire to join up with the existing national and local cycle and footpath networks. Connectivity and therefore opportunity for greater enjoyment of what has previously been private land will provide significant local benefit.

- 5.10.2 *The site does not contribute visually to the setting of the AONB as it is separated visually by woodland and the local topography. However, the golf course clearly contributes to the setting through its shared special qualities and landscape features which are contiguous with the wider landscape of the AONB.*

Response: The RGC does not border the AONB and the application site is set well away from the northern edge of the golf course, meaning that significant distance and physical separation exists.

Notwithstanding this, in terms of the shared qualities and features of the AONB, the application site does not display the following special qualities of the AONB (as defined in the AONB management plan):

- Panoramic views;
- Chalk grassland, chalk streams and chalk escarpment;
- Farmland, common land and parkland and woodland (including ancient);
- Woodland;
- An extensive and diverse archaeological landscape;
- Industrial heritage, distinctive buildings and stately homes; and
- National trails, ancient route ways and sunken lanes.

It is acknowledged however, that the site contains hedgerows and trees which are included as one of the special qualities; and that it is relatively tranquil with relatively dark skies, which is another of the special qualities. However, equally, the site does lie adjacent to the

existing settlement edge which contains dwellings, a school and community buildings, so is on the edge of the lit built environment. In our opinion, the link with the AONB setting relative to the application site is tenuous.

- 5.10.3 *The LVIA makes little or no reference to the landscape in South Oxfordshire nor does it test the proposals against the SODC landscape character landscape guidelines and policies.*

Response: The landscape character study in SODC was included in the LVIA under the County Level Landscape Character section. As it states, the Site lies adjacent to the LCA 10 – Chilterns Plateau with Valley and the LCT (Landscape Character Type) of Semi-enclosed Dip Slope and Amenity. An assessment of the effects on the contextual landscape character areas is also included in the assessment.

5.11 Landscape assessment

- 5.11.1 *There are two main problems with the assessment of impact: over generalisation of the landscape feature or viewpoints assessed so that it becomes meaningless; and the many incidents where the Fabrik methodology has not been followed properly. By way of example, the context to be considered must be the receiving context, often that within 1km, not an area extending as far as Henley or the Thames. In this case there are just two main landscape receptors, the adjoining settlement and the immediate open countryside, which must also be assessed separately.*

Response: The landscape features were assessed based on the elements within the Site or the contextual setting of the Site. These have been assessed individually and collectively in terms of landscape character, which therefore sets out a clear and transparent assessment as required by GLVIA. For the contextual adjoining settlement this is broken down into topographic setting; land cover setting; woodland and vegetation pattern; public rights of way; open space; settlement pattern; building heights and urban grain; movement corridors; contextual skyline; and historic and cultural landscape. A further analysis and assessment of the landscape character of the surrounding area to the site has also been carried out, to address comments from Natural England. The landscape assessment therefore is not a generalisation.

The assessment does not extend as far as Henley. This town is only mentioned in terms of setting out its relationship for movement corridors. The River Thames is an important landscape feature to the south, as it influences topography and is therefore relevant.

The viewpoint locations were agreed with the officers prior to preparing the LVIA and covering all the visual receptors in the local area, including residential (including those within Listed Buildings), community facilities, transient receptors using road corridors, transient receptors using the public rights of way, public open space users and those within the designated landscape. The viewpoints from the distance demonstrate that views of the Site from the AONB are obscured, even in the winter months.

- 5.11.2 *The LVIA undervalues the contribution from the topography. In this area topography is a key feature and a special feature of the Chilterns, including plateaux above valleys. Topography of the context should be Fabrik's high value.*

Response: The topography of the study area includes both the Chilterns AONB and the urban area of Reading to the south. Therefore, the overall value is Medium as it states in the LVIA.

- 5.11.3 *A LVIA high-medium value is rightly attributed to other contextual receptors but it should also apply to the surrounding settlement. The housing context of the site is exceptionally attractive with well designed houses in mainly well vegetated large gardens. Roads are flanked by grass verges, mature trees, and form local suburban routes or, in the case of South Oxfordshire, narrow winding tree lined lanes. There is an absence of intrusive elements and presence of quiet suburbia, only broken by varied higher levels of traffic. The value of the settlement should be the higher end of medium. Nor is the building height or urban grain of low value. The openness of the settlement and 2 storey context should be of medium value which are sensitive to changes in building heights and density of built form. The LVIA assessment reflects the downscaling of the value of the receiving landscape. Table 4 incorrectly summarises the values.*

Response: With the exception of Listed Building and the Registered Park and Garden of Caversham Park, there are no landscape or townscape designations covering the built form which elevate the landscape value. A range has been applied accordingly.

However, it should be noted that the magnitude of change is anticipated to be minor, as the proposals will not physically alter the landscape or townscape elements outside the application boundary.

- 5.11.4 *Table 6 summarises value attributed to the site itself. None of the features should be classified as low when referring to the Fabrik methodology. I agree with the LVIA that the tree cover and landscape features, including the lack of detracting features, places these into the high category. However, it is also the historically important land cover, low rise single clubhouse building and topography which contribute to the value of this landscape. Based on Fabrik's methodology, these elements would become on the high side of medium value.*

Response: In terms of the topography, as it states in the LVIA, it has been modified to create the initial teeing and practice putting grounds, inconsistent with the natural topography present in the wider landscape. Therefore, the value was judged to be low.

The values attributed are either low, medium and high in accordance with the methodology which has been agreed with officers. There appears to be common ground that medium value is accepted, regardless of which end it sits towards, lower or higher.

The value of the land cover was judged to be ranged between medium to low (due to its ordinary perceptual quality of the car park).

5.12 Assessment of landscape effects

- 5.12.1 *I refer to Table 9 which sets out the results of the assessment. No attempt has been made to evaluate the susceptibility to change or the resulting landscape sensitivity as required of the methodology. As set out above the value of the landscape receptors has been downgraded in many cases. In this table the magnitude of change has also been downgraded leading to some very misleading results in the Significance of Effect.*

Response: The susceptibility and sensitivity were assessed for each receptor in the main body texts. They were not listed in Table 9 to keep it simple. The comments about the value of the receptors have been explained above.

For the magnitude, as with many other developments, often negligible or minor adverse for the contextual elements, minor, moderate to major adverse for the site elements, depends on the scale of changes, its geographic extent, duration and permanence and reversibility.

As with the development of any greenfield site, the most significant effects are those which occur on the site receptors and in the immediate context. These have been carefully considered and a range applied, as effects reduce away from the immediate site edges.

5.12.2 *The following are a couple of examples:*

The LVIA suggests beneficial results for the Contextual Landscape, County level Landscape, Local level Landscape, Site Land Cover, Movement and Public Rights of Way, Building Heights and Form and Site Character. However, nothing in the proposals, treated as a whole, provides any benefits to the landscape character and appearance of any of these receptors. On the contrary, a third of the open golf course which contributes positively to the local context, local character, the site and the neighbourhood will be lost to housing, its infrastructure, modern day lighting, parking and traffic. There is the loss of the green wedge coming into Reading, a common and valued feature of the interface between the rural Chilterns and the settlement, as at Bug's Bottom, and on site day and night tranquillity. None of this is beneficial.

Response: The positive contribution that the golf course of the application site plays is limited to a local geographic extent. It is often only those residents that back onto the site that have this appreciation, or those transient receptors which pass the limited site frontage as part of a journey. There will be benefits arising on the local landscape from the implementation of the new woodland and provision of the new public right of way. Furthermore, albeit it different to the existing character, it is considered by virtue of good, high quality design, that the proposals can deliver a positive contribution to the townscape. The adverse effects on the existing landscape receptors have been clearly set out in the LVIA.

5.12.3 *Adverse effects are downplayed. In assessing the magnitude of change both the effect on the receptor, such as a tree but also its setting, should be considered. The effects on the site cover, trees and other vegetation and site character should be at least moderate adverse rising to major adverse, similar to Temple's assessment of night-time effects.*

Response: The effects on setting to receptors and the individual receptors on site have each been considered within the LVIA. The effects on site landscape receptors does state that effects would range from minor to major adverse and therefore the comment above is misleading.

For the site receptors, it is assessed that the magnitude of change is often major, however, the effects are moderated taking into account balancing the loss of non-publicly usable space to public accessibly open green space; the retention of the high-quality trees; and the provision of new tree planting.

5.13 **Baseline visual**

- 5.13.1 *I am happy with the winter views which set out the 'worst case' regarding visibility. It is worth remembering that this openness covers 5-6 months of the year. The coverage of viewpoint locations is generally fine. Although each individual property has no right to a view, collectively the high number of properties with a view of the site forms a considerable community, which includes residents and users of the school and Emmer Green Youth & Community Centre, which will also be affected by the proposals. The visual receptors of one type have been bundled together but clearly the effects on some will be worse than others. Again, although the value has been determined, there is no assessment of susceptibility to change and resulting sensitivity.*

Response: In terms of susceptibility to the proposed change, this is set out in the main body of the text, which is combined with value to determine sensitivity in accordance with GLVIA3. It is recognised that this will vary dependent on location, type of view and the length of time experienced etc and this is captured in the LVIA.

The effects are generally more significant for those in the immediate context than those at distance. The effects are generally assessed and described separately relative to the type of receptor. For example, the significance of effect was given for residential receptors in both close proximity and in the surrounding local area. Again, susceptibility and sensitivity are assessed in the main body of each receptor, but also the range considered relative to the openness, character and amenity of the current view.

- 5.13.2 *The value attributed as a result is very underplayed. With the exception of views from the Chilterns, of which there are none, their assessment of the value is mostly low, although in most cases the residential properties are orientated to take advantage of the views over the golf course and should at least be of medium value.*

5.14 Assessment of visual effects

- 5.14.1 *Using Fabrik's methodology, for most of these views the views change completely from that of the extensive golf course to housing in very close proximity, therefore the significance of effects for the residential properties would be major-moderate adverse across the board as set out in the LVIA. Given the number of viewers affected this level of harm is not acceptable.*

Response: Views from the adjacent residential properties are not protected or designated, nor from a listed building or a valued landscape, therefore, the value of these views is generally low. The dwellings around the site generally back on to the site. However, even if elevating the value to medium, due to the susceptibility to the proposed change and the magnitude of change, the significance of effect would remain as major-moderate adverse.

In terms of viewers, it is also noted that there is an inconsistency of approach taken. On one hand, it is noted that the adjacent settlement is barely appreciable, but on the other it is expected that impact on the 'number of viewers' of the site is not acceptable. In Section 9 of the Planning Statement it is set out that the actual number of houses with views over the Golf Course is relatively low. In addition, many of the direct views are taken from set back positions, over high hedging and with intervening vegetation and trees.

5.15 Growth rate

- 5.15.1 *Assumptions have been made on growth rate. An average growth of 300mm per annum after the first year of establishment is reasonable for young stock so planting at 60cm to 1m high will achieve on average 4.2m in 15 years. Mature planting stock at 5m on the other*

hand takes time to establish and therefore would not reach 9.2m, as suggested, in the same time scale. The screening effects of the planting have therefore been exaggerated.

Response: We have assumed that for all planting there would be no growth in year 1, but have then applied 300mm per year thereafter as a broad rule of thumb (which is based on guidance set out by the Forestry Commission Research Centre). As such therefore, over 15 years it is assumed that an average of 280mm per year could be achieved, considering that all good practice horticultural measures are taken in the initial planting in accordance with British Standards and with positive and regular maintenance and checks of the new tree stock.

The assessment does not propose screening of the proposed development, as effectively the proposed planting supplements the existing tree stock in an arrangement that reflects existing groups and lines of trees.

5.0 SOCIAL SECTION

Healthcare and Education

- 5.1 Our assumptions in terms of healthcare and education requirements are set out in Chapter 6 of the Environmental Statement (ES).
- 5.2 The applicant has engaged heavily with the NHS in terms of determining existing and future demand for healthcare services and has proposed an appropriate solution in terms of the size and type of floorspace required, not only to resolve that related to the development, but also the existing acute need in the locality. It is noted that delivery of a health centre of the scale proposed is not a requirement of planning; it is not for the applicant to resolve existing issues, but it is offered as part of a wider planning obligations package as part of the Club's commitment to meaningful legacy.
- 5.3 The applicant has also sought to engage with Emmer Green Primary School and with the Council's Education Services and Brighter Futures for Children as part of both pre-application and post-submission processes. Whilst KEG's submissions are noted, it is considered that the approach as proposed within Chapter 6 of the ES is robust and appropriate to the development.
- 5.4 In addition, it is notable that none of the local Primary Schools (Emmer Green, The Hill, Caversham Primary) has required a 'bulge year' in recent years, i.e. an additional form entry, with some of these local schools also not filling intake. Further, as set out in the Council's Schools Admissions Arrangement documents for 2021 and 2022 intakes, it is clear that a two-form entry is anticipated for local primary schools. The Heights Primary School is being completed and will be ready for September 2021 intake, which will further provide capacity.
- 5.5 In terms of secondary provision, it is understood that a new Academy School is being prepared, which will be formed of an 8-form entry secondary school and a 300-place Sixth Form and therefore take current pressure off Highdown

School, which sees a significant number of pupils bussed in on a daily basis.

5.6 Given the above, it is contended that a strong position exists to accommodate new schools and healthcare requirements; some of this will be delivered directly by the scheme, whilst other aspects are being delivered by other existing initiatives and through supporting CIL and S106 contributions, including potentially via this application.

5.7 The Local Plan has accounted for this level of growth and further discussions with relevant departments can take place over the course of this application, any following reserved matters submission and during the course of construction to c. 2026 to ensure that assumptions regarding child yield can be accommodated within existing and proposed infrastructure and services.

Mix and Type of Development

5.8 A number of statements are made within the Social section of the KEG submission in relation to the scale, mix and type of development proposed and whether it is needed or appropriate. Appendices M and L of the Social section provide KEG's further explanation.

No need for the scale of development proposed

5.9 Statements are made that there is no need to provide the amount of housing proposed as:

- RBC is able to demonstrate a 5YHLS
- There are many other brownfield sites on which homes could be built
- The Local Plan only allocates 35 dwellings per annum to be delivered in North Reading

5.10 Based on RBC's latest Annual Monitoring Report (AMR) from December 2020 covering the 2019/2020 period, the council considers that it can demonstrate a 5YHLS. We do not seek to challenge this conclusion at this stage but would

state that this is only one perspective of housing supply relating to the Borough as a whole.

- 5.11 However, when the housing delivery and supply position is considered more specifically for North Reading, the position is not so healthy. The Local Plan states that approximately 700 dwellings are to be delivered in North Reading, equating to 35 dwellings per annum over the plan period. Nevertheless, the Local Plan only identifies sites for up to 365 dwellings. The AMR states that 106 dwellings have already been completed over the plan period, but this is behind the target per annum, equating to just over 15 per annum. Only 6 dwellings were delivered in the last reporting year, and this was pre-pandemic for all but the last couple of weeks of the period. On this basis, housing delivery in North Reading is clearly falling behind target.
- 5.12 Furthermore, when the completions and the Local Plan allocations are combined, totalling 471 dwellings, this falls short of the 700 dwellings targeted in the Local Plan for North Reading by some 229 dwellings. We have not undertaken a detailed review of all permissions/commitments, but it is not thought that commitments or sites have been identified to make up all this shortfall North Reading – some 101 dwellings are committed at St Martin’s Precinct, 199-207 Henley Road, Gardner’s Arms PH, Prior Avenue and Gosbrook Road. As such, another 128 dwellings would actually be needed to meet what are *minimum* Local Plan targets. It is presumed that this provision is anticipated to be delivered through windfall development.
- 5.13 In addition, proposed changes to the Government’s Standard Methodology potentially require the Council to deliver a further 187 homes per annum, which may threaten the 5YHLS position and also certainly require densification of development sites and/or release of further land for development. As set out in Section 9 of the Planning Statement, it is considered that delivery of the South Reading housing sites will either not achieve the numbers identified by the Council or will fail to provide the family and affordable housing desired; the nature of land ownerships and regeneration required make it difficult in this regard. Historically, the Council has also been able to secure an average of c.20% affordable housing in the Borough, this primarily being to the cost of

bringing forward regeneration sites for development.

- 5.14 The Council's draft Affordable Housing SPD sets out the very real challenge facing the Council and, on this basis, we consider that the site at Reading Golf Club represents a rare and meaningful opportunity to redress the affordability imbalance that exists.
- 5.15 There is also a defined need to deliver greater housing in North Reading in order to meet Local Plan targets. The brownfield land register referred to in the KEG representation actually includes a significant number of sites which are already committed through permissions and allocations, rather than new sites. This is particularly the case for North Reading.
- 5.16 In stating that there is no need to over-achieve against the annual housing targets and provide one large estate, KEG fails to recognise a number of points:
- That the annual housing requirement is not being met currently
 - The committed development of housing and allocations falls short of the 700 dwelling target set in the Local Plan by approximately 130 dwellings, comparable to the increased provision proposed at RGC
 - The sites and development coming forward are primarily small scale or unplanned windfall development
 - That changes in Governmental Standard Methodology on housing need are likely to require the Council to deliver more housing within the Borough area.
- 5.17 Were there to be alternative medium/large scale sites for development in North Reading, they would more than likely have been identified and included in the Local Plan, and therefore any windfall development that does come forward will almost certainly be small scale. Small scale, piecemeal development, particularly that which is unplanned, will not contribute to the provision of mitigating infrastructure in the same way that a single larger scale development can, particularly with regard to affordable housing, despite CIL contributions being generated. Delivery of infrastructure be it works to highways, support for public transport, or additional healthcare and school

capacity, all have a critical mass which cannot be met by small developments in isolation, resulting in pressure on infrastructure in the interim.

5.18 Furthermore, small scale sites are much less likely to meet the mix of housing need to contribute to balanced communities and are more likely to be flatted developments. Further detail on the mix and type of housing proposed is addressed in the following section.

5.19 It is considered that the proposed development at RGC, subject of this planning application, significantly helps to meet the Local Plan target for North Reading and enables the necessary, crucial infrastructure to be provided not only to support level of development identified in North Reading, but to deal with acute need in many instances, particularly in respect of family housing, affordable housing and healthcare.

Housing Mix

5.20 Appendix L to the Social Section of the KEG representations states that there is a contradiction in the Strategic Housing Market Area Assessment (SHMA) identified need for family housing of 3 or more beds, and the fact that the North Reading area already has more 4+ bed housing and less 1 and 2 bed housing. KEG has again missed the point of these figures, implying that new larger housing is not needed as larger housing already exists in the North Reading area.

5.21 It is not disputed that North Reading has a higher proportion of larger housing; it is unsurprising given its more suburban characteristics, but this accounts only for existing housing; the SHMA addresses future needs for new housing, on top of existing provision. The two do not therefore contradict each other. The SHMA states that some 60% of new market housing is required as 3 bed or larger. Affordable housing requirements for 3+ bed housing is much lower at just under 25% but affordable housing makes up a smaller proportion of the housing need overall and what will be delivered; RBC seeks 30% affordable housing provision in Local Plan policy.

- 5.22 The KEG representations state that the SHMA is 5 years out of date. It is agreed that the document was published in 2016, but it is nevertheless the most up to date published housing need position covering Reading Borough and represents the Local Plan policy basis for considering housing mix. If the document is to be considered out of date, then it is worth considering how the need may have changed in the interim. The housing delivered since 2016 would be useful in understanding whether the need for larger 3+ bed housing has changed. Taken from the AMRs since 2016, the permitted housing by mix is as follows:

Year	1 Bed units	2 Bed units	3+ Bed units
2019/20	79%	18%	3%
2018/19	40%	48%	12%
2017/18	46%	46%	8%
2016/17	32%	46%	22%

* AMR figures rounded

- 5.23 It is clear from the above that the need to deliver larger 3+ bed housing will only likely to have increased given the provision that will be coming forward in the Borough being overwhelmingly 1 and 2 bed, and predominantly as flatted development. Whilst there is currently no documented evidence, it is contended that the Covid pandemic will further increase the demand for larger properties with gardens (houses rather than flats) as a result of people requiring more space for home working (something pointed to in KEG's own representations) and a general reassessment of what they seek from a property.
- 5.24 By contrast to the recently permitted development within the Borough, the proposed development at RGC proposes 62% of the accommodation as 3+ bed houses, a significant provision, in line with identified needs in the SHMA.

Type of Development

- 5.25 In part 4 of the Social Section of the KEG representations, they question whether the development would attract people wishing to downsize stating that "locals living in spacious houses with large verdant gardens will be keen to

downsize into compact houses with small gardens...”

- 5.26 We would argue that that is exactly the point for those that do wish to downsize. They do not want or need to have a larger house, nor wish to have a large, high maintenance garden. The scheme in this manner provides opportunity for those wishing to get onto the housing ladder, as well as those seeking smaller accommodation at the top end of the market. KEG notes in its own submissions about a high number of empty nesters residing in Emmer Green and so the application, if approved, will allow relevant local residents to contemplate more sustainable forms of living, allowing substantial bedroom releases for families wishing to move into the area to benefit from.

6.0 ECOLOGY AND CONSERVATION SECTION

- 6.1 Please see following document by The Ecology Co-Op entitled 'Response to Keep Emmer Green objection on grounds of Ecology and Conservation', dated 18th March 2021.



The Ecology Co-op

ENVIRONMENTAL CONSULTANTS

Unit 4 Langham Stables, Langham Lane, Lodsworth, West Sussex, GU28 9BU

Tel: 01798 861 800, E-Mail: info@ecologyco-op.co.uk

18th March 2021

Ref: Land at Reading Golf Club Planning App No 210018 – response to Keep Emmer Green objection on grounds of Ecology and Conservation

To whom it may concern,

The letter has been produced to discuss the reasons for objection by Keep Emmer Green (KEG) on planning application No 210018, currently being considered by Reading Borough Council. The Ecology Co-op undertook a suite of protected species and habitat surveys at Reading Golf Club across 2018 and 2019 and subsequently produced an Ecological Impact Assessment (EclA), Landscape and Ecology Management Plan (LEMP) and Biodiversity Impact Calculation report and we are therefore very familiar with the constraints and opportunities posed by this development.

Whilst some of the objections raised within the 'Ecology and Conservation' document produced by KEG have no relevance to ecology (this document also references historic significance, Archaeology and built heritage), I have tried to respond to the objections that are relevant to protected species, habitats and general biodiversity within this letter, in turn. Please note that I have left all matters relating to TPO's, tree stocking and other arboricultural issues that are discussed in this document to be covered by James Bell at Arbortrack. I have therefore responded only to points raised under Section 2 'Ecology and Nature Conservation' within this document.

1. *"The Applicants proposal does not provide an effective green link either as identified in the Local Plan proposals map in relation to EN 12 or as required in CA1b"*

The Reading Borough Council Local Plan states that the development proposals at Reading Golf Course should *"provide a green link across the site from Kidmore End Road to the remainder of the golf course, rich in plant species and habitat opportunities"*. The proposals brought forward within the application have included the incorporation of a variety of new habitats that are detailed in the LEMP, including the following:

- The creation of four new wet grassland areas to be planted with a mixture of sedges, rushes, grasses and wildflowers included within Emorsgate seeds mixture EM8 (see section 3.1.1 of the LEMP).
- The establishment of two new species-rich grassland habitats to be sown with a calcareous wildflower meadow mixture EM6, also by Emorsgate seeds (see section 3.1.2 of the LEMP).
- Planting of no less than 120 new native trees targeting value for invertebrates, breeding birds and bats (see section 3.1.3 of the LEMP).
- The establishment of no less than 430metres of new species-rich hedgerow habitat as set out in section 3.2 of the LEMP.

The proposals do therefore clearly achieve the creation of valuable habitats that are not presently found on the application site. The development layout has also clearly sought to retain existing tree lines that lead from Kidmore End Road through the site and northwards towards the remainder of the golf course as illustrated in figure 1 below.

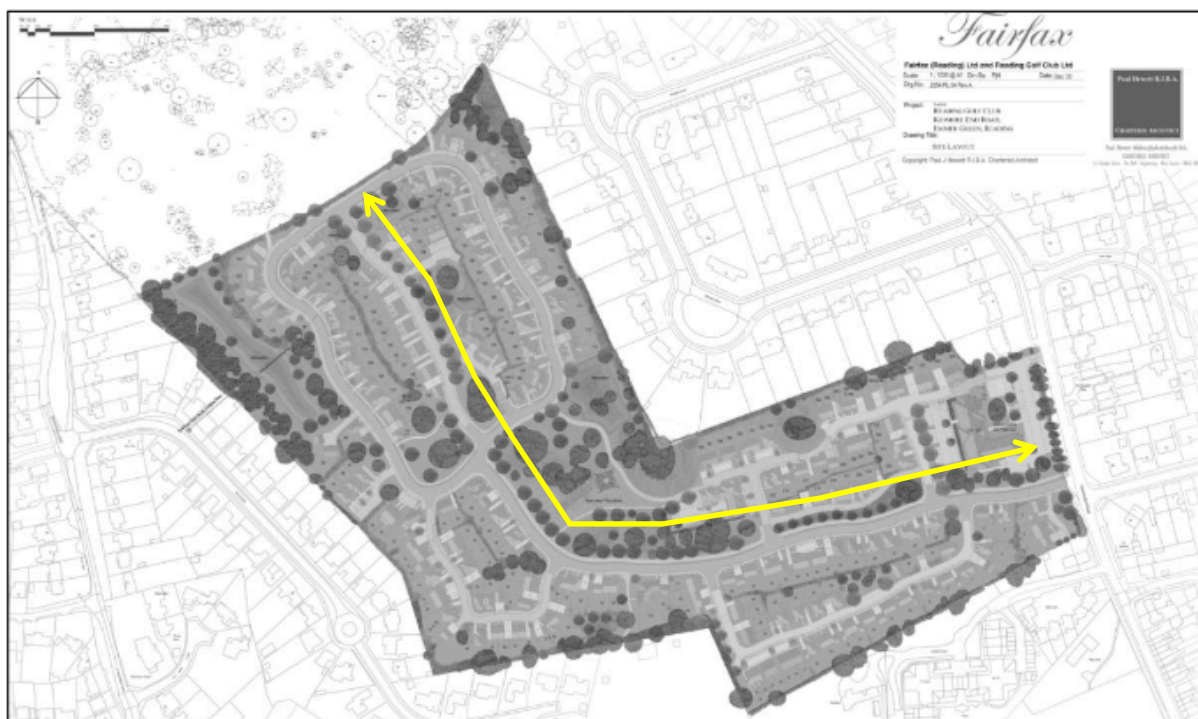


Figure 1. The retention of a tree line leading from Kidmore End Road to the wider golf course to the north.

2. *"The site includes an 'Area of identified biodiversity interest', which will suffer significant pressure due to the proposed development"*

There is indeed a very small area identified within the local plan in the northwestern corner of the red line boundary. This parcel of the site lies outside of the proposed construction zone and comprises of broadleaved woodland, which was identified in the EclA to qualify as priority habitat as Lowland Mixed Deciduous Woodland (Section 41 of the ERC Act 2006). The potential impacts to this parcel of woodland have been considered within the EclA and protections can be implemented both during and post construction through the provision of an appropriate Construction Environment Management Plan (CEMP) and the implementation of protective measures that have been detailed within section 2.1 of the LEMP.

3. *"Rare bat species, tawny owls, kite nesting and many other bird habitats are on site, yet the applicant vastly under-estimates the impact on them. The Ecological Impact Assessment outlines considerable harm to invertebrate habitat, badger habitat, breeding bird habitat and bat habitat"*

The presence of protected species does not preclude development, and the process of completing an Ecological Impact Assessment is to determine the nature and scale of impacts to species and habitats, prescribe appropriate mitigation, compensation and enhancement measures and determine what the residual effects will be. The EclA has set this out clearly and acknowledged what the impacts might be to these species in the absence of appropriate measures. The EclA has however determined that these impacts can be appropriately mitigated and compensated through the measures that are provided in detail within the accompanying LEMP.

4. *"The light levels on the site will change from ILE Environmental Zone E2 to E3 and will have an adverse effect on nocturnal wildlife."*

Within the LEMP, measures have been set out to ensure that the green spaces retained/created within the site are carefully managed to ensure that there is an absence of any artificial light (see section 4.2 of the LEMP). The development has also committed to adhere to guidance produced by the Bat Conservation Trust (BCT), with key commitments on artificial lighting also set out in section 4.2.

5. *“Hazel dormice may be present on the proposed site”*

It is acknowledged that it is not possible to prove the absence of hazel dormice where there is suitable habitat, given the cryptic nature of this species. A dormouse presence/likely absence survey was conducted by the Ecology Co-op that adhered to best practice guidance as set out in the Dormouse Conservation Handbook produced by English Nature and this survey did not identify any signs of dormouse activity. It was identified from the initial Phase 1 Habitat survey at the site that the suitability of habitats at Reading Golf Club within the application site are sub-optimal and the conclusion of likely absence of this species from the survey effort appears consistent with this conclusion.

6. *Insufficient protection has been provided for bats. The initial surveys are now out of date. They were also inadequate in identifying potential roosting sites.*

The surveys at Reading Golf course were completed within the 18 month submission period for this site (final survey visit was October 2019) and this is in line with Chartered Institute for Ecology and Environmental Management guidance. The appendix accompanying the document suggests that bats have not been appropriately considered owing to a lack of survey effort associated with the clubhouse and an aerial inspection of only 8 of the numerous trees present at the site.

Both of the buildings present at the site were determined to have a negligible potential to support roosting bats based upon an internal and external assessment of these buildings by a licensed surveyor. This discounts the need for any further detailed survey of these buildings.

I believe there is a misunderstanding as to the number of trees assessed for bat roosting suitability. All of the trees at the site of an appropriate size were subject to a Ground Level Tree Assessment (GLTA). This assessment identified 9 trees with features that were determined to have features suitable for roosting bats. A climbed inspection of these trees was then undertaken where safe to do so (two trees could not be climbed for safety reasons), which meant a total of 8 trees were subject to close aerial inspection. All of the trees identified to have low, moderate or high suitability for roosting bats are to be retained based on the development layout. I believe this illustrates a comprehensive assessment of all potential bat roosts present at the application site.

7. *The badger sett identified is not as inactive as the applicant claims*

Badger setts may become established, cease to be used and old setts may become active again at any time of the year and we will be happy to investigate any new badger activity identified. The EclA and LEMP both specify the need for updated surveys every 6 months which will be undertaken leading up to construction, subject to planning consent. The sett entrance identified in both Figure 13 and Photograph 10 of the EclA was subject to monitoring using a train cam across the period 29th May-11th June, which would have captured any badgers entering or leaving the sett, however no badgers were identified during this period.

I understand that it is felt by KEG that Photograph 10 appears to show signs of disturbance and therefore an indication of activity, however this photograph was taken following an inspection of the suspected sett, which may have caused some of the visible disturbance. It is also possible that at the time the photograph was taken (January 2019), the sett might have been active, but became inactive later that year whilst the trail cam survey was being undertaken.

Badger activity may continue to change at the site over time and the mitigation proposals for the scheme will be adapted as required to ensure that this species is protected from harm.

8. *On very optimistic assumptions, the site is predicted to suffer a >15% reduction in biodiversity. The applicant's claim to a future 10% gain is highly misleading and relies on off-site mitigation, which cannot be assured nor delivered in the short-medium term*

The calculations used for the biodiversity change at the site are based on the Phase 1 Habitat survey map produced for the application site. For the avoidance of doubt, biodiversity change calculations are based solely on habitat value and not on accounts of any fauna (as suggested in Appendix O of the KEG document). The Phase 1 Habitat survey for Reading Golf club has made an accurate account of the habitats present and whilst the preliminary survey was undertaken in January, this survey aims to establish if any habitats that might require further more detailed assessment are present. The habitats present within the site and more specifically the footprint of the development comprise largely of improved amenity grassland that is intensively managed as fairways. Whilst there are areas of rough grassland within the areas of scattered trees between fairways, the floristic value of this habitat was identified to be poor and repeated visits to the site by the survey team throughout 2019 for subsequent survey visits confirmed this.

It is incorrect to suggest that the site will suffer a >15% reduction in biodiversity as a result of the development, as this ignores all of the enhancements proposed within the LEMP. The use of off-site biodiversity receptors is standard practice when tackling a biodiversity net gain requirement. This application has sought to use targeted enhancements for known land parcels that will benefit the local area, whilst it is commonly accepted to utilise off-site receptors through brokers such as the Environment Bank through financial contributions. The use of a broker such as the Environment Bank is an option for this development to ensure the 10% net gain requirement, however this is not considered to be as beneficial as the proposals brought forward, which will ensure more localised benefits for biodiversity within the community.

I hope that this letter addresses all of the concerns raised within the KEG report, however I will be happy to comment further if requested.

Kind regards



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7.0 WATER AND DRAINAGE SECTION

- 7.1 Please see following document by Temple Group entitled 'Response to Keep Emmer Green Comments on Hydrology and Water Resources', dated 22nd March 2021.

Report



TEMPLE

LEADERS IN ENVIRONMENT,
PLANNING & SUSTAINABILITY.

Report for – Fairfax (Reading) Ltd and Reading Golf Club Ltd
Reading Golf Course
Response to Keep Emmer Green Comments on Hydrology and Water Resources
Final

Document version control

Version	Date	Author	Reviewed by	Reviewed and approved by
1.0	22/03/2021	James Mortimer	Charlie Irwin	James Sanders

Report for: **Fairfax (Reading Ltd and Reading Golf Club Ltd**

Main contributors: **James Mortimer**

This report has been prepared by Temple Group Ltd with all reasonable care and diligence within the terms of the contract with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the contract. We accept no responsibility to third parties to whom this report, or any part, thereof is made available. Any such party relies upon the report at their own risk.

1.0 Introduction

- 1.1.1 This document contains the response to the recent comments raised by Keep Emmer Green (KEG) regarding Water and Drainage at the proposed development of Reading Golf Course, Kidmore End Road (the Site). We understand that the comments were submitted as a formal objection to the outline planning application (ref: 210018) which is currently being reviewed and pending decision by Reading Borough Council (RBC).
- 1.1.2 These comments have been addressed by Yellow Sub Geo Ltd (Yellow Sub) on behalf of Temple rather than Stantec UK Ltd as the author (James Mortimer) moved between the two companies in December 2020. As a key author of the SuDS strategy and Environmental Statement Chapter her has first-hand knowledge of the Site.
- 1.1.3 This response is presented following the same structure as the KEG comments to aid clarity.

2.0 Assessment of the Applicant's water and drainage proposal

2.1 Environment Agency (EA) consultation:

- 2.1.1 The EA will be formally consulted as part of the planning application. The proposed drainage scheme (SuDS) is in accordance with current best practice (including the SuDS Manual, Ciria C573) and provides sufficient levels of attenuation and treatment of surface water run-off prior to discharge to ground.
- 2.1.2 We acknowledge that the Site falls within the Total Catchment of a Source Protection Zone (SPZ3), however historical records place the rest groundwater level at approximately 35m below ground level (m bgl). Whilst some variability may be expected, groundwater is not anticipated to be within 20m of the ground surface. This significant thickness of unsaturated zone coupled with the adherence to best practice in SUDS design are considered to combine to minimise the impact on the underlying aquifer.
- 2.1.3 Therefore, we do not expect the EA to require completion of a hydrogeological impact assessment as part of the application.

2.2 Thames Water (TW) consultation:

- 2.2.1 A pre-development enquiry with TW is currently being undertaken by the Applicant. This will establish existing capacity for waste and potable water and whether reinforcement is likely to be required to cater for the proposed development. If it is indicated that the existing network requires reinforcement to service the Proposed Development, detailed modelling will be undertaken to establish exactly what is required and the timeframes for completion and connection. This is undertaken by TW and not until at least outline planning has been obtained. This will take place in due course should the development be approved.

2.3 Presence of solution features:

- 2.3.1 The ground investigation undertaken by IDOM (ref: GEA-21962B-19-476, November 2019) did not identify the presence of solution features on Site but recognises their potential presence in the wider area based on the local geological sequence. We would note that the site investigation works to date have been to support the initial design process and planning application and hence have been scoped proportionately to that end. Further ground investigation works will be undertaken in due course to support the detailed design of the proposed development thereby increasing the spatial resolution of ground investigation points and data.
- 2.3.2 The accurate prediction of solution feature presence is not possible. However, we acknowledge that the local geological sequence (with chalk cropping out beneath some of the site) and local topography (elevated position with reasonable depth to groundwater) indicates that their presence on Site cannot be discounted. Whilst there is a cost associated with remediating said features (if present), this does not preclude development. Therefore, at this stage of works we do not agree that the level of detail provided is inadequate for RBC to reach a decision.

- 2.3.3 By design, the infiltration basins are not located in areas to be developed with structures, and hence not in areas that may require grouting. As grouting will only be undertaken beneath structures, this will not interact with the areas of proposed infiltration.

2.4 History of Flooding

- 2.4.1 The EA published map of surface water (pluvial) flood risk is reproduced in the Temple/ Stantec Flood Risk Assessment and Sustainable Drainage Systems (SuDS) Strategy (ref: 67058R1REV1, June 2020) Appendix C. This map acknowledges the pluvial flood risk both on Site and along Kidmore End Road as presented in the KEG response (Appendix C).
- 2.4.2 The proposed SuDS strategy will improve the current situation with regards to surface water run off as follows:
- Whilst the Site is currently largely undeveloped, the shallow subsurface geological sequence (particularly in the south of the Site) comprises cohesive deposits. In periods of heavy and/ or prolonged rainfall, these deposits would likely become quickly saturated leading to overland flow (greenfield run off rate – shown in the Stantec report as 4.6l/s). This overland flow would follow the topography which results in discharge in the north-east corner of the Site. This is represented on the EA surface water flood risk map. The proposed development SuDS strategy has been designed to intercept surface water falling on hard surfaces and discharge this to ground following suitable treatment and attenuation, thus decreasing the volume of water flowing overland to the north-east corner.
 - The surface water flow path which crosses the Site, will be intercepted by the SuDS system and incorporated into the infiltration basin. This shows that only under extreme circumstances (i.e. when the exceedance routes are required) will surface water continue to leave the Site and affect Kidmore End Road.

3.0 Hydrological impact Assessment

- 3.1.1 As discussed above, the SuDS strategy for the proposed development has demonstrated that all surface water can be collected, attenuated and discharged to ground in accordance with current best practice. The depth to groundwater (likely to be >20m bgl) shows that a considerable unsaturated zone is available during all seasons which will therefore not affect downstream receptors.
- 3.1.2 Therefore, we do not consider there to be a technical requirement to undertake detailed hydrological or hydrogeological impact assessments. Note that potential grouting is discussed below.

4.0 Appendices

4.1 Report lacks a position from Thames Water and Environment Agency

- 4.1.1 This is covered in Section 1 and is therefore not discussed further.

4.2 Tree planting and removal

- 4.2.1 The removal of trees as part of the proposed development will only be undertaken once agreement is sought from RBC and following advice from expert ecologists and arboriculturists.
- 4.2.2 The future removal of mature trees protected by a Tree Preservation Order (TPO) may only be undertaken following a successful planning application to RBC. Failure to do this, and undertaking the work without permission, is a criminal offence therefore this is not considered further herein.
- 4.2.3 The SuDS strategy for the Site is in accordance with current best practice (as discussed in Sections 1 and 2) and all calculations consider several scenarios including the current greenfield run off rate, proposed development in its current context and making a significant provision (40%) for Climate Change throughout the life of the development.
- 4.2.4 With regards to the “loss or deterioration of irreplaceable habitats including ancient woodland” we would refer you to the ecological reports on this matter.
- 4.2.5 With regards to the “polluting the ground around them, changing the water table or drainage of woodland or individual trees” we note the following key points:
- 4.2.6 The SuDS strategy demonstrates how surface water drainage of the development and discharge to ground can be undertaken without causing pollution to the underlying aquifers or nearby receptors;
- 4.2.7 Groundwater beneath the Site is likely to be >20m bgl therefore, the discharge of surface water from the development in an attenuated and controlled manner is not considered to have a material effect on the groundwater level;
- 4.2.8 The closest ‘woodland’ is considered to be Cucumber Wood which is located down gradient of the Site and also noted to be located directly on the White Chalk. Therefore, given the previous discussions here about the depth to groundwater, this receptor is not considered to be hydrologically or hydrogeologically affected by the proposed development.
- 4.2.9 For individual trees on Site, it is unlikely that they would have relied on groundwater (which is anticipated to be >20m deep). As part of the proposed development, whilst a proportion of surface water shall be conveyed to the attenuation basins, another portion will be drained in-situ using permeable paving systems. The provision of these areas across the Site will continue to provide moisture to the shallow subsurface which will be available to the root system of individual and groups of trees (both existing and proposed).
- 4.2.10 Based on the above we do not consider that the removal of selected trees on Site will affect the overall hydrology and that the findings of the SuDS strategy remain relevant.

4.3 Drainage and historical flooding

4.3.1 Please refer to Section 2 which should be read together with the below.

4.3.2 Surface water (pluvial) flooding within and surrounding the Site has been considered in detail within the Stantec report. The KEG response notes “the Golf Club have closed the golf course due to waterlogging on 25 days in the past 18 months and only allowed restricted access on a further 16 days”. Whilst this may be the case, golf courses are treated as sensitive and well-manicured surfaces and the closure of the course due to waterlogging is likely to be more frequent than under other scenarios to prevent excess damage. However, as discussed in Section 2, we note that the southern portion of the Site is underlain by more cohesive strata which, during heavy or prolonged rainfall may become saturated leading to standing water and potentially overland flow. This has been accounted for within the SuDS strategy with all surface water run off in the southern parts of the Site conveyed, attenuated and discharged where recorded permeability results are better. Therefore, this is not considered further.

4.4 Future development

4.4.1 Much research has been carried out into the effect of urban creep and its impact on SuDS systems which cater for urban areas. In accordance with the National Planning Policy Framework (NPPF), it has been shown that, over the lifetime of a development, urban creep can increase impermeable areas by as much as 10%. This is in accordance with the Local Authority SuDS Officer Organisation (LASOO) guide (ref: Non-Statutory Technical Standards for Sustainable Drainage: Practice Guidance, 2016) and the maximum potential urban creep value (10%) has been adopted within the SuDS strategy for the proposed development.

4.4.2 The relevant table from the LASOO guide is reproduced below.

Residential development density (Dwellings per hectare)	Change allowance (% of impermeable area)
<25	10
30	8
35	6
45	4
>50	2
Flats & apartments	0

4.5 Geological instability and solution features (sink holes)

4.5.1 Please refer to Section 1 which should be read together with the below.

Solution features:

4.5.2 As noted, the presence of solution features on Site has not been indicated by existing ground investigation data and further Site specific data will be captured as part of the

detailed design stage. However, as outlined above this does not preclude development of the Site and as such is not considered further herein.

- 4.5.3 With regards to solution features ‘aiding permeability’ the White Chalk is an impermeable stratum which relies on secondary permeability (fractures and fissures) for its transmissivity. Should a solution feature be present, we would expect to see rapid/instantaneous infiltration of the water used as part of soakaway testing which was not observed during the IDOM site investigation. Therefore, it is considered that the SuDS strategy has adequately taken into account the natural infiltration potential of the strata present which have not been artificially increased by voiding or similar (in other words, even if solution features are present, the IDOM soakaway test pits were unlikely to have been located on them). As noted above, in due course further data will be captured to further demonstrate the effectiveness of the proposed drainage solution.

Grouting:

- 4.5.4 At present, there is no data to support the requirement for widespread compaction grouting of solution features on Site. If grouting (or piling) is required, as demonstrated by future detailed site investigation, then a suitable risk assessment will be undertaken regarding the proposed grout mix, flow and potential leachability. Grout/ concrete mixes will be designed to be appropriate for the Site conditions and, if required, only utilised upon agreement with the EA. Any design will require limited grout flow away from the injection point to remain effective as a means of ground stabilisation which, coupled with the White Chalk reliance on secondary permeability and down gradient location of the infiltration basins will not affect the use of infiltration drainage for the proposed development.

Potential contamination of groundwater

- 4.5.5 As noted above, at present there is no evidence to suggest that grouting is required at the Site. Therefore, with the exception of our comment above regarding suitable risk assessment and future agreement with the EA, this does not require further consideration.

Loss of aquifer storage

- 4.5.6 As above.

Contamination of nearby borehole

- 4.5.7 See Section 1 which demonstrates the proposed SuDS system is compliant with current best practice including for water quality discharges.

Non-compliance with Environment Agency policy N7

- 4.5.8 We feel this concluding remark is covered in all sections above and that there is no technical requirement at this stage to undertake detailed hydrological or hydrogeological impact assessments for the Site.

8.0 POLLUTION SECTION

- 8.1 Please see following documents by Stantec entitled 'Air Quality Response to Keep Emmer Green Objection', dated 19th March 2021.

TECHNICAL NOTE

Job Name: Reading Golf Club
Job No: 45675
Note No: 3009/AQ001
Date: 19/03/21
Prepared By: Daniel Francis
Subject: Air Quality Response to Keep Emmer Green Objection

1. Introduction

- 1.1. This note has been prepared to respond to comments raised relating to air quality by the local group Keep Emmer Green (KEG) in their objection to the Reading Golf Club planning application to Reading Borough Council (RBC).
- 1.2. An air quality assessment was undertaken, and an air quality Environmental Statement chapter was prepared as part of the planning application (ref:210018).
- 1.3. The structure of this note is as per the 'KEG pollution v2' document to enable a direct response to queries raised. Therefore, the following sections are titled to match the KEG report.
- 1.4. CO₂ emissions are not discussed in this response and replies can be found in the sustainability section.

2. Scope of Air Quality Assessment (Appendix A)

- 2.1. The study area is standard for this type of development and is not 1km. It is clearly stated in paragraph 7.3.4 and shown below. In situations such as the road network, the study area extends to up to 2km from the site boundary for *appropriate* roads which meet the below criteria.

- 2.2. "7.3.4 The study area adopted for this assessment is as follows:

- *for the construction dust risk assessment the study area (based on IAQM, 2014 guidance¹⁷) is defined as comprising the area up to 350 m from the Site boundary and 50 m from the route used by construction vehicles (up to 500 m from the Site entrance(s));*
- *for the demolition and construction phase road traffic emission assessment, the study area includes all roads along which demolition and construction traffic generated by the Proposed Development will travel.;*

DOCUMENT ISSUE RECORD

Technical Note No	Rev	Date	Prepared	Checked	Reviewed (Discipline Lead)	Approved (Project Director)
3009/AQ001	-	26.03.21	DF	KH	KH	PB

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TECHNICAL NOTE

- *for the operational phase road traffic emissions assessment the study area (based on EPUK / IAQM, 2017 guidance¹⁶) includes the Site and all roads (and adjacent properties) located within 250 m of the Site boundary and any other roads where operational traffic generated by the Proposed Development is predicted to exceed the EPUK / IAQM screening criteria (as outlined in Volume 4, Appendix E: Air Quality)."*

3. Proposals do not meet requirements of Planning Policy (Appendix B, C, D)

4. In regard to Appendix B, where it states that in 7.2.9 "the plan requires all local authorities in England which DEFRA has identified as having exceedances of the Limit Values in their areas past 2020". Section 7.4.1 in the chapter states that there are no exceedances of the annual mean NAQO predicted in either 2018 or 2021 by DEFRA's Pollution Climate Mapping (PCM) in which this basis of exceedance is judged.
 - 4.1. In regard to appendix C, as set out in section 6 of the Transport Assessment, this development site is considered accessible via sustainable modes of travel and shows that the proposals do meet the requirements set out in NPPF to promote sustainable transport. There is a Travel Plan to promote the use of sustainable transport that supports this application. It is in line with government requirements and will be enforced by the council through a legal Section 106 agreement.
 - 4.2. In regard to appendix D, it is acknowledged that people will need to travel to Caversham, Reading and indeed beyond. The mode share in the Transport Assessment for cycling has been based on local data for trips that currently occur. Therefore, the issues listed, such as gradient and cycle theft are taken into account in the assessment, leading to a robust estimate of car trips.
 - 4.3. Figure 6.1 of the RBC Transport Strategy 2036 shows that mode share for trips to and from Reading Town Centre have changed dramatically over the years with many more people choosing to travel sustainably and less people driving. This evidence shows that of trips to and from the town centre there has been 54% increase in cycling, a 32.5% increase in trips by bus and a 12.7% decrease in trips by car. These are significant figures that demonstrate a change in habits and attitude within the town towards sustainable travel. Therefore, it is hoped that the number of people cycling would actually be greater than assessed and in fact car trips would in turn be lower than predicted as more people may be encouraged to cycle or use public transport.
 - 4.4. This robust estimate of car trips has been inputted into the air quality model and the impacts upon the Air Quality Management Area (AQMA) have been assessed. Caversham and in particular Peppard Road has been assessed thoroughly in the dispersion model with concentrations modelled at 5 receptor sites. The model has also been verified against NO₂ measured at five diffusion tubes in this area, which is well above standard for this type of development.

5. Demolition and Construction Dust (Appendix E)

- 5.1. Construction dust risk assessments are undertaken with the best information available at the time. Firstly, the building volume for the two buildings is still expected to be under 20,000 m³. Secondly, if the demolition dust emission magnitude was defined as 'medium', when combined with the 'high' sensitivity of the area to dust soiling impacts, it would still produce a 'medium' risk of construction dust impacts to dust soiling without mitigation.

TECHNICAL NOTE

- 5.2. There is no requirement for compensation to any sensitive receptor as the IAQM guidance on construction dust is clear that in situations where appropriate mitigation is in place, the construction dust impacts are always judged as not significant. Dust emission magnitudes are given separately for construction, demolition, earthworks and trackout as is standard industry practise and mitigation measures for each are recommended independently, with the highest construction dust risk dictating general site practises. Mitigation measures provided in 7.7.2 are industry standard for this type of development as is found in IAQM guidance¹.

6. Incorrect NAQO (Appendix F)

- 6.1. This is incorrect. The chapter clearly references the annual mean NO₂ NAQO throughout where required. For receptors where the 1-hour mean objective is relevant, the annual mean is also required to be met. Paragraph 7.3.26 refers to the relevant NAQOs shown in Table 7.1 and 7.2, which clearly states where and when the hourly or annual mean are applicable. In paragraph 7.3.28, the report refers to Table 7.3, in which all calculations are clearly based on 40 µg/m³ (the annual mean objective). In addition to this, in Table 7.10 which describes the receptors modelled, the footnote clearly denotes receptors where only the 1-hour mean NAQO is applicable.

7. Emissions will be felt over a larger area (Appendix G)

- 7.1. In Table 6.2 of the 'Land-Use Planning and Development Control: Planning For Air Quality'² guidance and in paragraph 7.3.4 of the chapter, the operational phase road traffic emissions assessment covers all worst-case roads where operational traffic generated by the proposed development is predicted to exceed the screening criteria. No further roads were modelled as per the guidance, (section 6.17) *"If none of the criteria are met, then there should be no requirement to carry out an air quality assessment for the impact of the development of the local area, and the impacts can be considered as having an insignificant effect"*. As none of the roads described in the KEG commentary in Caversham exceed the screening criteria, then the proposed development is considered to have an insignificant impact on local air quality from traffic on these roads.

8. Particulate Matter (Appendix H)

- 8.1. PM_{2.5} has been assessed at 5 receptors along Peppard Road (R13-R17) at sites that represent DT55-DT59. There is a 0% change as a percentage of the NAQO and is within the error associated with the modelling software to be insignificant. Reading Borough Council considers these are worst-case locations due to them having placed diffusion tubes there. All five of these receptors are negligible in terms of PM_{2.5} impact. Whilst PM_{2.5} is not monitored outside of the AURN urban background site, it has been clearly modelled using industry standard software and dispersion factors and found to have a negligible impact. All impacts are under the objective.
- 8.2. The PM_{2.5} background has also been investigated in the Chapter Appendices 7.6. This is a comparison of the Defra mapped PM_{2.5} to the measured PM_{2.5} at the AURN site at Cemetery Gardens. This has shown a calibration factor of 0.603 which implies that Defra backgrounds are overestimating, and to present a worst-case assessment of PM_{2.5} backgrounds, the background concentrations were not calibrated to measured data.

¹ 'Guidance on the assessment of dust from demolition and construction', IAQM, 2014

² 'Land-Use Planning and Development Control: Planning for Air Quality', EPUK/IAQM, 2017

9.0 ENERGY SECTION

- 9.1 Please see following documents by Temple entitled 'Energy and Sustainability Strategy – Contribution to Response to KEG Feedback', dated 22nd March 2021.

22nd March 2021



TEMPLE

LEADERS IN ENVIRONMENT,
PLANNING & SUSTAINABILITY.

Report for – Fairfax (Reading) Ltd and Reading Golf Club Ltd
Reading Golf Club, Emmer Green
Energy and Sustainability Strategy – Contribution to Response to KEG Feedback

Document version control

Version	Date	Author	Reviewed by	Reviewed and approved by
1.0	22/03/2021	Jess Finnigan	Adrian Clemons	Adrian Clemons

Report for: **Fairfax Acquisitions Ltd**

Main contributors: **Jess Finnigan**
Ridge & Partners LLP

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1.0 Response to Review Comments

1.1 Background

- 1.1.1 Fairfax Acquisitions Ltd appointed Temple Group to provide an outline *Energy and Sustainability Report* for the development of Reading Golf Club, Emmer Green.
- 1.1.2 The outline *Energy and Sustainability Report* for the scheme was completed in May 2020.
- 1.1.3 Keep Emmer Green (KEG) have provided an objection to the planning application for the scheme and raised concerns on matters relating to pollution – including comments associated with carbon and climate change which fall within the scope of the initial *Energy and Sustainability Report*.
- 1.1.4 The energy and sustainability strategy for the scheme was developed in line with the planning policy and government strategy for approaching climate change at the time of the *Energy and Sustainability Report* being written.
- 1.1.5 Reading Borough Council have notably since published the *Reading Climate Emergency Strategy 2020-25* - setting out their agenda for taking action on climate change.
- 1.1.6 Clarification has also been provided by the UK government on the requirements of the revised version of Part L - Part L 2021. This forms the initial stepping stone of the UK's path to decarbonising homes as set out in the *Future Homes Standard*.

1.2 Proposed Strategy Updates

- 1.2.1 In light of the publication of the *Reading Climate Emergency Strategy 2020-25*, and also the emerging revised version of Part L of the Building Regulations, it is proposed for the following amendments to be made to the energy strategy for the Reading Golf Club scheme:

- U Values – It is proposed for the dwelling U values to be as set out in the table below this includes enhancement to the proposed U value for the roofs and windows on the proposed dwellings.

Design Element	Proposed U Value
External Walls	0.18W/m ² K
Floor	0.13W/m ² K
Roof	0.11W/m ² K
Windows	1.2W/m ² K

- PV Provision – It is proposed for roof mounted PV arrays to be provided to each of the homes - with an equivalent area of 40% of the ground floor area of each home.

- 1.2.2 These proposed updates to U values and the provision of roof mounted PV arrays to the homes aligns the strategy for the scheme with the UK government roadmap to decarbonising homes set out in the *Future Homes Standard*, and Reading's aspirations to maximise the reduction in CO₂ emissions achievable on site.
- 1.2.3 The above updates to the proposed energy strategy will aid in further decarbonising the proposed development.
- 1.2.4 The initial strategy reported a 43% reduction in CO₂ emissions over a Part L compliance baseline for the proposed homes, with a net 252 TCO₂ per annum liable for an offset payment to comply with Reading Policy H5 (£453,600).
- 1.2.5 **The updated strategy will result in an 83% reduction in CO₂ emissions over a Part L compliance baseline for the proposed homes, with a net 75 TCO₂ per annum liable for an offset payment to comply with Reading Policy H5 (£135,000).**

1.3 KEG Feedback – Section J

Feedback Relating to Scope of Energy Strategy	Response
Does the proposed development comply with local planning requirements? We agree that it meets the Policy H5 requirement to meet the zero carbon homes standard by invoking the permitted option to pay an offset fee to cover calculated residual emissions of around 250 TCO_{2e} per annum. However, it does NOT meet the ideal of the Sustainable Design and Construction SPD that (3.11) 'In achieving Zero Carbon Homes for major residential developments, the preference is that new build residential of ten or more dwellings will achieve true carbon neutral development on-site.'	Although we believe the initial energy strategy was compliant with Policy H5, we note that the proposed updates to the energy strategy set out in Section 1.2 further enhance the carbon emission reductions that will be achievable on site – achieving an 83% reduction in emissions on site relative to the current version of Part L of the Building Regulations. This significantly exceeds the minimum of 35% reduction in emissions on site required by Policy H5. The remaining emissions will be liable for a carbon offset payment - we note that this money could be utilised by Reading Borough Council to target the least energy efficient buildings in the Borough that are most at need of energy efficiency enhancement measures.
Are constructional and operational phase emissions really mitigated to an 'appropriate and reasonable' level or should they be reduced by on-site design changes? Insulation standards could be significantly better. U-values are well above typical Passive House	It is proposed to enhance the proposed U values in line with emerging government guidance – refer to Section 1.2. It should be reiterated that the proposed U values significantly exceed the minimum standards required by the current version of Part L of the Building Regulations. In the UK's roadmap to net zero carbon (set out in the <i>Future Homes Standard</i>) Passivhaus standards are not the

levels. This would reduce future running costs and carbon emissions. On-site renewable energy generation should be increased by incorporating significant numbers of PV panels on suitable roofs. Ground-sourced heat with district heating scheme (instead of air-sourced heat) would likely reduce operational CO₂ emissions.	current performance requirements expected to be met by developers. It is also proposed to include roof mounted PV arrays to each of the dwellings in line with emerging government guidance – refer to Section 1.2. The feasibility of a district heating network was evaluated in full in Section 4.5 of the initial <i>Energy and Sustainability Report</i> document and established not to be a viable option for the site. For quick reference, key issues identified are listed below: -Distribution Losses. There can be significant distribution losses associated with the pipework distribution systems required on district heating schemes. <i>CP1: Heat Networks: Code of Practice for the UK</i> sets the target for 10% distribution losses which is challenging for designers to achieve on schemes, and in reality is often exceeded in operation. Even on schemes where a 10% distribution loss target is met – this is still a significant loss of energy. The proposed local generation of heat for the dwellings reduces these transmission losses. -Development Density. District heating networks are more feasible where there is a higher density of development - for example, in large apartment blocks. This is linked strongly with the issue of distribution losses. -Operational Costs. Standing charges – incorporating management charges, cost of maintenance and funding of plant replacement can be considerable and could pose a financial burden on the future residents of the site. The feasibility of the integration of ground source heat pumps was evaluated in Section 5.2 of the initial <i>Energy and Sustainability Report</i> document – it was determined to be a less appropriate solution than ASHPs for the site. COPs (measure of efficiency) are theoretically marginally higher for GSHPs than ASHPs, however, our experience has established that the theoretical COPs for GSHPs are often not achieved in practice due to design and operational issues. Notably, adopting GSHP at scale works best if the
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	source can be 'recharged' – i.e. where fully air conditioned buildings are proposed, in summer heat can be rejected back into the ground. This is not the case on this development, and extensive arrays to serve the homes could result in degrading the source, affecting performance. There is also a greater capital cost associated with this form of technology, extensive groundworks would be required that may have a negative impact on trees and ongoing maintenance burden which would fall to the future residents of the site.
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1.4 KEG Feedback – Section K

Feedback Relating to Scope of Energy Strategy	Response
The applicant discusses the Reading Climate Strategy and summarises key points from current adopted strategy. But this was due to be replaced in 2020. In particular, the current consultation draft states: "Clusters of houses and businesses will need to be powered using collective renewable heat and electricity generation equipment." The applicant also appears to have ignored Action E10 which states: 'Renewable Heat – Ground Source – Work with developers to maximise district energy solutions in line with Local Plan policies on decentralised energy: • Establish District Heating • Investigate the potential of rivers, ground and aquifers in Reading for renewable heat • Implement heat pump schemes • Develop skills of local installers'	As addressed in the responses to comments included in Section J, the initial <i>Energy and Sustainability Report</i> document established why district heating and ground source heat pump technology were not opted for in the proposed energy strategy, in favour of air source heat pump technology. Notably this is aligning with the drive of Reading to adopt air source heat pump technologies (refer to E12 of <i>The Reading Climate Emergency Strategy 2020-25</i>) and will aid in creating a demand and development of skills of local installers. With regards to open loop water source heat pumps that are alluded to, we note that these systems are very much dependant on obtaining Environment Agency licenses – which are not guaranteed.

1.5 KEG Feedback – Section M

Feedback Relating to Scope of Energy Strategy	Response
The application states, “The ‘Be Lean’ approach will be utilised by ensuring highly efficient building fabrics, mechanical ventilation with heat recovery, maximisation of daylighting and consequently passive solar heating and energy requirements. The ‘Be Clean’ approach will incorporate measures such as the use of air source heat pumps in order to meet the thermal energy loads of the houses, apartments and medical centre.” We are pleased to see these proposals, in particular mechanical ventilation with heat recovery and heat pumps. Ground source heat pumps would likely be more efficient than air-source.	As addressed in the responses to comments included in Section J, the initial <i>Energy and Sustainability Report</i> document established why ground source heat pump technology was not opted for in the proposed energy strategy, in favour of air source heat pump technology.
The applicant states, “The ‘Be Green’ approach has been implemented in the form of Low or Zero Carbon technology using photovoltaic (PV) installations on the roof of the medical centre. At this stage it is proposed a 5kWp PV array is provided.” Only having 5kWp PV solar panels on the medical centre and nowhere else, seems a totally wasted opportunity and we assert that this is merely window-dressing to claim compliance with local policies. Installing PV solar panels on new-builds must be good value for money and the developers could set up an energy supply company to collate and market all the ‘spare’ power from the development as a solar farm. Also, it is likely that summer cooling will be needed as high temperature events become more frequent and extreme and this can be provided by local solar PV.	Please refer to Section 1.2 regarding proposed residential PV provision. At this stage it is not proposed for the Medical Centre to be comfort cooled, but rather solar control glazing and optimisation of window openings for natural ventilation will be incorporated as part of the detailed design proposals as a means of ‘passively’ addressing overheating risk. It is anticipated that the Medical Centre would incorporate the flexibility to undertake refurbishment/ retrofit with air con in the future if required, with the enhanced building fabric in place already to aid in mitigating the energy loads on these systems. The PV installation on the Medical Centre could be increased in size at this point in time to compensate for the increase in operational energy usage associated with air con systems.
The applicant states, “The combination of Be Lean, Be Clean and Be Green measures results in a CO₂ emissions reduction of 43% over a Part L compliance baseline, exceeding the mandatory 35%. The anticipated regulated CO₂ emissions for domestic buildings is 245 tonnes CO₂ per annum.	The reference to 245 tonnes of CO₂ is a superseded reference to version 1.0 of the <i>Energy and Sustainability Report</i> (the calculations in which were based on fewer dwellings than version 2.0).

This represents a total CO₂ emissions reduction of 185 tonnes CO₂ per annum. This meets the requirements of RBC Local Plan.” While this is compliant with the Local Plan, 245 tonnes CO₂ per annum is still a lot more than zero and the Council’s Climate Emergency aim is net zero by 2030. 245 tonnes CO₂ per annum is 0.11% of Reading’s total Domestic emissions in 2017. Furthermore, in the applicant’s Sustainability Statement 6.3.7 it states, “On the basis of the remaining 252 tonnes of CO₂, this equates to an offset payment of £453,600 to achieve net zero emissions.” So it is not clear whether eventual emissions will be 252 tonnes or 245 tonnes.	Please refer to Section 1.2 – the proposed enhancements to the scheme will result in the net CO₂ emissions on site reducing from 252 tonnes of CO₂ per annum to 75 tonnes of CO₂ per annum.
With reference to comparison to the figure of 245 TCO_{2e} per year: This is confusing because the applicant’s Sustainability Statement Table states that the sitewide total is 575 TCO_{2e} per year.	Table 6.1 within the <i>Energy and Sustainability Report</i> that reports a sitewide total of approximately 575 TCO_{2e} per year was based on the <u>current SAP 2012 emission factors</u> for gas and electricity and includes for the medical centre as well as the dwellings. As explained in Section 6.3 of the <i>Energy and Sustainability Report</i>, the residential emissions have then been converted to reflect the <u>emerging SAP 10 emission factors</u>, as per the guidance in the <i>Reading Sustainable Design and Construction SPD</i>, which resulted in net residential emissions being reported as 252 TCO_{2e} per year.
The applicant states, “In the context of the Government’s target to reduce CO₂ emissions by at least 100% of 1990 levels by 2050, this would represent a minor adverse effect, which is significant.” In the context of the Council’s Climate Emergency aim (net zero by 2030), we assert that this is not good at all, unless electricity supply can be totally decarbonised by 2030.	Please refer to Section 1.2 – the net emissions for the site with the proposed design updates are now 75 Tonnes of CO₂ per annum. The scheme is proposed to be a fully electric scheme – with no natural gas supply – to facilitate the further decarbonisation of the homes with the ongoing decarbonisation of the national electricity grid.
In the applicant’s Sustainability Statement Table, it shows U-values of 0.18W/m²K for walls and 0.13W/m²K for ground floor and roof. If higher insulation standards (lower U values) were used energy consumption could be further reduced e.g.	With regards to the proposed U values – please refer to the response provided in Section J. With regards to thermal bridging, we note that enhanced thermal bridging performance

Passive House states “All components making up the building envelope must be well insulated. Edges, corners, connections and penetrations must be planned with special care in order to avoid thermal bridges. All opaque building components should be so well-insulated that their heat transfer of heat energy are lost through the external envelope per degree Kelvin and square meter. For free standing, single family homes, these U-value are often under 0.10W/m²K.”	standards have been proposed for the dwellings to minimise the heat losses that will occur at building fabric junctions– refer to Section 3.3.1 of the <i>Energy and Sustainability Report</i> where an Accredited Detail level of performance is proposed.
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10.0 TREES SECTION

- 10.1 Please see following documents by Arbortrack entitled 'Arbortrack (tree consultants) response in terms of trees to 'Keep Emmer Green' (KEG) Objections', dated 24th March 2021.

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24th March 2021

Arbortrack (tree consultants) response in terms of trees to ‘Keep Emmer Green’ (KEG) Objections to application reference 21/00/18: ‘Outline planning application, with matters reserved in respect of Appearance, for demolition of the existing clubhouse and the erection of a new residential-led scheme (c3 use to include affordable housing) and the provision of community infrastructure at Reading Golf Club.

To Whom it May Concern

This document is Arbortrack’s response to the tree related comments in KEG material posted 4th March 2021 on the Reading Borough Council (RBC) planning portal, objecting to application reference 21/11/18 dated 6th October 2020.

Trees are commented upon in the following reports:

- **Water & Drainage** (Appendix B Tree Planting & Removal)
- **Landscape & Leisure** (Page 4 Site design-new homes too close to retained trees-overshadowing will cause future issues; Appendix A Introduction of report by Bettina Kirkham pages 7 & 8, Green links page 8, Tree planting & Overshadowing page 9.)
- **Ecology & Conservation** (Page 3 1. Preserving the trees, Appendix A Value of mature trees, Appendix B Density of the new development & the harm to the trees, Appendix C Survival rate of the saplings, Appendix D Inaccurate growth rates in the applicant’s plan, Appendix E Advice from the Forestry Commission on veteran trees.
- **Air Quality & Transport** (Reading Friends of the Earth) Page 5 Valuation of loss of mature trees-CAVAT, Pages 6 & 7 Tree planting & Removal – including comments regarding loss of shade.



Water & Drainage

Comments from this report can be summarised as follows in terms of trees:

KEG: Negative implications of tree removal in terms of hydrology.

Arbortrack: Implications of tree removal in terms of hydrology are covered by Temple in their document entitled 'Response to Keep Emmer Green Comments on Hydrology and Water Resources', dated 22nd March 2021.

KEG: 'Although the trees are covered by a Tree Preservation Order (TPO), this will not prevent more trees being removed as the trees are large, the gardens are generally small, and the trees will inevitably block light from the new development. This has **NOT** been accounted for in the drainage calculations.'

Arbortrack: Trees on the course are covered by a TPO so RBC have control of them and have the wherewithal to refuse works that they deem to be inappropriate, such as prompted by 'right to light' requests or overshadowing. It is well established that, in general, residents do not have a 'right to light' per se. If RBC are unable to resist requests to prune back or remove TPOd trees then the protection afforded to trees by this legislation is essentially meaningless-this is not our experience.

Leisure & Landscape

Comments from this report can be summarised as follows in terms of trees:

KEG maintain (page 4 2. Site design paragraph 3) that the 'the design seeks to protect *some* (our italics) existing trees, although in several cases, new homes are sited too close to these trees and overshadowing will cause future issues (see Appendix A). New planting is also proposed but much of it is sited such that it will be at risk of removal'.

Arbortrack: A total of 122 trees are to be removed in this outline proposal. This is, in fact, 37% of the total surveyed tree stock of 320 trees or groups of trees (approx. 333 in total) & compensatory planting with native species has been offered for these unavoidable removals, in line with RBC policy. It is accurate to state that 'the design seeks to *protect* 63% of existing trees.

We maintain that the juxtaposition of existing trees with the proposals is reasonable & acceptable & that 'future shade issues' are by no means inevitable: it is not possible to state that overshadowing from trees '*will cause future issues*'.

To state also that new planting will be at risk of removal is conjecture. New planting must be properly maintained in order to successfully establish & grow on, in the years following completion of the development. Provision must be made, via planning condition, for ongoing care & maintenance and for trees which fail (for whatever reason) to be replaced, if/when this occurs.



Shade/overshadowing is a particularly subjective consideration in our experience: a future resident is, in our opinion, as likely to value the shade cast by retained (and new) trees in these days of climate crisis. The shade arcs/representations we have shown on our material can be refined if required. Our assessment is that likely shade, created by the retained trees & proposed new planting, onto the proposed layout is likely to be within acceptable parameters.

Furthermore, the 'shadowing is bad' argument put forward in the KEG 'Leisure & Landscape' response is, in our opinion, somewhat undermined by the 'shadowing is good' remarks in the Air Quality & Transport material produced by Friends of the Earth, specifically on page 7 where the author states as follows: 'The removal of mature trees has a significant impact on potential for providing shade for dwellings and community spaces, against local plan policy CC3. Replacing these mature trees with immature specimens cannot offer shade effects for several decades.'

Ecology & Conservation

Comments from this report can be summarised as follows in terms of trees:

Trees & tree related matters are discussed in several sections of this report and, unfortunately, error/inaccuracy or conjecture has inadvertently crept in.

Arbortrack: Section 1 'Preserving the trees' (page 4) accurately points out that the trees on the site are protected by a TPO and that 122 of them (of a total of 333) are proposed for removal. The author then states that the proposed 1:1 replacement planting is 'not of benefit to the site', that there are 'risks to new & retained trees due to their proximity to the proposed housing', further compounded by 'inaccurate estimates of growth rate of mature planting stock'. He/she then advises that the new planting will absorb little or no carbon in the first ten years and (I paraphrase) will probably die anyway. He/she then incorrectly states that the 'environment will simply have suffered an immediate loss of the carbon absorbing capacity of 122 *mature* (our italics) trees..... To be clear we have established that the maximum number of mature trees lost to development is approximately 32% of total removals. The large majority of trees to be removed are, in fact, semi mature or early mature. It is also reasonable to point out that very few trees on site predate the establishment of the golf course (excepting tree 53 and some other oaks for instance-all valuable & all retained) and were planted to deliver buffering/screening between/beside fairways and as hazards for golfers. Frequent amongst species chosen are *Sorbus*, *Prunus* or *Betula* genera, which are relatively short lived & predominantly non-native.

The current outline layout is a considered response from the design team to previous comments & advice from Ms Sarah Hanson (the RBC tree officer) & others regarding layout, juxtaposition, new planting and shade, amongst other considerations. New planting is offered (as required by RBC policy) and delivered on a 1:1 (or better) basis. It is offered in good faith on the working presumption that new trees will be planted professionally and maintained hereafter for an agreed appropriate time, and replaced if that becomes necessary. Recommended planting sizes are as indicated but are open to further input from Ms Hanson. Simply put the applicant, for this outline scheme, is offering good quality appropriate replacement trees, of native species, at a size to be agreed with Ms Hanson: all pertinent details can be resolved at the detailed application stage.



KEG: Removal of veteran trees (page 4 & Appendix E). The forestry commission advises against the removal of veteran trees and that the Council should not consider any compensation measures.

Arbortrack: There are no ancient trees on site and the only tree on site ascribed as a veteran by Arbortrack, tree 53, has been fully respected by the proposals in an open space, as per current guidelines.

KEG: Noncompliance of layout with NHBC guidelines.

Arbortrack: Our interpretation of the NHBC standard (section 4.2 Building near Trees) is that it provides technical guidelines to ensure that correct foundation depths for new buildings are used on development sites-to avoid damaging and potentially costly remedial works i.e. subsidence or heave related-if a high percentage of clay is found to be present in the soil profile.

For this outline scheme freely available data from the British Geological Survey was used and this suggests the likely presence of clay (Lambeth Group-Clay, Silt & sand) on the site. Zones of influence are indicated for new planting and can be-at the detailed stage of an application-for existing trees. It is a simple matter to identify which structures will require deeper foundations & not, we believe, particularly relevant to an outline application.

We hope that this response allays concerns raised by KEG in terms of trees & the proposed outline development reference 21/00/18. In our opinion the loss of trees (generally non-native & of short lived genera) planted in association with a recreational use is acceptable in the context of the delivery of much needed new housing & when the provision of replacement planting is considered. Our advice is that it is critical to ensure that judicious maintenance/aftercare is agreed for all new planting and that this is carried out effectively: the key is to take all appropriate steps to ensure that newly planted trees establish & thrive in the years to come.



