

Ecology Statement: Pedestrian Improvements

Land north of Reading Road, Arborfield, January 2026

This Statement has been prepared by Mark Rose, Director (Ecology) at CSA Environmental, on behalf of Dandara Southern Ltd & Elstree Land Ltd, in relation to Land north of Reading Road, Arborfield. It will form an appendix to the Planning Proof of Evidence of Ms Taylor, in respect of Appeal APP/X0360/W/25/3371069.

1.0 Introduction

- 1.1 I am Mark Rose, Director (Ecology) at CSA Environmental, an experienced practitioner with over 15 years' full time experience in professional ecological consultancy. I am a Chartered Ecologist (CEcol) and a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). I hold Natural England species survey/class licences for bats, dormice and rare reptiles. My academic qualifications include a BSc (Hons) in Zoology and an MSc in Biodiversity Conservation from the University of Southampton. I confirm that this Statement has been prepared by me, and that it presents my true and professional opinion.
- 1.2 I am instructed by Dandara Southern Ltd & Elstree Land Ltd ('the Appellants') in respect of appeal case APP/X0360/W/25/3371069, concerning Land north of Reading Road, Arborfield (the 'Appeal Site').
- 1.3 The appeal concerns an outline planning application (243099) at the Appeal Site for the erection of up to 111 no. dwellings with associated works, parking, landscaping, publicly accessible open space and access from Reading Road, with all matters reserved except for means of access. The application was validated by Wokingham Borough Council (WBC) in December 2024, and refused in May 2025.

Reasons for Refusal

- 1.4 The decision notice (CD03.01) listed six principal reasons for refusal (principle of development, quantum and scale of development, impact on the landscape and countryside, unsustainable location, best and most versatile agricultural land, flood risk and impact on main river, and impacts on the Thames Basin Heaths Special Protection Area (SPA), with a further three connected to the absence of a signed legal agreement securing planning obligations.

- 1.5 Impacts on the Thames Basin Heaths SPA, the subject of Reason for Refusal 7, are addressed in the Planning Proof of Evidence (CD13.01) by reference to S106 obligation payments.
- 1.6 The Council's Statement of Case (CD04.03) identifies four pertinent Additional Issues:
- Additional Issue 1: Prejudice to the delivery of Loddon Valley Garden Village
 - Additional Issue 2: Access and Visibility Splays
 - Additional Issue 3: Irreplaceable Habitats
 - Additional Issue 4: Protected Species and BNG
- 1.7 Additional Issue 3 is addressed in the Arboricultural Proof of Evidence (CD13.03).
- 1.8 In respect of Additional Issue 4, it is stated that, *"Additional information submitted during the appeal indicates that the Appellant is seeking to deliver improvements to pedestrian routes between the Site and Arborfield Cross. These would include, inter alia, vegetation removal, footway widening and installation of street lighting. Additional tree removal is also proposed along Reading Road to the south of the Site. These additional proposals are not accompanied by an amended Ecological Impact Assessment, nor identified in the BNG baseline."*
- 1.9 It can be seen that this Issue falls into two parts; the Biodiversity Net Gain (BNG) implications of additional tree removals, and the ecological impacts of pedestrian route improvements. Matters relating to BNG have been resolved through the Ecology Statement of Common Ground (CD05.08) and consequently I will address only the latter point here, setting out my professional opinion on the ecological implications of the proposed pedestrian route improvements referenced in Additional Issue 4.

2.0 Proposed Improvements

- 2.1 Acting on behalf of the Appellants, Milestone Transport Planning (MTP) have prepared a suite of amended and additional highway drawings. One of these, and that which is relevant to this Statement, is Plan 25103 / 001 / Rev D 'Enhanced Active Travel Linkages to Local Facilities and Services on Reading Road' (Appendix MS10 to CD13.04.01). This Plan illustrates the physical off-site measures proposed along Reading Road, east of the Appeal Site, aimed at improving pedestrian connectivity.
- 2.2 Measures included in Plan 25103 / 001 / Rev D are summarised in the Highways Proof of Evidence (CD13.04.01), as replicated below for ease of reference:
- a) Provision of a Bus Boarder with kerb buildouts, new shelters, and a minimum pedestrian dwell space of 2.0-metres at both the Reading

Road bus stops adjacent to Walden Avenue (closest to the Appeal Site).

- b) Removal of centreline markings and carriageway narrowing to a minimum width of 5.4-metres along Reading Road to accommodate the proposed bus boarders.
- c) Provision of a new uncontrolled pedestrian crossing, with dropped kerbs and tactile paving, across Reading Road circa 15-metres west of the Walden Avenue give-way priority junction.
- d) Provision of a new uncontrolled pedestrian crossing, with dropped kerbs and tactile paving, across the Walden Avenue give-way priority junction.
- e) Removal of existing vegetation and overgrowth to provide a continuous 2.0-metre wide footway on the southern side of Reading Road, extending approximately 430-metres east from Walden Avenue.
- f) Narrowing of the Reading Road carriageway to approximately 5.7-metres, circa 370-metres east of Walden Avenue, to enable provision of a 2.0-metre wide footway on the southern side of Reading Road.
- g) Retention of a minimum 1.6-metre wide southern footway along Reading Road for approximately 24-metres (circa 430-metres east of Walden Avenue) to maintain existing one-way shuttle working and avoid encroachment into the adjacent embankment / hedgerow. Following this section, provision of continuous 2.0-metre wide footway, through kerb realignment and carriageway narrowing (minimum 5.8 metres), up to the Arborfield Cross roundabout (a circa 220-metres further east).
- h) Provision of a new dropped kerb vehicular access to existing field south of Reading Road (circa 90-metres west of the Arborfield Cross roundabout).
- i) Provision of a new dropped kerb vehicular access to The Bull Inn PH Car Park (circa 60-metres west of the Arborfield Cross roundabout).
- j) Provision of 22 x 6-metre-high WBC-specification lighting columns along the southern footway of Reading Road, extending westwards from the existing lighting at the Arborfield Cross roundabout for approximately 650-metres to the Appeal Site's nearest westbound bus stop (adjacent to Walden Avenue).

- 2.3 Based on this specification, it is clear that there are two potential impact pathways of relevance to ecological features; the direct impact of any vegetation loss to accommodate footpath widening, and the indirect impact of disturbance to nocturnal wildlife as a consequence of the introduction of artificial lighting.

3.0 Baseline Ecological Conditions

- 3.1 I carried out a site visit during fine and dry weather conditions on the afternoon of 29 January 2026, walking the route of the proposed

pedestrian improvements between the Arborfield Cross roundabout and Walden Avenue along the south side of Reading Road.

- 3.2 The route already supports a hardstanding pavement on the south side of the carriageway, closely associated with boundary vegetation of the Bull Inn public house, Arborfield Cross Recreation Ground, an arable field and private land (sequentially east to west). This varies in character along the length of the route, from ornamental non-native hedgerow, to mixed species native hedgerow (with frequent hawthorn *Crataegus monogyna*, elm *Ulmus* sp. and field maple *Acer campestre*) and dense trees, to defunct hedgerow and scattered bramble. In the central section of the route, adjacent to the arable field, the boundary hedgerow, bramble and mature trees were set atop a small embankment.
- 3.3 A narrow grassy verge is present. In view of the season a complete species list could not be collected, however the species identified confirmed the character of a typical verge habitat. Forbs dominated, such as common nettle *Urtica dioica*, common chickweed *Stellaria media*, cleavers *Galium aparine*, dock *Rumex* sp., ground-ivy *Glechoma hederacea*, umbellifers, dove's-foot crane's-bill *Geranium molle*, nipplewort *Lapsana communis*, dandelion *Taraxacum* agg. and spear thistle *Cirsium vulgare*. Grasses which could be identified included perennial rye-grass *Lolium perenne*, Yorkshire-fog *Holcus lanatus* and annual meadow-grass *Poa annua*, however it's clear from imagery that false oat-grass *Arrhenatherum elatius* is a significant component later in the season. The composition also reflected the shaded, hedgerow base context, with species such as lords-and-ladies *Arum maculatum*, red dead-nettle *Lamium purpureum* and garlic mustard *Alliaria petiolata*.
- 3.4 Regular mature trees are present on either side of the carriageway along the route, particularly oaks *Quercus* sp., set within boundary hedgerows and on adjacent land. Other species include ash *Fraxinus excelsior* and elm (generally at lesser maturity).
- 3.5 During my site visit I noted no evidence of activity by protected or notable species which may be directly impacted by the footpath widening, such as badger *Meles meles* setts within the earth embankment.

4.0 Ecological Implications

Direct Impacts

- 4.1 It is established in the evidence of Mr Wilkins (CD13.03) that the proposed footpath improvement works may be delivered without detriment to the health, longevity and stability of the tree and shrub vegetation along the highway boundary. There is no proposal for any tree removal to facilitate the proposed footway widening.

- 4.2 This has been achieved through sensitive design to avoid direct impacts in the first instance, in accordance with the mitigation hierarchy (see below). For example, it is addressed in the Arboricultural Statement of Common Ground (CD05.06) that there are three mature oak trees (Trees T127, T129, T130) growing on a raised bank to the southern side of the carriageway. This position would make them more vulnerable to impacts on their rooting areas resulting from footpath widening. Plan 25103 / 001 / Rev D therefore shows the footway widened through kerb realignment in this location, to reduce the width of the carriageway in preference to impacting the open ground within the trees' Root Protection Areas (RPAs).
- 4.3 Although some facilitation pruning / cutting back of shrub encroachment is likely to be necessary, this is likely to be consistent with typical routine management of roadside vegetation. Universal impact avoidance measures (generally sensitive seasonal timing) will be appropriate in order to ensure impacts on nesting wild birds do not take place.
- 4.4 Where footway widening will require land-take from the existing verge, there will be an inevitable permanent loss of grassland. This habitat type is however common and widespread, and I would not consider this to represent a significant negative effect.
- 4.5 Noting the reference to BNG in the WBC Statement of Case in the context of Additional Issue 4 (as quoted above) I would clarify that off-site S278 highways works fall outside the scope of statutory BNG requirements.

Indirect Impacts

- 4.6 The installation of the proposed 22 lighting columns along the south side of Reading Road, between the Arborfield Cross roundabout and the Appeal Site has the potential to result in disturbance impacts on nocturnal wildlife; principally bat species. Although existing street lighting is in place around Arborfield Cross roundabout, this only extends west down Reading Road to immediately past the Bull Inn public house car park entrance. Further lighting is present on Walden Avenue.
- 4.7 The lighting proposals have been prepared on behalf of the Appellants by MMA Lighting Consultancy Ltd, and accompany the written evidence of Mr Stevens (Highways Proof of Evidence; CD13.04.01). The information provided includes an Equipment Schedule, and an Outdoor Lighting Report illustrating a design specification and corresponding modelled horizontal illuminance (lux). The latter demonstrates, as would be expected, that illuminance will extent to boundary vegetation either side of Reading Road. The lighting specification (including luminaire type, as well as column height and positioning) is at present illustrative, and subject to confirmation at the detailed design stage.

Bat species

- 4.8 All native bats are nocturnal. This and their associated use of echolocation for navigation and foraging likely evolved as a strategy to avoid avian predation threat. Consequently, while there is marked variation in responses between species, bats modify their behaviour when exposed to artificial light. In the context of roost sites, illumination can cause disturbance and ultimately the functional loss of a roost. Away from roost sites, the more light-averse species (such as barbastelle *Barbastella barbastellus* and, to a lesser extent, *Myotis* bats) will demonstrate avoidance behaviour, such that lighting can reduce habitat quality, availability and connectivity. Conversely, some of the faster-flying species (such as pipistrelles *Pipistrellus* sp. and noctule *Nyctalus noctula* bats) can be attracted to artificial light sources by the presence of their invertebrate prey.
- 4.9 During my site visit I noted that several of the mature oak trees along the route of the proposed footway improvements contained Potential Roost Features (PRFs) for bats. Under prevailing industry guidance¹, PRFs are categorised as follows:
- a) PRF-I: A PRF suitable for individual or very low numbers of bats
 - b) PRF-M: A PRF suitable for multiple bats which could therefore support a maternity colony
- 4.10 The PRFs I noted in mature trees along Reading Road were all PRF-I's, associated with canopy deadwood and limb wounds.
- 4.11 The submitted Ecological Impact Assessment (EclA) prepared on behalf of the Appellants by Sam Watson Ecology (SWE; CD01.13), supplemented by an Addendum Bat Survey Data letter (CD01.28), sets out the scope, methods and findings of baseline survey work investigating use of the Appeal Site by foraging and dispersing bats. For the avoidance of doubt, this concerns surveys undertaken within the Red Line; not the section of Reading Road dealt with here. Nevertheless I refer to it as a useful, recent dataset on the species assemblage found to be present in the immediate area.
- 4.12 Five-night periods of automated static monitoring, utilising two ultrasonic detection/recording devices, were undertaken in July and September 2024 and July 2025. On review of the raw data provided at Appendix 2 to the EclA, and in the Addendum letter, it can be seen that activity was found to be dominated by common, widespread and less light-sensitive species (common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and noctule).

¹ Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.

- 4.13 In view of the restricted range of grey long-eared *Plecotus austriacus* bats, activity attributed to *Plecotus* species is almost certainly representative of brown long-eared *Plecotus auritus* bats. This species was recorded relatively consistently over two of the three monitoring periods. Relative abundance was on the other hand very low, however this species is often under-recorded owing to their very quiet echolocation calls. Brown long-eared bats are known to be more light-sensitive, though are a common and widespread species.
- 4.14 *Myotis* bats are considered 'rarer' species, and barbastelle bats are nationally rare, although the south of England remains a stronghold. Activity by these species was more infrequent and at markedly lower abundance. Across the two detectors and 15 monitoring nights, barbastelle were recorded on five nights, with no more than one detection per detector, per night.
- 4.15 All on-site buildings were assessed to be of 'Negligible' bat roost potential. Protected and notable species record data retrieved from the Thames Valley Environmental Records Centre (TVERC) by SWE in September 2024 were reported to include records of roosting brown long-eared bat, common pipistrelle and soprano in nearby buildings. Having myself reviewed the Multi-Agency Geographic Information for the Countryside (MAGIC) system, I note that there are no Sites of Special Scientific Interest (SSSI) or Special Areas of Conservation (SAC) within 10km of the Appeal Site designated in respect of bat species (such as might otherwise place the Appeal Site within the dispersal range of a nationally significant maternity colony or overwintering site).

Mitigation

- 4.16 The mitigation hierarchy is a central tenet of the treatment of matters of ecology in the planning system. It is set out in paragraph 193(a) of the National Planning Policy Framework (NPPF), and states that a planning application should be refused if significant harm to biodiversity resulting from the development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated (i.e. reduced), or, as a last resort, compensated for.
- 4.17 The installation of new artificial lighting along Reading Road represents a negative impact in ecological terms, in view of the potential for disturbance to nocturnal wildlife. Under EclA procedures an assessment is made as to whether, following avoidance and mitigation measures, impacts are likely to manifest significant ecological effects. A significant effect does not necessarily equate to an effect so severe that consent for a project should be refused, it is simply an effect that is sufficiently important to require assessment and reporting so that the decision

maker is adequately informed of the environmental consequences of permitting a project.²

- 4.18 In accordance with the mitigation hierarchy, I have made enquiries as to the imperative for the inclusion of lighting as a component of the proposed footway improvements. I have been advised that the provision of lighting represents a proposal to enhance the quality, comfort, and perceived safety of the footway, intended to strengthen the attractiveness and usability of the route for a wider range of users and trip purposes. This aligns with the broader objective of encouraging walking as a realistic and appealing mode choice. Whilst adopted Policies CP1, CP3(h) and CP6 do not explicitly require routes to be lit, the provision of lighting is consistent with paragraphs 109 and 117 of the NPPF, which encourage opportunities to promote walking and to prioritise pedestrian movements where possible. Active Travel England standing advice places particular emphasis on personal security and perceived safety, especially during early morning and evening periods in the winter months.
- 4.19 Having made enquiries, I am further advised that the lighting columns have in the submitted illustrative designs been to minimise impacts on existing trees. Upon review of the modelled horizontal illuminance, I am of the view that there remains scope for further refinement at the detailed design stage in this regard. For example, the repositioning of luminaire 5A would be desirable so as to reduce the direct light spill onto mature oak tree T144 on the opposing side of the carriageway. The detailed design stage offers the opportunity to integrate further mitigations, such as hoods/cowls to direct light and minimise trespass, as well as time-controlled luminaries.
- 4.20 I note that, in accordance with guidance jointly prepared by the Bat Conservation Trust and the Institution of Lighting Professionals,³ the lighting equipment selected specifies:
- a) LED luminaires, which are preferable due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
 - b) A warm white light source of 2700 Kelvin, which is preferable due to its reduced blue light component.

5.0 Conclusion

- 5.1 It is my opinion that direct impacts of the proposed footway improvements will result in no significant ecological effects, with the scheme designed to allow for retention of all existing mature trees along

² CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester.

³ ILP (2023). Guidance Note GN08/23: Bats and Artificial Lighting At Night. Institution of Lighting Professionals, Warwickshire.

the highway boundary. The minor loss of roadside grassland verge will have no appreciable effect on the local habitat resource.

5.2 I further conclude that the proposed installation of new artificial lighting along Reading Road between the Appeal Site and Arborfield Cross is unlikely to significantly alter the local diversity, distribution or abundance of bat species. As such, I consider that this indirect impact is unlikely to constitute a significant negative effect on local bat populations. In reaching this conclusion I have given consideration to:

- a) The discrete area/length over which the impact will occur, and the wider landscape context (i.e. availability of adjacent unlit habitat, and there being, in my view, no significant threat of habitat fragmentation / population isolation).
- b) The dominance of common and widespread species which are not strongly light-averse identified through surveys of the Appeal Site itself, with activity by the rare and strongly light-averse barbastelle being rare, infrequent and irregular.
- c) Having noted no PRF-M features associated with mature trees along the relevant section of the highway boundary.
- d) The absence of nearby statutory designations with bats listed as a special interest feature.

5.3 I therefore conclude that the footway improvements may be delivered without conflict with Policy CP7 of the adopted 2010 Wokingham Borough Core Strategy Development Plan Document.

5.4 Notwithstanding the above, it remains that ecological impacts should be minimised, with the opportunity to further limit light disturbance through further refinement of the lighting specification at the detailed design stage, as I have described. This may be secured through imposition of an appropriate planning condition, should the Inspector be minded to allow the appeal.

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..... Date...10/02/2026.....

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