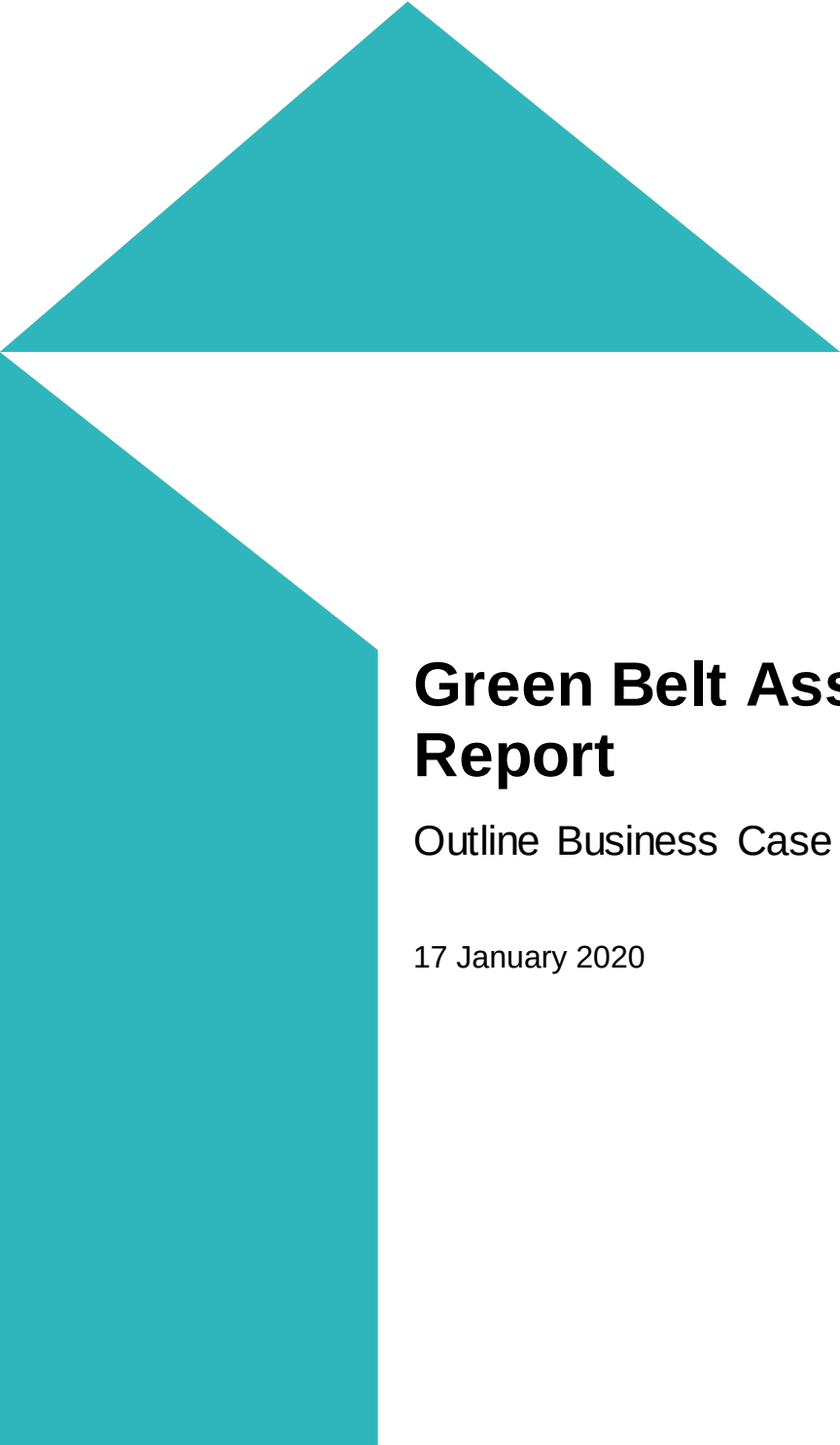




Green Belt Assessment Report

Outline Business Case - Appendix U

17 January 2020

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Addendum Report to Planning Appraisal 2017

**Cambourne to Cambridge public transport route (C2C) – Phase 1 and
2**

**Prepared by Strutt & Parker on behalf of Great Cambridgeshire Partnership
October 2019**

Site Name:		Cambourne to Cambridge public transport route (C2C) – Phase 1 and 2
Client Name:		Great Cambridgeshire Partnership
Type of Report:		Briefing Note on Green Belt Appeals
Prepared by:		Sav Patel
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1. EXECUTIVE SUMMARY

- 1.1 This Interim Addendum Report to the 2017 Planning Appraisal Report provides an update on the relevant planning policy context, an overview on the route options of Phase 1 and 2 of the Cambourne to Cambridge Public Transport Route (C2C) and a high level planning assessment of the scheme. This addendum should also be reviewed in conjunction with the updated Cambourne to Cambridge Rapid Transport Route – Phase 1 dated August 2019 and Phase 2 report dated September 2019, both by LDA Design. These 2019 reports will form addendums to their earlier September 2017 report.
- 1.2 This addendum report including the LDA reports form an Appendix to the C2C Outline Business Case which is due to be presented to the Executive Board in October 2019.
- 1.3 For background, the strategic objective of the C2C is to create a fast and reliable public transport link to give local residents an alternative and sustainable mode of transport which would open opportunities to access employment, leisure and onward transport connections. A series of route options have been considered, including on-road and off-road alignments. The off-road route which has been assessed as the highest performing option, and is the subject of this work, is divided into two Phases (Phase 1 and Phase 2). Phase 1 is the route between Maddingley Mulch roundabout and Grange Road in Cambridge. The Phase 2 is the longer tranche of the overall route between Cambourne and Maddingley Mulch roundabout via Bourn Airfield. Phase 2 also includes the proposals for a new Park & Ride. Two Park & Ride options at Scotland Farm and the Waterworks Site have been considered in Green Belt terms.
- 1.4 In terms of the planning policy context, since the 2017 Planning Appraisal was prepared, the National Planning Policy Framework, 2019 (NPPF) has been updated but the Green Belt section has been left largely unchanged. However, the paragraph numbers for the relevant sections have altered. In terms of the local planning context, both South Cambridgeshire District Council and Cambridge City Council have adopted their new Local Plans. Both plans were adopted in September and October 2018 respectively. The Green Belt policies have been updated to reflect the latest Green Belt objectives in the NPPF.
- 1.5 To determine if the C2C is consistent with the adopted Development Plans, it is important to consider if the proposals constitute of not inappropriate development or inappropriate development within the Green Belt, and whether Very Special Circumstances would be required.
- 1.6 In accordance with paragraph 146 of the NPPF, the C2C falls within the category of a 'Local Transport Infrastructure which can demonstrate a requirement for a Green Belt location'.
- 1.7 The Executive Board Report of December 2018 provided an update on progress to the Board in developing a business case for the C2C. One of the recommendations to the Board was to endorse the key conclusions from the Interim Report (November 2018) by Mott MacDonald. One of the main conclusions was for an off-road route for Phase 1, as it would achieve meeting the strategic objectives of the C2C scheme. The off-road option

would also deliver a significantly greater level of wider economic benefits at a local level for Greater Cambridge, and provide better value for money than an on-road option. The economic and social benefits of the off-road route need to be balanced against the environmental impacts of the off-road route for Phase 1 being located mainly in the Cambridge Green Belt. Part of Phase 2 route is also located within the Green Belt. However, it is important to note that neither route option (on- or off-road) has been finalised as work continues to be carried out to determine the preferred route option. In terms of Phase 2, the Executive Board recommended to agree to develop options for Phase 2 for further business case assessment including public consultation with the final section of the route and preferred location of the Park & Ride presented in the final Outline Business Case. This background work will feed into the Outline Business Case (OBC), which will be presented to the Executive Board in December 2019. The OBC will present the Board with the preferred single route option and Park & Ride option for a final decision. This addendum report will form part of the background documents for the OBC.

- 1.8 The strategic objectives of the C2C (to provide a fast and reliable public transport link) would open a new opportunity for people to move around and access leisure and employment opportunities within Cambridge and further-afield and requires an off-road route. The C2C would provide long term social and economic benefits to Greater Cambridge. A key consideration for the Phase 1 and 2 route is the impact on the Cambridge Green Belt in terms of preserving its openness and not conflicting with its purposes. Some parts of the overall route options are located outside the Green Belt and so have not been considered in terms of impact on the Green Belt.
- 1.9 The LDA addendum report breaks down the Phase 1 route into three sectors (A, B and C) which include three proposed route options (1, 2 and 3). The addendum report assessed the route options within each sector on the degree of harm they would have on the openness and purposes of the Green Belt. The report concluded that whilst the route options would result in some degree of conflict with Green Belt purposes within parts of the route, the degree of harm would range between low to moderate once mitigation measures have been implemented. The main mitigation options consist of implementing landscaping features along the route such as planting of native hedgerows, areas of small woodland extending area of allotments or community greenspaces for the benefit of the local residents of Coton.
- 1.10 In terms of Phase 2, the LDA addendum report assesses the Green Belt considerations of the three route options that were considered in the public consultation and two park and ride options. Option 1 is for an off-road segregated route, which would provide an off-road route in the space between the existing A428 and St Neots Road. The route would be between 6 and 7.3 metres wide with grass verges either side. Option 2 is for an on-road route utilising St Neots Road and include junction improvements. Option 3 is also for an on-road route but with priority lanes along St Neots Road. This would also require widening of the St Neots Road to approximately 14 metres. The western part of Phase 2 is outside of the Green Belt.
- 1.11 In terms of the two Park & Ride options, the report assesses the Green Belt impact of the Scotland Farm site and Waterworks site. The Scotland Farm option would be located to the east of Scotland Road to the north of the A428. The Waterworks option would be located to the west of the Madingley Mulch roundabout and south of the A428.

- 1.12 The options in both phases are assessed in terms of their appropriateness within the Green Belt. The LDA reports examines the landscape impact of each option and assesses the harm to openness and purposes of the Green Belt. The report also recommends mitigation measures where necessary.
- 1.13 Accounting for the recent case law regarding the interpretation of paragraph 146 of the NPPF, consideration of whether the proposals consist of not inappropriate development within the Green Belt or inappropriate development in the Green Belt is a matter of fact and degree. In terms of Phase 1, it is considered that the Adams Road route, which will have a low degree of conflict with Green Belt purposes, is not inappropriate development within the Green Belt. In addition, all routes to the north of Coton as proposed are also considered to be not inappropriate development within the Green Belt provided that suitable landscape mitigation is planted. As highlighted within the LDA Addendum Report, the other stretches of the Phase 1 route will have no degree of conflict with Green Belt purposes or the openness of the Green Belt.
- 1.14 In terms of Phase 2, applying the same case law interpretation of paragraph 146, it is considered that all route options, which would have moderate to low degree of conflict with the Green Belt purposes with planting, are not inappropriate development within the Green Belt. Option 2 would have the least impact on the Green Belt but fail to deliver the strategic objective of the C2C project. Therefore, in view of the degree of conflict with the Green Belt identified by the LDA report to the Green Belt from Options 1 & 3 and compliance with achieving the strategic objectives of the C2C, it is considered that Very Special Circumstances would not be required.
- 1.15 In terms of the two Park & Ride sites, at this stage it is not possible to make a full assessment of whether they will constitute not inappropriate development or whether Very Special Circumstances are required. This will depend upon the detailed design of the Park & Ride facilities and whether the infrastructure provided is consistent with the essential local transport infrastructure required to deliver the proposals.
- 1.16 If required, it is considered that Very Special Circumstances do exist and can be demonstrated for the off-road rapid transit route and the proposed Park & Ride, when considered with the social and economic objectives of the project. This includes the transport objectives of the scheme of providing a direct, fast and reliable public transport link between Cambourne and Cambridge. The VSC for the proposed development were set out in our 2017 Planning Appraisal.
- 1.17 Only the route options within the Green Belt have been assessed by LDA in their assessment of Phase 1 and Phase 2. Outside of the Green Belt areas, the principle of the Rapid Transport Route is considered to be supported in planning terms.
- 1.18 The principle of the development for the Phase 1 and 2 routes are therefore considered to be consistent with the adopted Cambridge City and South Cambridgeshire District Council Local Plans (2018).

2. INTRODUCTION

- 2.1 This interim addendum planning appraisal has been prepared by Strutt & Parker on behalf of the Greater Cambridge Partnership in relation to the Cambourne to Cambridge public transport scheme (C2C).
- 2.2 A Planning Appraisal was prepared by Strutt & Parker in August 2017 on behalf of the Greater Cambridge Partnership. The purpose of the report was to provide a high level planning overview of key planning policy considerations and an assessment of the C2C. This Addendum should be reviewed in the context of the 2017 Planning Appraisal.
- 2.3 Consistent with the 2017 Planning Appraisal, this report specifically assesses the key matters that relate to the principle of the development.
- 2.4 This report should also be reviewed in the context of the forthcoming Outline Business Case which is due to be published shortly prepared by Mott MacDonald, and the Consideration of Green Belt Issues Addendum to September 2017 Report, prepared by LDA.
- 2.5 For clarity, the project is split into three distinct elements:
- Phase 1 from Cambridge to Madingley Mulch;
 - Phase 2 from Madingley Mulch to Cambourne; and
 - Proposed new Park & Ride Facility (to be based at either the Waterworks west of Madingley Mulch roundabout or land at Scotland Farm north of the A428).
- 2.6 This addendum to the 2017 Planning Appraisal in conjunction with the LDA reports provides an assessment of the three elements above.

3. PLANNING POLICY

- 3.1 This section of the report provides an overview of the updated Development Plan position since the 2017 Planning Appraisal was issued.

Development Plan

- 3.2 At local level, Cambridge City Council and South Cambridgeshire District Council have adopted their Local Plans (September and October 2018, respectively). Both Local Plans retain Green Belt policies (Policy 4 and Policy NH/8, respectively).
- 3.3 Policy 4 states that new development within the Green Belt will be approved in line with Green Belt policy in the NPPF. Table 2.4 in supporting paragraph 2.52, sets out the Green Belt purposes as defined in the NPPF and the Cambridge Green Belt purposes.
- 3.4 However, as part of the adoption of both local plans, the inspector required an early review of both plans to prepare a new joint Local Plan. The preparation of this has started with a 'Call for Sites' consultation which concluded in March 2019. The Councils are due to commence work on the next stage of the local plan preparation before the end of this year (2019).

Local Transport Plan

- 3.5 In May 2017, a Mayor was directly-elected and the Cambridgeshire and Peterborough Combined Authority (CPCA) was formed as part of the devolution deal agreed with Central Government. The CPCA now has the strategic transport powers and is the Local Transport Authority for the Cambridgeshire and Peterborough area. The Mayor sets the overall transport strategy for Cambridgeshire and Peterborough, called the Local Transport Plan.
- 3.6 While a new CPCA Local Transport Plan is being prepared for the CPCA area, an interim document – an amalgamation of Cambridgeshire County Council and Peterborough City Council's Local Transport Plans – was adopted by the CPCA in June 2017 as single plan for the whole area.
- 3.7 Transport Delivery Plan is a three-year programme of planned highway and transport schemes that are proposed to be delivered within this timeframe. The Transport Investment Plan sets out the transport infrastructure and service initiatives that are required to support the growth of Cambridgeshire. The C2C project identified is in the investment plan as a Bus Route Improvement (ref: 120).

National Planning Policy Framework

- 3.8 Since the Planning Appraisal report of August 2017, the government has updated the National Planning Policy Framework (February 2019). The updated NPPF did not alter the five purposes of a Green Belt and nor did it alter the characteristics of a Green Belt. However, some of the paragraph numbering as originally referenced in section 2.1 of the LDA Design 2017 study, has been altered as follows:

- Reference to paragraph 80 should be refer to paragraph 134 of the February 2019 NPPF;
- Reference to paragraph 87 should now refer to paragraph 143 of the February 2019 NPPF;
- Reference to paragraph 88 should now refer to paragraph 144 of the February 2019 NPPF; and
- Reference to paragraph 90 should now refer to paragraph 146 of the February 2019 NPPF.

National Planning Policy Guidance

3.9 In addition, the National Planning Practice Guidance on Green Belt was published in July 2019. This identifies matters that may need to be taken into account when assessing the impact of proposals on Green Belt, including:

- openness is capable of having both spatial and visual aspects – in other words, the visual impact of the proposal may be relevant, as could its volume;
- the duration of the development, and its remediability – taking into account any provisions to return land to its original state or to an equivalent (or improved) state of openness; and
- the degree of activity likely to be generated, such as traffic generation.

3.10 This new guidance provides helpful clarity on some of the main considerations for assessing impact on the Green Belt which can be applied to the C2C scheme.

Case Law

3.11 There have been several recent appeal decisions relating to the interpretation of inappropriate development within the Green Belt. These are of particular relevance having regard to whether the proposed development can be considered to be not inappropriate development within the Green Belt or whether ‘very special circumstances’ are required to apply.

4. PLANNING ASSESSMENT UPDATE

- 4.1 As detailed within the 2017 Planning Appraisal, the key purpose of the report is to consider the principle of the Rapid Transit Route in planning terms. In accordance with paragraph 11 of the NPPF, plans and decisions should apply a presumption in favour of sustainable development.
- 4.2 For decision making, this means:
- Approving development plans that accord with an up to date development plan without delay; or
 - In this instance both the South Cambridgeshire District Council and Cambridge City Council Development Plans are up to date. Therefore, to establish if the principle of the C2C is acceptable in planning terms, it is important to consider if the proposals accord with the adopted Local Plans and adopted national policy.

Assessment of Rapid Transit Route

- 4.3 The NPPF states that the government attaches great importance to Green Belts and their essential characteristics are their openness and permanence. Paragraph 141 provides that in planning positively to enhance the beneficial use of the Green Belt, authorities should look for opportunities to provide access and sport/recreation, and to retain and enhance landscapes, visual amenity and biodiversity.
- 4.4 Paragraph 143 of the NPPF states that inappropriate development is by its definition harmful to the Green Belt and should not be approved except in Very Special Circumstances.
- 4.5 Paragraph 144 of the NPPF states that when considering planning applications, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. 'very special circumstances' will not exist unless potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations.
- 4.6 Paragraph 145 states that local planning authorities should regard the construction of new buildings as inappropriate within the Green Belt. There are a limited number of exceptions to this. The proposed C2C scheme does not require any new buildings but some temporary provision for construction purposes may be required.
- 4.7 The key paragraph to consider in relation to the C2C scheme, is Paragraph 146 of the NPPF (2019) (formally paragraph 90), which states the following:

'Certain other forms of development are also not inappropriate within the Green Belt provided that they preserve its openness and do not conflict with the purposes of including land within it. These are:

- a) *Mineral extraction*

- b) *Engineering operations*
- c) ***Local transport infrastructure which can demonstrate a requirement for a Green Belt location [my emphasis]***
- d) *The re-use of buildings provided that the buildings are of permanent and substantial construction*
- e) *Material changes to the use of land (such as changes of use for outdoor sports or recreation, or for cemeteries and burial grounds); and*
- f) *Development brought forward under a Community Right to Build Order or Neighbourhood Development Order.*

4.8 As set out in the 2017 Planning Appraisal report, the scheme falls within the definition of part c) a Local Transport Infrastructure project and therefore falls within the list of developments within paragraph 146, provided that it can be considered to demonstrate a requirement for a Green Belt location.

Requirement for a Green Belt Location

- 4.9 In accordance with paragraph 146 of the NPPF, the starting point for consideration of the acceptability of the proposed Rapid Transit Route within the Green Belt, is whether the proposed development has a requirement for a Green Belt location.
- 4.10 As set out within the previous Planning Appraisal in 2017, it was recommended that the route should travel through the West Cambridge Development, as this stretch of the route is not located within the Green Belt. This recommendation has been followed and means that part of the Phase 1 development is located outside of the Green Belt. The remainder of the route for Phase 1 is located within the Green Belt. As for Phase 2, the sector of the route options between Maddingley Mulch and the Hardwick Interchange is located within the Green Belt. This includes the two Park & Ride options at Scotland Farm and the Waterworks site. The rest of the route, between the Hardwick Interchange and Cambourne is outside the Green Belt.
- 4.11 As set out within the 2017 Planning Appraisal and subsequently during the preparation of the forthcoming Outline Business Case (2019), a detailed assessment has been undertaken by Mott MacDonald on behalf of the Greater Cambridge Partnership, to assess a number of route options, including both on-road and off-road. The proposed off-road C2C route option would provide significant transport benefits over the option to use a bus priority lane utilising an on-road route. The Executive Business Report provided an assessment of all of the relevant background environmental matters relating to the following:
- Ecology
 - Noise/Air Quality

- Visual Impact
- Landscaping
- Social Benefits (access to education, leisure, employment)
- Community Impacts
- Impact on Designated Heritage Assets
- Flood Risk
- Land & Property

4.12 In summary, the benefits from the off-road route would outweigh those of the on-road route in creating a High Quality Public Transport (HQPT) rapid link from Cambourne to Cambridge. As part of the OBC, Mott MacDonald has undertaken a robust review of each option and will assess the social, economic and environmental impact of each in accordance with the strategic objectives of creating a C2C. It concludes that the off-road option overall meets the strategic objectives.

4.13 One of the main benefits is that the off-road option would not only significantly help to reduce journey time but also maintain better reliability, which the on-road route would struggle to provide. The on-road route would also involve significant alterations and disturbance to the existing road network and installation of additional infrastructure (signage and possibly gantries) to an already congested corridor into Cambridge. The on-road option would also have a significant impact on the setting of the designated heritage asset as it would pass directly in front of the American Military Cemetery which is Grade I on the English Heritage register of Historic Parks and Gardens. The memorial and attached walls, steps and pool surround are Grade II* Listed Buildings.

4.14 While both options would have environmental impacts, the off-road alignment also has higher potential to achieve environmental enhancements and mitigation measures. The key issues are that the off-road route, unlike the on-road route, would not directly pass Madingley Wood which is a SSSI. The on-road route would result in some loss of habitat due to road widening but has the least potential for ecological mitigation or enhancement. The off-road route has the benefit of the potential to include a 'green lane' design treatment along its entire length to enhance biodiversity through creation of habitats and any noise disturbance addressed using electric vehicles would also address air pollution concerns. Such benefits would not be achievable with an on-road route. Therefore, a Green Belt location is essential to achieve the strategic objectives of the C2C in terms of journey times, reliability and environmental impacts. In this regard, it is also worth acknowledging that the on-road option would result in some widening of the existing carriageway within the Green Belt and requires work within a Green Belt location.

4.15 Overall, the on-road route does not deliver the transport objectives of the scheme and is not preferable in transport or environmental terms. A Green Belt location to deliver the scheme is therefore required (and essential).

Development in the Green Belt

- 4.16 With a requirement for a Green Belt location being identified at this stage as the most appropriate for the C2C as 'local transport infrastructure', it is also important to consider whether the remaining criteria of paragraph 146 of the NPPF apply so that the C2C can be considered as 'not inappropriate' development within the Green Belt. Otherwise 'very special circumstances' will need to be demonstrated.
- 4.17 The following section relates to interpretation of the criteria of paragraph 146 of the NPPF.
- 4.18 The Green Belt report by LDA has assessed the harm of both the on-road and off-road options and provides a conclusion on which would have the least impact while achieving the strategic objectives of the C2C.
- 4.19 In this regard, there has been a recent high court judgment and appeal decision relating to mineral extraction proposals in the Green Belt, which has helped to provide some clarity to the interpretation of paragraph 146 which can be applied to the C2C proposal.
- 4.20 Below is a summary of these high court judgment and appeal decisions which highlight the main issues raised and how they could relate to the proposed C2C. This will help to guide policy discussion.

Relevant Green Belt appeals decisions:

High court challenge brought by Samuel Smith Old Brewery (Tadcaster) and Oxton Farm against North Yorkshire County Council and Darrington Quarries Ltd – Jackdaw Crag Quarry, Strutton, Tadcaster, North Yorkshire, LS24 9BE.

- 4.21 This is a case involving minerals in which visual impact was considered. The site is a Magnesian Limestone quarry. Permission was approved for an extension of it. The permission was challenged by Samuel Smith and Oxton Farm in the high court. They considered that the case officer of the Council misdirected the committee on the policy for mineral development in the Green Belt. This resulted in the committee approaching the decision on the basis that the proposal was not for inappropriate development in the Green Belt and therefore did not have to be justified by 'very special circumstances'.
- 4.22 The argument was that the case officer had not considered the visual dimension of openness. The officer had considered visual impact under a separate section to the Green Belt considerations and found that there would be visual harm but that this was outweighed by social and economic benefits. Under the Green Belt discussion, the officer considered openness in purely spatial terms and did not consider visual impacts on openness.
- 4.23 The judgment put forward made a very interesting and important point regarding the interpretation of 'preserve the openness of the Green Belt'. The judgment states that this term cannot mean that a proposal can only be regarded as 'not inappropriate' in the Green Belt if the openness of the Green Belt would be unchanged. "It can only sensibly mean that the effects on openness must not be harmful – understanding the verb 'preserve' in

the sense of 'keep safe from harm' – rather than maintain". Therefore, where one of the developments in paragraph 146 (paragraph 90 of 2012 NPPF used in the judgment) is likely to have visual effects within the Green Belt, the decision maker is required to consider how the visual effects would preserve the openness of the Green Belt and whether those effects are likely to be harmful or benign.

- 4.24 Openness is not defined by the NPPF, however different factors are capable of being relevant to the concept when applied to the particular facts of a case. This includes visual as well as spatial factors. The absence of other visual impacts does not equate to an absence of visual harm to the openness of the Green Belt.
- 4.25 The judgment states that the concept of preserving the openness of the Green Belt in paragraph 146 (paragraph 90), cannot be tantamount to the concept of no physical change, otherwise the policy would be unworkable. Paragraph 146 (para 90) implicitly requires the decision-maker to consider visual effect and preservation of openness of the Green Belt. The courts have indicated that the effects on openness is a matter of planning judgment for the decision maker.
- 4.26 Recent appeals decisions have also established that openness should be assessed both in terms of visual impact and spatial impact. The high court appeal in which this was considered was the ***Turner v Secretary of State for Communities and Local Government and Another [2016] EWCA Civ 466 – land at Barrack Road, West Parley, Ferndown, Dorset.***
- 4.27 In this case, the judge found that the Planning Inspector had been correct to assess the impact of the openness of the Green Belt by comparing the existing and proposed positions physically and visually. The proposal being for a dwelling compared to a mobile home and storage yard, the Inspector has found that the two were not comparable in terms of impact. The judge stated openness is "not narrowly limited to [a] volumetric approach" but "is open-textured and a number of factors are capable of being relevant when it comes to applying it to the particular facts of a specific case." The decision here clarifies that openness is not only a spatial issue but a physical issue as well.

Summary of Europa Oil and Gas Ltd v Secretary of State for Communities and Local Government & Ors [2013] EWHC 2643 (Admin) (25 July 2013) – Bury Hill Wood, Coldharbour Lane, Holmwood, Surrey, RH5 6HN.

4.28 Background:

4.29 The proposal was for:

'The construction of an exploratory drill-site, including plant, buildings and equipment; the use of the drill-site for the drilling of one exploratory borehole and subsequent short-term test for hydrocarbons; the erection of security fencing; to undertake necessary groundwater monitoring; and the carrying out of associated works to an existing access and track, all on 0.79ha, for a temporary period of up to 3-years, with restoration to forestry'.

- 4.30 Following the planning committee's decision to overturn the officer recommendation and refuse the application and issued the decision on 30 June 2011. The applicant subsequently appealed the decision and a public inquiry was held in July 2012. The appeal was dismissed on 26 September 2012 as the Inspector agreed with the Council that Very Special Circumstances would be required. However, the applicant successfully challenged the decision in the High Court and the Inspector's decision was quashed. The subsequent Inspector's appeal decision was issued on 7 August 2015 which superseded the 26 September 2012 decision. Below is an overview of the main considerations from the 7 August 2015 decision.
- 4.31 Assessment of 7 August appeal decision:
- 4.32 The site was an area of managed plantation woodland, belonging to the Forestry Commission and comprised mature conifers, silver birch and young deciduous trees and undergrowth, with bracken. The site had been quarried in the past.
- 4.33 The Inspector considered the main issues, amongst others, to be:
- i. 'Whether the proposals amount to inappropriate development in the Green Belt and if so whether the harm, by reason of inappropriateness, and any other harm would be clearly outweighed by other considerations, so as it amounts to the Very Special Circumstances necessary to justify the development;
 - ii. The effect on the Green Belt openness, its prominence and the purposes of the Green Belt'
- 4.34 His assessment of whether the proposals amounted to inappropriate development considered alternative sites also in the Green Belt, Local Plan policy MC3, impact on 'openness' during construction and operations, and the timescale of the development.
- 4.35 The Inspector referred to the High Court Judgment (the judgment) following the 2012 decision in dismissing the claim that exploration and appraisal work of a mineral resource are inappropriate activities. They should only be considered as inappropriate if they adversely affect the openness or any other purpose of the Green Belt.
- 4.36 Insofar as the impact on openness and the other purposes of Green Belt, the Inspector again referred to the judgment. The high court judgment provided some parameters by which to assess this: duration of operation; elements over and above the normal or generally appropriate for a particular operation; and asked the question, whether the restoration would deliver something that would closely replicate the previous landscape character and visual contribution to the area?
- 4.37 Ultimately, the Inspector agreed with the judgment which found that the proposal was not 'inappropriate' development in the Green Belt, as the operations associated with the development were to be short-term and entirely reversible, thus ensuring the permanence of the Green Belt and greatly reduced the harm to it. In terms of encroachment into the countryside, this would be significantly mitigated by the site restoration and although the scheme would not actively assist in safeguarding the countryside from encroachment, it would have a neutral effect in the longer term. Therefore, the Inspector gave significant

weight to the timescale of the works and its reversibility when assessing the impact to the openness and permanence of the Green Belt. The Inspector also advised that had the works been permanent or long term, then this degree of impact would be a matter of planning judgment in terms of the characteristics and purpose of the Green Belt.

- 4.38 In terms of the overall planning balance, the proposed works were found not to be inappropriate development. This was despite acknowledgement from the Planning Inspectorate that the compound would impinge on openness and one of the five purposes of Green Belts (encroachment into the countryside). However, as the operations were to be short-term and entirely reversible, the proposals ensured the permanence of the Green Belt and greatly reduced the harm to this interest. The appeal was therefore allowed subject to condition.
- 4.39 This appeal decision is considered to be of direct relevance to the C2C, in that it determined that even if proposals have some conflict with openness or Green Belt purposes it is a matter of fact and degree for the decision maker to determine if this conflict is so great as to constitute inappropriate development.

Summary of RJD Ltd and Gowling WLG Trust Corporation Limited v Secretary of State for Communities and Local Government (4 April 2019) – Land at Ware Park, Wadesmill Road, Hertford.

- 4.40 The appeal was made under section 78 and 79 of the Town and Country Planning Act 1990 against refusal of planning permission (on 2 March 2016). The appeal was recovered by the Secretary of State on 23 February 2018 and dismissed.
- 4.41 The proposal was for a 1.75m sand and gravel extraction for a period of up to 10 years including associated infrastructure work such as offices, mess room, weighbridge, flood lighting, fuel tank, wheel washing and perimeter bunds. The proposal would also include site restoration and aftercare for 5 years.
- 4.42 One of the six grounds for refusal by HCC was that *“the screening bunds, stockpiling areas, plant and activity would not preserve openness, resulting in inappropriate development where by very special circumstances of benefits of mineral extraction and potential avoidance of sterilisation do not clearly outweigh the harm to the Green Belt”*.
- 4.43 The Inspector (whom the SoS agreed with) made reference to the above *Europa Oil appeal* which found that structures, engineering works, and associated buildings are generally encountered in mineral extraction or the common structural paraphernalia for mineral extractions cannot cause the development to be inappropriate. The elements of development to which the County Council objected were all features that are generally encountered in mineral extraction. *“They are no more than is necessary to facilitate the extraction of minerals from the site”*.
- 4.44 The SoS concluded that the proposal for the site; including the facilities, plant, access and bunds, are part and parcel of the proposed mineral extraction here for the purposes of applying Green Belt policy. If there is any doubt about the bunds, these would be engineered structures, and their construction would be an engineering operation in applying Paragraph 146 of the Framework. Therefore, some level of operational

development for mineral extraction in the Green Belt would be considered as not inappropriate development within the Green Belt, even if there is a degree of conflict with openness and the purposes for including land within the Green Belt. Anything beyond that level the development would become inappropriate in the Green Belt, and so the exception would no longer apply. This is important as it clarifies that works that are essential to carry out the developments listed in paragraph 146 cannot be argued as being inappropriate development if they can be demonstrated to be no more than what is necessary.

- 4.45 Determining the tipping point would depend upon the particular circumstances, as a matter of fact and degree, but relevant considerations could include the siting, nature and scale of the operational development in its local context, along with its visual effects, duration and the reversibility of any adverse impact upon the openness and purposes of the Green Belt.
- 4.46 Therefore, as the proposed quarry would not cause permanent harm the long term openness of the Green Belt would be maintained. Given that the associated works and structures are no more than those generally associated with mineral development and are proportionate in size and temporary in duration, would not constitute inappropriate development in the Green Belt. Even if it did, the Inspector stated that the importance of extracting sand and gravel, and the need to win and work minerals where they lie, would comfortably satisfy the VSC test for inappropriate development in the Green Belt.
- 4.47 It is not to say that the temporary nature of any works listed in paragraph 146 is the tipping point. Each element will have its own considerations. For Local Transport Infrastructure, the first thing to establish is the requirement for a Green Belt location. If this can be demonstrated, then the proposal is likely to be considered 'not inappropriate' development in the Green Belt subject to its impact on the purposes and characteristic of the Green Belt. The C2C scheme would be a permanent intervention within the Green Belt. However, aside from the roadway, it would not include any buildings and so is mostly a grade level route which has the potential to provide significant landscape and biodiversity enhancement to mitigate its impact on the openness of the Green Belt and encroachment into the countryside.

5 LDA ADDENDUM REPORT

- 5.1 Below is a summary of the findings from the LDA addendum reports, which informs the extent of harm from the proposed off-road route and Park & Ride options on the Green Belt.
- 5.2 The 2018 Board Report, which will inform the Outline Business Case, concluded that in order to achieve the strategic objectives of providing a fast and reliable HQPT route from Cambourne to Cambridge, an off-road and segregated alignment would best achieve this. The off-road option would also align better with transport policy including compliance with CAM and integrate better in terms of heritage and biodiversity than the on-road option. The route options for Phase 1 and Phase 2 of the off-road alignment and Park & Ride options have been considered in the LDA report to determine which has the least impact on the purposes, openness and permanence of the Green Belt.
- 5.3 The Phase 1 route extends from Madingley Mulch roundabout eastwards with three route options north of Coton before crossing over the M11 via a new overbridge and connecting onto Charles Babbage Road in West Cambridge. The route through West Cambridge is outside the Green Belt. The route then turns south off Charles Babbage Road via an existing paved path onto a small section of unnamed road before the route splits into two options; Adams Road option and Rifle Road option, both of which connect to Grange Road. There are no available and deliverable alternative site options outside the Green Belt for Phase 1. Therefore, only the parts of Phase 1 that are located within the Green Belt have been assessed in detail in accordance with national and local plan Green Belt policies.
- 5.4 The Phase 2 route extends from a public transport location within Cambourne picking up Great Cambourne and Upper Cambourne along the way before entering Bourn Airfield and linking onto the A428 on the approach to Hardwick where the route enters the Green Belt before the route connects to Phase 1 at the Madingley Mulch roundabout. There are three route options for Phase 2; off-road segregated route; on-road with junction improvements; and on-road with new priority lanes. The main section of the priority lane would be located between the Hardwick Interchange and Madingley Mulch roundabout. Both Park & Ride site options are also located within the Green Belt. Therefore, as with Phase 1, only the elements of the scheme within the Green Belt have been assessed in accordance with Green Belt policies.
- 5.5 Option 1 of Phase 2, is for an off-road segregated route which would provide an off road route in the space between the existing A428 and St Neots Road. Option 2 is for an on-road route utilising St Neots Road and include junction improvements. Option 3 is also for an on-road route but with priority lanes along St Neots Road. This would also require widening of the St Neots Road to approximately 14 metres.
- 5.6 In terms of the two Park & Ride options, the LDA report assesses the Green Belt considerations of the Scotland Farm option and the Waterworks site option. The Scotland Farm option would be located to the west of Scotland Road to the north of the A428. The Waterworks site option would be located to the west of the Madingley Mulch roundabout and south of the A428. The options in both phases are assessed in terms of their

appropriateness within the Green Belt. The LDA reports examines the Green Belt impact of each option and assesses the harm to openness and purposes of the Green Belt. The report also recommends mitigation measures where necessary.

5.7 To fully consider whether or not the proposed route options are not inappropriate development, the key factors are:

- The need to preserve the openness of the Green Belt; and
- Any conflicts with the purposes of including land within the Green Belt.

5.8 The LDA report breaks down the Phase 1 route option into three sectors (A, B and C). For Phase 2, the route options are broken down into three sectors (C, D and E). The Park & Ride sites are located within sectors C and D. The LDA report assesses each sector in terms of its impact on the Green Belt and how any impact could be mitigated.

Phase 1

5.9 Sector A consists of the route options which are mainly located to the east of the M11. The LDA report identifies that the element of the Adams Road route that would be located within the Green Belt would follow an existing cycleway which would be extended to accommodate the public transport route and make provision for a new footpath/cycleway alongside. This would require a minor increase in infrastructure through a flat parcel of land. LDA are of the view that this would have very limited additional visual effect on the Green Belt and as such the option would preserve the openness of the Green Belt.

5.10 The alignment of the Rifle Range option that turns south from the existing cycleway, south of West Cambridge, (before snaking past the western edge of the University Sport Ground and linking to the Rifle Range access track) is undeveloped farmland within the Green Belt. The route also passes over Bin Brook which would require a replacement bridge. On the basis that the replacement bridge seeks to minimise volume and height of new development, the LDA report concludes that this route option would also preserve the openness of the Green Belt due to its limited visibility and potential for biodiversity and landscape enhancement/mitigation.

5.11 In terms of the impact on the purposes of the Green Belt (paragraph 134 of the NPPF), the LDA report advises that the Rifle Range route that crosses undeveloped farmland would conflict with purpose d) of paragraph 134 (to preserve the setting and special character of historic towns) and purpose 2 of the Cambridge Green Belt policy 4 (maintain and enhance the quality of its setting). This route would result in a visual change to Cambridge when viewed from the west and would have a moderate degree of harm.

5.12 Sector B forms the section of the Phase 1 route which is located to the west of the M11 and to the north of Coton, abutting the eastern and northern edge of the village. Sector B is broken into two sub-areas (B.1 and B.2). This stretch of the Phase 1 route comprises of three options, a northern route; new southern route and original southern route. Each option follows a similar route as they sweep north over Coton and south of the Madingley Road (A1303). In terms of the preservation of the Green Belt, the LDA report advises that

all three route option would preserve the openness of the Green Belt. Lighting and signage will need to be required where the route options cross Cambridge Road. However, as the road already has signage, lighting and road marking, and so the LDA report concludes that this is not considered to affect the openness of this part of the Green Belt.

- 5.13 With regards to the bridge over the M11, this would be located within sub-area B.1 and would require earthworks with a bridge deck estimated to be approximately 4.7 metres above ground level. The bridge is an essential part of the route. However, the LDA finds that the bridge would be a relatively small volume of development and would be screened from the surrounding area by existing landscape features including dense tree belts on field boundaries. The bridge would also be insignificant in context with the M11 which is a significant intrusion within the Green Belt. The bridge would also be located between two existing bridges; a footbridge to the south and the A1303 bridge. Therefore, LDA considers that on balance the ramp and bridge would preserve the openness of the Green Belt in this location.
- 5.14 In terms of the impact on the purposes of the Green Belt, all of the route options in Sector B pass through undeveloped countryside and route option 1 would cut across a private garden. The routes would also require removal of existing hedgerow and trees and a signalised junction where the routes cross Cambridge Road. Therefore, these route options would have some effect on the rural character of the area in terms of the setting of Coton and this part of Cambridge. Whilst the mitigation measures recommended (such as new native hedgerow and tree planting including a small woodland to strengthen and maintain the existing pattern of landscape) could be introduced, this would reduce but not eliminate the conflict with the Green Belt purposes.
- 5.15 The LDA consider that all the route options in Sector B would preserve the openness of the Green Belt. However, in terms of conflict, the routes that pass through sub-area B.2 would conflict with the purposes of the Green Belt for all options. The conflict would have a moderate degree of harm to the setting of Cambridge (purpose 2 of policy 4 and purpose 4 of the NPPF). However, with the introduction of the recommended mitigation measures the degree of harm to the Green Belt purposes would over time be moderate to low.
- 5.16 In terms of the proposed ramp and bridge over the M11, the LDA report concludes that there would be no conflict with any of the Green Belt purposes.
- 5.17 Sector C forms the section of Phase 1 that passes over the north-west edge of Coton and remains unchanged from the 2017 study. The route options follow a similar alignment with the northern option which is separated from the two southern options before all three come closer together at the Madingley Mulch roundabout. The design of the route options would cut into the landform thus reducing their visibility from elevated locations to the south. Sector C also is largely open fields and so would only require a small amount of loss of existing vegetation.
- 5.18 In terms of potential conflict with the Green Belt purposes, LDA concludes that whilst there would be some conflict with the Green Belt purposes at national and local levels, the degree of conflict of the route options would reduce, the further the route becomes from the edge of Coton until there is no conflict. The degree of harm to the purposes of the

Green Belt would be moderate and over time reduce from 'low' to 'no harm' taking into account the mitigation measures proposed.

- 5.19 The LDA report has assessed all the Phase 1 route options in terms of impact on the openness and purposes of the Green Belt. They have concluded that, from a landscape perspective, the Phase 1 options would not cause harm to the openness or purposes of the Green Belt subject to mitigation. Their view is that the degree of harm would be moderate-to-low for each route option of Phase 1.

Phase 2

- 5.20 The following section of the report provides an assessment on the Green Belt impact of all the Phase 2 route options and the two preferred Park & Ride sites on land east of Scotland Road and the Waterworks site west of Madingley Mulch roundabout.
- 5.21 Sector C of Phase 2 is located to the north-west of Coton and follows St Neots Road (A1303) which connects to the Hardwick Interchange. The land use is mostly arable farmland of which the larger arable fields are steeply sloping and contain limited hedgerows and there are no public rights of way through this sector. The key considerations in relation to openness are the sloping landform and lack of vegetation within the Sector. The Sector has a rural character despite the adjacent road infrastructure.
- 5.22 LDA report advises that this sector forms a key part of the rural setting of Coton by maintaining the character north of the village and preventing sprawl of the village north and west. The existing woodland to the north and west of the village are important and positive character features of the local landscape.

Waterworks Park & Ride

- 5.23 The Waterworks Park & Ride option is located within this sector. Access to the parking areas would be achieved from the roundabout via a signalised junction on St Neots Road which would allow access to each part of the site. The parking areas are proposed to be created in two areas; the greenfield between the A428 to the north and St Neots Road to the South, and west of the roundabout. This would be smaller of the two parking areas. The larger parking area would be located south of St Neots Road and west of the existing Madingley Mulch Garden Centre. A signalised crossing would be created on St Neots Road to enable access between the two areas. This would require the removal of some of the existing trees to create an opening. However, although a detailed landscape design has not yet been prepared, LDA advise on planting new tree belts to the east and south of the Park & Ride and within the parking areas would help mitigate the loss and visual impact. The preferred route option for Phase 1 would pass the western and southern boundary of the Park & Ride.
- 5.24 In terms of the openness of the Green Belt, the LDA report advises that there will be a requirement for cut and fill operations to ensure the parking areas are level due to the existing sloping and mounded landforms. The overall layout and design of the Park & Ride has yet to be finalised, in terms of the extent of cut and fill over the two areas, and small/ancillary buildings and shelters, and hard surfacing. However, the report states that

the introduction of increased signage, lighting and road markings near the proposed road junction between the two parking areas would not affect the openness of the Green Belt. The removal of existing vegetation along St Neots Road would increase visibility of the Park & Ride but will reduce over time by replacement planting. However, visibility would remain in the short to medium terms and longer terms where planting is not possible. As a result, the LDA finds that there will be a reduction in the openness of the Green Belt within the sector overall.

- 5.25 In terms of conflicting with the purposes of the Green Belt, the proposed Park & Ride would introduce development onto an undeveloped part of the countryside where little development is currently visible. The LDA report states that this would result in conflict with the national Green Belt purpose 3 (safeguarding the countryside from encroachment) and consequently purpose 4 (preserve the setting and special character of historic towns), and purpose 2 (maintain and enhance the quality of its setting) of the Cambridge Green Belt purpose. However, the report also acknowledges that the Park & Ride site would be located far enough west from the edge of Coton to avoid changing the character of its setting. It is concluded that the Park & Ride would not conflict with purpose 2 and 3 of the Cambridge Green Belt or purpose 2 and 4 of the National Green Belt.
- 5.26 In terms of the degree of conflict, the report advises that there would be a 'moderate to low' degree of harm to Green Belt purposes.

Phase 2 Route

- 5.27 Sector D is the section of the route located from the north-west of Coton to the Hardwick Interchange and extends along the St Neots Road corridor. This stretch of the sector is defined by arable fields and residential properties to the south of St Neots Road and tree planting to the north on the sliver of land between the A428 and St Neots Road. There are no public rights of way through this sector.
- 5.28 The LDA report considers that the containment of this sector is provided by the existing vegetation and is as a key consideration to the openness. The vegetation provides a visual and physical containment from the surrounding landscape. The sector also plays a limited role in the wider setting of the west of Cambridge due to its physical and visual separation from the city. The woodland belt along the northern edge is important to the woodland character of the landscape and forms a positive feature. It also prevents visual intrusion from the A428 to the north.
- 5.29 All the route options would enter the Green Belt in the vicinity of the junction between St Neots Road and Cambridge Road.
- 5.30 Option 1 (off-road route) would require the removal of much of the existing vegetation between the A428 and St Neots Road to create a new carriageway with flanked grass verges. The current proposal for this option includes enhancements along the existing St Neots Road, including new tree planting between existing properties and existing carriageway. However, the 3 metre wide proposed footway and cycleway could also require removal of existing hedgerows and front garden boundary vegetation of the properties south of St Neots Road.

- 5.31 Option 2 (on-road with junction improvements) would not require the removal of any existing vegetation as the route alignment would be provided entirely on existing roads. The current proposal includes the same enhancement indicated in Option 1. However, as with Option 1, the improvements to the footway and cycleway would require vegetation removal of the properties south of St Neots Road.
- 5.32 Option 3 (on-road with priority lane) would require the creation of bus priority lanes either side of the existing carriageway. As a result, it would require St Neots Road to be widened to approx. 14 metres. This option would require significant removal of vegetation along the north of St Neots Road but not to the same extent as Option 1. As with the other options, mitigation could include new tree planting between the existing properties and carriageway. However, again, the improvements to the footway and cycleway could require additional vegetation to be removed including at the front garden boundary vegetation of existing properties.
- 5.33 In terms of preserving the openness of the Green Belt, the LDA report advises that all options would potentially require the removal of the hedgerow boundary along the southern edge of St Neots Road. This would extend development into the undeveloped countryside by a small amount. However, the limited earthworks would be required for this and the extension of the cycle route would help preserve the openness of the Green Belt.
- 5.34 Option 1 could require the removal of the majority of vegetation between the A428 and St Neots Road and require some earthworks to create the off-road route. The LDA report advises that careful design should be able to create a balance of cut and fill that would mean no significant volume of development to affect the openness of the Green Belt. Option 3 would require similar, albeit less extensive vegetation clearance and earthworks. Nevertheless, both options are considered to preserve the openness of the Green Belt. Option 2 would utilise the existing road and not require the removal of vegetation to the north of St Neots Road. As such it would preserve the openness of the Green Belt.
- 5.35 In terms of conflict with the purposes with the Green Belt, the LDA report advises that all options would protrude into the undeveloped countryside south of St Neots Road where very little development is currently visible. In terms of the options, Options 1 and 3 would increase encroachment of development into the countryside and increase the visibility of transport infrastructure. As a result, these options would conflict with National Green Belt purpose 3 (safeguarding countryside from encroachment) and consequently purpose 2 of the Cambridge Green Belt and purpose 4 of national Green Belt. Option 2 would have no additional conflict with Green Belt purposes as no vegetation to the north is anticipated to be removed.
- 5.36 In terms of the degree of harm, LDA advises that with the removal of vegetation to the south of St Neots Road, there would be a 'low' degree of harm in the short to medium term to the purposes of the Green Belt as highlighted in the above paragraph and that this would apply for all three options (National and Cambridge).
- 5.37 The LDA report also advises that Options 1 and 3 would potentially increase the visibility of the route options as well as the A428 corridor, which could not be fully mitigated by any replacement planting to replicate the current depth of planting. Therefore, LDA advise that this would result in a 'moderate' degree of harm to the Green Belt purposes in paragraph

5.35. However, LDA believe with appropriate planting to the south of St Neots Road and any retention of existing vegetation could potentially reduce the degree of harm to 'low' over time.

Scotland Farm

- 5.38 Sector E is located to the south of Dry Drayton and mostly arable farmland and grazing. In this sector is the Scotland Farm Park & Ride site. LDA has identified five sub-areas (E.1 to E.5) within this sector which reflect landform and field pattern. Of the five sub-areas only E.4 is likely to be affected by the proposed Park & Ride.
- 5.39 The LDA report advises that the key consideration, in relation to the openness of the Green Belt are the undulating landform and pattern of vegetation. There is also limited built development within this sector which consists predominately of open farmland with occasional properties and a small business park along Scotland Road to the west. There is also the road infrastructure and existing footbridge over the A428 to the south of the sector.
- 5.40 In terms of the purposes of the Green Belt, the key considerations are the physical and visual separation from the city and the importance of the undulating landform to the character of this sector. Despite the road infrastructure, the report advises that the sector has a strong rural character and forms part of the wider rural approach to Cambridge from the west. The vegetation along the southern edge of the sector is also important to the wooded character and forms a positive feature.
- 5.41 The proposed Park & Ride at Scotland Road, which would be located north of the A428, would be accessed via a new signalised junction off Scotland Road but this would not be located on the proposed route. With the exception of creating a new access point, the existing vegetation along the northern and western boundary of sector E.4 would be mostly retained. New planting in the form of tree belts is proposed around all sides of the proposed Park & Ride including within the parking areas.
- 5.42 In terms of the preservation of the openness of the Green Belt, despite the undulating landform in this sector, sub-area E.4 is relatively flat and so should minimise the requirement for cut and fill operations for the proposed Park & Ride. However, aside from the additional hardstanding for the parking area, the Park & Ride will also require an ancillary building and/or bus shelters to facilitate the Park & Ride, which would result in new development in the Green Belt. The additional signage, lighting and road markings for the new access would not affect the openness according to the report. However, in terms of overall impact on the openness, the LDA report advises that the eastern boundary of the proposed Park & Ride, would result in a reduction in the openness of the Green Belt in sub-area E.4.
- 5.43 In terms of the potential conflict with the Green Belt purposes, the proposed Park & Ride would result in the development of undeveloped countryside in sub-area E.4. The LDA report advises therefore the proposed Park & Ride would conflict with National Green Belt purpose 3 which is consequently conflict with Cambridge Green Belt purpose 2 and National Green Belt purpose 4. The report also advises that the location of the Park & Ride is far enough from existing settlements to prevent them merging.

- 5.44 The degree of harm that the proposed Park & Ride at Scotland Road would have on the openness and purposes of the Green Belt is described in the LDA report as being 'moderate'. This is due to the introduction of development on undeveloped countryside and its visibility from the west, which would be open until any proposed vegetation becomes established. However, the LDA concludes that over time with landscape planting, the degree of harm could be reduced to moderate-low to the Green Belt purposes.
- 5.45 In summary, the LDA report has assessed each route option including both Park & Ride sites within Phase 2. They have advised that all the route options (1 to 3) for the C2C would preserve the openness of the Green Belt but all options would have some conflict with national Green Belt purposes 3 and 4, and Cambridge Green Belt purpose 2. However, the degree of harm for all route options would be low in terms of National Green Belt purpose 3 as a result of encroachment south of St Neots Road. For Options 1 and 3 where there would be a moderate degree of harm to the National purpose 3 due to the increased visibility of the road infrastructure following removal of vegetation north of St Neots Road.
- 5.46 In terms of the Park & Ride sites, LDA's view is that they would have a moderate degree of harm reducing to moderate-low degree of harm with planting.

Case law

- 5.47 The case law references highlighted in the above section provides some clarity on various considerations when it comes to assessing the impact development has on the Green Belt and what factors should be considered. The C2C falls within the category of Local Transport Infrastructure as defined in paragraph 146 of the NPPF, and the need for Green Belt location has, in landscape and planning terms, been demonstrated having considered the merits of the on-road route as the alternative option.
- 5.48 The engineering operation associated with the C2C is an inherent part of the development. Therefore, in terms of determining whether the proposed development would have an adverse impact on the openness and purposes of the Green Belt, taking into account the above case law, the tipping point will depend on the particular circumstances of the development. The assessment provided by LDA demonstrates that the route options in Phase 1 and 2 would have some degree of conflict with Green Belt purposes, but that the degree of impact would be 'moderate' at most, if not 'moderate to low' and in some circumstances 'negligible' once mitigation measures have been introduced. In assessing whether this conflict is sufficient for the development to be inappropriate development, the above appeal decisions provide useful case law context for development under paragraph 146 of the NPPF. The case law also clarifies the position between the consideration of spatial and visual effects of development on the Green Belt. In this regard, preservation of the openness is not about maintaining the existing status quo but '*keeping safe from harm*'.
- 5.49 In assessing whether the proposals are 'not inappropriate' or 'inappropriate' development in the Green Belt it is important to consider the degree of harm and whether the proposed development includes elements that fall outside the scope of infrastructure that is reasonably necessary for the C2C.

- 5.50 In the 2017 Planning Appraisal, four connection options to Grange Road from West Cambridge were reviewed in context with the September 2017 Green Belt Report by LDA. The options were Adams Road, Hershel Road, land north of the rugby club (known as 'Rifle Range') and Cranmer Road. Of these connection options, the Cranmer Road route would have had the highest degree of conflict with the purposes of including land within the Green Belt and the Adams Road connection would have the least impact. It was confirmed in this report that the routes that dissected the Cambridge West Fields would have significant conflict with Green Belt purposes. It is considered that a route that dissects Cambridge West Fields would have required 'very special circumstances' given that there would be a high degree of conflict with Green Belt purposes and that there are alternative route options available that could deliver the objectives of the C2C, with significantly reduced harm on the Green Belt
- 5.51 The LDA report is clear that the Adams Road option would have a low degree of conflict with Green Belt purposes. Given that any scheme in this location would have some conflict with Green Belt purposes, it is considered important for the *fact and degree* test to be applied. In this regard given that this conflict with purposes is low and that the infrastructure required is essential for the delivery of the C2C, utilisation of this route can be considered to be not inappropriate development within the Green Belt.
- 5.52 The alternative route option along the Rifle Range has also been amended since 2017. This route option as assessed by LDA is now closer to the boundary of the University Sports Ground, than the previous route option and has sought to minimise the impact upon the Cambridge West Fields, from the options considered in 2017. It is acknowledged that the conflict with Green Belt purposes will be higher with the Rifle Range route than it is for the Adams Road route. In determining whether the Rifle Range route as assessed by LDA in 2019 would constitute not inappropriate development within the Green Belt, is a matter of fact and degree. On the basis that the proposed route adjacent to the Rifle Range does not conflict with the openness of the Green Belt, it could be considered as not inappropriate development in Green Belt, provided the potential conflict with Green Belt purposes are addressed and it is demonstrated that there is a requirement to use this route in order to achieve the economic, environmental and social objectives of the scheme.
- 5.53 In addition, for the routes to the north of Coton, the LDA report states that each of the proposed three route options would have a similar level of conflict with Green Belt purposes. Each of the route options will have a similar level of conflict with purposes, being moderate, but reducing to low, with landscape mitigation. Therefore subject to appropriate landscape mitigation being provided, it is also considered that this stretch of the route within Phase 1 can be considered as not inappropriate development within the Green Belt.

Phase 2

- 5.54 For Phase 2, in terms of the degree of harm that each option would have on the Green Belt, LDA advise that Options 1 and 3 would have a 'moderate' degree of harm which has the potential to reduce to 'low' with planting and vegetation retention. Therefore, as with

the route options in Phase 1, the *fact and degree* test should be applied to the route Options 1 and 3 of Phase 2 to determine if 'very special circumstances' are required. Whilst Option 2, would have the least impact on the Green Belt, as assessed within the Outline Business Case, it would not deliver the transport benefits of the scheme.

- 5.55 The degree of harm has been carefully assessed in the LDA report. The report concludes that the degree of harm on the Green Belt would be 'low' with appropriate planting. Therefore, with careful and robust landscaping and retention of as much of the existing vegetation as possible, the harm to the Green Belt would be minimised. As such, when applying the *fact and degree* test to these route options, and having regard to any development in the Green Belt having some degree of harm, it is considered that the route alignment for Options 1 and 3 would constitute 'not inappropriate development' in this case, provided that suitable mitigation can be provided.
- 5.56 Both Park & Ride sites would introduce a volume of new development including ancillary buildings and structures that would have a permanent visual effect on the openness of the Green Belt. A key consideration when determining if the proposed Park & Rides are not inappropriate development or whether Very Special Circumstances are required will depend on the size and mass of any buildings and ancillary structures on the site. In this regard, paragraph 145 of the NPPF is clear that the construction of new buildings should be regarded as 'inappropriate' within the Green Belt. The case law on ancillary buildings related to local transport infrastructure proposals is relatively untested nationally. In order for any building on the Park & Ride sites to be considered 'not inappropriate development' the building would need to be the minimal size possible and limited to facilities that are essential for the Park & Ride site.
- 5.57 At this stage, no detailed designs of the Park & Rides have been fixed/finalised except for indicative layouts. The layout options show a scale of development within the Green Belt which will include essential ancillary provisions and facilities to serve the Park & Rides such as hardstanding/parking area, potential ancillary buildings and landscaping. Therefore, the considerations of the Park & Ride sites are based upon their impact on the Green Belt and the potential for introducing mitigation measures to minimise the visual and spatial effects of the development on the Green Belt.
- 5.58 LDA advise that the Waterworks site west of Madingley Mulch roundabout would not preserve the openness of the Green Belt and would conflict with the purposes of the Green Belt. However, in terms of the degree of harm to the Green Belt, LDA assessed each of the two parking areas (north and south of St Neots Road) and concluded that the harm would be 'moderate to low' reducing to 'low' with planting for area south of St Neots Road and 'moderate' reducing to 'moderate to low'.
- 5.59 As for the Scotland Road site, this option would also not preserve the openness of the Green Belt but would conflict with the purposes of the Green Belt. However, the degree of harm would be 'moderate' but reducing to 'moderate-low' with planting.
- 5.60 Therefore, applying the *fact and degree* test it is considered that an argument could be made for both Park & Ride sites to be 'not inappropriate' development in the Green Belt. However, this is subject to detailed design considerations and ensuring that the proposed

extent of any new buildings, ancillary structures, means of enclosure, lighting and infrastructure is limited to matters essential to the local transport infrastructure project.

Areas of Route Outside of the Green Belt

- 5.61 All other sections of Phases 1 and 2 are either outside of the Green Belt or assessed by LDA to not conflict with the openness of the Green Belt or the purposes of including land within the Green Belt and therefore would also be not inappropriate development within the Green Belt.

6 CONCLUSION

- 6.1 The C2C would provide significant social and economic benefit through the introduction of a fast and reliable HQPT link between Cambourne and Cambridge. Most of the Phase 1 route would travel through the undeveloped farmland within the Cambridge Green Belt and include a bridge over the M11. However, in terms of harm, interpretation of NPPF paragraph 146 must start from the premise that the category in question can be considered to be appropriate development in the Green Belt. The case law has confirmed that even if development (falling within paragraph 146) would cause some degree of impact on openness it would not necessarily mean it was 'inappropriate' (see the *Tadcaster* case referred to above) and it has been confirmed that in each case of the development listed in paragraph 146, it must be the case that *some* form of such development must be possible without having unacceptable effects on openness or the NPPF purposes of Green Belt (*Europa*). It must be a matter of planning judgement to determine the level of harm/tipping point.
- 6.2 In this regard, it can be concluded, based upon the assessment undertaken by LDA and the interpretation of recent case law, that Phase 1 and Phase 2 (excluding the Park & Rides) of proposed C2C would not cause harm to the purposes, openness and permanence of the Green Belt. It is acknowledged that the C2C would be a permanent development within the Green Belt. In this regard, it is different from the recent case law for the mineral applications, which were temporary in nature, but higher in visual impact than the C2C, when operational. The C2C would be a permanent development, but is considered to have a lower visual impact on the Green Belt than the proposed mineral operations referred to in the recent case law examples. The C2C will not result in significant development above the ground level, other than a degree of cut and fill development. In this regard, having regard to the *Tadcaster* case referenced above, it is considered that provided suitable mitigation is provided, the visual impact of the development would not be so significant for the development to be considered as 'inappropriate' within the Green Belt. In terms of the Park & Ride sites, as set out above a view on whether the proposals are not inappropriate development will to an extent be determined by detailed design considerations.
- 6.3 In terms of Very Special Circumstances (VSC), as detailed within the 2017 Planning Appraisal it is considered that, if required, VSC do exist and can be demonstrated for the off-road route when considered with the social and economic benefits of the project. This includes the transport objectives of the scheme of providing a direct, fast and reliable public transport link between Cambourne and Cambridge. The VSC for the proposed development were set out in our 2017 Planning Appraisal, which this provides an addendum to.
- 6.4 In principle of development terms, the proposals are therefore considered to be consistent with the National Planning Policy Framework, South Cambridgeshire District Council and Cambridge City Council Adopted Local Plans (2018). Consideration of the proposed development against detailed policies within the Development Plan and other material considerations will be undertaken at a later date.

Appendix 1: Planning Appraisal by Strutt & Parker dated August 2017



Cambridge to Cambourne Busway (A428)

Planning Appraisal

Prepared by Strutt & Parker LLP & Atkins on behalf of Greater Cambridge Partnership

August 2017

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Appendices

Appendix A: Option 3A Area of Search Route

Appendix B: List of Relevant Planning Policies

Appendix C: LDA Inner Green Belt Study

1. EXECUTIVE SUMMARY

- 1.1 This Planning Appraisal has provided a high level overview in relation to key planning policy considerations in relation to the proposed Cambourne to Cambridge Busway Project, in relation to option 3A/3. It should be reviewed in conjunction with a number of other background reports prepared by Atkins and the Consideration of Green Belt Impacts Report, prepared by LDA. It specifically analyses the principle of the development.
- 1.2 The busway route is likely to be delivered under the TWA which relate directly to transport infrastructure projects. The TWA process will require a submission directly to the Secretary of State, rather than to the local planning authorities, although they will be key consultees.
- 1.3 The report has demonstrated that the transport and other objectives of the scheme are strongly supported in both Local and National policy. The busway proposals are also fully consistent with the economic and social objectives of the NPPF. The proposals seek to tie in with major employment and housing development along the A428 including Cambridge West Employment Site, Bourn Airfield and Cambourne West. In this regard transport modelling undertaken to date demonstrates that there is a direct relationship between residential growth, job growth and the busway proposals. The scheme would also facilitate significantly better and direct cyclist and pedestrian routes from Cambourne to Cambridge, which is strongly supported in planning terms.
- 1.4 The social and economic benefits of the scheme, need to be weighed against the impact in environmental terms, particularly accounting for the location of large parts of the proposed busway project route being situated within the Cambridge Green Belt. In accordance with the requirements of paragraph 90 of the NPPF, the busway has a required need for a Green Belt location in order to deliver the key transport objective of providing a fast, frequent and reliable route from Cambourne to Cambridge.
- 1.5 In addition, parts of the busway project route are defined as 'not inappropriate' development within the Green Belt on the basis that they will preserve the openness of the Green Belt and that the busway route will not conflict with the purposes for including land within the Green Belt.
- 1.6 As set out within the Considerations of Green Belt Impacts Report, prepared by LDA, the busway can be delivered without compromising the openness of the Green Belt. This is with the exception of the green bridge ramp, which may conflict with the openness of the Green Belt, dependent upon the option chosen. It is the view of LDA that parts of the route options immediately to the west of Cambridge and to the north of Coton have a degree of conflict with the purposes for including land within the Green Belt. This specifically relates to national Green Belt purpose 4, and Cambridge Green Belt purposes 1 & 2. This has regard to preserving the unique character of Cambridge as a compact, dynamic city; and the need to maintain and enhance its setting.

- 1.7 The LDA Report concludes that whilst parts of the route could be delivered as not inappropriate development within the Green Belt, very special circumstances would be required within the area of the Green Belt to the west of Cambridge City and to the north of Coton. The level of harm to the Green Belt will be dependent upon the final route option chosen, which in itself will need to be considered against other material planning factors, such as the transport objectives of the busway project. The LDA Report is considered to provide a worse case and conservative assessment of the impact that the busway scheme would have in terms of conflict with openness of the Green Belt and conflict with the purposes of including land within the Green Belt.
- 1.8 Even accounting for the worst case and conservative approach taken by LDA, it is considered in planning terms that a strong case can be made for very special circumstances for the busway project. This accounts for the substantial transport benefits associated with the proposals and that the land will remain in the Green Belt following the completion of the development. The proposals will facilitate access to the Green Belt. This planning balance will be assessed in further detail dependent upon the final route chosen.
- 1.9 Overall it is therefore concluded that the principle of the busway from Cambourne to Cambridge is likely to be supported in planning terms when assessed against the Development Plan as a whole. It is consistent with the objectives of the NPPF, the adopted Cambridge City Council Local Plan (2006) and the South Cambridgeshire Core Strategy and Development Control Policies (2007).
- 1.10 In addition, work is being undertaken to assess the most suitable location for a park & ride site along the busway project route. The most appropriate location will be selected following a detailed assessment of different locations, having regard to a range of different planning matters.
- 1.11 A range of detailed work will be undertaken as part of the EIA process to establish a number of more detailed planning policy considerations related to the busway scheme.

2. INTRODUCTION

2.1 Purpose of the Report

- 2.1.1 The purpose of this Report to provide an assessment of key planning policy considerations in relation to the delivery of the Cambridge to Cambourne Busway project adjacent to the A428. It specifically assesses the key matters that relate to the principle of the development in planning terms, including the location of the development within the Cambridge Green Belt. It has been prepared specifically in relation to route option 3a and option 3, which are off- road options. The predominantly online options of 1 and 6 or offline options 2, 4 and 5 have not been assessed as part of this report. Section 2 of this report provides background on the route options that have been/are being assessed as part of the busway project.
- 2.1.2 The report will be used to inform more detailed work and assessments as the project progressed.

Description of Proposed Busway Project

- 2.1.3 It is understood that for option 3a/3 the busway will be a two way hard running surface with a central grass section and a maximum width of 15 metres excluding any additional land for landscape and ecological mitigation, such as hedgerow planting. Adjacent to the busway (and within 15 metre width) would be a 4m wide maintenance track. The maintenance track would be available to use by emergency vehicles and would be made available as public rights of way in the form of a bridleway for use by pedestrians, equestrians and cyclists. The scheme would be designed to accommodate exiting public rights of way that either cross or run adjacent to it.

Lighting

- 2.1.4 Lighting will not be included along the busway or cycle track between junctions. At traffic signalled controlled junctions with the public highway, street lighting will be provided in accordance with the Design Manual for Roads and Bridges . This will provide the safest means of negotiating the junction (e.g Cambridge Road, Coton). Light pollution will be reduced by design including but not limited to the use of cut off screens.

Means of Enclosure

- 2.1.5 The busway will not be fenced, except where it is required to be for safety reasons, such as bridges or culverts. Where appropriate, boundary treatments would be of a native species hedging. The development of scheme of landscape mitigation will incorporate proposed such planting measures, where considered appropriate and beneficial.
- 2.1.6 For the purposes of this report, the scheme will hereafter by described as the 'busway project.' The busway project for the purposes of the report comprises of the development proposals described in paragraphs 1.1.3- 1.1.5, to be located on land within option 3a/3. Please refer to appendix A for the area of study for route option 3a/3.

- 2.1.7 In addition the Greater Cambridge Partnership are also undertaking a review of suitable sites for a park & ride to be located along the busway route between Cambridge and Cambourne. This report contains a very high level review, related to the planning policy considerations having regard to park & ride locations. For the purposes of this report, the park & ride falls outside the definition of the 'busway project', however it is analysed separately at the end of section 4.

2.2 Overview of City Deal and Consultant Team

- 2.2.1 This report has been written by Strutt & Parker, with input from Atkins on behalf of the Greater Cambridge Partnership City Deal partners.
- 2.2.2 The Greater Cambridge Partnership is an agreement that has been set up between a partnership of local organisations and central government, to help secure future economic growth and quality of life in the Greater Cambridge City Region. The Greater Cambridge Partnership are responsible for promoting and securing the delivery of the proposed busway. The Greater Cambridge Partnership consists of the following organisations:
- Cambridge City Council
 - Cambridgeshire County Council
 - South Cambridgeshire District Council
 - University of Cambridge
 - Greater Cambridge Greater Peterborough Local Enterprise Partnership
- 2.2.3 Tranche 1 of the Greater Cambridge Partnership includes those schemes which will facilitate the early delivery of development in the A428 corridor between Cambourne and Cambridge. The vision for the deal is to make it easier to travel in, out and around Cambridge and South Cambridgeshire by public transport, cycle or on foot, and reduce and maintain lower traffic levels to ease congestion, which the busway project could form part of. Further information on the City Deal, can be found on the Greater Cambridge Partnership City Deal website.
- 2.2.4 The current technical supporting team assisting the Greater Cambridge Partners on the promotion of the busway consist of the following organisations:
- Transport and Highways- Atkins Global & Skanska
 - Landscape and Visual Assessment- Atkins Global
 - Green Belt- LDA
 - Noise- Acoustic Associates
 - Planning- Strutt & Parker LLP
 - Legal- Pinsent Masons LLP
- 2.2.5 As the proposals progress, further consultants will be appointed to undertake detailed work on other relevant planning and environmental considerations. Further information on this is provided within section 5 of this report.

2.3 Timetable

- 2.3.1 The proposals for the busway are currently still at feasibility stage, although there is commitment from the Greater Cambridge Partnership for promotion of the scheme. Based on the current programme consent for the project would be sought in 2019, with the commencement of work in 2020, subject to the grant of the required consent. Further information on the process is contained within section 3 of this report.

3. THE PROPOSALS AND ROUTE OPTIONS

3.1 Location of the Proposed Development

- 3.1.1 The Busway Project is proposed to provide a bus priority scheme along the A428 and A1303 corridors and also improve cycling and walking links. The proposed study area, subject of this report is located from Caxton Gibbet Roundabout, west of the Cambourne, to Cambridge City Centre in the east. The study area also encompasses villages such as Dry Drayton, Madingley, Hardwick and Coton.
- 3.1.2 It is proposed that Cambourne will be the origin of the busway project and that services originating here will facilitate connections to and from St Neots to the west.
- 3.1.3 In addition a number of sites along the route have been considered having regard to the location of a park & ride, which would be served by the proposed busway. The reviewed locations of the park & ride sites are set out in the Stage 2 Park and Ride Report, prepared by Mott McDonald. Based on the recommendations within this report the two preferred sites are at Scotland Farm and the Water Works site. The location of the two sites, are set out in detail within the Park & Ride Report, prepared by Mott McDonald.

3.2 Aims and Objectives of Busway Project

- 3.2.1 The aims and objectives of the busway project, are consistent with the objectives of the Greater Cambridgeshire Partnership City Deal, which seek to achieve the following:
- Bring vital transport improvements to key transport corridors into Cambridge City and reduce congestion.
 - Connect existing and new residential and employment areas with high quality public transport networks. Further detail on committed and likely future developments, is provided within section 3 of this report.
 - Provide more sustainable ways for people to travel between their homes and places of work, through a comprehensive network of pedestrians.
- 3.2.2 It is recognised in that achieving the above aims and objectives, the proposals need to give due and detailed consideration to a number of detailed planning and environmental considerations. This includes accounting for the following:
- To protect and safeguard the objectives of the Green Belt and protect the character of the countryside.
 - The need to protect the historic setting of Cambridge and other heritage assets, such as the setting of Coton Conservation Area.
 - The need to minimise the impact of the scheme on the wider landscape
 - The need to protect existing residential amenity.
 - Consideration of other material planning considerations, such as ecological, arboricultural, light and noise pollution considerations.
- 3.2.3 This list is not exhaustive and it is the intention to undertake detailed work on a wide range of environmental and planning matters. This will inform whether the busway

project in the area of search is acceptable in planning terms and it will also inform the most appropriate route for the busway

3.3 Cambridgeshire Guided Busway

- 3.3.1 The Cambourne to Cambridge Better Bus Journeys Scheme is informed by the Cambridgeshire Guided Busway as an example of bus priority in the area.
- 3.3.2 The Cambridgeshire Guided Busway (CGB) began operating on 7th August 2011. The busway scheme was implemented to connect Cambridge to settlements in Cambridgeshire such as Huntingdon and St. Ives. The CGB Statement of Case identifies the objectives of the scheme:

“The Cambridgeshire Guided Busway (CGB) will be a high quality public transport system from Huntingdon via St Ives to Cambridge city centre and then to Trumpington and Addenbrooke’s Hospital via Cambridge Railway Station. It consists primarily of guideways constructed on two sections of disused railway complemented by elements of on-street running.”

- 3.3.3 The CGB is a combination of physically separate busway and on street bus-priority consisting of dedicated lanes. Private vehicles are prohibited from entering the busway which results in a reliable service. To enforce the ban on private vehicles, car traps are set along the physically separate busway sections. A maintenance track allows emergency vehicles to enter if there is an emergency. Each stop is timetabled to have a service stopping every seven minutes which means there is a constant flow of commuters arriving into the city. Reliability is also increased by off-board ticketing to reduce dwell time at each stop.
- 3.3.4 Within the first year of operation 2,500,000 trips were made on the CGB, 40% higher demand than first predicted. 60% of CGB trips are for commute to work or education which suggests that there is a propensity to use public transport if the origin and destination locations are appropriate. Demand for the CGB is also likely to increase as Northstowe new town is built out and completed. Due to the amount of trips made and consequently the reduction in congestion and emissions, the CGB is considered to be a successful public transport system of which the scheme should aim to follow to meet policy requirement.

3.4 Route Options for Busway Project

- 3.4.1 There have been six route options that have been assessed in order to inform the decision of preferred route. In October 2016, a recommended area of search for the busway, was presented to the Greater Cambridge Partnership Executive Board, who agreed in principle, that a segregated route between Cambourne and Cambridge meets the strategic objectives of the Greater Cambridge Partnership.
- 3.4.2 In October 2016, officers were given approval to undertake detailed assessment work on Option 3A, with option 3 as an alternative if option 3A proved to be unviable. Option 3A is a proposed area of search for the busway scheme on land to the south of the A428 (please refer to appendix A of this report). Option 3A/3 has been endorsed as the preferred route for the busway project, ahead of options 2, 4 and 5,

all of which are also offline options located within the Cambridge Green Belt. In addition to option 3a and 3, the Greater Cambridge Partnership are also assessing the feasibility of option 1 and option 6, which are predominantly on road options.

- 3.4.3 Option 3a would provide a predominantly segregated route from Cambourne to Cambridge running south of the existing A428/ A1303 corridor. The route would travel on road through Cambourne until Stirling Way where it becomes segregated and a BRT link would be provided between Cambourne and Bourn Airfield. The route would continue through the proposed development at Bourn Airfield, before adjoining the existing St Neots Road highway corridor east of the development. From Bourn Airfield a segregated bus route would be provided adjacent to the existing St Neots Road corridor to the Madingley Mulch roundabout. From the Madingley Mulch roundabout a new offline dedicated bus route would be provided, running north of Coton and parallel to Madingley Road and Madingley Rise, with a connection to the West Cambridge site. The route would connect to the existing highway and Grange Road and continue on road into the City.
- 3.4.4 The difference between option 3a and option 3, is that option 3a would use the established transport corridor adjacent to St Neots Road, and has the potential to be designed to provide similar segregation to option 3, but with a reduction in cost over providing an entirely new corridor between Cambourne and Madingley as proposed under option 3.
- 3.4.5 Option 1 would provide improvements to bus services, which run along existing roads, no bus priority is proposed on the existing A428 dual carriageway, signalisation of Madingley Mulch roundabout will take place. This includes online eastbound bus lanes from the A1303/A428 junction along Madingley Rise and Madingley Road to Lady Margaret Road. Option 6 is an alternative option put forward by the Local Liaison Forum and comprises of an unsegregated tidal bus lane aligned to the centre of the A1303 Madingley road as a variation of option 1.
- 3.4.6 Further information on the different route options and the rationale for pursuing option 3a/3, is contained within the A428 Options Appraisal Report, prepared by Atkins (October 2016). This document and associated documents regarding the proposed development can be found on the Greater Cambridge Partnership Website.
- 3.4.7 For the purposes of this report it has been assumed that option 1 would score well on any Green Belt analysis given that it would be works within the public highway. In addition, option 6 would score better in terms of Green Belt impact, but would still involve some development within the Green Belt, such as gantries and highway widening. Of the three options, Option 3/3A will have the highest impact in Green Belt terms and is therefore the option that is assessed as part of this report.
- 3.4.8 It is acknowledged that when selecting the most appropriate route option a clear analysis of why the preferred route has been chosen against the alternatives will need to be provided as part of the Environmental Impact Assessment process. This will include a full assessment of the different route options against adopted Development Plan policies, their benefits in transport terms and the impact that they would have in Green Belt terms.

3.5 Option 3A

- 3.5.1 Within Option 3A a number of different alignments for the busway route have been assessed, as detailed within the Green Lane Concept Report prepared by Atkins, Atkins and the Considerations of Green Belt Issues Report prepared by LDA. In particular, different route options have been assessed having regard to the most appropriate location to provide a green bridge across the M11 and the most appropriate route to provide a connection onto Grange Road, to the west of Cambridge. Four options have been identified for a connection onto Grange Road, to include options for a connection from Adams Road, Hershel Road, to the north of Cambridge Rugby Club or Cranmer Road. Three options for a green bridge across the M11 have been identified.

3.6 Connectivity between Key Centres and Status Committed Developments

- 3.6.1 The delivery of the busway scheme is directly linked to the need to provide better transport facilities between Cambourne and Cambridge, as demonstrated by transport modelling work undertaken by Atkins to date. It is also linked to a number of committed developments and new developments being delivered along the Cambourne to Cambridge corridor. These include the following proposed new developments:

South Cambridgeshire

- 3.6.2 **Cambourne West-** Outline Planning application submitted for the erection of up to 2,350 dwellings, together with formal and informal open space, new community and retail facilities and new infrastructure (Planning Application Number: S/2903/14). This application has a resolution to grant planning permission subject to the signing of a Section106 agreement on behalf of MCA Developments Ltd.
- 3.6.3 **Bourn Airfield-** This has a draft allocation within the emerging South Cambridgeshire Local Plan under policy SS/6 for a new village including approximately 3,500 dwellings. The busway route would travel directly through this new settlement. Through proposed modifications submitted to the Local Plan Examination the Council have proposed to produce a Supplementary Planning Document to guide the preparation of subsequent planning applications for the development. This strategic site is being promoted on behalf of Countryside Properties Ltd. They have prepared their own emerging framework for the site, but at this stage their masterplans proposed for Bourn Airfield have not been formally adopted or approved by the Council. In planning terms, the allocation of the site within the emerging Local Plan, is a material planning consideration given the advanced stage of the Local Plan (refer to section 3 for further detail), although the masterplan itself is only of limited weight. .

Cambridge City

- 3.6.4 Within Cambridge City an Outline Planning Application for the following has been submitted for **West** Cambridge under Application Reference 16/1134/OUT by Cambridge University. This application is an outline application with all matters reserved of up to 383,300m² of development comprising 370,000m² academic and

commercial floorspace, of which no more than 170,000m² would be commercial floorspace. This application is currently pending determination by Cambridge City Council. It also benefits from an allocation (Site No. 7.06) within the adopted Cambridge Local Plan (2006). Policy 18 of the emerging Local Plan 2014 provides the updated position.

- 3.6.5 The West Cambridge application is subject to a number of parameter plans and an illustrative masterplan, which show the proposed road layout for the new development. The layouts have at the time of writing have not been subject to formal approval by Cambridge City Council. A comprehensive set of amendments to the outline application is expected to be submitted at the end of August and will be subject to public consultation.
- 3.6.6 One of the key challenges and objectives of the busway proposals, is to serve the new committed developments, but at the same time ensure that the busway scheme provides quick journey times for those passing through. This has been a factor when undertaking an initial assessment of the proposed bus route options. In addition, based on the background modelling undertaken by Atkins to date, the need for the busway project would exist, independently of the committed developments, but the committed developments underscore that need.
- 3.6.7 Associated documents can be found on the Greater Cambridgeshire Partnership City Deal Website. Relevant documents include, but are not limited to: A428 Options appraisal report;
- A428 Alignment Assessment;
 - Interim Report;
 - P&R Locations;
 - Cambourne to Cambridge Option Study Rectory Farm Bridge;
 - Considerations for Corridor Option Plans;
 - Cambourne to Cambridge Strategic Outline Business Case;
 - Green Lane Concept Report June 2017
 - Considerations of Green Belt Issues Report, July 2017
 - Executive Board Report July 2017; and
 - Executive Board Report October 2016
 - Width/length and land take of the bus route.

4. DETAILED PLANNING POLICY CONSIDERATIONS

4.1 Introduction

- 4.1.1 This section sets out the key planning policy considerations that are relevant to the busway project and an overview of the planning process.

Planning Process

- 4.1.2 If a segregated busway forms part of the preferred option for the busway project, subject to the technology selected the intention is to deliver the busway under an Order (referred to as a TWAO) made under the Transport and Works Act 1992 (TWA). The TWA relates specifically to transport projects to construct and operate railways, tramways and other guided transport systems, and works which interfere with navigation rights. In this regard if the proposed busway scheme employs a guided system, it will fall under the definition of a guided transport system within the scope of the TWA.
- 4.1.3 The process for TWAOs is different from the usual planning process of applying for applications to the relevant local planning authority. Decisions on applications for TWAOs are made by the Secretary of State, rather than to local planning authorities, but the local planning authorities will still be a key consultee. All interested parties have the opportunity to have their say and are fully consulted on the proposals, prior to any decision being made.
- 4.1.4 In a TWAO application, it is likely that the proposals will be considered at public inquiry, where interested parties will have the opportunity to have their say. Following any public inquiry the Secretary of State will take into consideration the representations made, in accordance with national and local planning policy.
- 4.1.5 As a next stage further consultation will be undertaken with the general public and a range of statutory consultees prior to any submission of a Transport for Works Act application. This will include commencing work on the Environmental Impact Assessment (EIA) process (refer to section 5 for further detail on the EIA process). It is likely that linked to the TWA process, the Secretary of State will be asked to direct that planning permission for the Busway Project is deemed to be granted

4.2 Overview of Development Plan

- 4.2.1 The section has been prepared having regard to Section 38(b) of the Planning and Compulsory Purchase Act (2004), which states that if regard is to be had for the development plan for the purposes of determination to be made under the Planning Acts, determination must be made in accordance with the development plan unless material considerations indicate otherwise.
- 4.2.2 The busway project is a cross-border project that is located within the jurisdiction of both South Cambridgeshire District Council and Cambridge City Council authority areas. Therefore, the adopted and emerging Development Plan relates to both Authorities.

Adopted Development Plans

- 4.2.3 The adopted Development Plan for the two authorities that is of relevance to the busway principally consists of the following documents:
- South Cambridgeshire Adopted Core Strategy (2007)
 - South Cambridgeshire Development Control Policies (2007)
 - Cambridge City Council Local Plan (2006)
 - Cambridgeshire Minerals and Waste Core Strategy (2011)
 - Cambridgeshire & Peterborough Minerals and Waste Site Specific Proposals Map (2012)
- 4.2.4 The adopted North- West Cambridge Area Action Plan (2009) relates to land to the north of Maddingley Road and the south of Huntingdon Road, which is located in relatively close proximity to, but outside of the area of search for the proposed bus route.
- 4.2.5 A high number of policies from both plans are of relevance to the busway scheme, the key policies are set out in appendix B of this report. In addition, both authorities have also adopted a number of Supplementary Planning Documents that are also of relevance to the proposals.
- 4.2.6 Cambridgeshire County Council have also adopted the the Local Transport Plan for Cambridge and South Cambridgeshire (LTP3) (2015), which is of particular relevance. The LTP3 sets out the overarching issues and strategy upon which the local transport strategies and policies are based.

Emerging Local Plans

- 4.2.7 Both Councils are at an advanced stage with their emerging Local Plans, which have been subject to on- going Examination in Public in 2016/2017. Subject to the findings of the Planning Inspectorate on both Local Plans, it is possible that both Local Plans could be adopted later in 2017/early 2018.
- 4.2.8 The Cambridge City Council Local Plan and the South Cambridgeshire Local Plan were submitted in 2014. Both plans are currently subject to an on- going Examination in Public. The examination was suspended in 2015 whilst a modifications consultation was carried out. Hearings resumed in June 2016, and were completed in July 2017. Although not yet adopted, given their advanced stage they are a material consideration for the busway proposals.
- 4.2.9 As part of both emerging Local Plans, a number of background evidence based documents have been prepared. Of particular relevance to the busway project, is the Cambridge Inner Green Belt Study (2015), prepared by LDA, and earlier Inner Green Belt Studies and Appraisals dating back from 2002/2012.
- 4.2.10 The Inner Green Belt review is not a statutory planning document but it was an important background document that formed the evidence base of the emerging South Cambridgeshire District Council and the Cambridge City Council Local Plans.

It was used (along with other considerations) to inform proposed allocations for new developments around Cambridge City. As set out above both Plans have been subject to Examination in Public and therefore are material planning considerations. With particular relevance to the Green Belt and land to the west of Cambridge, there are unresolved objections to the Local Plan. Therefore, in accordance with paragraph 216 of the NPPF, the weight that can be given to the emerging Local Plans, specifically having regard to the Proposals Map within west Cambridge is reduced, pending the report from the Planning Inspectorate. Nonetheless it is still a material consideration.

4.3 National Planning Policy Considerations

- 4.3.1 At national level, the key planning policy document is the National Planning Policy Framework (NPPF), which is a key expression of national policy for the consideration of planning applications.
- 4.3.2 In addition the National Planning Practice Guidance, which is a web based resource brings together all planning guidance into one place and is also a relevant consideration.
- 4.3.3 There are a several paragraphs within the NPPF, which are of direct relevance and will be provide the key basis at national level for determining the suitability of the busway project. The key parts of the NPPF having regard to the principle of the busway project, are discussed within section 4 of this report.

5. PRINCIPLE OF THE BUSWAY SCHEME

- 5.1.1 This section of the report provides an overview in relation to the principle of the busway project in planning policy terms, accounting for the relevant adopted Development Plan policies at a Local level and National guidance, along with emerging Development Plan policies, where they are considered to be of material weight to the principle of development.
- 5.1.2 This section does not go into detail regarding the detailed matters that will also be considered as part of the planning approval process, although they are touched upon within section 5. It also does not seek to list all of the planning policies that of relevance to the proposals. A review and list of relevant planning policies are contained within Appendix B of this report.
- 5.1.3 As detailed in section 2.5 above, a number of different route alignment options within option3A are being assessed by the Greater Cambridgeshire Partnership. This report does not provide a recommendation on the preferred option in planning terms. The preferred option will be dependent upon deliverability of the different options and securing an option that provides the required transport objectives of the scheme, and the appropriate balance with other planning considerations. This report contains a high level overview of the principle of the busway development, followed by an analysis of key issues associated with the different route options.

5.2 Sustainable Development

- 5.2.1 The NPPF sets out within paragraph 7 that there are three dimensions to sustainable development, namely: economic, social and environmental. The definitions of the three dimensions are set out as follows:
- **An Economic Role-** contributing to building a strong, responsive and competitive economy. This includes supporting growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure.
 - **A Social Role-** contributing strong vibrant and healthy communities. This includes the need to create high quality built environment, with accessible local services that reflect the communities needs and support its health, social and cultural well-being; and
 - **An environmental role-** contributing to protecting and enhancing our natural, built and historic environment; and as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.
- 5.2.2 The NPPF is clear that the three dimensions should not be considered in isolation and that each is mutually dependent on the other two. In addition, the NPPF also sets out that proposals, which accord with the Development Plan should be approved without delay. When considering the principle of the busway scheme the three dimensions of sustainable development are of particular importance.

- 5.2.3 When considering if the busway is 'sustainable development' and whether in principle of development accords with the Development Plan, one of the key planning policy matters to address is its location in the Cambridge Green Belt.
- 5.2.4 The Green Belt has a strong protection at both National and Local Level. Policy 4/1 of the adopted Cambridge City Local Plan (2006) sets out a presumption against inappropriate development in the Green Belt. Policy GB/1 of the South Cambridgeshire Development Control Policies also sets out the presumption against inappropriate development in the Green Belt. It also benefits from strong protection within the relevant emerging Local Plans for both authorities. The detailed policy basis for determining inappropriate development in the Green Belt is set out in paragraphs 87 and 90 of the NPPF. This is discussed in further detail in section 4.9 of this report.

5.3 Transport Benefits of the Scheme

- 5.3.1 Prior to considering the compliance of the busway with adopted Green Belt policies, it is important to assess the merits of the scheme in transport terms.
- 5.3.2 Section 4 of the NPPF sets out detailed guidance in relation to the promotion of sustainable transport. Paragraph 29 sets out that the transport system needs to be balanced in favour of promoting sustainable modes of transport. Paragraphs 30, 31 and 35 of the NPPF provide support for the proposed busway. Policies 8/4, 8/8 and 10/1 of the adopted Cambridge City Council Local Plan; and TR/1 of the South Cambridgeshire District Council adopted Development Control Policies (2007) set out support for the promotion for walking and cycling, infrastructure improvements and promotion of sustainable transport. This is cross referenced to the objectives of the adopted Transport Strategy for Cambridge and South Cambridgeshire (2014).
- 5.3.3 The Cambourne to Cambridge Better Bus Journeys Scheme aims to facilitate fast, frequent and reliable journeys by bus between Cambourne and Cambridge in order to accommodate trips from the new and existing developments, as well as to encourage mode shift for those already travelling along the corridor. As referenced within section 2.6 of this report, all new developments that the busway project would serve either benefit from a formal adoption within the adopted Local Plan, have a resolution to grant planning permission, or are allocated as part of the emerging Local Plans. A number of studies, looking at route options, have been conducted in order to explore options for meeting the scheme aims.
- 5.3.4 A Strategic Outline Business Case for the Busway was prepared by Atkins in September 2016 and should be read in conjunction with this Statement. This document sets out detailed support for the Busway scheme, in terms of traffic alleviation along the A428, into Cambridge, and the Madingley Mulch Roundabout. The Strategic Business Case also contains a full overview of the predicted future demand from car trips, and sets out the car use of key settlements along the route. Cambourne in particular is very car dominant. The report highlights the challenge in delivering modal shift to more sustainable travel patterns.
- 5.3.5 Analysis of the journey times between Cambourne and Cambridge on existing online services and between St Ives and Cambridge on the Cambridgeshire Guided Bus

(CGB) show that bus journey times are significantly affected by congestion on inbound routes to the City Centre during the AM peak hour. Journey time benefits are experienced when buses are offline, on the CGB, as they are not in direct conflict with other road users. This suggests that in order to provide maximum journey time benefits into the City Centre, as part of the Cambourne to Cambridge Better Bus Journey Scheme, an offline route for as far as possible into the City Centre would be favourable in order to avoid congestion on Madingley Road and other pinch points on the route.

- 5.3.6 The segregated busway project would have the potential to provide approximately nine buses per hour between Cambourne and Cambridge City throughout weekdays and Saturdays. It would also provide a fast, frequent and reliable service between settlements at peak hours. The aim is to replicate the success of the Cambridgeshire Guided Busway, which took only three years to meet the initial forecast of 3.5 million trips per annum.
- 5.3.7 Therefore, the busway scheme has the potential to provide significant transport benefits and address the existing travel issues between Cambourne and Cambridge, which is strongly supported in section 4 of the NPPF and policies 8/8 and 10/1 of the adopted Cambridge City Council Local Plan and TR/1 of the South Cambridgeshire District Council Development Control Policies (2007). The transport benefits are considered to be a very strong material planning consideration in favour of the proposals.

Walking and Cycling

- 5.3.8 The Cambourne to Cambridge Better Bus Journeys Scheme aims to promote sustainable travel into Cambridge from surrounding settlements. The scheme also aims to promote cycling and walking where possible. Cambridge has a well-established and growing cycling culture therefore it is considered that cyclists are a major target user group when implementing the scheme. Pedestrians should also be encouraged to walk to bus stops to further reduce environmental impacts.
- 5.3.9 There are comprehensive footpath networks within Cambourne, Hardwick and West Cambridge that are likely to promote walking to potential busway stops. Walking and cycle routes do not currently extend along the whole length of the corridor, meaning there is no connection between existing and proposed development sites at Cambourne and Bourn Airfield and Cambridge.
- 5.3.10 The Cambourne to Cambridge busway scheme has the potential to deliver a strategic cycle route between primary employment sites in South Cambridgeshire and West Cambridge by providing safe, accessible and direct cycle routes. It is proposed that, where bus routes are segregated, cycle and walking facilities will be provided adjacent to the busway in order to deliver high quality, segregated, safe and accessible facilities.
- 5.3.11 The transport benefits of the scheme are considered to be fully consistent with the policy objectives set out within section 4 of the NPPF and policy 8/4, 8/8 and 10/1 of the adopted Cambridge City Council Local Plan and TR/1 of the South Cambridgeshire District Council adopted Development Control Policies. In addition,

paragraph 81 of the NPPF relates to Green Belt, and sets out that local planning authorities should plan positively to enhance the beneficial use of the Green Belt, such as looking for opportunities to provide access. The busway scheme would promote access into the Green Belt, which is supported under paragraph 81 of the NPPF. The proposed cycle and pedestrian routes along the scheme are considered to be a strong material planning consideration in favour of the proposals.

- 5.3.12 With the transport benefits of the scheme being clear, it is important to consider the proposals in overall terms having regard for the three dimensions of sustainable development as set out within the NPPF.

Economic

- 5.3.13 In economic terms the busway project will provide much needed infrastructure to link together existing major housing and employment areas. It will provide the opportunity for a more sustainable, reliable and rapid alternative form of travel between Cambourne and Cambridge for existing residents. This will include providing reliable journeys to work from Cambourne to Cambridge. In addition, the scheme also aligns with recent and projected housing and job growth along the A428 corridor as set out in the emerging Cambridge City and South Cambridgeshire District Council Local Plans.
- 5.3.14 The Area of Major Change site, West Cambridge, is subject to a current outline application on behalf of the University of Cambridge for 383,300m² of employment comprising predominantly of academic floor space. Although this application is currently pending consideration, on the basis that it has an allocation in the adopted Local Plan, it will provide a major expanded employment facility that the busway development will serve. The principle of a busway serving the proposed expanded West Cambridge employment site is considered to be strongly supported in planning terms and it is consistent with the objectives of the NPPF, and the emerging Cambridge City Local Plan 2014.
- 5.3.15 Within South Cambridgeshire, the busway scheme will support the projected growth associated with Cambourne West, which has a resolution to grant permission for the erection of up to 2,350 dwellings, together with formal and informal open space, new community and retail facilities and new infrastructure under planning application Number: S/2903/14. The busway will also run directly through Bourn Airfield, which has the potential to deliver approximately 3,500 new dwellings. Although Bourn Airfield has not yet been formally allocated, it does have a designation in the emerging plan, which should be given some weight in planning terms.
- 5.3.16 It is therefore considered that the busway project is consistent with the economic objectives in terms of housing and employment growth within both the adopted and emerging Development Plans for both Councils. The busway scheme will also create a number of jobs both directly and in-directly, which is strongly supported in planning terms and is a strong material consideration in favour of the proposals.

Social

- 5.3.17 In social terms the busway project will seek to promote healthy communities by providing a significantly improved cycle and pedestrian network from Cambourne to Cambridge. This will result in a likely modal shift change and more people cycling and walking to work. In addition, by alleviating congestion, the busway will also support the required housing and employment growth along the A428 Corridor. This is required in order to meet the objectively assessed housing and employment needs of Cambridge City and South Cambridgeshire District Council, as identified in evidence based documents in their emerging Local Plans. Although both emerging Local Plans are not yet adopted, they are of very advanced stage and therefore in accordance with paragraph 216 of the NPPF are of material weight in planning terms. The social benefits of the scheme are also considered to be strongly supported in planning terms and represent a strong material planning consideration in favour of the busway scheme.

Environmental

- 5.3.18 The environmental impact of the busway is a key issue in planning terms. These in particular relate to restriction of inappropriate development within the Green Belt, the impact of the proposals in landscape and visual terms, and heritage considerations related to the setting of the Conservation Area and listed buildings within Cambridge City and Coton. The support for sustainable transport schemes as set out in the NPPF, needs to be weighed against other policy factors within the NPPF and the environmental impact of the scheme.
- 5.3.19 The environmental impact is a broad term and one of the benefits of the scheme is that the busway will provide clear benefits in terms of reducing CO2 and emissions associated with the use of the private motorcar. The full environmental impact of the busway project will be assessed as part of the Environmental Impact Assessment process.

5.4 Interpretation of Green Belt Policy

- 5.4.1 As referred to above, large areas of the busway route options are located within the Cambridge Green Belt as identified on the adopted Cambridge City Council and South Cambridgeshire District Council Proposals Maps. In relation to Cambridge City Council's adopted Proposals Map (2006) route option 3a/3 encompasses land that is within the Cambridge Green Belt. As set out on the South Cambridgeshire District Council adopted Proposals Map (2012), the busway route options between Hardwick east of the Cambridge City Council boundary are situated within the Cambridge Green Belt. The busway route to the west of Hardwick is situated outside of the Cambridge Green Belt.
- 5.4.2 To establish if the busway project as defined under option 3a/3 is a sustainable development, the impact of the busway upon the Green Belt is a key matter to consider. Paragraph 89 sets out that most forms of development are inappropriate within the Green Belt, with a few exceptions related mainly to agriculture and forestry.

- 5.4.3 When considering the acceptability of the principle of busway project within the Green Belt, the key policy criteria is set out within paragraph 90 of the NPPF. Paragraph 90 of the NPPF states the following:

‘Certain other forms of development are also not inappropriate in Green Belt provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in the Green Belt. These are:

- *Local transport infrastructure which can demonstrate a requirement for a Green Belt location.*

- 5.4.4 Paragraph 90 of the NPPF is consistent with Policy 4/1 of the Cambridge City Local Plan and policy GB/1 of the South Cambridgeshire Development Control Policies (2007), which states that there is a presumption against inappropriate development in the Cambridge Green Belt as defined on the Proposals Map.

Requirement for Green Belt Location

- 5.4.5 When assessing the acceptability of the busway within the Green Belt in accordance with NPPF paragraph 90, it is firstly important to consider if it is required to be located in the Green Belt. In this regard, the key objective of the scheme is to provide a busway route from Cambourne to Cambridge. A route option that travelled through the Cambridge West development would be outside the Green Belt and therefore provide an opportunity to avoid a Green Belt location for this stretch of the route. This route would include a route within land under third party ownership and would therefore be subject to deliverability and subject to ensuring that the transport objectives of the scheme can still be delivered, when assessed against the alternatives.
- 5.4.6 All of the land to the remaining land to the west of Cambridge to Hardwick within option 3a/3 is located within the Cambridge Green Belt (aside from land within Hardwick and Coton village development frameworks). It is therefore not possible to deliver the busway project that meets the objectives of the Greater Cambridge Partnership outside of Green Belt land. The proposals are therefore considered to be fully compliant with paragraph 90 in respect that the eastern part of the route needs to be delivered on Green Belt land and there are no available options outside of the Green Belt.
- 5.4.7 In terms of route alignment options, the bridge across the M11 is being assessed in three different locations. Whilst the M11 itself is within the Cambridge Green Belt, the land immediately to east of the M11 will involve the busway being situated within land that is allocated for development within the adopted Cambridge City Proposals Map (2006). This land is outside of the Cambridge Green Belt and forms part of the Cambridge West Employment Site Allocation. Green Belt concerns do not arise in relation to sections of the route within this area. In addition, they do not arise in relation to the section of the route between Hardwick and Cambourne, which is also outside of the Cambridge Green Belt.

Openness and Purposes of Including Land within the Green Belt

- 5.4.8 With the need for a Green Belt location being established, under paragraph 90 NPPF, it is secondly important to consider if the busway will preserve the openness of the Green Belt and whether the busway conflicts with the purposes of including land within the Green Belt.
- 5.4.9 Policy 4/1 of the adopted Cambridge City Local Plan and policy GB/1 of the South Cambridgeshire adopted Development Control Policies (2007) sets out that there is a presumption against inappropriate development in the Cambridge Green Belt as defined on the Proposals Map. The emerging Local Plan also both seek to restrict development within the Green Belt. These policies would only be applicable to the busway scheme in the event that it is defined as 'inappropriate development.'
- 5.4.10 To fully consider whether or not the busway scheme is 'not inappropriate' development, the key determining factors as set out in the NPPF, is whether the scheme:
- Preserves the openness of the Green Belt
 - Conflicts with the purposes of including land in the Green Belt
- 5.4.11 Firstly, when considering if the busway scheme preserves the openness of the Green Belt or conflicts with the purposes of the Green Belt, it is important to acknowledge that preserving the openness of the Green Belt is different from harm to the Green Belt. Development within the Green Belt, by its definition will cause some harm to the Green Belt, but harm in itself does not necessarily mean that the development will not preserve the openness of the Green Belt or conflict with its purposes.
- 5.4.12 Secondly, it is clear that in policy terms the NPPF does seek to define transport schemes as 'not inappropriate' within the Green Belt. If permission is granted for the busway it will not change its designation as Green Belt land. Clearly, the NPPF contemplates that it is possible to deliver a transport scheme within the Green Belt which neither affects openness or the purposes of including land in the Green Belt.
- 5.4.13 To inform the impact of the busway project in terms of openness and purposes of including land within the Green Belt, a detailed consideration of Green Belt Issues Report (2017), has been completed by LDA Design. This report contains a detailed analysis that the impact that the busway project will have, and provides an assessment of three different route options, named options A, B and C & D.

Openness of Green Belt

- 5.4.14 In terms of openness the LDA report concludes that the vast majority of the busway route are likely to have negligible or no effect on the impact on the openness of the Green Belt. This is accounting for the Green Lane concept for the proposed busway and that it can be delivered without the need for any extensive cut and fill or re-levelling. It is concluded that the proposed routes closest to Cambridge City (referred to as Sectors Ai and Aii in the LDA Report) and the routes to the north of Coton would have very limited or no impact upon the openness of the Green Belt. The only

area when it is concluded that there is likely to be conflict with openness of the Green Belt, relates to the green bridge ramp associated with route option A and possibility route option C. It is the view of LDA that the bridge ramp options A and possibility route C, could require substantial earthworks as the M11 is at grade, rather than being in the cutting to the south of West Cambridge. LDA conclude that route option B & D would not conflict with the openness of the Green Belt. It is acknowledged by LDA that the degree of harm is likely to be low in both instances.

- 5.4.15 At this stage, the required amount of re-levelling and cut and fill is not known. However, any cut and fill will be undertaken sensitively to ensure minimal impact upon the openness of the Green Belt. Once the amount of cut and fill has been fully established, further assessment may be undertaken in respect of conflict with purposes of the green bridge ramp for options A & C. In this regard, it is also worth noting that under paragraph 90 of the NPPF, mineral extraction is another form of development that falls within the umbrella of 'not inappropriate' development in the Green Belt. On the basis that mineral extraction inevitably a significant impact in terms of cut and fill and change in levels, it follows within the logic of the NPPF paragraph 90 that cut and fill can be done in a way which is not inconsistent with openness.
- 5.4.16 On the basis that the green bridge will be viewed in context with the M11, which is subject to a high degree of level change already, it is considered that the LDA Report provides for a worst case scenario and a conservative assessment of the impact the busway project will have upon openness in respect of the green bridge.

Purposes of Including Land within the Green Belt

- 5.4.17 The second paragraph 90 test is to determine if the proposals will conflict with the purposes for including land within the Green Belt. The national purposes for including land in the Green Belt are:
1. To check the unrestricted sprawl of large built-up areas;
 2. To prevent neighbouring towns merging into one another
 3. To assist in safeguarding the countryside from encroachment;
 4. To preserve the setting and special character of historic towns;
 5. To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 5.4.18 In addition to the 5 purposes of the Green Belt at National level, it is important to consider the three purposes of the Cambridge Green Belt, which are defined within the adopted Cambridge Local Plan (2006) and the South Cambridgeshire Core Strategy and DPD (2007) as follows:
1. Preserve the unique character of Cambridge as a compact, dynamic City with a thriving historic centre
 2. Maintain and enhance the quality of its setting; and;
 3. Prevent communities and the environs of Cambridge from merging into one another and with the City.

- 5.4.19 All eight tests of Green Belt purposes as set out above have been analysed within the Green Belt Issues Report (2017), prepared by LDA. Although it is noted within their report that purpose 5 of the national purposes is not relevant to the busway project and is therefore not analysed in detail as part of the report.
- 5.4.20 LDA take the approach that any adverse effect on the characteristics set out in the purposes equate to a conflict with that purpose. Therefore LDA conclude that sections of the proposed busway within the context of option 3a/3 will have some impact in terms of purposes for including land within the Green Belt in this area. The areas where there is a degree conflict relate to national purpose 4 (to preserve the setting and special character of historic towns) and Cambridge Green Belt purposes 1 (to preserve the unique character of Cambridge as a compact, dynamic City with a thriving historic centre) and 2 (maintain and enhance the quality of its setting). Given the main origin of these conflicts are effects on character and setting, these effects, and in turn any such conflict, can to an extent be mitigated by suitable landscape and hedgerow planting, which will reduce the impact of the busway scheme, in the medium to long term (particularly within the area to the west of the M11).
- 5.4.21 The LDA report also confirms that the busway scheme would be unlikely to conflict to the other four national Green Belt purposes. It will also not conflict with Cambridge purpose 3, which relates to ensuring that communities and environs of Cambridge do not merge into one another.

Route Options

- 5.4.22 In Green Belt terms, as set out within the LDA Report, the degree of conflict the purposes of including land within the Green Belt will change dependent upon the final transport option chosen.
- 5.4.23 In relation to the area to the east of the M11, as set out in paragraph 4.4.5 above, a route alignment option that travels through Cambridge West development would be outside the Green Belt and therefore Green Belt concerns would not arise, however, there are of course, other factors to be considered.
- 5.4.24 Once exiting the Cambridge West development, there is a requirement for the route alignment to travel through Green Belt land in order to connect to Grange Road at any of the four connection points. It is the view of LDA that all of the routes within the sector between the M11 and Grange Road, Cambridge will conflict with the purposes of including land within the Green Belt. As assessed within the LDA Report, the route via Adams Road, is likely to result in a lower level of conflict with the purposes of including land within the Green Belt, than the other options. The LDA report sets out that the option to the furthest south connecting into Cranmer Road likely to have the highest degree of conflict.

- 5.4.25 In purely Green Belt terms, accounting for the conclusions of the LDA Report, the route via Adams Road would be the most favourable in terms of minimising conflict with Green Belt purposes. However, the planning balance when selecting the most appropriate option will have to be weighed against the transport need to create a fast, frequent and reliable transport system and to ensure that the scheme is fully deliverable in planning terms. The selection of a preferred route will also be subject to a detailed public consultation process
- 5.4.26 In relation to the land to the west of the M11, it is the view of LDA that all of the route alignments on the land immediately to the north and the north- west of Coton will have a conflict for the purposes of including land within the Green Belt and that the degree of this harm will be moderate. This conflict with Green Belt purposes, in the view of LDA relates to the change in the setting of Cambridge that would result from changes to the character and setting of Coton as a necklace village to Cambridge. It is the view of LDA that this represents a conflict with Cambridge Green Belt purpose 2 and National Green Belt purpose 4.
- 5.4.27 This assessment by LDA, particularly having regard to the impact that the busway project will have upon the setting of Coton, is considered to represent a worst case scenario and a conservative assessment. Further detailed work will be undertaken to assess this impact once a preferred alignment for the busway project has been selected.

Very Special Circumstances

- 5.4.28 As identified in the report prepared by LDA, the sections of the busway project that can be delivered without conflict with the openness or purposes for including land within the Green Belt relate to the areas within LDA sub- area B.1 (in between Coton and the M11), and the western half of area C.1, which is situated to the west of Coton. It is therefore assumed that harm to the Green Belt in these areas would be neutral/negligible.
- 5.4.29 It is the view of LDA that the remainder of the route would result in some conflict the purposes for including land within the Green Belt or conflict with openness with respect to the green bridge ramp for option A and possibly option C. It is the view of LDA that these parts of the route would fall outside the scope of 'not inappropriate' development as defined in paragraph 90.
- 5.4.30 Paragraph 88 of the NPPF sets out that very special circumstances will not exist unless the potential harm to the Green Belt, by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.
- 5.4.31 Firstly, when considering if very special circumstances exist, it is important to consider if the harm to the Green Belt is out- weighed by the other material considerations. In accordance with the conclusions of the LDA Report, the level of harm to the Green Belt will depend on the final route alignment chosen for the busway project. It is the view of LDA that all route options to the north/north-west of Coton, will have moderate degree of harm to the Green Belt. In that regard the degree of harm for all routes will be similar. In addition, it is LDA's view that the

bridge ramp for option A and possibility option C, will have a low impact in terms of harm to openness of the Green Belt.

- 5.4.32 The area where there is greatest change in terms of harm to the Green Belt dependent upon the route option selected, relates to the area of study in between Cambridge and the M11. It is LDA's view that route option B, along the southern edge of West Cambridge and to the north of the Sports Fields connecting to Adams Road, would have low harm on the Green Belt. Options A and C in the view of LDA would have a high level of harm on the Green Belt. Route option D would have a moderate to low impact. When considering the most appropriate route alignment, level of harm, will need to be weighed against the transport objectives of the scheme and other material planning considerations.
- 5.4.33 It is considered that strong very special circumstances exist for the delivery of the Busway. The benefits of a segregated rapid busway project can only be realised by a Green Belt location and this in itself is considered to provide very special circumstances for the proposed busway project. In addition, as set out in section 4.3 (paragraphs 4.3.1 to 4.3.17 above), the proposals will provide significant benefits in terms of promoting sustainable modes of transport, and meeting the economic and social objectives of sustainable development, which is strongly supported both in National and Local policy. Paragraphs 30, 35, and 162 of the NPPF provide strong support for strategic transport projects and the need to promote sustainable movement of people and travel. This includes providing a sustainable transport connection to new development locations, which are located outside of the Cambridge Green Belt. The busway project will also facilitate accessibility for pedestrian and cyclist to the Green Belt, which is supported under paragraph 81 of the NPPF. The land will also remain in the Green Belt after the busway project is complete. The proposals are also strongly supported by the Transport Plan for Cambridge and South Cambridgeshire (2014).
- 5.4.34 It is therefore considered that strong very special circumstances exist. It is also considered that dependent upon selection of a route that seeks to maximise the transport objectives of the busway project and also seeks to limit harm to the Green Belt (which may include appropriate mitigation), that a good case could be made that very special circumstances for the busway project would be likely to out-weigh any identified harm to the Green Belt. This will be dependent upon the final route chosen, further detailed clarification on relative impacts and appropriate mitigation
- 4.4.35 Very Special Circumstances for the busway project exist along the whole of the route, but very special circumstances are only really required for those parts of the route, which do not meet the paragraph 90 test of not inappropriate development within the Green Belt.

Land Outside of the Green Belt

- 5.4.36 In relation to the part of the busway route to the west of Hardwick, that is situated outside of the Green Belt, policies of countryside protection apply. Policy DP/1 and DP/7 of the adopted South Cambridgeshire Core Strategy sets out that new

development should conserve and enhance the local landscape character. Policy DP/7 states that outside of urban and village frameworks, only development for agriculture, horticulture, forestry, outdoor recreation and other uses which need to be located in the countryside will be permitted.

5.4.37 As set out in above, the purpose of the busway is to provide a direct, fast and reliable route from Cambourne to Cambridge. To achieve this, there is a requirement to use land that is outside of the Development Framework boundary. Therefore, the principle of the busway in the countryside is full consistent within policy DP/7 of the adopted South Cambridgeshire Core Strategy (2007) in that there is clear need to use land within the countryside.

5.4.38 The part of the busway route situated within West Cambridge development site, is within the development boundary of Cambridge City, where the principle of development is supported in planning terms. It is also likely to utilise existing highways within this site.

5.4.39 Overall the proposals are considered to be consistent with the three dimensions of sustainable development, including relevant Green Belt policy. It is therefore considered that the principle of the busway development is supported in planning terms. This will need to be reviewed further as a single route option is chosen

5.5 Park & Ride

5.5.1 Options for the park & ride location have not yet been subject to the same level of assessment as the busway project. The park & ride options being considered fall both within and outside of the Green Belt.

5.5.2 It is considered that a park & ride would fall within the umbrella of 'local transport infrastructure' as referred to within paragraph 90 of the NPPF. Accordingly, a park & ride would not be inappropriate development within the Green Belt if it can be demonstrated that there is a requirement for a Green Belt and if the park & ride development would preserve the openness of the Green Belt and would conflict with the purposes of including land in the Green Belt. The tests in Green Belt terms having regard to 'not inappropriate' development and very special circumstances in this regard are the same as for the busway project.

5.5.3 At this stage a number of site options are in the process of being assessed. A preferred location for the park & ride, will be chosen dependent on a range of factors. This will include a detailed consideration of a wide range of planning policy considerations, including transport objectives, Green Belt and other statutory designations. The appropriate location will be chosen dependent upon the most appropriate and sustainable option in planning terms, having regard to adopted local and national policy guidance. If a Green Belt option is selected, if the paragraph 90 criteria are not satisfied (for example there is an impact on openness, then very special circumstances may be required. Any case for very special circumstances will be dependent upon establishing that the Green Belt harm, is clearly outweighed by other considerations.

6. DETAILED PLANNING CONSIDERATIONS

6.1 Introduction

- 6.1.1 This section of the report provides a brief overview of other detailed planning considerations and detailed reports that will be commissioning as part of the busway project.
- 6.1.2 With the principle of the development being established (refer to section 4), it will be important to consider other material planning considerations as set out within the adopted Development Plans, which would render the scheme unacceptable in planning terms. It is recognised that there are a number of other detailed planning policy considerations, which will also need to be taken into consideration when addressing if the busway scheme is acceptable in planning policy terms.
- 6.1.3 Important detailed matters to address as part of the busway proposals include, but are not limited to the following:
- 1 Heritage, Listed Buildings and Archaeological Considerations.
 - 2 Transport
 - 3 Landscape and Visual Considerations
 - 4 Impact upon Neighbouring Residential Amenity.
 - 5 Ecological and Biodiversity considerations and impact upon sites of international, national, regional and local importance.
 - 6 Noise & Vibration
 - 7 Air Quality
 - 8 Drainage and Flood Risk
 - 9 Ground Conditions
 - 10 Waste

6.2 Environmental Impact Assessment Process

- 6.2.1 The above matters will be considered in detail as part of the Environmental Impact Assessment (EIA) process, which is a formal planning process that major developments have to follow. The purpose of an EIA is to assess the environmental impact of new developments and assesses both positive and negative environmental impacts of new developments.
- 6.2.2 Environmental Impact Assessment (EIA) is the process of evaluating the likely environmental impacts of a proposed project or development, taking into account inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse. The busway scheme would fall under the category of Schedule 2 development as set out in the Town and Country Planning (Environmental Impact Assessment) Regulations (2017) and may be likely to have significant effects on the environment by virtue of factors such as its nature, size or location. As a result, a full EIA will be undertaken to assess the impact of the scheme across a range of

different disciplines. This will include the preparation of an Environmental Statement to fully assess the scheme.

6.3 Formal Request for a Scoping Opinion

- 6.3.1 In order to determine the matters and chapters that will be considered as part of the EIA process, it is likely that a formal request for a Scoping Opinion will be submitted to clarify the matters to be included within the Environmental Statement.
- 6.3.2 Therefore at this stage the full scope of the EIA is therefore yet to be confirmed. The matters that are likely to be included as part of the EIA are set out below.

6.4 Site Selection and Consideration of Alternatives

- 6.4.1 A legal requirement of the EIA process is to provide a description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the applicant, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of environmental effects. In this instance it is likely to include an overview of different route options for the busway and it will also consider the 'Do Nothing Scenario.'

6.5 Policy Context

- 6.5.1 This section will outline the relevant planning policy considerations at both a National and Local level in relation to the busway scheme.

6.6 Economic and Social Assessment

- 6.6.1 This section will set out the economic and social impact of the proposals. It will assess the economic impact of the proposals in relation to job growth and supporting the housing and employment objectives of the two Local Plans and the adopted Transport Strategy. It will assess the likely impact of the proposals on human health in terms of promoting cycling and walking.

6.7 Transport

- 6.7.1 Detailed work relating to transport matters has already been undertaken by Atkins, which has been fundamental to informing the case for the proposed busway and is detailed in earlier sections of this report. Further work will be undertaken as part of the EIA process to determine the full impact of the scheme in transport terms having regard to journeys by car, bus, cycling and pedestrians and the impact that the development will have on the surrounding road network.

6.8 Heritage & Archaeology

- 6.8.1 This chapter will assess heritage matters and considerations related to the impact of the busway on designated conservation areas, Listed buildings and the setting of Cambridge City. Whilst heritage overlaps with the Green Belt considerations, it is also an important consideration in its own right. Heritage considerations will include the impact that the busway proposals will have upon the setting of identified listed buildings and conservation areas along the route. The setting of Cambridge City and

Coton Conservation Area will be key matters to address as part of the proposals. In addition, the American Cemetery, which is situated to the north of Coton is designated as a Historic Landscape/Historic Park and Garden under policy CH/1 of the adopted South Cambridgeshire Development Control Policies and the setting of this area will also be fully considered. An initial assessment in terms of views to heritage assets and recommended mitigation has been undertaken by Atkins as part of the Green Lane Concept Document (2017).

6.9 Landscape & Visual

- 6.9.1 Substantial work relating to landscape and visual considerations has already been undertaken by Atkins. This document should be read in conjunction with the Green Lane Concept Document (June 2017), prepared by Atkins. This document analyses key route options and concludes all the route options would result in adverse landscape and visual effects to varying degrees, which is inevitable given that the busway is new development within the open countryside. Atkins, also recognise that appropriate mitigation is key to offsetting and reducing the landscape and visual impact of the busway. The mitigation measures are different dependent upon which route is selected. The design of the busway as a green lane concept, in itself is proposed to minimise the impact of the proposals. Other aims to minimise landscape harm, would be to limit the amount of tree removal along the selected route, but also to provide sensitive and appropriate replacement and new planting along the route as appropriate. A full Landscape and Visual Impact Assessment will be undertaken as part of the EIA process, with suggested mitigation as required.

6.10 Ecology and Biodiversity

- 6.10.1 As part of the process detailed ecological surveys will be undertaken to assess the impact of the busway in ecological terms. Ecological designations in proximity to the busway, include Magingley Wood, which is designated as a County Wildlife Site and a SSSI and is protected under policy NE/7 of the adopted South Cambridgeshire Development Control Policies (2007). The level of adverse impact upon ecology will be dependent both on the selected route and also upon mitigation provided. As set out in the Green Lane Concept Report, prepared by Atkins, the busway scheme aims to increase biodiversity and amenity through orchard and wildlife planting. The proposed Green Bridge also has the potential to deliver a wildlife corridor across the M11.

6.11 Air Quality

- 6.11.1 This section will assess the impact that the scheme will have in terms of air quality both for neighbouring receptors in close proximity to the busway and wider considerations relating to the likely reduction in emissions in the wider road network if the busway scheme is delivered.

6.12 Sound, Noise and Vibration

- 6.12.1 An initial Noise and Vibration has been undertaken by Acoustic Associates. This assessment concludes that the impact of the scheme is 'negligible' at most of the dwellings in proximity to the busway, using the significance criteria set out in the

Design Manual for Roads and Bridges. The most affected dwellings are on Hall Road at the south of Highfield, which could experience a moderate adverse impact dependent on the final route option chosen. This report is to be used to inform the future route of the busway and also to determine any mitigation measures that may be required.

6.13 Water, Flood Risk and Drainage

- 6.13.1 A full assessment of the drainage strategy for the busway and consideration of any flood risk will be fully considered as part of the EIA. It is likely that the scheme will be located in a Flood Zone 1 (low risk).

6.14 Ground Conditions

- 6.14.1 This section will provide an overview of the ground conditions along the route and whether any contaminated land matters need to be addressed as part of the busway scheme.

6.15 Waste

- 6.15.1 This section of the report will relate to the construction of the busway and any construction waste that will be created, re- used as part of the scheme.

6.16 Clarification of Matters not to be included within the EIA

- 6.16.1 There will be some matters that are likely to form part of the planning application, but will not form part of the EIA. These include the following:

- Plans and Drawings for the Scheme
- Planning Statement
- Statement of Community Involvement
- Construction Management Plan
- Planning Application Forms
- Ownership Certificates

- 6.16.2 The full scope of matters including within and outside of the EIA will be formally agreed with the relevant local planning authorities.

Cambourne to Cambridge Better Bus Journeys Scheme: Recommended Option AREA 2 South + AREA 1 South

Achieving bus priority through established settlements, such as Cambourne, presents engineering challenges. The team is working with the LPA to seek potential solutions.

Based upon the initial investigations it is clear that the provision of a high quality public transport route along the existing St Neots Road corridor is feasible, although it may require the realignment of the existing highway or land take at certain locations to accommodate.

Park and Ride could be located here. Area shaded includes land to the south which could be used to provide environmental mitigation.

Routing between Crome Lea business park and water reservoirs.

Exact routing is dependent on which road has been used to gain access to Grange Road and possible connection points to the West Cambridge site. Wide area shown does not mean the entirety of the fields would be built over.

West of the M11, the route should travel north of Coton village in order to avoid residential properties.

Exact location of the new bridge across the M11 will be dependent on the alignment of the route to the east and west of the motorway, and also the cost and complexity of embankment construction.

Four possible connections to Grange Road are being considered:

- University Sports Ground/Adams Road
- Herschel Road
- North of Cambridge University Rugby Ground
- North of Cambridge University Rugby Ground/ Cranmer Road

There is the potential to introduce a rapid bus transit route through Bourn development from its design stage. The project team have discussed with the developer how this may be achieved.

Three options have been considered for bypassing Highfields Caldecote, however it is considered that bypassing to the north is the most likely.

Indicative Option Corridor Catchment Maps

- Catchment Area of Potential Transport Infrastructure 3a
- Catchment Area of Potential Transport Infrastructure through existing and new developments
- Catchment Area of Potential Transport Infrastructure

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LICENCE NUMBER: 100023205

(For Illustrative Purposes)

APPENDIX B

Adopted Planning Policies of Relevance

This provides a list of relevant adopted Development Plan policies, which are considered to be of relevance to the busway project. The list is not exhaustive and at this stage does not contain a list of relevant policies within the emerging Local Plans or within Supplementary Planning Documents.

South Cambridgeshire Core Strategy DPD (2007)

ST/1 Green Belt

DP/1- Sustainable Development

DP/2- Design of New Development

DP/3- Development Criteria

DP/6- Construction Methods

GB/1- Development in the Green Belt

GB/2- Mitigating the Impact of Development in the Green Belt

GB/3- Mitigating the Impact of Development Adjoining the Green Belt

ET/2- Promotion of Clusters

SF/8- Lord Bridge Radio Telescope

NE/4- Landscape Character Areas

NE/6- Biodiversity

NE/7- Sites of Biodiversity or Geological Importance

NE/9- Water and Drainage Infrastructure

NE/11- Flood Risk

NE/14- Lighting Proposals

NE/15- Noise Pollution

NE/16- Emissions

NE/17- Protecting High Quality Agricultural Land

CH/1- Historic Landscapes

CH/2- Archaeological Sites

CH/4- Development within the Curtilage or Setting of a Listed Building

CH/5- Conservation Areas

CH/7- Important Countryside Frontages

TR/1- Planning for More Sustainable Travel

TR/4- Non- Motorised Modes

Cambridge City Local Plan (2006)

3/1- Sustainable Development- Policy 3/1

3/2- Setting of the City- Policy 3/2

3/3- Safeguarding Environmental Character

3/4- Responding to Context

4/1- Green Belt

4/3- Safeguarding Features of Amenity or Nature Conservation Value

4/4- Trees

4/5- Protecting Sites of Nature Conservation Importance

4/6- Protection of Sites of Local Nature Conservation Importance

4/8- Local Biodiversity Action Plans

4/9- Scheduled Ancient Monuments/Archaeological Areas

4/10- Listed Buildings

4/11- Conservation Areas

4/13- Pollution and Amenity

4/14- Air Quality Management Areas

4/15- Lighting

4/16- Development and Flooding

7/4- Promotion of Cluster Development

7/6- West of Cambridge, South of Madingley Road

8/1- Spatial Location of Development

8/2- Transport Impact

8/4- Walking and Cycling Accessibility

8/5- Pedestrian and Cycle Network

8/7- Public Transport Accessibility

8/8- Land for Public Transport

8/11- New Roads

8/15- Mullard Radio Astronomy Observatory Lord's Bridge

10/1- Infrastructure Improvements

A428 Cambourne to Cambridge Segregated Bus Route Consideration of Green Belt Issues

September 2017

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Version: 1.6

Version date: 06/09/17

Comment Final

This document has been prepared and checked in accordance with ISO 9001:2008

1.0 Introduction

1.1. Appointment and Scope

1.1.1. This study was commissioned by Cambridgeshire County Council (referred to in this report as the County) in May 2017. The study considers potential options for the alignment of a proposed segregated bus route through the Green Belt from the vicinity of Madingley Mulch Roundabout on the A428 to the western edge of Cambridge, within a 'catchment area' (the widest potential area within which any alignment may be created in the corridor(see Figure 1)) already identified by the County.

1.1.2. This proposed segregated bus route through the Green Belt forms part of a longer proposed bus route between Cambourne and Cambridge, with the section between Cambourne and the vicinity of Madingley Mulch Roundabout being largely located outside the Green Belt. 1.2-2.2km of the route immediately to the west of Long Road/ Madingley Mulch Roundabout is still located within the Green Belt but is anticipated to use the existing route of the A428.

1.1.3. A series of options for the alignment of the proposed bus route between Cambourne and Cambridge have been considered by the County. An options assessment report was prepared in October 2016. This considered five separate route options, in the form of 'catchment areas' not specific alignments. A series of tests were applied to each of the five alternative suggested routes. The approach to this testing is set out in the Technical Option Appraisal section of the October 2016 report. Option 3A was recommended. This option would provide a new offline segregated route linking Cambourne and the proposed Bourn Airfield new settlement, with a segregated route that would run alongside the old A428 to Madingley Mulch roundabout, a new segregated dedicated bus route running north of Coton and parallel to Madingley Road and Madingley Rise to new bridge over the M11. It was considered to have the following key strategic benefits:

- Capacity for higher frequency bus services due to the segregated route.
- Segregation improves the reliability of bus services against on line options.
- Segregation improves journey times by providing dedicated bus infrastructure. The recommended route would be up to 36 minutes quicker than the slowest proposal.
- Flexibility - Off line infrastructure would be integrated into online bus priority measures to allow for services to join and leave the infrastructure at different point as required.
- A highly segregated scheme is anticipated to deliver the highest level of economic benefits and coherence with the City Deal vision.
- The Recommended Option in line with local policy offers an extension of the quality interventions delivered by the Guided Busway.
- The segregated bus infrastructure offers further potential for optimisation.

1.1.4. The potential alignments, at a more detailed level, within option 3A through the Green Belt are considered in this study. Three of the route options were supplied by Skanska in May 2017. A further option, Option D, was introduced in August 2017. It is acknowledged that there will continue to be further refinement of these options. This report provides an assessment of the likely effects of different route options on the essential Green Belt characteristic of openness, as well as on Green Belt purposes. It sets out the methodology used for the assessment, and provides a robust, transparent and clear understanding of both how the potential route options through the 'catchment area' perform in relation to preserving the openness of the Green Belt and not conflicting with the purposes of including land in Green Belt.

- 1.1.5. This report does not assess Green Belt considerations in relation to options other than option 3A, as recommended by the County and accepted as the preferred option by the City Deal Board. It is acknowledged that other options may be considered, which would need to be assessed in relation to Green Belt considerations if they are taken forward.
- 1.1.6. This report forms one of many considerations in assessing the various route options for the Cambourne to Cambridge Better Bus Journeys Scheme. It should be read alongside the Landscape and Planning Appraisal of the routes (Atkins, January 2017) and the Planning Appraisal (Strutt and Parker, August 2017).

1.2. Proposed Development

- 1.2.1. Cambourne to Cambridge Better Bus Journeys Scheme aims to create better bus journeys along the A428 and the A1303, through high quality public transport infrastructure. It also looks to improve the cycling and walking links between Cambourne and Cambridge. It will help connect communities with employment sites, the city and each other. It is a scheme promoted by the Greater Cambridge City Deal, an agreement set up between a partnership of local organizations and Central Government, to help secure future economic growth and quality of life in the Greater Cambridge city region.
- 1.2.2. This project aims to deliver new high-quality public transport, cycling and walking infrastructure. This would increase the number of choices people have to travel, and in turn help to reduce congestion and improve quality of life. This is needed to accommodate the planned growth in the area.
- 1.2.3. The proposed segregated bus route from Madingley Mulch Roundabout, on the A428, to the western edge of Cambridge would run through Green Belt land. The route is likely to be approximately 15m wide and consist of a hedgerow with an associated verge on either side where appropriate, an 8m wide track to accommodate buses travelling in both directions, and a 4m wide footpath and cycleway to one side of the bus route. Woodland planting could also be accommodated where appropriate along the route, as indicated by the Landscape and Visual Appraisal of the routes and emerging landscape proposals. This could widen the corridor of the route beyond 15m in some locations. It is assumed that any new hedgerows would be maintained in a similar way to existing hedgerows in the surrounding area, and allowed to grow tall rather than tightly clipped. It is also assumed that any woodland would be allowed to reach its full mature height.
- 1.2.4. It is understood that the route would be unlit except at bus stops and junctions. Within the Green Belt areas covered by this report, this would only introduce additional lighting where the route crosses Cambridge Road, Coton. It is also understood that the route would not be fenced, except in proximity to hazards such as watercourses where a timber post and rail fence would be constructed. It is assumed that the height of the fencing would be between 1.2 and 1.5m, subject to final design.
- 1.2.5. A new bridge will be required to cross the M11. It is anticipated that this will be a green bridge, with planting on the bridge alongside the bus route and footpath/cycleway. The bridge deck would have a width in the centre of 21m and a height above the M11 carriageway of 7m. A final design for the route will be developed at a later stage, however, these current working dimensions have been utilised for the purposes of this assessment.
- 1.2.6. Figure 1 shows the potential route options considered in this study. Option 3/3a in the October 2016 Options Assessment identified a 'catchment area' for the proposed segregated bus route, and these options identify alternative route alignments through the 'catchment area'. Whilst some minor variation to these options may occur during the detailed design of the route, these options between them cover the likely permutations of the route through

the ‘catchment area’ that would be acceptable in highways terms. In brief, the route options are as follows, with further detail provided in Section 7 of this report:

- Option A - runs south eastwards from the junction of Long Road and the A428, then eastwards around the northern edge of Coton. It tightly follows the edge of Coton in the vicinity of Cambridge Road, then runs through the orchard area to the north east of Coton and crosses the M11 via a new green bridge just north of the existing footbridge, entering the West Cambridge site and then turning south to follow existing hedgerows for the depth of one field, finally turning east to follow an existing hedgerow and then the existing edge of Cambridge along the rifle range track. Alternatively, this route could cross the M11 at an angle south of the existing footbridge, avoiding the West Cambridge development and joining the main route option to run eastwards along existing field boundaries. New hedgerow planting is proposed between the cycle/pedestrian route and the busway where it runs to the north of Coton, from the fields south of Coton Court to Cambridge Road, as well as over the green bridge and for a stretch approaching the western edge of Cambridge. Tree and hedgerow planting is also proposed in locations adjacent to the northern edge of Coton and close to the edge of Cambridge, with a new hedgerow proposed to the north of the route for a stretch south of West Cambridge.
- Option B - follows a very similar alignment to Option A to the northern edge of Coton, before sweeping round slightly higher up the slope north of Coton than Option A. It then runs through the orchard area to the north east of Coton and crosses the M11 via a new green bridge further north of the existing footbridge than Option A. It enters the West Cambridge site and runs along Charles Babbage Road, before turning south and either following the existing Harcamlow Way/Wimpole Way cycle route along the southern edge of West Cambridge and along Adams Road, or cutting across the field south of West Cambridge, following the southern edge of the athletics ground and Herschel Road. Whilst not originally included within this option, there is also the potential for an alignment of this route to be a hybrid of the two options south of West Cambridge, running along the western edge of the athletics ground to join the Herschel Road alignment, rather than continuing along the Harcamlow Way/Wimpole Way cycle route to Adams Road. It could also potentially continue further south to join Option A along the rifle range track. New hedgerow planting is proposed between the cycle/pedestrian route and the busway where it runs to the north of Coton, from the fields south of Coton Court to Cambridge Road, and for the stretch of the route between West Cambridge and Adams Road/Herschel Road. Tree and hedgerow planting is also proposed in locations adjacent to the northern edge of Coton. New tree planting is proposed along the route where it passes through West Cambridge.
- Option C – leaves the A428 further east than the other options, before turning south and then running eastwards further down the slope than Options A and B, and reaching Coton closer to its northern edge. It then sweeps slightly higher up the slope north of Coton than Option A, before running through the orchard area to the north east of Coton and crossing the M11 on a new green bridge just south of the existing footbridge, following the southern edge of West Cambridge along the route of the Harcamlow Way. There are then various options where the Harcamlow Way/Wimpole Way turns northwards, including cutting across the field north eastwards to join the Option B route along the cycleway and Adams Road, or cutting across the field south eastwards to join the Herschel Road option, the rifle range track or continuing further south east to join Cranmer Road. New hedgerow planting is proposed between the cycle/pedestrian route and the busway where it runs to the north of Coton, from the fields south of Coton Court to Cambridge Road, as well as a stretch along the southern edge of West Cambridge and

the University Sports Ground. Tree and hedgerow planting is also proposed in locations adjacent to the northern edge of Coton.

- Option D - runs eastwards through the centre of the Madingley Mulch roundabout, continuing into the field immediately to the east of the roundabout before turning south east and crossing the A1303. It runs down the slope between Crome Lea Business Park and the row of residential properties south east of Madingley Mulch roundabout, before joining options A and B north of the covered reservoirs at Coton. Option D then sweeps higher up the slope than the other route options, close to the southern boundary of Madingley Rise, before crossing Cambridge Road to the south of the buildings and car park at the Coton Orchard garden centre. It then runs through the orchard area to the north east of Coton and crosses the M11 via a new green bridge at the same location as Option B. It enters the West Cambridge site and turns south at the junction with Charles Babbage Road to run along an existing road. It then follows the existing Harcamlow Way/Wimpole Way cycle route along the southern edge of West Cambridge, cutting across a field north eastwards to re-join the cycle route and follow the Option B route along the cycleway and Adams Road. No details have been provided of proposed planting along this route option, but it is assumed that similar to the other options new hedgerow planting is proposed between the cycle/pedestrian route and the busway where it runs to the north of Coton and for the stretch of the route between West Cambridge and Adams Road; that tree and hedgerow planting is also proposed in locations adjacent to the northern edge of Coton; and that new tree planting is proposed along the route where it passes through West Cambridge.

1.2.7. Option D was introduced to the assessment at a later date than the other route options and significantly after field assessment work of the route options had been undertaken. Consequently, the effect of the route running through the Madingley Mulch roundabout, into the field immediately to the east of the roundabout and crossing the A1303 was not taken into account during the site assessment work and cannot be comprehensively considered in the timescale required for finalisation of this report. Only the stretch of the route south of the A1303 is included in this assessment.

1.2.8. In terms of the route options outlined in the Cambourne to Cambridge Better Bus Journeys End of Stage Report (September 2017) for the Greater Cambridge Partnership, the route options assessed in this report correlate as follows:

- Option A is the same as the blue alignment in the End of Stage Report, up to the point where it turns south within West Cambridge. The stretch from where it turns south until it runs along the rifle range track reflects the cyan route in the End of Stage Report. The alignment that would cross the M11 at an angle south of the existing footbridge is not included in the End of Stage Report.
- Option B is the same as the green alignment in the End of Stage Report, except for the alignment that would cut across the field south of West Cambridge to Herschel Road and the 'hybrid route'. These two alternative alignments within Option B broadly form part of the blue alignment in the End of Stage Report.
- Option C is the same as the red alignment in the End of Stage Report, except for the alignments that run up to Adams Road, down to the rifle range track or down to Cranmer Road. The alignment that runs up to Adams Road forms part of the pink alignment in the End of Stage Report, the alignment that runs along the rifle range track is not included in the End of Stage report and the alignment that runs along Cranmer Road forms the purple alignment in the End of Stage Report.
- Option D is the same as the pink alignment in the End of Stage Report.

1.3. Structure of the Report

- 1.3.1. Section 2 summarises the relevant policy background applicable to Green Belt openness and purposes in the Cambridge context and reviews relevant previous policy and studies that have identified specific elements or qualities of Cambridge and its surrounding landscape that are relevant to Green Belt purposes.
- 1.3.2. Section 3 outlines the overarching considerations that apply to the proposed route of the segregated bus route through the Cambridge Green Belt.
- 1.3.3. Section 4 describes the methodology used in carrying out this study.
- 1.3.4. Section 5 presents the results of baseline studies and analysis, which enable Cambridge and its surroundings to be understood in the context of Green Belt openness and purposes.
- 1.3.5. Section 6 draws out qualities of the city and its surrounding landscape that contribute to the performance of Green Belt purposes.
- 1.3.6. Section 7 introduces the sector assessments for the different sectors.
- 1.3.7. Sections 8-10 contain detailed assessments of the proposed route options through each of the Green Belt sectors, in terms of whether the routes preserve the openness of the Green Belt or would conflict with Green Belt purposes. The test of NPPF paragraph 90 is then applied to identify any potential harm to Green Belt that would arise from the different route options, before a separate judgement on the degree of any potential harm to the Green Belt for those stretches of the different route options that fail the paragraph 90 test.
- 1.3.8. Section 11 provides conclusions in relation to the route options for the segregated bus route.

2.0 Policy and Previous Studies

2.1. Green Belt Policy Tests

- 2.1.1. Paragraph 90 of the National Planning Policy Framework (NPPF) states that certain forms of development are 'not inappropriate', provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in Green Belt. These forms of development include 'local transport infrastructure which can demonstrate a requirement for a Green Belt location'. The Planning Appraisal prepared by Strutt and Parker demonstrates that a Green Belt location is required for the proposed development.
- 2.1.2. On the basis that the proposed segregated bus route would comprise 'local transport infrastructure which can demonstrate a requirement for a Green Belt location', the test under paragraph 90 is whether the scheme would preserve the openness of the Green Belt and not conflict with the purposes of including land in Green Belt. If this test cannot be met, the scheme would be 'inappropriate' development and paragraphs 87 and 88 of the NPPF would apply.
- 2.1.3. Paragraph 87 states that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. Paragraph 88 states that, when considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.
- 2.1.4. In order to address the tests in paragraphs 90, 87 and 88, this report therefore firstly considers whether the proposed route options preserve the openness of the Green Belt and avoid conflict with Green Belt purposes, in order to meet the paragraph 90 test for 'not inappropriate development'. Where the paragraph 90 test is not met, because openness is not preserved or there is conflict with any Green Belt purposes, the report identifies the degree of potential harm to the Green Belt, to assist in the application of the paragraphs 87 and 88 test. The Planning Appraisal prepared by Strutt & Parker sets out wider considerations regarding the overall planning balance of the scheme, including matters related to very special circumstances.

2.2. Openness of the Green Belt

- 2.2.1. Paragraph 79 of the NPPF states that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open. The essential characteristics of Green Belts are their openness and their permanence. Whilst the NPPF does not contain a definition of openness, it is usually understood to mean the absence of built development.

2.3. Green Belt Purposes

- 2.3.1. At the national level, paragraph 80 of the NPPF sets out five purposes for Green Belt. The five purposes are as follows:
1. To check the unrestricted sprawl of large built-up areas
 2. To prevent neighbouring towns merging into one another
 3. To assist in safeguarding the countryside from encroachment
 4. To preserve the setting and special character of historic towns
 5. To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

- 2.3.2. These purposes are referred to in this report as the **National Green Belt purposes**. Although they are not numbered in the NPPF, they are numbered in this report for ease of reference.
- 2.3.3. National Green Belt purpose 5 appears from its wording to be equally applicable to all Green Belt land and is therefore not relevant in identifying the relative importance of different areas of Green Belt land to the performance of Green Belt purposes. In addition, the route chosen for the proposed segregated bus route does not make any difference to the degree to which this purpose is performed. Consequently, it is not considered further in this study.
- 2.3.4. At a local level, three purposes have been defined for the Cambridge Green Belt in local policy¹. They are as follows:
 - 1. Preserve the unique character of Cambridge as a compact, dynamic city with a thriving historic centre
 - 2. Maintain and enhance the quality of its setting
 - 3. Prevent communities in the environs of Cambridge from merging into one another and with the city.
- 2.3.5. These are referred to as the **Cambridge Green Belt purposes** in this report and have similarly been numbered for ease of reference, although they are unnumbered in the relevant policy documents.
- 2.3.6. The principal relationships between the Cambridge Green Belt purposes and the National Green Belt purposes are readily apparent from their wording. Cambridge Green Belt purpose 1 (character) and 2 (setting) derive from National Green Belt purpose 4. Cambridge Green Belt purpose 3 (merging) clearly relates to National Green Belt purpose 2 but, since the presence of necklace villages close to the outskirts of Cambridge is widely recognised as a key element of the city's character, it is also relevant to National Green Belt purpose 4. When the qualities that contribute to character and setting are considered in greater detail, other relationships between the Cambridge Green Belt purposes and the National Green Belt purposes become apparent. For example, various aspects of the character and setting of Cambridge also contribute to the performance of National Green Belt purposes 1, 2 and 3. These interrelationships are highlighted further in section 6 of this report, particularly within the table in section 6.1.

2.4. Previous Studies

- 2.4.1. The Cambridge Inner Green Belt Boundary Study, November 2015, was undertaken by LDA Design for Cambridge City Council and South Cambridgeshire District Council. Section 2.3 of the Study sets out a series of policy documents and previous studies that have identified relevant qualities of Cambridge and its surrounding landscape that contribute to the performance of Green Belt purposes. This study does not repeat that information, but accepts the conclusion of that chapter of the 2015 study, as follows:

“Whilst there is significant variation in the number of Green Belt qualities mentioned in the various studies and policy documents, there is notable consistency among those mentioned, with a number of substantively the same qualities mentioned in several different documents. The up to date analysis undertaken in the course of the present study largely confirms the relevance of the previously identified qualities as criteria for the Green Belt assessment.”

¹ Refer to Cambridge Local Plan 2014, Proposed Submission, July 2013, paragraph 2.50 and South Cambridgeshire Local Plan, Proposed Submission ‘with illustrated changes’, March 2014, paragraph 2.29

3.0 Overarching Green Belt Considerations

3.1. Strategic Approach to Development around Cambridge

- 3.1.1. Cambridge City Council and South Cambridgeshire District Council, under the duty to cooperate and given the interdependencies between the two Councils through the location of key employment sites, patterns of travel to work and access to services and facilities, have jointly considered the approach to sustainable development in and around Cambridge. South Cambridgeshire District set out at paragraph 2.42 of their Submission Local Plan (July 2013) that the sustainable development sequence for the two authorities is about:
- “balancing the sustainability merits of land on the edge of Cambridge in terms of accessibility to services and facilities and reducing emissions with the sustainability merits of land in the Green Belt on the edge of Cambridge in terms of protecting the special characteristics of Cambridge as a compact historic city”.*
- 3.1.2. Paragraph 2.44 goes on to state:
- “Cambridge City Council and South Cambridgeshire District Council jointly reached the view on the extent of change on the edge of Cambridge where only minor revisions to the inner Green Belt boundary are proposed in the Local Plans”.*
- 3.1.3. The Submission version of the Cambridge Local Plan (July 2013) indicates at paragraph 2.24 that the sustainable development strategy is:
- “a considerable challenge for the Cambridge area. There is a need for new homes to support the jobs. The aim is to provide as many of those new homes as close to the new jobs as possible to minimise commuting and to minimise and mitigate harmful effects for the environment, climate change and quality of life. The need for jobs and homes has to be considered within the context of a tightly-drawn Green Belt, which aims to protect the unique character of Cambridge as a compact, dynamic city with a thriving historic centre, maintain and enhance the quality of the city’s setting, and prevent the city merging with the ring of necklace villages. The Green Belt and its purposes help underpin the quality of life and place in Cambridge, which are fundamental to economic success. Achieving an appropriate balance between these competing arms of sustainable development is a key objective of the development strategy for the new local plans”.*
- 3.1.4. It continues at paragraph 2.26:
- “The overarching development strategy for the administrative areas of both Cambridge and South Cambridgeshire for the period to 2031 follows a broadly similar sequence for the preferred location and distribution of new development as the 2006 strategy. Put simply, the preferred sequential approach for new development can be described as: (first) being within the existing urban area of Cambridge; (second) being within the defined fringe sites on the edge of Cambridge; (third) within the six small-scale Green Belt sites proposed to be released from the inner Green Belt boundary, four of which are within the city; (fourth) within existing and newly identified new settlement locations at Cambourne, Northstowe, Bourn Airfield and Waterbeach; and lastly in identified villages.”*
- 3.1.5. The protection of the Green Belt on the edge of Cambridge, for the reasons identified above, has resulted in the need to develop new settlements beyond the Green Belt, such as Cambourne, and provide the necessary high quality transport infrastructure to allow sustainable travel. This provides the context for the consideration of a proposed improved bus route from Cambourne to Cambridge, of which the subject of this report, the proposed stretch of segregated bus route from Madingley Mulch Roundabout to the edge of Cambridge, would form part.

4.0 Methodology

4.1. Introduction

4.1.1. This study draws significantly from Cambridge Inner Green Belt Boundary Study (November 2015) (the 2015 study). The principal requirement of that study is to assess how land in the Inner Cambridge Green Belt performs against Green Belt purposes. Both National Green Belt purposes (with the exception of purpose 5) and Cambridge Green Belt purposes are considered, as identified in section 2.4 of this study.

4.1.2. This study is required to take the assessment process a stage further than the 2015 study and assess whether the different route options would preserve the openness of the Green Belt or conflict with the purposes of including land in Green Belt. In situations where openness is not preserved or there would be potential conflict with Green Belt purposes, the degree of harm that would result is then considered.

4.2. Methodology

4.2.1. The methodology for this study broadly follows that of the 2015 study, but as follows:

- Stage 1: Identification of sectors and sub areas within the Inner Green Belt to form the basis of the assessment;
- Stage 2: Baseline studies and analysis to inform considerations relevant to openness of the Green Belt and potential conflict with Green Belt purposes;
- Stage 3: Identification of qualities to inform the assessment of preservation of openness and the identification of any conflict with Green Belt purposes; and
- Stage 4: Assessment of sectors to identify:
 - whether the proposed route options preserve the openness of the Green Belt;
 - whether the proposed route options conflict with Green Belt purposes;
 - in situations where there is any decrease in openness or any conflict with Green Belt purposes, this is considered to result in harm to the Green Belt. In these situations, the degree of harm is then considered.

4.2.2. These stages are described in further detail below.

Stage 1: Identification of Sectors and Sub Areas within the Inner Green Belt

4.2.3. The sectors and sub areas used for the assessment are shown on Figure 2. The sectors are defined on a simple spatial basis utilising the sector identified as part of the 2015 study east of the M11 as a starting point. West of the M11 roads and watercourses are used to divide one sector from another. This provides a clear and robust structure for presentation of the assessment.

4.2.4. The definition of the sectors on a simple spatial basis, as described in the previous paragraph, does not reflect variations in land use, character or context, which occur in the majority of the sectors. All sectors are therefore divided into sub areas where there are clear changes in these characteristics that would affect the application of the assessment criteria to different areas of land. This enables a robust and transparent assessment of the various sub areas.

Stage 2: Baselines Studies and Analysis (Section 5 of this Report)

4.2.5. A series of studies were undertaken as part of the 2015 study, to build up an understanding of Cambridge and its surrounding landscape, in the context of the considerations which are

relevant to the performance of Green Belt purposes and to inform the assessment of openness. These extended out far enough to cover all of the proposed route options from Madingley Mulch Roundabout. The studies cover a range of aspects which have a bearing on how the issues raised by Green Belt purposes (sprawl, merging, encroachment, setting and character) are manifested in Cambridge and its surrounding landscape or are perceived by residents or visitors to the city. They include matters relating to the physical form and scale of the city, its historical development, its relationship to its hinterland, townscape and landscape character, the experience of approaching and arriving at the city, and how the city is perceived from the surrounding landscape.

- 4.2.6. Townscape character assessment assists not only in identifying the historic core of the city but also in identifying other areas of townscape which are distinctive to Cambridge and contribute to its particular character. Its findings reflect the historical development of the city and contribute to an understanding of the nature of the urban edges which adjoin the Green Belt. Landscape character assessment assists in identifying important components of the landscape setting of the city and the wider countryside, enabling it to be studied within its context, and the relationship between the city and its surroundings to be properly understood. These assessments are therefore of particular relevance to National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2.
- 4.2.7. The findings of the baseline studies, so far as relevant to the areas affected by the route options, are summarised in section 5 of this report and are taken directly from the 2015 study.
- 4.2.8. The findings of the baseline studies and analysis are presented on a series of drawings and photograph panels. Figures 3-11 show the extent of the proposed route options. Figures 12-14 illustrate the key Green Belt considerations that relate to each sector. Figures 15-20 are photograph panels that illustrate the findings of the baseline analysis.

Stage 3: Identification of Qualities Relevant to Openness and Green Belt Purposes (Section 6 of this Report)

- 4.2.9. This stage draws from the surveys and analysis work in stage 2 to identify how the 16 qualities of the city and its surrounding landscape identified in the 2015 study, which directly contribute to openness and the performance of Green Belt purposes, relate to each of the assessment sectors.

Stage 4: Assessment of Sectors (Sections 8-10 of this Report)

- 4.2.10. Sections 8-10 of this report contain detailed assessments of the proposed route options through each of the Green Belt sectors, in terms of whether the routes preserve the openness of the Green Belt or would conflict with Green Belt purposes.
- 4.2.11. Initially, the 16 qualities identified in stage 3 are used as the criteria against which the sectors and sub areas are considered to identify key considerations relevant to openness and Green Belt purposes within each sub area. The assessments are presented in a tabulated format for each sector, with summary text at the end of the table drawing out the key points from the criteria-based assessment of each sub area under the two headings of openness and Green Belt purposes.
- 4.2.12. Within each sub area, the degree to which the openness of the Green Belt would be preserved is considered for each of the different route options. This has two main aspects in relation to this assessment, the volume or physical size of the proposed development and its visual impact. Where either of these two aspects indicates a potential reduction in openness, other

aspects are considered, including the duration of the effect and the purpose of the development.

4.2.13. For the purposes of the assessment, it is considered that:

- Where the route is constructed over flat landform or across the face of a slope requiring relatively modest and balanced cut and fill to create the bus route, the necessary earthworks would not affect openness. A reduction in openness could arise where the route is significantly elevated above existing ground levels or where there is more substantial cut and fill or a significant imbalance between cut and fill.
- Where the route crosses a rural landscape and would result in visible changes such as new fences and/or hedgerows that would not result in a change to the character of the landscape, there would be no effect on openness. Where there would be a visible change to the character of the landscape, there may be a reduction in openness.
- The surface of the bus route and footway/cycleway, and the physical guides alongside the busway would not affect openness.
- Signage, lighting and road markings near road crossings would not affect openness.

4.2.14. Within each sub area, any potential conflict with Green Belt purposes as a result of the different route options is also assessed, using the 'Qualities Relevant to Openness and Green Belt Purposes' as the starting point. For the purposes of this report, any negative effect on a particular Green Belt purpose, even if only slight, is considered to be a conflict with the Green Belt purpose.

4.2.15. The assessments conclude with commentary on whether the NPPF paragraph 90 test is passed by each option, i.e. does the option preserve openness and not conflict with Green Belt purposes. This is followed by a separate judgement on the degree of any potential harm to the Green Belt for those stretches of the different route options that fail the paragraph 90 test.

5.0 Baseline Studies and Analysis

5.1. Introduction

5.1.1. As stated above, this section summaries the key findings of a series of studies undertaken in the 2015 study, which build up an understanding of Cambridge and its surrounding landscape, focussing on considerations that are relevant to the performance of Green Belt purposes. These covered a range of aspects that have a bearing on how the issues raised by Green Belt purposes are manifested in Cambridge and its surrounding landscape or are perceived by residents or visitors to the city. They include matters relating to the physical form and scale of the city, its historical development, its relationship to its hinterland, townscape and landscape character, the experience of approaching and arriving at the city, and how the city is perceived from the surrounding landscape. Whilst these studies were originally undertaken to understand the contribution of the Cambridge Green Belt to Green Belt purposes, they also inform consideration of openness.

5.1.2. The material has been checked, validated and updated as necessary for the purposes of the present study, by means of desktop studies, site survey and analysis.

5.2. Historical Development of Cambridge and the Villages

5.2.1. Key points:

- Location of Cambridge at a meeting point of several landscapes: Fens to the north and east, Claylands to the west, Chalk Ridge to the south and east.
- A small town until the 19th century.
- Substantial growth during the 19th and 20th centuries, continuing into the early 21st century.
- Little expansion west of the city, save for the University's West Cambridge site being developed in recent years.
- Varied local factors influencing the location and form of villages.
- Distinctive character of many villages and notable landscape features within them.

5.3. Environmental Designations

5.3.1. There are numerous environmental designations within Cambridge and the Green Belt, covering a range of habitats and with many different reasons for designation, which contribute to the character and setting of the city. Those within the area covered by the proposed segregated bus route are shown on Figure 3.

5.3.2. Key points:

- Relatively few environmental designations in the vicinity of the proposed route options.
- County Wildlife Sites along field boundaries east of M11.
- City Wildlife Site covering woodland east of the M11.

5.4. Cultural Designations

5.4.1. Figure 4 shows cultural designations within Cambridge and the Green Belt, which contribute to the character and setting of the city.

5.4.2. Key points:

- Conservation Area and numerous listed buildings in west side of Cambridge.
- Conservation Areas and listed buildings in Coton.
- Registered Park and Garden at Cambridge American Cemetery.

5.5. Recreational Routes and Country Parks

5.5.1. Figure 5 shows recreational routes within and through the Cambridge Green Belt, as well as the locations of country parks close to edge of Cambridge. These contribute to the character and setting of the city, and also allow access into the countryside close to the edge of the city.

5.5.2. Key points:

- Limited rural rights of way network west of M11 in the vicinity of the route options.
- Long distance footpath route through area (Wimpole/Harcamlow Way).
- Country Park in the rural landscape a short distance south of the route options.

5.6. Topography and Geology

5.6.1. Figure 6 illustrates the topography of the Cambridge Green Belt and the surrounding area.

5.6.2. Key points:

- Topography reflects the three landscapes that surround Cambridge: Fens, Claylands and Chalk Hills.
- Proposed route options run from a ridgeline of the Claylands towards the city.

5.7. Townscape Character

5.7.1. Townscape character assessment (see Figure 7) assists not only in identifying the historic core of the city but also in identifying other areas of townscape which are distinctive to Cambridge and contribute to its particular character. Its findings reflect the historical development of the city and contribute to an understanding of the nature of the urban edges which adjoin the Green Belt.

5.7.2. Key points:

- Despite significant areas of 19th century housing, the city remained very compact at the start of the 20th century.
- Limited expansion to the west, predominantly comprising development related to the University.
- Intact historic core, relatively large in proportion to the overall size of the city.
- Coton also has a relatively intact historic core, with more recent expansion predominantly to the west and to a lesser extent north and east.

5.8. Landscape Character

5.8.1. The characterisation approach adopted for the built area of Cambridge has been extended into the landscape (see Figure 8). Understanding landscape character is fundamental to understanding what gives a landscape its distinctive identity. Landscape character assessment assists in identifying important components of the landscape setting of a

settlement. It enables the settlement to be studied within its context, and the relationship between the settlement and its surroundings to be properly understood.

5.8.2. Key points:

- Diversity of landscape character areas within the three main landscapes of Fens, Claylands and Chalk Hills.
- Extensive River Valley landscapes, particularly south and south-west of the city where watercourses have eroded the higher clay and chalk land.
- Proposed route options pass through the Western Claylands and the Rhee and Bourn Valleys.

5.9. Green Corridors into Cambridge

5.9.1. Green corridors are widths of countryside or green space, with public access, penetrating from the open countryside into the urban fabric of Cambridge. They provide the settings for open approaches into the city, access for pedestrians and cyclists out into the countryside, corridors for wildlife, and a landscape setting to some edges of the city. They are shown on Figure 7.

5.9.2. Key points:

- The green corridor running into Grange Road emphasises the proximity of the countryside to the distinctive core of the city.

5.10. Visual Assessment

5.10.1. Figure 9 shows the results of a visual assessment of Cambridge, with particular emphasis on the interrelationship between the city edge and the surrounding landscape.

5.10.2. Key points:

- Various key landmarks within the city, many historic and some modern university-related buildings which strengthen the city's distinctive character.
- Key views to Cambridge from the surrounding landscape, including level views from west and longer range elevated views from west and south.
- Varying character of the urban edge as seen from the countryside, with a generally soft, green edge to the west and more mixed edges elsewhere.
- Distinctive/memorable features in the surrounding countryside.

5.11. Approaches and Gateways

5.11.1. This section describes the approaches and gateways to Cambridge shown on Figure 10. Approaches to Cambridge from the surrounding countryside generally have a rural character. Approaches to and within the urban area provide the viewpoints from which most visitors see the city and gain their perception of its scale. Distance and travel time between open countryside and Distinctive Cambridge (i.e. the historic core and areas of Distinctive townscape/landscape – see section 5.14), and the character of the approaches, play an important role in determining people's perception of the character and scale of the city. The length of approaches therefore provides a fair representation of how people perceive the scale of Cambridge, given that an important part of its character is its compactness.

Madingley Road

- 5.11.2. From the west, Cambridge is approached along the historic route, Madingley Road. The first view of the city is an elevated panoramic view just before the turn-off to Coton on Madingley Hill – until this point, the approach is strongly rural in character and well vegetated. Development has occurred up to the eastern edge of the M11, namely the University's West Cambridge site, but this development is part of Distinctive Cambridge, emphasising the quality of Cambridge as a compact city. The urban gateway is close to the gateway to Distinctive Cambridge, near the M11 and defined by the Park & Ride and British Antarctic Survey Building. The development along Madingley Road at West Cambridge is mainly large-scale University buildings such as the School of Veterinary Medicine, Laboratories and the Observatory. The approach is green and treed along the length of Madingley Road to The Backs, although new accesses into West Cambridge and the adjacent Northwest Cambridge development have created gaps in this vegetation.

Barton Road

- 5.11.3. The south western approach along Barton Road is also a rural approach with only a short distance travelled through suburban development before reaching Distinctive Cambridge, contributing positively to the perception of Cambridge as a compact city. The rural section of Barton Road is largely enclosed by tall hedgerows and has limited views into the adjacent countryside.

Harcamlow Way/Wimpole Way

- 5.11.4. The Harcamlow Way/Wimpole Way is a frequently used route to approach Cambridge from the west. It is a bridleway or along roads west of the M11, and is therefore used as a route for pedestrians, horse riders and frequently cyclists. It is not only a leisure route, but used for commuting into Cambridge by those living in villages west of the M11. The route is largely rural until it reaches the M11, where it reaches the West Cambridge site and Distinctive Cambridge.
- 5.11.5. Key points:
- Approaches from the west are generally shorter, giving a more immediate sense of arrival and the sense of a compact city. They are green or treed, making them more attractive.
 - West of the M11, the approaches are strongly rural.

5.12. Pattern of Distribution of Villages

- 5.12.1. Cambridge is surrounded by an open rural landscape containing a number of villages. Villages are scattered throughout the Green Belt of Cambridge, with patterns related to their origins and development over time. Figure 8 shows landscape types and character areas, each with their characteristic settlement pattern.
- 5.12.2. Coton forms one of the necklace villages around Cambridge and remains physically separated from Cambridge by the M11 and an area of orchards. The West Cambridge development has extended Cambridge westwards towards Coton.
- 5.12.3. Key points:
- Villages scattered throughout the Green Belt, with their distribution reflecting local landscape characteristics.
 - Presence of villages close to Cambridge contributes significantly to the quality of the setting of the city.

- Maintaining separation between Cambridge and the inner necklace villages and between the villages themselves is important to the setting of the city but is under threat in some instances.
- Coton remains separated from Cambridge by orchards and the M11, despite development at West Cambridge.

5.13. Character and Identity of Villages

- 5.13.1. Each village possesses qualities which contribute positively to their character and identity and therefore to the quality of the setting of Cambridge.
- 5.13.2. Coton forms one of the necklace villages around Cambridge. It has remained relatively compact, with some more recent development to the east and west. It retains its historic core at the centre of the village, with areas of countryside immediately adjacent to this historic core, north and south of the village.
- 5.13.3. Key points:
- Villages vary in their size, form and other qualities, so that each village has its own particular character and identity.
 - Individual identity is most intact in villages which avoided large 20th century expansion but has been diluted in those which saw significant 20th century growth.
 - Inner necklace villages enrich the setting of Cambridge and emphasise the rural character of the landscape surrounding the city.
 - Coton retains its historic core and remains relatively compact in its rural setting.

5.14. Townscape and Landscape Role and Function

- 5.14.1. The assessment of the 'function' that townscape and landscape plays in contributing to the distinctiveness of Cambridge (see Figure 11) and its setting is based on a methodology established by LDA Design, and endorsed by the Countryside Agency (The Countryside Agency and Scottish Natural Heritage, 2002). This methodology was piloted in Winchester (Landscape Design Associates, 1998) and subsequently developed on other projects relating to historic towns and cities.
- 5.14.2. Distinctive Townscape/Landscape consists of those areas that are specifically recognisable and distinctive to the city. They include townscape and landscape components such as distinctive buildings, quintessential views, the interaction of buildings forming spaces or the setting to local events, topographical features, setting and backdrops to the city, areas of rich biodiversity, historic approach routes and landmarks of distinctive character. These areas, frequently contiguous with the Historic Core, often borrow from or bestow character to it. Distinctive townscape / landscape is so distinctive to the city that similar areas or features are unlikely to be found in other historic towns and cities and it may well be unique.
- 5.14.3. Supportive Townscape/Landscape consists of those areas of townscape/landscape that support the character of the Historic Core and Distinctive areas of the city. They provide the backdrop and ambience, and bolster the sense of place of the city and its approaches. Supportive areas and features are of a kind that may be found in other towns and cities but, due to their particular location or the way they influence the character and setting of the city, they are locally distinctive, recognisable to those familiar with the city as important elements of its character and identity.
- 5.14.4. Connective Townscape/Landscape consists of those areas of townscape/landscape that are an integral part of the city and its environs, but may lack individual distinction or do not make a

significant contribution to the setting of the city. This does not signify that these areas are unimportant, or lacking in their own identity; they may have significant merit in their own right. Rather, they are often areas with little relationship to their landscape setting, or to landmarks within the Historic Core or its landscape setting. Due to their location or character, they may contribute little to views of the city or other elements of its setting. Generic development forms with little sense of place can also contribute to the loss of local identity.

5.14.5. Key points:

- Extensive areas of Distinctive townscape and landscape including the historic core, the Grange Road and West Cambridge area, and the Cam corridor.
- Supportive landscape around most of the west of the city, where the relationship of the city to the adjacent rural landscape is an important aspect of its setting.
- Areas of Connective townscape/landscape may still be important but, depending on individual circumstances, may have potential to accommodate change.

5.15. Summary of Baseline Studies and Analysis

5.15.1. The studies and analysis presented in this section enable a thorough understanding of aspects of Cambridge and its surrounding landscape that are relevant to openness and Green Belt purposes. The main findings arising from the various studies that are relevant to the 'catchment area' for the proposed segregated bus route are summarised below and lead to the identification of qualities that directly contribute to openness and the performance of Green Belt purposes. These qualities are set out in section 6.

5.15.2. The main findings drawn from the studies and analysis contained in this section are:

- From the 19th century onwards, Cambridge grew to the north, east and south but there was little expansion to the west.
- Notwithstanding the 19th and 20th century expansion, Cambridge remains a compact city focussed around its historic core.
- There are relatively few environmental and cultural designations in the vicinity of any of the proposed route options for the scheme.
- The rights of way network in the vicinity of the route options is relatively sparse, although there are still good links between the city and countryside in the form of the Harcamlow Way/Wimpole Way.
- The city has its origins at the meeting point of three landscapes which, in terms of topography and landscape character, are still readily apparent in the landscape surrounding the city at the present day. The route options are located on the higher ground of the Claylands and descend into the flatter 'bowl' in which Cambridge is located.
- Green corridors, most particularly the River Cam corridor, extending from the countryside into the city contribute significantly to the character of Cambridge. One such corridor, although not along a river, is located in the west of Cambridge.
- Key views of Cambridge from the surrounding landscape are important, particularly views across the city skyline with its distinctive landmarks. The rural landscape in the west of Cambridge forms the foreground in many views from the west, such as from Red Meadow Hill.

- Many approaches into the city centre are green, treed and characteristic. From the west in particular, approaches from the countryside to the Distinctive areas of the city are short, creating positive perceptions of the city on arrival.
- There are significant areas of Distinctive and Supportive townscape surrounding (and including) the historic core to the west of the city. There are some areas of Distinctive landscape and extensive areas of Supportive landscape surrounding the city to the west, reflecting the important role played by the landscape in the setting of the city.
- The villages surrounding Cambridge are a notable feature, with their distribution reflecting the historic qualities of the landscape, and some villages very close to the city edge. Coton remains relatively compact, with a rural setting, and separated from Cambridge by orchards and the M11.

6.0 Qualities Relevant to Openness and Green Belt Purposes

6.1. Introduction

- 6.1.1. The baseline studies and analysis summarised in section 5 were undertaken to gain a good understanding of the city and its surroundings, focussing on considerations which are relevant to the performance of Green Belt purposes and openness. From this work, it is apparent that the National Green Belt purposes, Cambridge Green Belt purposes and openness are manifested and performed in various ways specific to Cambridge and its surrounding landscape. This section draws from the 2015 study, which defined 16 qualities of Cambridge and its surrounding landscape which directly contribute to the performance of Green Belt purposes.
- 6.1.2. The 16 qualities are explained in detail in the 2015 study, which is replicated in the remainder of this section where relevant to this study. Further information that is not relevant to the areas covered by this study is provided in the 2015 study. The qualities are not listed in order of importance. They are all important and each contributes to the performance of Green Belt purposes, as well as an understanding of openness.
- 6.1.3. In terms of Green Belt purposes, the table on the following pages shows the relationship between each of the 16 qualities, the National Green Belt purposes and Cambridge Green Belt purposes. The majority of these qualities contribute to the performance of more than one Green Belt purpose. The table also identifies which qualities are relevant to each of the assessment sectors, as some of the qualities relate more specifically to the edge of the city, whilst others are more relevant in the rural areas.

As set out in the methodology in Section 4 of this report, the 16 qualities are used as the criteria for assessing the current level of openness and the contribution to Green Belt purposes of the three sectors and sub areas discussed in section 4.2 and shown on Figure 2. This forms the starting point for the assessment of any potential conflict with Green Belt purposes resulting from the different route options, which forms part of the test under paragraph 90 of the NPPF as to whether the development would be 'inappropriate'. The test relating to preservation of openness is addressed separately, as discussed in Section 4.2.

Qualities Relevant to Openness and Green Belt Purposes	National Green Belt Purposes				Cambridge Green Belt Purposes			Relevance to Green Belt Sectors		
	1. Sprawl	2. Merging	3. Encroachment	4. Setting/ Character	1. Character	2. Setting	3. Merging	Sector A	Sector B	Sector C
1. A large historic core relative to the size of the city as a whole	*			*	*			*		
2. A city focussed on the historic core				*	*			*		
3. Short and/or characteristic approaches to the historic core from the edge of the city	*			*		*		*		
4. A city of human scale easily crossed by foot and by bicycle	*			*	*			*		
5. Topography providing a framework to Cambridge				*		*		*	*	*
6. Long distance footpaths and bridleways providing access to the countryside				*		*		*	*	*
7. Key views of Cambridge from the surrounding landscape				*		*		*	*	*
8. Significant areas of Distinctive and Supportive townscape and landscape				*	*	*		*	*	*
9. A soft green edge to the city			*	*		*		*		
10. Good urban structure with well-designed edges to the city	*							*		
11. Green corridors into the city	*			*	*	*		*		
12. The distribution, physical and visual separation of the necklace villages		*		*	*	*	*	*	*	*
13. The scale, character, identity and rural setting of the necklace villages		*		*		*	*		*	*
14. Designated sites and areas enriching the setting of Cambridge				*		*		*	*	*

Qualities Relevant to Openness and Green Belt Purposes	National Green Belt Purposes				Cambridge Green Belt Purposes			Relevance to Green Belt Sectors		
	1. Sprawl	2. Merging	3. Encroachment	4. Setting/ Character	1. Character	2. Setting	3. Merging	Sector A	Sector B	Sector C
15. Elements and features contributing to the character and structure of the landscape	*			*		*		*	*	*
16. A city set in a landscape which retains a strongly rural character			*	*		*		*	*	*

6.2. Qualities

1. A Large Historic Core Relative to the Size of the City as a Whole

- 6.2.1. This quality is concerned with compactness, identified by Holford and Myles Wright in their 1950 report (The Holford Report) as being an important characteristic of the city. Cambridge Green Belt purpose 1 refers to 'a compact, dynamic city with a thriving historic centre'. In addition to being a key part of the special character of the city, it is also relevant to the issue of urban sprawl, which would reduce the relative size of the historic core in proportion to the size of the entire city.
- 6.2.2. In the case of Cambridge, its special historic character depends not only on the relatively large and intact historic core, but also on the fact that this has not been 'swamped' by more recent development. Despite the presence of business parks and post-war peripheral housing estates and other development, the scale of the historic core relative to the overall city is such that Cambridge still retains its historic character. If substantial peripheral development were to be permitted in Cambridge, more modern development would begin to dominate and, as the scale of the historic core is fixed, it would be inevitable that the overall historic character of the settlement would begin to be eroded. If Cambridge were to grow beyond a certain point, it would no longer have the character of a historic city, but rather would become merely a city with a historic core - a very different character of settlement. Development has already extended furthest from the historic core to the east and south of the city, in a largely unstructured way that gives the impression of urban sprawl.
- 6.2.3. The issue of scale is, therefore, of vital significance to the protection of the special character of Cambridge. It needs to retain the feeling of being a small city, one still dominated by its historic core, if it is to retain its special character. The Green Belt has an essential role to play in this and the prevention of sprawl.

2. A City Focused on the Historic Core

- 6.2.4. This quality is also relevant to compactness and to Cambridge Green Belt purpose 1. The study by Colin Buchanan and Partners in 2001 (The Buchanan Report) emphasised the importance of the city's historic core and associated university colleges as part of the special character of Cambridge. The buildings and historic core are also identified as Defining Character in the Cambridge Landscape Character Assessment of 2003 (CLCA).
- 6.2.5. The 2015 study describes how Cambridge did not expand much beyond its medieval limits until the 19th century. Today, despite extensive expansion since that time, Cambridge is formed of a network of neighbourhood hubs and commercial areas or developments (such as industrial development around the railway and Cambridge Science Park) located around a single core, which is focused on the medieval area. The core is a vibrant social, cultural and economic focus to the city. There are a finite number of compact, single centred historic cities in the England and this aspect of Cambridge is an important quality that should be safeguarded. The Green Belt plays an important role in this.
- 6.2.6. There is a danger that, if the city expands much beyond its current size, the existing core will not be accessible to residents of the outer areas of the city due to the distance, and inconvenience of travelling, between residential areas and the centre. This might lead to the development of alternative urban cores that provide the economic and social focus for large areas of the city, competing with the historic centre and irretrievably altering the historic form and function of Cambridge.

3. Short and/or Characteristic Approaches to the Historic Core from the Edge of the City

- 6.2.7. This quality is again associated with compactness and sprawl and is also key to the perception of Cambridge as a historic city when approaching and arriving. The Holford Report identified *'open countryside near the centre of the town on its west side'* as an important characteristic, which is reflected in short, characteristic approaches to the historic core from the west. The importance of a sense of arrival is also emphasised in the CLCA.
- 6.2.8. Approach routes into Cambridge provide the viewpoints from which most visitors see the city and gain their initial perception of it. The nature of the approach between the urban gateway and Distinctive Cambridge (for example whether it is short, attractive and characteristic of Cambridge or long and unremarkable) plays an important role in determining people's impression of the city, and whether they perceive it as a special, 'historic' city. Distance and travel time between open countryside, Distinctive Cambridge, and then the historic core, as well as the quality and character of the peripheral development passed through, contribute to people's perception of the scale of the city; whether it is a historic city dominated by the historic core, or an ordinary city with a historic core dominated by modern development.
- 6.2.9. Short and/or characteristic approaches are shown on Figure 10. The shortest and most characteristic approaches between open countryside and Distinctive Cambridge lie to the south and west. These comprise Madingley Road, Barton Road, Grantchester Road, Huntingdon Road and Trumpington Road, as well as the two rural approaches along the green Cam corridor. These routes, in particular, play an important role in the setting of the city.
- 6.2.10. The countryside around Cambridge and penetrating into urban areas is within easy access of many neighbourhood communities and the city centre. It is important that these links are preserved, and opportunities for the creation of additional links should be considered.

4. A City of Human Scale Easily Crossed by Foot and by Bicycle

- 6.2.11. This quality is also concerned with compactness and sprawl but is unrelated to Cambridge's historic character. It is concerned with how people living and working in the city perceive its compact scale in their day to day lives.
- 6.2.12. Cambridge has a tradition of cycling. Much of the population, particularly students, travel the city by foot or by bicycle. This is made possible by the relatively small size of the city. As Cambridge expands, so does the distance of travel between different parts of the city.
- 6.2.13. The centre and the west sides of Cambridge are of a small, human scale and easily crossed by foot and bicycle. This is a quality of Cambridge, in which the Green Belt plays an important part.

5. Topography Providing a Framework to Cambridge

- 6.2.14. This quality is central to understanding the setting and history of the city, reflecting Cambridge's origins and location at the meeting point of three landscapes. The significance of topography as a component of the setting of the city is recognised in the CLCA, which identifies 'high ground' as Defining Character.
- 6.2.15. The landform surrounding Cambridge is illustrated on Figure 6. The relationship of the city to the topography is one of the key defining qualities of Cambridge.

6. Long Distance Footpaths and Bridleways Providing Access to the Countryside

- 6.2.16. Once Green Belts have been defined, the NPPF states that they have positive roles to play, including “*looking for opportunities to provide access*” (paragraph 81). The accessibility of the countryside surrounding Cambridge is an important aspect of its setting, enabling people to appreciate the landscape setting and the relationship between the city and countryside.
- 6.2.17. Long distance routes, and also shorter, local footpaths and bridleways providing access into the countryside in the immediate vicinity of Cambridge, are important qualities of the setting and special character of the city that should be preserved and continue to be enhanced.

7. Key Views of Cambridge from the Surrounding Landscape

- 6.2.18. This quality is also an important element of the setting of Cambridge. Views of the historic core are one of the aspects stated in the Structure Plan 2003 to be of particular importance to the quality of the city. They are also identified as Defining Character in the CLCA and are identified in the South Cambridgeshire Core Strategy 2007 (SCCS) as an aspect of the special character of Cambridge.
- 6.2.19. There are a number of viewpoints that are important and the qualities of these views should be preserved and, where possible, enhanced. The viewpoints identified on Figure 9 are the most important on the west side of the city, as it is from these locations that people can best appreciate the various qualities of Cambridge. All viewpoints identified provide different views of landmark features or defining characteristics of the city.
- 6.2.20. Red Meadow Hill within Coton Countryside Reserve, to the west of the M11, is one of the best examples. A historic view of Cambridge in 1688 is shown on Figure 21, demonstrating the view from the west at that time. Photograph 6 on Figure 17, taken from Red Meadow Hill shows that, because development has been limited on the west side of the city, the quality of views of that side of the historic city, with open countryside and a soft green edge, and landmark historic buildings clearly visible and largely unaffected by modern development, has remained substantially intact over the last 300 years. This is the perception that many people gain of Cambridge as they pass on the M11, and is therefore of great importance. The quality of views, and of the appearance of the city from the west, is a special quality of the setting and special character of the historic city that is important to safeguard.

8. Significant Areas of Distinctive and Supportive Townscape and Landscape

- 6.2.21. The 2015 study demonstrates how areas of Distinctive and Supportive townscape and landscape contribute most strongly to the distinctiveness of Cambridge and its setting. They are, therefore, important areas to protect. However, as discussed in that study, these areas are not in every respect of greater importance than the remaining areas of influence (with the exception of Visually Detracting Townscape/Landscape), as all areas play a crucial role in the setting and perception of the city. The importance of Connective Townscape/Landscape and Outer Rural Areas lies in linking between and forming a foil to areas of Historic Core and Distinctive and Supportive townscape and landscape.
- 6.2.22. Figure 11 identifies Distinctive and Supportive townscape and landscape as the most essential areas to be safeguarded from the adverse effects of development. However, other areas should also be safeguarded from change which would cause adverse effects on the qualities of the setting and special character of Cambridge.

9. A Soft Green Edge to the City

- 6.2.23. The Buchanan Report referred to the interface between the city and the countryside as being an aspect of Cambridge's special character and the CLCA refers to edges as having the potential to be either Defining Character or Supporting Character. Soft green edges contribute significantly to the setting of the city, particularly on its west side. They also play a role in National Green Belt purpose 3 in reducing the urbanising influences of the built area on the adjacent countryside.
- 6.2.24. It is important to preserve existing soft green edges and to seek opportunities for planting to improve existing or future city edges which lack this quality.

10. Good Urban Structure with Well Designed Edges to the City

- 6.2.25. This quality is of relevance to National Green Belt purpose 1. One of the factors that contribute to urban sprawl is poorly designed urban edges which do not create a well considered long-term edge to a city. Because the city edge does not appear 'finished', it can be easy to justify greenfield development beyond the existing edge, extending the city further and creating sprawl. Many of the edges around the east side of Cambridge are poorly designed, which may lead to pressure for future development in these areas.

11. Green Corridors into the City

- 6.2.26. The Holford Report referred to '*green wedges along the river*' as being an important quality and they are also identified as such in the Buchanan Report, the City Council's 2002 Inner Green Belt Boundary Study, the Structure Plan 2003, the CLCA and the SCCS. They are key components of the character and setting of the city and also play an important role in maintaining urban structure and thus reducing sprawl. They are the only quality to be specifically mentioned in the Cambridge Local Plan 2006.
- 6.2.27. The green corridor in the west Cambridge, whilst not along a river, emphasises the proximity of countryside to the distinctive core of the city and contributes to the green edge to the city as seen from the west; it is of great importance that it is preserved.

12. The Distribution, Physical and Visual Separation of the Necklace Villages

- 6.2.28. This quality is also mentioned in the Holford Report, the Buchanan Report, the City Council's 2002 Inner Green Belt Boundary Study, the Structure Plan, the CLCA and the SCCS. It has long been regarded as an important component of the character and setting of the city and is clearly related to National Green Belt purpose 2.
- 6.2.29. It is essential to preserve the pattern of distribution of villages around Cambridge and their physical separation from other settlements. The Green Belt provides protection for the countryside around and between settlements. Although all areas of open countryside in the Green Belt play a role to a greater or lesser extent in separating settlements, those areas of land that are considered to be most critical in separating settlements within the immediate setting of Cambridge must be protected. The role of individual areas in maintaining separation between settlements requires careful consideration of topography and vegetation, which can prevent intervisibility, and of land that is perceived as being part of the setting of a particular village and thus 'belonging' to that village rather than another.

13. The Scale, Character, Identity and Rural Setting of the Necklace Villages

- 6.2.30. The Buchanan Report specifically refers to the character of the villages surrounding the city, and the qualities of setting, scale and character of the villages are also referred to in the SCCS.

The varying sizes and character of the villages, each with their own distinct identity, is an important component of the setting of the city.

- 6.2.31. It is apparent that the villages that saw significant growth in the 20th century have become more generic and are less distinctive than those that saw little growth, where the historic character and the relationship between all parts of the village and the surrounding landscape remains largely intact.
- 6.2.32. The rural setting of villages is also a fundamental component of their character. Despite the proximity of Cambridge, all the villages within the study area retain an entirely or largely rural character and it is essential that this should remain the case. The Green Belt has a critical role to play in protecting these qualities of the necklace villages.

14. Designated Sites and Areas Enriching the Setting of Cambridge

- 6.2.33. Designated sites are identified as Supporting Character in the CLCA or, in some circumstances, potentially Defining Character. The SCCS identifies them as a component of the special character of Cambridge.
- 6.2.34. All features, sites and areas covered by environmental, cultural and access designations are important elements that enrich the appearance of the landscape and people's experience of it. They are all part of the setting and special character of Cambridge that should be preserved.

15. Elements and Features Contributing to the Character and Structure of the Landscape

- 6.2.35. This quality is defined as Supporting Character or, on occasion, Defining Character in the CLCA and is identified in the SCCS as a component of the special character of Cambridge. In addition to contributing to the character and setting of the city, this quality is relevant to National Green Belt purpose 1 in that a strong landscape structure provides containment and natural barriers to inhibit urban sprawl.
- 6.2.36. There is a pattern of elements and features within the city and the landscape, ranging from large scale features such hills, rivers, woodlands and tall University buildings, to smaller scale elements such as hedgerows, farm buildings, and a network of smaller watercourses, that are fundamental to the character of different landscape character areas, and also to the setting and special character of Cambridge.

16. A City Set in a Landscape which Retains a Strongly Rural Character

- 6.2.37. The *'open countryside near the centre of the town on its west side'* is identified as important in the Holford Report, and the SCCS identifies this quality as a component of the special character of Cambridge. In addition to character and setting, it is also relevant to National Green Belt purpose 3, in that a strongly rural landscape indicates that encroachment on the countryside is being resisted, whereas countryside that is significantly affected by urban influences creates a perception of encroachment.
- 6.2.38. It is important that the landscape surrounding Cambridge retains this rural character. The rural nature of the landscape around Cambridge is a key quality of the setting and special character of the city, particularly in providing a setting to the urban form when seen from key views, in providing settings to necklace villages, and in contributing to people's perception of the city as they approach it along communication routes.

- 6.2.39. The rural landscape setting is especially apparent in the area west of the city, where the presence of agricultural land immediately adjacent to Distinctive townscape areas and extending into the city close to the historic core is particularly important.

7.0 Introduction to Sector Assessments

7.1. Introduction

- 7.1.1. The following sections of the report assess the three sectors of the Green Belt identified on Figure 2 to understand the key considerations for each sector in relation to openness and their performance in relation to Green Belt purposes, consider whether the proposed route options could be delivered whilst preserving the openness of the Green Belt, identify any potential conflicts with Green Belt purposes, whether the different route options pass or fail the NPPF paragraph 90 test and finally to identify any Green Belt harm that may arise as a result of any stretches of the proposed segregated bus route.
- 7.1.2. The sector assessments are presented in a consistent manner using a standard template. After a brief introduction giving an overview of the sector, the sector is assessed against each of the qualities identified in section 6.2, to ensure that each sector is considered in relation to all criteria which are relevant to the Green Belt openness and purposes. All sectors are divided into sub areas where the assessment of one or more criteria differs between one part of the sector and another. Sub areas are presented as separate columns within the sector assessment but, where the assessment against a particular criterion is the same for all sub areas, the columns are merged. If the proposed segregated bus route is unlikely to affect a particular sub area, assessment of that sub area has been omitted. This is the case for sub areas A.2 and C.2.
- 7.1.3. Following the criteria-based assessment, conclusions relevant to openness and Green Belt purposes are summarised, drawing out the key points from the criteria-based assessment. This is followed by assessment of the extent to which the openness of the Green Belt will be preserved by the proposals, identification of any potential conflicts with Green Belt purposes, and where necessary, identification of the degree of any potential harm to Green Belt.

7.2. Green Belt Sector Assessments

- 7.2.1. The assessment of the sectors and sub areas is set out on the following pages. The 2015 study showed that almost all areas of land within the inner Green Belt are important to Green Belt purposes but the reasons differ from one area to another. It identified that west of the city, the Inner Green Belt plays a critical role in maintaining the impression of a compact city, with countryside close to the historic core. The rural character of the land emphasises this and is seen as the foreground in views from approaches to the city, the M11 and the countryside west of the M11. The land west of the M11 extends this rural character into the wider countryside and forms the rural setting for Coton.

8.0 Assessment of Sector A: East of M11

8.1. Description of Sector

- 8.1.1. Sector A is located directly west of the historic core of Cambridge and, at 0.85km from the nearest edge, is the closest Green Belt land to the historic core. It formed Sector 3 of the 2015 study. The northern boundary is formed by the developing university buildings of West Cambridge. The eastern boundary of the sector is adjacent to the urban edge of Cambridge, which is designated as a Conservation Area and is classified as Distinctive townscape/landscape due to the presence of numerous Cambridge University Colleges, Fellows' houses and their settings. The western and southern boundaries are formed by the M11 and A603 Barton Road respectively.
- 8.1.2. Land use in most of the sector is large scale arable farmland (see Photographs 3 and 4 at Figure 16). However, there are some smaller scale areas (see Photographs 1 and 2 at Figure 15), including sports fields and rough grassland to the east and pastoral fields in the south along Barton Road. Several of the field boundary hedgerows are designated as County Wildlife Sites. The sector also includes Bin Brook, which is designated as a City Wildlife Site. A number of public footpaths cross the sector and the Harcamlow Way/Wimpole Way, which is also a well-used cycleway, is located along the northern boundary.
- 8.1.3. The sector contains a key view of several of the city's distinctive landmarks from the public footpath that passes through the south of the sector, to a footbridge over the M11. Similar views are also experienced from the western end of the Harcamlow Way in this sector. This sector is also visible in the key view from Red Meadow Hill (see Photographs 5 and 6 at Figure 17).
- 8.1.4. Three sub areas were identified within this sector in the 2015 study. Of these, the proposed segregated bus route is unlikely to affect sub area A.2, given distance from the route options and the relative enclosure of sub area A.2. Sub area A.2 is therefore not assessed below.

8.2. Baseline Assessment of Qualities Relevant to Green Belt Openness and Purposes

- 8.2.1. Figure 12 illustrates the key considerations relevant to both openness and Green Belt purposes in sector A.

Qualities Relevant to Green Belt Openness and Purposes	Sub Area A.1 - Larger arable fields	Sub Area A.3 - Mixed small parcels of land in east
1. A large historic core relative to the size of the city as a whole	To the west of Cambridge, with the exception of the development at West Cambridge that consists of distinctive new University buildings, there has been relatively little recent development and the distinctive historic character is retained. Most of the townscape in the vicinity of this sector is judged to be Distinctive as it consists of numerous Cambridge University Colleges, Fellows' houses and their settings. The historic core remains relatively intact and the scale of the historic core relative to the whole city is clearly apparent. This is also the closest area of countryside to the historic core.	

Qualities Relevant to Green Belt Openness and Purposes	Sub Area A.1 - Larger arable fields	Sub Area A.3 - Mixed small parcels of land in east
	This sub area plays an important role in restricting the growth of the city in this direction.	This is the closest sub area to the historic core.
2. A city focussed on the historic core	The historic core of Cambridge remains a clear focus for this part of the city. The retention of Green Belt has prevented large urban extensions to the west of the city, which could compete with the historic core to serve the needs of the local community.	
	There is a feeling of proximity between this sub area and the historic core, due to views of distinctive landmarks from public rights of way through this arable land.	Due to the reduced level of visibility of distinctive landmarks within the historic core, this sub area is less obviously focussed on the historic core, but this is the closest area of Green Belt to the historic core and there is a sense of proximity to the historic core.
3. Short and/or characteristic approaches to the historic core from the edge of the city	Although Barton Road to the south of this sector is an important approach to Cambridge, it would not be affected by the proposed bus route. The Harcamlow/ Wimpole Way, along the northern edge of this sector, is an important approach to the city from the west for walkers and cyclists. Local footpaths also provide short approaches directly into Distinctive Cambridge and then into the historic core from countryside to the west of the city. The sector gives the approaches to the city edge a strong rural character.	

Qualities Relevant to Green Belt Openness and Purposes	Sub Area A.1 - Larger arable fields	Sub Area A.3 - Mixed small parcels of land in east
4. A city of human scale easily crossed by foot and by bicycle	This sector is the closest sector of Green Belt land to the historic core, and it is one of the closest areas of undeveloped land to it. Cycling and walking into the centre of Cambridge takes a short time from this sector and busy cycling and walking routes are both readily apparent and well used. Barton Road, which forms the southern boundary of the sector, has a cycle path alongside it, providing an easy walking and cycling route from the villages to the west of Cambridge into the centre. The Harcamlow Way is also a well used walking and cycling route along the northern boundary of the sector, connecting to Coton and beyond.	
5. Topography providing a framework to Cambridge	The flat arable land within this sector provides the characteristic setting to Cambridge from the west. It forms part of the lower lying bowl within which Cambridge is located, before the landform begins to rise up to the Claylands west of the M11. This flat foreground in views from the west is a key factor in the openness of the Green Belt within Sector A.	
6. Long distance footpaths and bridleways providing access to the countryside	There is a good network of footpaths through this sector that provide access to the rural setting of Cambridge and across the M11 to the wider countryside beyond. These include the Harcamlow Way/Wimpole Way footpath/cycleway along the northern boundary of the sector which is well used. A public footpath also crosses the sector from Barton road and leads to a footbridge over the M11. There is also a permissive path that runs along the southern edge of sub area A.3 and the eastern edge of sub area A.1. The network of routes link into the routes promoted by Coton Countryside Reserve and the Quarter to Six Quadrant initiative to provide access to 'Countryside on Cambridge's Doorstep' and form an important part of the setting and special character of the western part of Cambridge.	

Qualities Relevant to Green Belt Openness and Purposes	Sub Area A.1 - Larger arable fields	Sub Area A.3 - Mixed small parcels of land in east
7. Key views of Cambridge from the surrounding landscape	<p>There is a key view of the historic core of Cambridge from Red Meadow Hill within Coton Countryside Reserve to the west of the M11. In addition, there are further views from Grantchester Road (from Coton) as it passes over the M11, as well as low level views from the western end of Barton Road, the Harcamlow Way and local footpaths to the east of the M11. This sector forms the foreground of Cambridge from these key and more local views, showing the rural landscape abutting the edge of Distinctive Cambridge. This flat foreground with a rural character in views from the west is a key element of the openness of the Green Belt within Sector A. These views pick up many of the key landmarks (University Library, King's College Chapel etc.) within the centre of the historic core. Many of the other special qualities are also apparent in these views, including the soft edge to the city and significant areas of Distinctive townscape and, from more elevated viewpoints, the compact scale of the city and the Gog Magog Hills south of the city are apparent.</p>	
8. Significant areas of Distinctive and Supportive townscape and landscape	<p>The M11 corridor is identified as being visually detracting and influencing the western boundary of the sector.</p> <p>This sub area is considered to be Supportive landscape. It forms the rural landscape setting to Cambridge in views from the west and provides separation between the edge of Cambridge and the M11, which is a characteristic feature of the settlement edge to the west of Cambridge.</p>	<p>This sub area is considered to be Distinctive landscape due to the unique relationship of the rural landscape running right into the distinctive core of the city.</p>

Qualities Relevant to Green Belt Openness and Purposes	Sub Area A.1 - Larger arable fields	Sub Area A.3 - Mixed small parcels of land in east
9. A soft green edge to the city	From this sub area, the distinctive densely treed appearance of Cambridge is apparent. Tall distinctive landmarks within the historic core are visible above the treed edge to the city, but the rest of the urban area is lost amongst trees, with the exception of some newer urban development at West Cambridge.	The Grange Road area is well treed, making this sub area a particularly soft green edge to the city. The college buildings with their mature, well vegetated grounds contribute to the distinctiveness of this part of Cambridge.
10. Good urban structure with well-designed edges to the city	The majority of the western edge of Cambridge adjacent to this sector is identified as having Distinctive townscape, including the new development at West Cambridge. The presence of colleges and Fellows' houses in the area to the east of this sector creates an unusual urban structure and the strongly vegetated edge to the city, although not designed as such, creates a high quality boundary between the city and the countryside. To the north of the sector, the boundary with the West Cambridge development is much less vegetated.	
11. Green corridors into the city	The majority of this sector does not contribute to any of the green corridors from the countryside into the heart of Cambridge. The eastern edge of the sector, predominantly formed by sub area A.3, provides a partial green corridor into the city. This is formed by small fields and sports pitches, but is not as distinctive as the river corridors and areas of common that create green fingers elsewhere in the city.	
12. The distribution, physical and visual separation of the necklace villages	This sub area plays a key role in the separation between Cambridge and Coton, with the M11 forming part of the separation, although relatively well vegetated for stretches of its route.	This sub area plays a more limited role in the visual separation between Cambridge and Coton, due to the greater level of enclosure by vegetation. However, it does contribute to the physical separation provided by sub area A.1 between Cambridge and Coton.

Qualities Relevant to Green Belt Openness and Purposes	Sub Area A.1 - Larger arable fields	Sub Area A.3 - Mixed small parcels of land in east
14. Designated sites and areas enriching the setting of Cambridge	A number of the hedgerows within this sub area are County Wildlife Sites and enrich the setting of Cambridge, as well as people's experience of this setting.	Bin Brook through this sub area is a City Wildlife Site. The sub area also abuts the West Cambridge Conservation Area and contains Protected Open Spaces in the form of university sports grounds.
15. Elements and features contributing positively to the character and structure of the landscape	Important landscape elements within this sector include the pattern of hedgerows and tree belts, which largely run east to west, and contain many hedgerow trees. Drainage ditches and watercourses also flow through the sector. These include Bin Brook, which flows past Coton and under the M11 before crossing the sector, then running along Barton Road before turning north and crossing the sector again. Bin Brook in particular is also well vegetated. Views of the landmark buildings in the historic core of Cambridge also contribute positively to the landscape setting of the city.	
	This sub area is separated from part of sub area A.3 by a wide tree belt. This provides a notable visual barrier between the two sub areas.	The collection of small fields within this sub area, which include areas of arable land and rough grassland as well as sports pitches, form a distinctive part of the immediate setting of Cambridge to its west.

Qualities Relevant to Green Belt Openness and Purposes	Sub Area A.1 - Larger arable fields	Sub Area A.3 - Mixed small parcels of land in east
16. A city set in a landscape which retains a strongly rural character	This sector generally retains a strongly rural character, although there is some influence from the newer university development at West Cambridge to the north and some sports uses within sub area A.3. The M11 affects the tranquillity of the sector but transport routes, including motorways, are a feature of many areas of countryside and do not in themselves diminish rurality. The sector is the closest area of 'rural feeling' Green Belt land to the historic core of Cambridge, with the rural landscape abutting the edge of Distinctive Cambridge. The vegetated edge of Cambridge and the extent of tree coverage inside the city help to reduce visibility of the mass of the urban area, whilst retaining a strong visual connection to a number of the landmark features in the historic core.	
	This sub are adjoins the southern edge of West Cambridge to the north. Sub area A.3 separates the sub area from the remainder of the nearby edge to Cambridge. There is no existing built development within this sub area. West Cambridge has some urbanising influence on the northern part of the sub area, but the sub area nevertheless retains a strongly rural character. The M11 affects the tranquillity of the sub area.	This sub area is immediately adjacent to the existing settlement edge. This sub area contains the development associated with the sports pitches in the north west of the sub area, including the university sports pavilion. It also obtains part of its character from its relationship with the built development on the edge of Cambridge.

8.3. Key Considerations Relevant to Green Belt Openness

- 8.3.1. Within Sector A, the landscape forms the flat foreground in views towards the city from the west. These views are often elevated, but also include lower level views from the M11 and from public rights of way within the sector. In all of these circumstances, the flat landform and the uninterrupted rural landscape of fields and hedgerows form key considerations in relation to the openness of the Green Belt within sector A.

8.4. Key Considerations Relevant to Green Belt Purposes

- 8.4.1. This sector plays a key role in the setting of the west of Cambridge, ensuring that the city remains compact, that the historic core remains large in comparison to the size of the city as

a whole and that the city is focussed on that historic core. This also results in short and characteristic approaches to Distinctive Cambridge and then the historic core from the edge of the city, and the sector gives the approaches to the city edge a strong rural character.

- 8.4.2. Views towards Cambridge from the west are some of the most distinctive and characteristic available, with the rural landscape of the sector forming the foreground in those views. There are also significant areas of Distinctive and Supportive townscape and landscape within this sector, with the Distinctive landscape and townscape in the east and Supportive landscape in the west.
- 8.4.3. The Green Belt in this sector retains open countryside, of a strongly rural character, close to the centre of the city and prevents the sprawl of built development as far as the M11, retaining the distinctive rural separation between the edge of the city and the M11. This is in sharp contrast to the relationship of the city edge with the A14 to the north of Cambridge. This also contributes to maintaining separation between Cambridge and the necklace villages, particularly Coton in this case.

8.5. Proposed Segregated Bus Route Options through the Sector

- 8.5.1. Option A – Crossing the M11 just north of the existing footbridge by a new green bridge, entering the West Cambridge site and then turning south to follow existing hedgerows for the depth of one field, finally turning east to follow an existing hedgerow and then the existing edge of Cambridge along the rifle range track. Alternatively, this route could also cross the M11 at an angle south of the existing footbridge, avoiding the West Cambridge development and joining the main route option to run eastwards along existing field boundaries. Current proposals suggest that the cycle/pedestrian route would be located to the south of the bus route for this option. The route is likely to be located to the south of existing hedgerows in the east of this sector, and to the north further west. New woodland and tree planting is proposed along the route closer to the edge of Cambridge, with a new hedgerow to the north further west.
- 8.5.2. Option B - Crossing the M11 further north of the existing footbridge than Option A by a new green bridge, entering the West Cambridge site and running along Charles Babbage Road, before turning south and either following the existing cycle route along the southern edge of West Cambridge and along Adams Road, or cutting across the field south of West Cambridge, following the southern edge of the athletics ground and following Herschel Road. Whilst not originally included within this option, there is also the potential for an alignment of this route to be a hybrid of the two options south of West Cambridge, running southwards along the western edge of the athletics ground to join the Herschel Road alignment, rather than continuing along the Harcamlow Way/Wimpole Way cycle route. It could also potentially continue further south to join Option A along the rifle range track. Current proposals suggest that the cycle/pedestrian route would be located to the south of the bus route for this option, which would also be to the west of the route for any stretches that run north-south. New tree planting is proposed along the route where it passes through West Cambridge.
- 8.5.3. Option C - Crossing the M11 just south of the existing footbridge by a new green bridge, following the southern edge of West Cambridge along the route of the Harcamlow Way/Wimpole Way. There would then be various options where the Harcamlow Way/Wimpole Way turns northwards, including cutting across the field north eastwards to join the Option B route along the cycleway and Adams Road, or cutting across the field south eastwards to join the Herschel Road option, the rifle range track option or continuing further south east to join Cranmer Road. Current proposals suggest that the cycle/pedestrian route would be located to the north of the bus route for this option. New hedgerow planting is

proposed between the cycle/pedestrian route and the busway at various locations within sector A, but not to the south of the route.

- 8.5.4. Option D - Crossing the M11 in the same location as Option B, by a new green bridge, it enters the West Cambridge site and turns south at the junction with Charles Babbage Road to run along an existing road. It then follows the existing Harcamlow Way/Wimpole Way cycle route along the southern edge of West Cambridge, cutting across a field north eastwards to re-join the cycle route and follow the Option B route along the cycleway and Adams Road. No proposals have been provided that indicate whether the cycle/pedestrian route would be located to the north or south of the bus route for this option, but it is assumed that the cycle/pedestrian route would be located to the north of the bus route as for Option C. No details have been provided of proposed planting along this route option, but it is assumed that similar to the other options new tree planting is proposed along the route where it passes through West Cambridge and that new hedgerow planting is proposed between the cycle/pedestrian route and the busway at various locations within sector A, but not to the south of the route.

8.6. Preservation of Green Belt Openness

Route Options

- 8.6.1. The stretches of each of the route options that pass through West Cambridge or along Adams Road, Herschel Road and Cranmer Road would be located outside of the Green Belt and would therefore preserve the openness of the Green Belt.
- 8.6.2. Option A would predominantly cross undeveloped countryside from the point that it exits West Cambridge or crosses the M11, dependent on the alternative utilised. Given that this area is relatively flat, there would be minimal requirement for cut and fill operations, meaning that there would be no significant volume of development to affect the openness of the Green Belt. The bus route would be constructed at grade, minimising the visual effect of the proposals. This is considered to preserve the openness of the Green Belt in sub areas A.1 and A.3.
- 8.6.3. Option B could predominantly run through West Cambridge and then utilise an existing cycleway as the basis of the route, for the stretch where it would be located within the Green Belt, following the edge of the existing built up area. This would be a relatively small increase in infrastructure, through a largely flat area and therefore unlikely to require cut and fill operations. This would result in no significant volume of additional development and very limited additional visual effect on the Green Belt. This alignment of Option B would preserve the openness of the Green Belt.
- 8.6.4. For both Option C and option D, where the routes would run along the edge of the West Cambridge development, the effects would be similar to those described above for Option B, where it runs along the edge of the Green Belt. Where the southern alignment of Option B, the potential hybrid alignment of Option B along the western edge of the athletics ground, Option C and Option D would run across undeveloped fields, effects would be as described for Option A. Consequently, all of the alternatives for Option B, Option C and Option D would preserve the openness of the Green Belt.

Green Bridge Options

- 8.6.5. The ramp of the green bridge over the M11 for the southern option of route A, where this grades down to existing levels, could require substantial earthworks as the M11 is at grade, rather than being in cutting, to the south of West Cambridge. The green bridge itself would fall within sector B. The earthworks for the ramp would result in a physical volume of new

development, which would also be visually prominent in the flat open fields to the south of West Cambridge. This would cause a reduction in the openness of the Green Belt within part of sub area A.1. Any ramp required for the green bridge for the northern option of Option A would be located outside the Green Belt.

- 8.6.6. For Option B, any ramp required for the green bridge would again be located outside the Green Belt and would consequently preserve the openness of the Green Belt. The green bridge for Option D would be located in the same position as that for Option B, so the ramp for the bridge would also be located outside the Green Belt and preserve the openness of the Green Belt.
- 8.6.7. For Option C, the exact positioning and design of the ramp for the green bridge over the M11 would dictate whether Green Belt openness could be preserved. If the design requires substantial earthworks within the Green Belt, this would result in a large volume of earth works with a notable visual presence in the Green Belt. This would cause a reduction in the openness of the Green Belt within part of sub area A.1.

8.7. Potential for Conflict with Green Belt Purposes

Route Options

- 8.7.1. As indicated above in relation to openness, the stretches of each of the route options that pass through West Cambridge or along Adams Road, Herschel Road and Cranmer Road would be located outside of the Green Belt and there would be no conflict with any Green Belt purposes.
- 8.7.2. Option A would run across undeveloped countryside, and would consequently affect the sense of undisturbed countryside that is found in sub areas A.1 and A.3 by introducing an element of transport infrastructure into the undeveloped countryside that is of a clearly different nature to the existing fields and hedgerows. It would also affect the closest area of countryside to the historic core of Cambridge, with open countryside running into the city being a key characteristic of the west of Cambridge, and be visible in the characteristic views towards Cambridge from the west. In addition, this route option would pass through areas of Distinctive and Supportive landscape and townscape, which are an important quality in sector A, introducing a new element that would detract from the distinctiveness of the area. Although largely following existing hedgerows, and therefore reflecting the current pattern and grain of the landscape, the potential width of the route would not relate well to the scale of the landscape. Where the proposed route passes through areas of Distinctive landscape, there would be conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 1, as effects would relate to the character of Cambridge. Where the proposed route passes through areas of Supportive landscape, there would be conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 2, as effects would relate to the setting of Cambridge. In both circumstances, this conflict would not reduce over time as the interruption to the flow of countryside up to the edge of Cambridge would be permanent.
- 8.7.3. Option B would result in some change of character within the undeveloped countryside in sub areas A.1 and A.3, through areas of Distinctive and Supportive landscape and townscape if it were to run along the southern edge of West Cambridge. As for Option A, where the proposed route passes through areas of Distinctive landscape, there would be conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 1, as effects would relate to the character of Cambridge. Where the proposed route passes through areas of Supportive landscape, there would be conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 2, as effects would relate to the setting of Cambridge. Running the segregated bus route along the existing cycle route, to the north of the existing University Sports

Ground, could minimise conflict with Green Belt purposes. A hedgerow along the southern edge of the route where it adjoins farmland, although not currently proposed, could help to contribute to the soft green edge of the city and provide integration of the route, reducing conflict with Green Belt purposes over time.

- 8.7.4. Should Option B run across the field south of West Cambridge and along Herschel Road, instead of along the existing cycleway, effects would start to become more in line with those of Option A where it runs across undeveloped fields. The tighter the proposed route can run to the edge of existing development, such as the athletics track or the edge of the Green Belt, the smaller the conflict with Green Belt purposes would be. However, where the route crosses open fields, the degree of conflict with Green Belt purposes would not decrease over time as the flow of countryside into the city would be permanently disrupted.
- 8.7.5. The hybrid alignment for Option B, along the western edge of the athletics ground, would affect the Green Belt to a greater extent than continuing along the existing cycle route but to a lesser extent than running across open fields. Where the proposed route passes through areas of Supportive landscape, there would be continue to be conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 2, as effects would relate to the setting of Cambridge. A hedgerow along the western edge of the route where it adjoins farmland, although not currently proposed, could help to contribute to the soft green edge of the city and provide integration of the route, reducing conflict with Green Belt purposes over time.
- 8.7.6. Conflict with Green Belt purposes resulting from Option C would be similar to those described for parts of Options A and B, depending on the specific alignment. The alternative that would utilise Cranmer Road, furthest to the south, is therefore likely to conflict with Green Belt purposes to a greater extent than other options, given that it would run through the greatest amount of undeveloped land, but the route options joining up with Herschel Road and the rifle range track would also conflict with Green Belt purposes.
- 8.7.7. Within the Green Belt, Option D would follow the same alignment as part of Option C, along the southern edge of West Cambridge, across an open field and then along the existing cycle route to join Adams Road. Effects on Green Belt purposes would therefore be the same as this alignment for Option B.

Green Bridge Options

- 8.7.8. The ramp of the green bridge over the M11 for the southern route of Option A, where this grades down to existing levels, could require substantial earthworks as the M11 is at grade to the south of West Cambridge. This would alter the appearance of part of an area of Supportive landscape, as well as affecting the strongly rural character of the landscape and potentially leading to the removal of hedgerows and woodland that contribute positively to the character and structure of the local landscape. There would be some conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 2, on a permanent basis.
- 8.7.9. Any ramp required for the green bridge for the northern alternative of Option A or for Option B or Option D would be located outside the Green Belt and would not conflict with Green Belt purposes.
- 8.7.10. For Option C, the exact positioning and design of the ramp for the green bridge over the M11 would dictate whether there would be any conflict with Green Belt purposes. If the design requires substantial earthworks within the Green Belt, this would introduce a similar level of permanent conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 2 as the southern route of option A.

8.8. Application of NPPF Paragraph 90 Test

Route Options

- 8.8.1. The openness of the Green Belt would be preserved by all route options through sector A.
- 8.8.2. For those stretches of any of the route options that would pass through the Green Belt, there would be conflict with Green Belt purposes. Therefore, the following stretches of the routes through sector A would fail the NPPF paragraph 90 test and constitute inappropriate development within the Green Belt:
- The stretches of Option A located south of West Cambridge and therefore within the Green Belt.
 - The stretch of Option B that would run along the southern edge of West Cambridge, up to the point where it would meet Adams Road.
 - The stretch of Option B that would cross open fields and then run along Herschel Road.
 - The hybrid of Option B that would run along the western edge of the athletics ground and then run along Herschel Road.
 - The stretches of Option C located south of West Cambridge and therefore within the Green Belt.
 - The stretches of Option D located south of West Cambridge and therefore within the Green Belt.

Green Bridge Options

- 8.8.3. The northern alignment of Option A and Option B would be located outside the Green Belt, as would Option D, and would consequently preserve the openness of the Green Belt. Those Options for the bridge ramp that would be located within the Green Belt would create a volume of new development with a permanent visual effect on the openness of the Green Belt.
- 8.8.4. Those Options for the bridge ramp that would be located within the Green Belt would also cause conflict with Green Belt purposes.
- 8.8.5. Therefore, the following bridge options within sector A would fail the NPPF paragraph 90 test and constitute inappropriate development within the Green Belt:
- The ramp of the southern route of Option A.
 - Potentially the ramp of Option C, dependent on precise location.

8.9. Degree of Green Belt Harm for Purposes of NPPF Paragraphs 87 and 88 Test

Route Options

- 8.9.1. For those stretches that constitute inappropriate development within the Green Belt, the anticipated degree of harm as a result of conflict with Green Belt purposes of the nature described above would be as follows:
- The stretches of Option A located south of West Cambridge and therefore within the Green Belt would result in a high degree of harm to the character and setting of Cambridge and thus a high degree of harm to Green Belt, arising from a conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2.

- The stretch of Option B that would run along the southern edge of West Cambridge, up to the point where it would meet Adams Road would result in a low degree of harm to the character and setting of Cambridge and thus a low degree of harm to Green Belt arising from a conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2.
- The stretch of Option B that would cross open fields and then run along Herschel Road would result in a high degree of harm to the character and setting of Cambridge and thus a high degree of harm to Green Belt arising from a conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2.
- The hybrid of Option B that would run along the western edge of the athletics ground and then run along Herschel Road would result in a moderate degree of harm to the character and setting of Cambridge, particularly as the route would cut across the flow of the landscape into the edge of Cambridge, and thus a moderate degree of harm to Green Belt arising from a conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2. This could reduce over time to a moderate-low degree of harm to Green Belt purposes if a hedgerow was planted to the west of the route to help integrate the proposals into the landscape.
- The stretches of Option C located south of West Cambridge and therefore within the Green Belt would result in a varying degrees of harm to the character and setting of Cambridge and thus to Green Belt arising from a conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2. The degree of harm would become greater the further from the existing edge of West Cambridge the route was located, ranging from a moderate-low degree of harm for the northernmost option along the edge of West Cambridge and along Adams Road, to a high degree of harm for those further south, with the connection linking to Cranmer Road being the highest.
- The stretch of Option D that would run along the southern edge of West Cambridge, before crossing an open field and then following the existing cycle route to Adams Road would result in the same harm to character and the setting of Cambridge as the northern alignment of Option C. Consequently, there would be a moderate-low degree of harm to the character and setting of Cambridge and thus to Green Belt arising from a conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2.

Green Bridge Options

8.9.2. For those stretches that constitute inappropriate development within the Green Belt, the anticipated degree of harm as a result of conflict with Green Belt purposes would be as follows:

- The ramp of the southern route of Option A would result in low degree of harm as a result of the impact on openness and conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 2 resulting from changes to the character and setting of Cambridge. This relates to the localised extent of the effects and the existing presence of infrastructure associated with the M11 in the vicinity.
- The ramp of Option C, dependent on precise location, could result in the same degree of harm as the southern route of Option A, for the same reasons.

9.0 Assessment of Sector B: North of Coton

9.1. Description of Sector

- 9.1.1. Sector B is located directly west of, and including part of the corridor of, the M11 and to the north of Coton, abutting the northern end eastern edges of the necklace village. The northern boundary follows the route of the A1303 and the eastern boundary corresponds with the top of the eastern M11 cutting slope. The southern boundary of the sector follows the Green Belt boundary along the northern edge of Coton and then a track that forms part of the Harcamlow Way to the east of the village. The western boundary follows the boundary of the gardens to Coton Court and some reservoirs to the north of Coton, at the transition between a small scale landscape and the larger scale arable fields of sector C.
- 9.1.2. Land use in the sector varies east and west of Cambridge Road, which runs between the A1303 and Coton. To the east of the road, the land use is predominantly orchards (see Photograph 7 at Figure 18) and a Garden Centre, along with the grounds to Rectory Farm. This area is largely enclosed by vegetation and visually contained. To the west of Cambridge Road, there is a mixture of small scale paddocks, arable fields and private gardens (see Photographs 8 and 9 at Figures 18 and 19).
- 9.1.3. The historic core of Coton, focused around the junction of Cambridge Road and the High Street, is designated as a Conservation Area. The Harcamlow Way recreational route passes through Coton, to the south of this sector. There is also a public footpath from the A1303 to the northern edge of Coton. Coton Countryside Reserve is also located to the south of the sector, with the historic parkland of the Cambridge American Cemetery located to the north of the sector, on the opposite side of the A1303.
- 9.1.4. Two sub areas have been identified within this sector. All of the options for the proposed segregated bus route would run through both sub areas, therefore they are both considered in the following table.

9.2. Baseline Assessment of Qualities Relevant to Green Belt Openness and Purposes

- 9.2.1. Figure 13 illustrates the key considerations relevant to both openness and Green Belt purposes in sector B.

Qualities Relevant to Green Belt Openness and Purposes	Sub Area B.1 – Orchards and Garden Centre in east of sector	Sub Area B.2 - Mixed small parcels of land in west of sector
5. Topography providing a framework to Cambridge	Both sub areas are located on the south facing slopes of a clay ridgeline to the west of Cambridge. This is one of a series of ridgelines within the Claylands landscape to the west of Cambridge, which form a key element of the topographic bowl in which Cambridge is located. This provides physical and visual containment to the west of the city in a marked contrast to the lower lying ground on which Cambridge is located and the Fen landscape to the north and east of the city, physically manifesting the underlying geology.	

Qualities Relevant to Green Belt Openness and Purposes	Sub Area B.1 – Orchards and Garden Centre in east of sector	Sub Area B.2 - Mixed small parcels of land in west of sector
	This sub area slopes less steeply than sub area B.2 and forms more of a transition from the Claylands to the flatter landscape immediately around Cambridge. The M11, on the eastern edge of this sub area, is located within a cutting, which has interrupted the underlying topography and has affected the openness of the Green Belt.	The sloping topography within this sub area makes it highly visible from the south and consequently contributes to the openness of the Green Belt in this location.
6. Long distance footpaths and bridleways providing access to the countryside	There is no public access to or through this sub area, but the Harcamlow Way/Wimpole Way, which runs along the southern boundary of the sub area, is an important footpath/cycleway route connecting Cambridge to Coton and the surrounding countryside.	There is a limited network of footpaths through this sub area, with a single public footpath running from the A1303 into Coton and joining the Harcamlow Way/Wimpole Way, which runs along the boundary of the sub area, linking into the wider network of rights of way.
7. Key views of Cambridge from the surrounding landscape	From Red Meadow Hill there is a key view east towards the city. From some locations on Red Meadow Hill, it is possible to also see Sector B to the north, in a separate part of the view to the landmarks within the historic core of Cambridge. This is a less strong visual relationship than for sectors A and C.	

Qualities Relevant to Green Belt Openness and Purposes	Sub Area B.1 – Orchards and Garden Centre in east of sector	Sub Area B.2 - Mixed small parcels of land in west of sector
	A key view from the A1303 towards Cambridge looks along the northern edge of this sub area. However, in general, views through or into this sub area are not possible. The M11 corridor within this sub area is relatively visually contained due to its location in cutting and the wooded nature of the cutting slopes.	There are no key views in or through this sub area, although the key view towards Cambridge from the A1303 is located on the northern boundary of this sub area. The sloping topography within this sub area makes it highly visible from the south and consequently contributes to the openness of the Green belt in this location.
8. Significant areas of Distinctive and Supportive townscape and landscape	The northern edge of the whole sector, on the highest ground, forms part of the Supportive landscape associated with the approach to Cambridge on the A1303 and around Madingley Woods. The remainder of the sub area is Connective landscape, forming part of the landscape setting to Cambridge.	
12. The distribution, physical and visual separation of the necklace villages	Coton is one of the necklace villages surrounding Cambridge. Whilst the sector contributes to the physical separation between Coton and Madingley, there are existing transport corridors that provide physical and visual separation at present, alongside existing vegetation and the ridgeline along which the proposed segregated bus route would run.	
	This sub area plays a key role in the separation between Cambridge and Coton, with the M11 lying within the area of separation, although relatively well vegetated for stretches of its route and therefore adding visual as well as physical separation. This sub area is the only remaining separation between West Cambridge and Coton.	This sub area plays a more limited role in the separation between Cambridge and Coton, given its location more to the north of the village and the role played by sub areas B.1.

Qualities Relevant to Green Belt Openness and Purposes	Sub Area B.1 – Orchards and Garden Centre in east of sector	Sub Area B.2 - Mixed small parcels of land in west of sector
13. The scale, character, identity and rural setting of the necklace villages	This sub area has historically comprised orchards associated with the village. The historic core reaches to the edge of the village in some areas adjacent to the sub area, which could be as a result of the presence of the orchards preventing expansion north eastwards. The orchards form part of the character and identity of the village, and form part of its rural setting. The M11, with its heavy traffic, infrastructure and location within a linear corridor, is very separate from the village and its setting. Although the sub area is in close physical proximity to the edge of Coton, its wooded nature limits visual connectivity with the settlement edge.	This sub area contains smaller scale parcels of land that relate well to the scale of the village. Their presence has largely prevented the sprawl of the village to the north, meaning that the historic core reaches to the edge of the village in some areas adjacent to the sub area. The smaller fields form part of the rural setting to Coton. This sub area is adjacent to the edge of the village and has a strong visual connection to the village. The settlement edge has limited vegetation along it in some locations, allowing views into the sub area.
14. Designated sites and areas enriching the setting of Cambridge	Both of the sub areas within this sector abut short sections of the Coton Conservation Area. There are no other environmental or cultural designations within the sector.	
15. Elements and features contributing positively to the character and structure of the landscape	The orchards form a distinctive part of the character of the local landscape, defining its structure and creating localised containment. These orchards and other woodland within this sub area reduce the visual openness of the Green Belt within this sub area. The M11 does not contribute positively to this sub area at present, other than	Areas of woodland and tree belts through the centre of this sub area and along the A1303 provide a structure to the landscape, providing both visual and physical containment. However, the majority of this sub area is open or contains lower hedgerows, allowing views both in and out, and contributing to the visual

Qualities Relevant to Green Belt Openness and Purposes	Sub Area B.1 – Orchards and Garden Centre in east of sector	Sub Area B.2 - Mixed small parcels of land in west of sector
	through the vegetation on its cutting slopes but is visually contained by its location in cutting.	openness of the Green Belt.
16. A city set in a landscape which retains a strongly rural character	Externally, this sub area appears largely wooded and therefore retains a strong rural character, with the exception of the entrance area to the garden centre, off Cambridge Road. The M11 has interrupts the flow of the rural landscape in to Cambridge, creating some separation and impacting on the openness of the Green Belt. Whilst both the M11 and the A1303 are well wooded, traffic noise affects the tranquillity of the area.	This sub area is largely rural in character, but there are a number of features that impact on that rural character. These include existing covered reservoirs, which although grass covered are obvious man-made features when viewed from some locations. There are also a series of individual properties along the southern edge of the A1303, on the high ground. Coton, as a nucleated village with relatively little modern sprawl, does not detract from the rural character of the sub area.

9.3. Key Considerations Relevant to Green Belt Openness

- 9.3.1. Within sub area B.2 the sloping landform and relative lack of vegetation are key considerations in relation to openness. The orchard area and woodland within sub area B.1 is visually contained and has limited visual openness in Green Belt terms. The M11 corridor is also visually contained, being located within a cutting and having heavily vegetated cutting slopes.
- 9.3.2. The M11 corridor has historically interrupted the openness of the Green Belt within its corridor. Not only did it introduce traffic and infrastructure associated with the route, such as the footbridge over the motorway, but it also interrupted the flow of the rural landscape up to the edge of Cambridge.

9.4. Key Considerations Relevant to Green Belt Purposes

- 9.4.1. This sector plays an important role in the wider setting of the west of Cambridge, located on a Claylands ridgeline that forms part of the backdrop to views out from Cambridge in this direction. The landform forms part of the edge to the bowl landscape within which Cambridge is set, providing a framework to the city. It is also visible in views from the south, such as from Red Meadow Hill.

- 9.4.2. The sector also forms a key part of the rural setting to Coton, maintaining the rural character north of the village and preventing sprawl of the village northwards and eastwards. The landscape setting of Coton as a necklace village forms part of the character and wider setting of Cambridge. The area of orchards is a distinctive characteristic associated with Coton and contributes positively to the structure of the landscape. Limited development already exists within the sector, but is often screened from view by existing vegetation and landform features.

9.5. Proposed Segregated Bus Route Options through the Sector

- 9.5.1. Option A – Running along the slope mid way between the A1303 and the northern edge of Coton, before sweeping round to tightly follow the edge of Coton in the vicinity of Cambridge Road, then running through the orchard area to the north east of Coton and crossing the M11 just north of the existing footbridge. Alternatively, this route could also cross the M11 at an angle south of the existing footbridge. Current proposals suggest that the cycle/pedestrian route would be located to the south of the bus route for this option. New hedgerow planting is proposed between the cycle/pedestrian route and the busway at various locations within sector B, including over the green bridge. Tree and hedgerow planting is also proposed in locations adjacent to the northern edge of Coton.
- 9.5.2. Option B - Running along the slope mid way between the A1303 and the northern edge of Coton, before sweeping round slightly higher up the slope north of Coton than Option A, then running through the orchard area to the north east of Coton and crossing the M11 further north of the existing footbridge than Option A. Current proposals suggest that the cycle/pedestrian route would be located to the south of the bus route for this option. Tree and hedgerow planting is also proposed in locations adjacent to the northern edge of Coton.
- 9.5.3. Option C - Running along the slope closer to Coton than Options A and B, then running roughly parallel to the northern edge of Coton before sweeping round and crossing Cambridge Road at roughly the same point as Option B, before running through the orchard area to the north east of Coton and crossing the M11 just south of the existing footbridge, following the southern edge of West Cambridge along the route of the Harcamlow Way. Current proposals suggest that the cycle/pedestrian route would be located to the south of the bus route for this option. New hedgerow planting is proposed between the cycle/pedestrian route and the busway at various locations within sector B. Tree and hedgerow planting is also proposed in locations adjacent to the northern edge of Coton.
- 9.5.4. Option D - Running along the slope mid way between the A1303 and the northern edge of Coton, before sweeping round higher up the slope north of Coton than the other options, close to the southern boundary of Madingley Rise, before crossing Cambridge Road to the south of the buildings and car park at the Coton Orchard garden centre. It then runs through the orchard area to the north east of Coton and crosses the M11 via a new green bridge at the same location as Option B. No proposals have been provided that indicate whether the cycle/pedestrian route would be located to the north or south of the bus route for this option, however, based on the other options through this Sector it is assumed that the cycle/pedestrian route would be located to the south of the bus route for this option. No details have been provided of proposed planting along this route option, but it is assumed that similar to the other options new tree planting tree and hedgerow planting is proposed in the vicinity of Coton.

9.6. Preservation of Green Belt Openness

Route Options

- 9.6.1. The stretches of any of the route options that pass through the area of orchards to the north east of Coton (sub area B.1) would be largely screened from view from the surrounding area. Option B and option D pass through an area of grassland immediately to the west of the M11, but this area is also visually well contained by woodland and tree belts. This area is also less steeply sloping than sub area B.2 and would require less cut and fill operations. All of the route options would preserve the openness of the Green Belt as a consequence.
- 9.6.2. Given the sloping landform within sub area B.2, there will be a requirement for cut and fill operations to ensure a level route for all options, which will result in a small volume of development within the Green Belt. Whilst the sloping landform also increases the visibility of the route, the cut and fill required would be relatively modest and could be balanced with careful design. Consequently, the openness of the Green Belt within sub area B.2 will be preserved by all of the route options.

Green Bridge Options

- 9.6.3. The creation of the ramp for the green bridge over the M11 would require earthworks. The presence of these earthworks would in themselves mean that there would be a volume of new development within sub area B.1. However, given that this volume of development would be relatively small, would not be seen from the surrounding area due to the vegetated character of the sub area and the purpose of the development can be considered not inappropriate development within the Green Belt, it is considered that on balance the openness of the Green Belt would be preserved by the creation of the ramp.
- 9.6.4. In addition, as long as the crossing of the M11 is contained within the wooded stretch of the M11 from the A1303 bridge to just south of West Cambridge, effects would be broadly similar for all options and have a minimal effect on the visual openness of the Green Belt. The construction of the physical structure of the bridge would lead to the creation of a volume of new development. However, the green bridge would partially reinstate the flow of the landscape across the M11, which is already in cutting in this vicinity and has affected the openness of the Green Belt. Consequently, it is considered that the openness of the countryside would be preserved by the construction of the Green Bridge.

9.7. Potential for Conflict with Green Belt Purposes

Route Options

- 9.7.1. As mentioned above, the stretches of any of the route options that pass through sub area B.1 would be largely screened from view from the surrounding area. As a result, they would have no impact on the setting of Coton and there would be no conflict with Green Belt purposes.
- 9.7.2. In addition, as long as the route options connect to a bridge over the M11 that is contained within the wooded stretch of the M11 between the A1303 bridge and just south of West Cambridge, effects will be broadly similar for all options.
- 9.7.3. Other than Option D, all of the route options would run in broadly similar positions on the slope in the western part of sub area B.2, but there would be some relatively minor differences between the options in the vicinity of Cambridge Road. Option D would be located higher up the slope and further from the village, crossing Cambridge Road further to the north. All of these options would run through undeveloped countryside and would have

some effect on the character of the area in terms of the setting of the village and consequently the setting of Cambridge. Given the small-scale nature of sub area B.2, the removal of any elements of the landscape, such as hedgerows and trees, would have a greater effect on this rural character than they would in sector C, which is more open.

- 9.7.4. Where proposed route options A-C are located close to the village, there would be effects on the setting of Coton when considered from within the village. The route options would be visible from within the village, particularly towards the northern edge, affecting the character of the landscape. There would also be effects on the setting of the village when approaching from the north along Cambridge Road. As these routes would be close to the village, it is likely that there would be a permanent loss of agricultural land adjacent to the edge of the village, between the proposed segregated bus route and the settlement. However, conversely, where the existing village edge is poorly defined there is an opportunity to provide enhancements to the edge and improve this definition. There would be some conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4.
- 9.7.5. Where Option D is located higher up the slope and further from the village, effects on the setting of the village would be more notable when viewed from elevated locations to the south, including the key viewpoint at Red Meadow Hill. The nature of the effect on the setting would be slightly different to that for options A-C, relating more to a blurring of the village edge and effects on the character of the landscape to the north of the village. There would be some conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4.
- 9.7.6. This conflict would be long-term, as the change in character of the rural setting of the village could not be fully offset by planting works and the setting of the village would be permanently altered by the potential loss of arable land adjacent to the village edge.
- 9.7.7. All of the route options will need to cross Cambridge Road at some point. This will create a localised area where conflict with Green Belt purposes is greater than other stretches of the route through sub area B.2, due to the change in character of the approach to the village resulting from the physical structures and re-grading of the route that will be required, as it is assumed that there will need to be a signalised crossing. The junction would also be lit, for a short stretch of both the road and the busway either side of the junction. Cambridge Road is already lit in this location, so there would be a small additional amount of lighting. It is also assumed that there may be a requirement to introduce some fencing along the edge of Coton for all options.

Green Bridge Options

- 9.7.8. The containment of the ramp and green bridge itself within wooded areas and adjacent to/above the existing M11 would ensure that they would have no impact on the setting of Coton and there is no conflict with Green Belt purposes within sector B as a result of the bridge or the ramp to access it.

9.8. Application of NPPF Paragraph 90 Test

Route Options

- 9.8.1. The openness of the Green Belt would be preserved by all route options through sector B.
- 9.8.2. There would be no conflict with Green Belt purposes for any of the routes through sub area B.1. Where the routes pass through sub area B.2, there would be conflict with Green Belt purposes for all options.

- 9.8.3. Therefore, all of the route options passing through sub area B.2 would fail the NPPF paragraph 90 test in terms of conflict with purposes, and constitute inappropriate development within the Green Belt.

Green Bridge Options

- 9.8.4. All of the green bridge options would create a volume of new development within the Green Belt, both in terms of the bridge itself and the ramps. However, visual effects on openness would be relatively limited due to the visual containment of the M11 corridor and the existing visual effects of the M11, with the green bridge restoring the flow of countryside over the motorway for a localised area. The purpose of the proposed development can also be considered not inappropriate development within the Green Belt. It is considered that, on balance, the green bridge would preserve the openness of the Green Belt within sector B.
- 9.8.5. There would be no conflict with Green Belt purposes from the proposed green bridge and the ramp, within sector B.
- 9.8.6. Therefore, all of the bridge options would pass the NPPF paragraph 90 test, and would not constitute inappropriate development within the Green Belt within sector B.

9.9. Degree of Green Belt Harm for Purposes of NPPF Paragraphs 87 and 88 Test

Route Options

- 9.9.1. There would be no Green Belt harm as a result of effects on openness from the route options within Sector B.
- 9.9.2. The conflict with Green Belt purposes in sub area B.2 would result in a moderate degree of harm to the setting of Cambridge resulting from changes to the character and setting of Coton as a necklace village. There would thus be a moderate degree of harm to Green Belt arising from a conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4.

Green Bridge Options

- 9.9.3. The green bridge itself and the ramp leading to it would not result in harm to Green Belt as openness would be preserved and there would be no conflict with Green Belt purposes.

10.0 Assessment of Sector C: West of Coton

10.1. Description of Sector

- 10.1.1. Sector C is located to the north west of Coton, abutting the northern and western edges of the necklace village. The northern boundary follows the A1303. The eastern boundary coincides with the boundary of sector B, and follows the boundary of the gardens to Coton Court and some reservoirs to the north of Coton, at the transition between a small scale landscape and larger scale arable fields. The southern boundary follows the course of Bin Brook, with the western boundary following the linear alignment of Long Road.
- 10.1.2. Land use in most of the sector is large scale arable farmland (see Photographs 10-12 at Figures 19 and 20). However, there are some smaller scale areas to the south of the Harcamlow Way/Wimpole Way, adjacent to Bin Brook. The larger arable fields are steeply sloping and contain limited hedgerows. Other than the Harcamlow Way/Wimpole Way, there are no public rights of way through this sector.
- 10.1.3. Two sub areas have been identified within this sector. Of these, the proposed segregated bus route is unlikely to affect sub area C.2, given distance from the route options and the relative enclosure of sub area C.2. Sub area C.2 is therefore not assessed below.

10.2. Baseline Assessment of Qualities Relevant to Green Belt Openness and Purposes

- 10.2.1. Figure 14 illustrates the key considerations relevant to both openness and Green Belt purposes in sector C.

Qualities Relevant to Green Belt Openness and Purposes	Sub Area C.1 – Large sloping arable fields
5. Topography providing a framework to Cambridge	This sub area is located on the south facing slopes of a clay ridgeline to the west of Cambridge. This is one of a series of ridgelines within the Claylands landscape to the west of Cambridge, which form a key element of the topographic bowl in which Cambridge is located. This provides physical and visual containment to the west of the city in a marked contrast to the lower lying ground on which Cambridge is located and the Fen landscape to the north and east of the city, physically manifesting the underlying geology. The sloping topography within this sector makes it highly visible from the south and consequently contributes to the openness of the Green Belt in this location.
6. Long distance footpaths and bridleways providing access to the countryside	There is a limited network of footpaths through this sub area, with limited access through the rural setting west of Coton. The exception to this is the Harcamlow Way/Wimpole Way, which is a bridleway in this location and runs along the boundary between sub areas C.1 and C.2, from the western edge of Coton to Long Road.

Qualities Relevant to Green Belt Openness and Purposes	Sub Area C.1 – Large sloping arable fields
7. Key views of Cambridge from the surrounding landscape	There are no key views in or through this sub area. However, there are occasional panoramic views into the sub area, across open countryside, from the A1303. There are also occasional glimpsed views of some of the landmark features in the historic core of Cambridge when approaching Coton from the west on the Harcamlow Way/Wimpole Way. From Red Meadow Hill there is a key view east towards the city. From some locations, it is possible to also see Sector C from Red Meadow Hill, in a separate part of the view to the landmarks within the historic core of Cambridge. There are also additional locations on Red Meadow Hill that have clear views towards sector C, where there is a stronger visual relationship than with sector B. The sloping topography within this sub area makes it highly visible from the south and consequently contributes to the openness of the Green Belt in this location.
8. Significant areas of Distinctive and Supportive townscape and landscape	The northern edge of the sub area, on the highest ground, forms part of the Supportive landscape associated with the approach to Cambridge on the A1303 and around Madingley Woods. Most of the remainder of the sub area is Connective landscape, forming part of the wider landscape setting to Cambridge.
12. The distribution, physical and visual separation of the necklace villages	Coton is one of the necklace villages surrounding Cambridge. However, the location of this sub area to the west of the village means that it makes no contribution to the physical and visual separation between Coton and Cambridge. Whilst the sub area provides some physical separation between Coton and Madingley, there are existing transport corridors that provide physical and visual separation at present, alongside existing vegetation and the ridgeline along which the proposed segregated bus route would run.
13. The scale, character, identity and rural setting of the necklace villages	The western part of Coton is predominantly post-war suburban housing and not as historic as areas towards the centre of the village. This sector provides part of the rural setting of the village to the north and west. Its relationship with Bin Brook is also a key part of its identity, with the village located on the lower ground in the valley of the brook and the large, sloping arable fields forming containment and a rural setting to the village. This sector is immediately adjacent to the existing edge of Coton. From the west, existing vegetation on the edge of the

Qualities Relevant to Green Belt Openness and Purposes	Sub Area C.1 – Large sloping arable fields
	village screens views of the edge of the village. From the north, a single hedgerow runs along the edge of the village, allowing a stronger visual relationship between the settlement and the adjacent countryside.
14. Designated sites and areas enriching the setting of Cambridge	This sub area does not adjoin the Coton Conservation Area. There are no environmental or cultural designations within the sub area.
15. Elements and features contributing positively to the character and structure of the landscape	There are relatively few hedgerows through the sub area. Those that do occur are low, clipped features, running north-south down the slope. There are tree belts along Long Road to the west and the A1303 to the north that create physical and visual containment to the landscape. However, the majority of this sub area is open or contains lower hedgerows, meaning that there is very little physical or visual containment to the east or south, contributing to the visual openness of the Green Belt. An existing mast is located on high ground in the north west corner of this sub area. It forms a prominent feature on the high ground that does not contribute positively to the character of the landscape.
16. A city set in a landscape which retains a strongly rural character	This sector as a whole retains a rural character, with only occasional glimpses of any features identifying the close proximity of Cambridge to the sub area. There are a series of individual properties and a small business park along the A1303, on the high ground on the north edge of the sub area. Coton, as a nucleated village with relatively little modern sprawl, does not detract from the rural character of the sub area.

10.3. Key Considerations Relevant to Green Belt Openness

- 10.3.1. The sloping landform and relative lack of vegetation within sector C are key considerations in relation to openness within this sector. It has a rural character, despite the presence of road infrastructure to the north and west. There is limited built development within sector C, which consists predominantly of open farmland with occasional individual properties and a small business park along the A1303 to the north of the sector and the existing mast in the north west corner of the sector.

10.4. Key Considerations Relevant to Green Belt Purposes

- 10.4.1. This sector plays an important role in the wider setting of the west of Cambridge, located on a Claylands ridgeline that forms part of the backdrop to views out from and across

Cambridge in this direction. The landform forms part of the edge to the bowl landscape within which Cambridge is set, providing a framework to Cambridge. It is also visible in views from the south, such as from Red Meadow Hill.

- 10.4.2. The sector also forms a key part of the rural setting to Coton, maintaining the rural character north of the village and preventing sprawl of the village north and westward. Woodland belts along the northern and eastern boundaries of the sector are important to the wooded character of the local landscape, and form a positive feature. Development within the sector is restricted to isolated properties along the ridge line and the existing mast that is also located on the higher ground.

10.5. Proposed Segregated Bus Route Options through the Sector

- 10.5.1. Options A – Entering sector C in its north west corner before running south eastwards towards the break of slope and continuing eastwards to enter sector B mid way between the A1303 and the northern edge of Coton. Current proposals suggest that the cycle/pedestrian route would be located to the south of the bus route for this option. No planting is currently proposed within this sector.
- 10.5.2. Option B – Follows a very similar alignment to Option A, sometimes slightly above it and sometimes slightly below on the slope. Current proposals suggest that the cycle/pedestrian route would be located to the south of the bus route for this option. No planting is currently proposed within this sector.
- 10.5.3. Option C – Entering sector C further east than the other options, before turning south and then running eastwards further down the slope than the other options and entering sector B closer to Coton than Options A and B. Current proposals suggest that the cycle/pedestrian route would be located to the south of the bus route for this option. No planting is currently proposed within this sector.
- 10.5.4. Option D – Enters sector C to run down the slope between Crome Lea Business Park and the row of residential properties south east of Madingley Mulch roundabout, before entering sector B at a similar location to options A and B. No proposals have been provided that indicate where the cycle/pedestrian route would be located. However, based on the other options through this Sector it is assumed that the route would be located to the south of the bus route for this option. Similarly, no details have been provided of proposed planting along this route option, but it is assumed that similar to the other options no planting is currently proposed within this sector.

10.6. Preservation of Green Belt Openness

- 10.6.1. Given the sloping landform with sub area C.1, for all options there will be a requirement for cut and fill operations to ensure a level route, which will result in a small volume of development within the Green Belt. Whilst the sloping landform also increases the visibility of the route, the cut and fill required would be relatively modest and could be balanced with careful design. Consequently, the openness of the Green Belt within sub area C.1 will be preserved.

10.7. Potential for Conflict with Green Belt Purposes

- 10.7.1. All of the route options except Option D would run in broadly similar positions on the slope through sector C, with Option C located slightly lower down the slope than Option A and Option B. All of these options would run through undeveloped countryside. The landform and the angle of view towards the proposed route of the segregated bus route would reduce the visibility of route options A-C higher up the slope, as the foreground landform would

screen some views of route. Careful design of the route and the vegetation associated with it should ensure that the route fits within the landscape in the longer-term. As long as the route sits below the break of slope when viewed from the north, this would also minimise visibility from the A1303. There would be some conflict with Cambridge Green Belt purpose 2 as a result of changes to the character of the area in terms of the setting of Coton and consequently the setting of Cambridge, which also equates to effects on National Green Belt purpose 4. This conflict would reduce further west as the route becomes further from the edge of Coton, until there would be no conflict within approximately the western half of sub area C.1 due to the distance from the edge of Coton.

- 10.7.2. Option D would also run through undeveloped countryside. Much of the route would be located above the break of slope, increasing visibility of the route from the A1303. Locating the route higher up the slope would also mean that it is more visible when viewed from the key elevated viewpoint at Red Meadow Hill to the south. However, as for the other options within Sector C, the landform and the angle of view towards the proposed route would reduce the visibility Option D higher up the slope when viewed from the lower ground in the valley, as the foreground landform would screen some views of route. As for the other route options, there would be some conflict with Cambridge Green Belt purpose 2 as a result of changes to the character of the area in terms of the setting of Coton and consequently the setting of Cambridge, as a result of the which also equates to effects on National Green Belt purpose 4. This conflict would reduce further north west as the route becomes further from the edge of Coton, until there would be no conflict close to the A1303 due to the distance from the edge of Coton.
- 10.7.3. If the proposed routes were located further down the slope, and therefore closer to the village, there would be greater effects on the setting of Coton when considered from within the village. The route options would be more visible from within the village, particularly towards the northern edge, and from the Harcamlow Way/Wimpole Way, affecting the character of the landscape. Again, there would be some conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4.
- 10.7.4. These effects could be shorter term than the effects described in relation to sector B, as the effects on the setting of the village could be addressed over time by appropriate planting to integrate the scheme into the landscape. This planting is not currently proposed as part of the scheme design, but linear hedgerow features would be in keeping with the landscape pattern. These should, as far as possible, reflect the pattern and grain of the surrounding landscape and relate to the existing hedgerows that run down the slope. Woodland planting in field corners could also be appropriate.

10.8. Application of NPPF Paragraph 90 Test

- 10.8.1. The openness of the Green Belt would be preserved by all route options through sector C.
- 10.8.2. Where the routes are located in relatively close proximity to Coton, for approximately the eastern half of the sector, there would be conflict with Green Belt purposes for all options. This conflict would not exist in the western half of the sector due to distance from the edge of Coton.
- 10.8.3. Therefore, within the eastern half of the sector all of the route options would fail the NPPF paragraph 90 test in terms of conflict with Green Belt purposes, and constitute inappropriate development within the Green Belt.

10.9. Degree of Green Belt Harm for Purposes of NPPF Paragraphs 87 and 88 Test

- 10.9.1. There would be no Green Belt harm as a result of effects on openness from the route options within Sector C.
- 10.9.2. The conflict with Green Belt purposes in sub area C.1 would result in a moderate degree of harm, in close proximity to Coton, to the setting of Cambridge resulting from changes to the setting of Coton as a necklace village. There would thus be a moderate degree of harm to Green Belt, arising from a conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4. The degree of harm would reduce further west, until there is no harm for approximately the western half of the sector for options A-C and in proximity of the A1303 for Option D.

11.0 Conclusions

11.1.1. The following sections of the proposed route options would not reduce openness and would not conflict with Green Belt purposes under paragraph 90 of the NPPF:

- Within sector A, the stretches of each of the route options that pass through West Cambridge or along Adams Road, Herschel Road and Cranmer Road would be located outside of the Green Belt and would therefore preserve the openness of the Green Belt and not conflict with Green Belt purposes.
- Within sector B, the openness of the Green Belt would be preserved and there would be no conflict with purposes for any of the routes through sub area B.1.
- Within sector B, the openness of the Green Belt would be preserved and there would be no conflict with purposes from the proposed green bridge and the associated ramp within sub area B.1.
- Within sector C, the openness of the Green Belt would be preserved and there would be no conflict with purposes for any of the routes through approximately the western half of sub area C.1 and in close proximity to the A1303 for Option D.

11.1.2. The following stretches of the proposed options for the segregated bus route would fail the NPPF paragraph 90 test and constitute inappropriate development within the Green Belt:

- Within sector A, the stretches of Option A located south of West Cambridge and therefore within the Green Belt, due to conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2. This conflict that would not reduce over time.
- Within sector A, the stretch of Option B that would run along the southern edge of West Cambridge, up to the point where it would meet Adams Road, due to conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2. Running the segregated bus route along the existing cycle route, to the north of the existing University Sports Ground, could minimise conflict with Green Belt purposes. A hedgerow along the southern edge of the route, although not currently proposed, could help to contribute to the soft green edge of the city and provide integration of the route, reducing conflict with Green Belt purposes over time.
- Within sector A, the stretch of Option B that would cross open fields and then run along Herschel Road, due to conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2.
- Within sector A, the hybrid of Option B that would along the western edge of the athletics ground and then run along Herschel Road, due to conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2.
- Within sector A, the stretches of Option C located south of West Cambridge and therefore within the Green Belt, due to conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2.
- Within sector A, the stretches of Option D located south of West Cambridge and therefore within the Green Belt, due to conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2.
- Within sector A, the bridge ramp of the southern route of Option A would result in a physical volume of new development, which would also be visually prominent in the flat open fields to the south of West Cambridge. This would cause a reduction in the openness of the Green Belt within part of sub area A.1. There would also be some conflict

with National Green Belt purpose 4 and Cambridge Green Belt purpose 2, on a permanent basis.

- Within sector A, potentially the bridge ramp of Option C, dependent on precise location. This could cause a reduction in the openness of the Green Belt within part of sub area A.1 and could introduce a level of permanent conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 2.
- Within sector B, where the routes pass through sub area B.2, there would be conflict with Green Belt purposes for all options, but openness would be preserved. This would be conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4.
- Within sector C, the stretches of all route options within approximately the eastern half of the sector would result in some conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4.

11.1.3. For those stretches of the proposed route Options where the paragraph 90 test cannot be met, the scheme would be ‘inappropriate’ development and paragraphs 87 and 88 of the NPPF would apply. ‘Very special circumstances’ will therefore need to be demonstrated for these stretches of the route Options and any harm weighed against them. The degree of harm for each of the stretches of the proposed routes that do not pass the paragraph 90 test is as follows:

- Within sector A, the stretches of Option A located south of West Cambridge and therefore within the Green Belt would result in a high degree of harm to Green Belt as a result of the conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2 resulting from changes to the character and setting of Cambridge.
- Within sector A, the stretch of Option B that would run along the southern edge of West Cambridge, up to the point where it would meet Adams Road, would result in a low degree of harm to Green Belt as a result of the conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2 resulting from changes to the character and setting of Cambridge.
- Within sector A, the stretch of Option B that would cross open fields and then run along Herschel Road would result in a high degree of harm to Green Belt as a result of the conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2 resulting from changes to the character and setting of Cambridge.
- Within sector A, the hybrid of Option B that would along the western edge of the athletics ground and then run along Herschel Road would result in a moderate-low degree of harm to Green Belt as a result of the conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2 resulting from changes to the character and setting of Cambridge.
- Within sector A, the stretches of Option C located south of West Cambridge and therefore within the Green Belt would result in a varying degrees of harm to Green Belt as a result of the conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2 resulting from changes to the character and setting of Cambridge. The degree of harm would become greater the further from the existing edge of West Cambridge the route was located, ranging from a moderate-low degree of harm for the northernmost option along the edge of West Cambridge and along Adams Road, to a high degree of harm for those further south, with the connection linking to Cranmer Road being the highest.

- Within sector A, the stretches of Option D located south of West Cambridge and therefore within the Green Belt would result in a moderate-low degree of harm to Green Belt as a result of the conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2 resulting from changes to the character and setting of Cambridge.
- The bridge ramp of the southern route of Option A would result in a low degree of harm as a result of the impact on openness and conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 2 resulting from changes to the character and setting of Cambridge. This relates to the localised extent of the effects and the existing presence of infrastructure associated with the M11 in the vicinity.
- The bridge ramp of Option C, dependent on precise location, could result in the same degree of harm as the southern route of Option A, for the same reasons.
- Within sector B, the conflict with Green Belt purposes in sub area B.2 would result in a moderate degree of harm, due to the potential conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4. This would be due to the changes in the setting of Cambridge that result from changes to the character and setting of Coton as a necklace village.
- The conflict with Green Belt purposes in sub area C.1 would result in a moderate degree of harm in close proximity to Coton, due to the potential conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4. This would be due to the changes in the setting of Cambridge that result from changes to the character and setting of Coton as a necklace village. The degree of harm would reduce further west, until there is no harm for approximately the western half of the sector in relation to options A-C and in proximity to the A1303 for Option D.

11.1.4. The outcomes of the assessment of the various route options are summarised in the table on the following pages.

Route Option	Preservation of Openness	Conflict with Purposes	Paragraph 90 Test	Degree of Harm
Sector A				
Option A – through West Cambridge	Yes	No	N/A	N/A
Option A –south of West Cambridge	Yes	Yes	Inappropriate development	High
Option B– through West Cambridge	Yes	No	N/A	N/A
Option B –along southern edge of West Cambridge	Yes	Yes	Inappropriate development	Low
Option B –across open fields and then along Herschel Road	Yes	Yes	Inappropriate development	High
Option B –along the western edge of the athletics ground and then along Herschel Road	Yes	Yes	Inappropriate development	Moderate reducing to moderate-low in the long term
Option C	Yes	Yes	Inappropriate development	High to Moderate-low
Option D – through West Cambridge	Yes	No	N/A	N/A

Route Option	Preservation of Openness	Conflict with Purposes	Paragraph 90 Test	Degree of Harm
Option D – south of West Cambridge	Yes	Yes	Inappropriate development	Moderate-low
Option A – bridge ramp – northern option	Yes	No	N/A	N/A
Option A – bridge ramp – southern option	No	Yes	Inappropriate development	Low
Option B – bridge ramp	Yes	No	N/A	N/A
Option C – bridge ramp	Potentially no, dependent on precise location	Potentially yes, dependent on precise location	Potentially inappropriate development	Low (if harm arises)
Sector B				
All Options – within sub area B.1	Yes	No	Not inappropriate development	N/A
All Options – within sub area B.2	Yes	Yes	Inappropriate development	Moderate
All Options – bridge ramp and green bridge	Yes	No	Not inappropriate development	N/A

Route Option	Preservation of Openness	Conflict with Purposes	Paragraph 90 Test	Degree of Harm
Sector C				
All Options – within eastern half of sector	Yes	Yes	Inappropriate development	Moderate, reducing to the west/in proximity to A1303
All Options – within western half of sector	Yes	No	Not inappropriate development	N/A

**Appendix 2: Cambourne to Cambridge Rapid Transport Route -
Phase 1 Consideration of Green Belt Issues Addendum to
September 2017 report by LDA dated August 2019**

Cambourne to Cambridge Rapid Transport Route – Phase 1

Consideration of Green Belt Issues
Addendum to September 2017 report

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Figure 1: Assessment Sectors and Sub Areas

Figure 2: Sector A Analysis

Figure 3: Sector B Analysis

Figure 4: Sector C Analysis

Figure 5: Sector A Mitigation Proposals

Figure 6: Sector B Mitigation Proposals

Figure 7: Sector C Mitigation Proposals

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Comment Final

This document has been prepared and checked in accordance with ISO 9001:2015.

1.0 Introduction

1.1. Appointment and Scope

- 1.1.1. A study was commissioned by Cambridgeshire County Council on behalf of the Greater Cambridge Partnership (referred to in this report as the County) in July 2017 to consider Green Belt issues relating to potential options for the alignment of a proposed segregated bus route through the Green Belt from the vicinity of Madingley Mulch Roundabout on the A428 to the western edge of Cambridge. This proposed route forms Phase 1 of a longer proposed bus route between Cambourne and Cambridge. The report on this study was issued in September 2017.
- 1.1.2. Following further assessment work and consultation on proposed options, preferred options for the alignment of Phase 1 of the route, now referred to as the Cambourne to Cambridge Rapid Transport Route, have been identified.
- 1.1.3. This report forms an addendum to the 2017 study, updating the introductory sections of the report where relevant and refining the findings of the 2017 study to reflect the alignments of the preferred options. It should be read alongside the original report. It also forms one of many considerations in assessing the emerging preferred options for the Rapid Transport Route.

1.2. Proposed Development

- 1.2.1. The 2017 report sets out the aims of the Rapid Transport Route. These remain unchanged as does the form the route would take, the approach to lighting and fencing. The project team is reviewing the benefits of providing a green bridge for the crossing over the M11 and may revert to a conventional bridge without planting on the bridge deck.
- 1.2.2. Figure 1 shows the preferred route options considered in this study. A preferred option has now broadly been identified for the Phase 1 route. However, the route is yet to be finalised in the vicinity of Coton and in terms of the location at which the route would join Grange Road. In brief, the route options are as follows, with further detail provided in Sections 5-7 of this report:

- Coton Options
 - Option 1 – runs south eastwards from the junction of Long Road and the A428, then eastwards around the northern edge of Coton. It runs higher up the valley side north of Coton than the other two options, cutting through an area of private garden land to the north of the existing covered reservoirs. It crosses Cambridge Road approximately 50 metres from the edge of the village. It then runs through the orchard area to the north east of Coton towards the M11.
 - Option 2 – also runs south eastwards from the junction of Long Road and the A428, initially taking a more southwards alignment before turning east towards Coton. It runs lower down the valley side than Option 1, passing between the area of private garden and the existing covered reservoirs. It then moves slightly northwards to cross Cambridge Road in the same location as Option 1 and approximately follows the alignment of Option 1 through the orchard area towards the M11.

- Option 3 – initially follows a similar alignment to Option 1 from the junction of Long Road and the A428, before taking an alignment similar to Option 2 towards the Coton. It then diverges from option 2, tightly following the northern edge of Coton and crossing Cambridge Road close to the village edge. Through the orchard area to the north east of Coton it converges with the other options.
- M11 Crossing and West Cambridge
 - All route options cross the M11 via a new overbridge approximately 200 metres north of the existing footbridge and run through the West Cambridge site to the south of Charles Babbage Road, then turn south and leave West Cambridge at a point east of the Institute for Manufacturing building. The West Cambridge site is outside the Green Belt so is not covered in this report.
- Grange Road Options
 - Adams Road Option – follows the existing Harcamlow Way/Wimpole Way cycle route along the southern edge of the West Cambridge site and north of the University athletics ground, then crosses Wilberforce Road and continues along Adams Road to Grange Road.
 - Rifle Range Access Option – follows the Harcamlow Way/Wimpole Way cycle route for approximately 150 metres before turning south and running along the western edge of the athletics ground and continuing south to join the rifle range access track, from where it runs to the north of the University rugby ground to Grange Road.

1.3. Structure of the Report

- 1.3.1. Section 2 updates the relevant policy background applicable to Green Belt openness and purposes since the 2017 study and confirms that, following adoption of the South Cambridgeshire and City Council Local Plans in 2018, there have been no changes to the overarching considerations that apply to the proposed route of the Rapid Transport Route through the Cambridge Green Belt. Section 2 also provides a precis of the methodology used in carrying out the 2017 study.
- 1.3.2. Section 3 presents an update to the baseline studies and analysis, which enable Cambridge and its surroundings to be understood in the context of Green Belt openness and purposes. It also confirms there have been no changes to the 16 qualities of Green Belt used for the purposes of the assessment.
- 1.3.3. Section 4 introduces the sector assessments for the different sectors.
- 1.3.4. Sections 5-7 contain detailed assessments of the proposed route options through each of the Green Belt sectors, in terms of whether the routes preserve the openness of the Green Belt or would conflict with Green Belt purposes. The test of the new NPPF (2019) has then been used to identify any potential harm to Green Belt that would arise from the different route options, before a separate judgement on the degree of any potential harm to the Green Belt for those stretches of the different route options.
- 1.3.5. Section 8 provides conclusions in relation to the route options for the Rapid Transport Route.

2.0 Policy, Previous Studies and Methodology

2.1. Green Belt Policy Tests

2.1.1. The National Planning Policy Framework (NPPF) has been updated since the 2017 study was undertaken. The February 2019 version of the NPPF does not alter the policy tests identified in the LDA Design 2017 study, but the paragraphs referenced in section 2.1 of the LDA Design 2017 study have altered as follows:

- Reference to paragraph 87 should now refer to paragraph 143 of the February 2019 NPPF;
- Reference to paragraph 88 should now refer to paragraph 144 of the February 2019 NPPF; and
- Reference to paragraph 90 should now refer to paragraph 146 of the February 2019 NPPF.

2.2. Openness of the Green Belt

2.2.1. Similarly, the updated NPPF does not alter the fundamental aim or the essential characteristics of Green Belt policy, but reference to paragraph 79 of the NPPF should now be to paragraph 133 of the February 2019 NPPF.

2.2.2. In addition, Planning Practice Guidance on Green Belt was published in July 2019. This identifies matters that may need to be taken into account when assessing the impact of proposals on Green Belt, including:

- openness is capable of having both spatial and visual aspects – in other words, the visual impact of the proposal may be relevant, as could its volume;
- the duration of the development, and its remediability – taking into account any provisions to return land to its original state or to an equivalent (or improved) state of openness; and
- the degree of activity likely to be generated, such as traffic generation.

2.2.3. The methodology utilised for the 2017 study takes account of the spatial and visual aspects of the proposals, as well as the duration. Since the Rapid Transport Route is intended to be permanent, remediability is not relevant. As the route will only be used by buses and occasional maintenance or emergency vehicles, the degree of activity will be low; this is taken into account where appropriate in the assessments in sections 5-7 of this Addendum report.

2.3. Green Belt Purposes

2.3.1. At the national level, the updated NPPF does not change the five purposes of Green Belt. However, these are now identified at paragraph 134 of the February 2019 NPPF, rather than paragraph 80.

2.3.2. The five Green Belt purposes at a national level are as follows:

1. To check the unrestricted sprawl of large built-up areas

2. To prevent neighbouring towns merging into one another
3. To assist in safeguarding the countryside from encroachment
4. To preserve the setting and special character of historic towns
5. To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

2.3.3. At the local level, both the Cambridge City¹ and South Cambridgeshire² Local Plans have been adopted since the LDA Design 2017 study. The three local purposes defined for the Cambridge Green Belt remain unchanged. They are as follows:

1. Preserve the unique character of Cambridge as a compact, dynamic city with a thriving historic centre
2. Maintain and enhance the quality of its setting
3. Prevent communities in the environs of Cambridge from merging into one another and with the city.

2.4. Previous Studies

2.4.1. The previous studies referenced in the LDA Design 2017 study remain unchanged.

2.5. Overarching Green Belt Considerations - Strategic Approach to Development around Cambridge

2.5.1. The strategic approach to development around Cambridge referenced in section 3 of the LDA Design 2017 study remains valid and relevant to this addendum. The quotations identified in the 2017 study, in relation to the approach to sustainable development, remain unchanged in the Adopted Local Plans, save for the following changes to paragraph numbering.

2017 study paragraph reference	Updated paragraph reference
South Cambridgeshire District Submission Local Plan (July 2013) paragraph 2.42	South Cambridgeshire District Adopted Local Plan (September 2018) paragraph 2.44
South Cambridgeshire District Submission Local Plan (July 2013) paragraph 2.44	South Cambridgeshire District Adopted Local Plan (September 2018) paragraph 2.46
Cambridge Submission Local Plan (July 2013) paragraph 2.24	Cambridge Adopted Local Plan (October 2018) paragraph 2.25
Cambridge Submission Local Plan (July 2013) paragraph 2.26	Cambridge Adopted Local Plan (October 2018) paragraph 2.27

¹ Cambridge Local Plan 2018, Adopted October 2018. Cambridge Green Belt purposes identified at paragraph 2.52.

² South Cambridgeshire Local Plan, Adopted September 2018. Cambridge Green Belt purposes identified at paragraph 2.30.

2.6. Methodology

- 2.6.1. The methodology utilised for this addendum remains unchanged from section 4 the 2017 study. It undertakes the following stages, described in more detail in the 2017 study:
- Stage 1: Identification of sectors and sub areas within the Inner Green Belt to form the basis of the assessment;
 - Stage 2: Baseline studies and analysis to inform considerations relevant to openness of the Green Belt and potential conflict with Green Belt purposes;
 - Stage 3: Identification of qualities to inform the assessment of preservation of openness and the identification of any conflict with Green Belt purposes; and
 - Stage 4: Assessment of sectors to identify:
 - whether the proposed route options preserve the openness of the Green Belt;
 - whether the proposed route options conflict with Green Belt purposes;
 - where there is any decrease in openness or any conflict with Green Belt purposes. In these situations, the degree of harm is then considered.

3.0 Baseline Studies and Analysis, and Qualities Relevant to Openness and Green Belt Purposes

- 3.1.1. This section identifies any changes to the baseline studies and analysis presented at section 5 of the 2017 study. The material has been checked, validated and updated as necessary for the purposes of the present study, by means of desktop studies, site survey and analysis.

3.2. Historical Development of Cambridge and the Villages

- 3.2.1. Remains unchanged from the 2017 study.

3.3. Environmental Designations

- 3.3.1. Remains unchanged from the 2017 study.

3.4. Cultural Designations

- 3.4.1. Schlumberger Gould Research Centre on the western edge of Cambridge University's West Cambridge site has been Grade II* Listed since the data used for the 2017 study was made available. In addition, the University of Cambridge's Clare Hall on Herschel Road has also been Grade II* Listed. These buildings are both located in the vicinity of potential route options.

3.5. Recreational Routes and Country Parks

- 3.5.1. A further public right of way has been identified to the south of Coton, which was not shown in the data utilised for the 2017 study. However, this is located on the opposite side of the village to the proposed route options and would not influence the assessment.

3.6. Topography and Geology

- 3.6.1. Remains unchanged from the 2017 study.

3.7. Townscape Character

- 3.7.1. Remains unchanged from the 2017 study.

3.8. Landscape Character

- 3.8.1. Remains unchanged from the 2017 study.

3.9. Green Corridors into Cambridge

- 3.9.1. Remains unchanged from the 2017 study.

3.10. Visual Assessment

- 3.10.1. Whilst there is ongoing development at the North West Cambridge site, this does not affect the key visual features of the Green Belt west of Cambridge.

3.11. Approaches and Gateways

- 3.11.1. Remains unchanged from the 2017 study.

3.12. Pattern of Distribution of Villages and Character and Identity of Villages

- 3.12.1. Remains unchanged from the 2017 study.

3.13. Townscape and Landscape Role and Function

- 3.13.1. Remains unchanged from the 2017 study, although development at North West Cambridge continues.

3.14. Summary of Baseline Studies and Analysis

- 3.14.1. There have been no significant changes to the baseline situation since the 2017 study. The addition of two new Listed Buildings in the vicinity of the route, both outside the Green Belt, does not affect the assessment.

3.15. Qualities Relevant to Openness and Green Belt Purposes

- 3.15.1. The 16 qualities of Green Belt set out in section 6 of the 2017 study, which are used as the criteria for assessing the current level of openness and the contribution to Green Belt purposes of the assessment sectors and sub areas, remain unchanged. They continue to form the starting point for the assessment of any potential conflict with Green Belt purposes resulting from the different route options. The test relating to preservation of openness continues to be addressed separately.

4.0 Introduction to Sector Assessments

4.1. Introduction

- 4.1.1. The following sections of the report update the assessment of the three sectors of the Green Belt in section 8-10 of the 2017 study and identified on Figure 1 to this Addendum, to understand the key considerations for each sector in relation to openness and their performance in relation to Green Belt purposes, consider whether the proposed route options could be delivered whilst preserving the openness of the Green Belt, identify any potential conflicts with Green Belt purposes, and finally to identify any Green Belt harm that may arise as a result of any stretches of the proposed rapid transport route.
- 4.1.2. The assessments provide a brief introduction giving an overview of the sector, then the baseline against each of the qualities identified in section 6.2 of the 2017 study is summarised, along with the key considerations relevant to Green Belt openness and purposes. All sectors are divided into sub areas where the assessment of one or more criteria differs between one part of the sector and another. Sub areas are presented as separate columns within the sector assessment but, where the assessment against a particular criterion is the same for all sub areas, the columns are merged. If the proposed Rapid Transport Route is unlikely to affect a particular sub area, assessment of that sub area has been omitted. This is the case for sub areas A.2 and C.2.
- 4.1.3. Following the criteria-based assessment, conclusions relevant to openness and Green Belt purposes are summarised, drawing out the key points from the criteria-based assessment. This is followed by assessment of the extent to which the openness of the Green Belt will be preserved by the proposals, identification of any potential conflicts with Green Belt purposes, and where necessary, identification of the degree of any potential harm to Green Belt. Consideration is also given to whether mitigation could be proposed that may reduce any conflict with Green Belt purposes.

4.2. Green Belt Sector Assessments

- 4.2.1. The assessment of the sectors and sub areas set out in the 2017 study is updated on the following pages. As identified in section 7 of the 2017 study, the 2015 study showed that almost all areas of land within the inner Green Belt are important to Green Belt purposes, but the reasons differ from one area to another. It identified that west of the city, the Inner Green Belt plays a critical role in maintaining the impression of a compact city, with countryside close to the historic core. The rural character of the land emphasises this and is seen as the foreground in views from approaches to the city, the M11 and the countryside west of the M11. The land west of the M11 extends this rural character into the wider countryside and forms the rural setting for Coton.

5.0 Assessment of Sector A: East of M11

5.1. Description of Sector

- 5.1.1. Sector A is located directly west of the historic core of Cambridge and, at 0.85km from the nearest edge, is the closest Green Belt land to the historic core. The description of the sector remains unchanged from the 2017 study.
- 5.1.2. The three sub areas identified in sector A also remain unchanged and the current route options remain unlikely to affect sub area A.2, given distance from the route options and the relative enclosure of sub area A.2. Sub area A.2 is therefore not assessed below.

5.2. Baseline Assessment of Qualities Relevant to Green Belt Openness and Purposes

- 5.2.1. Figure 2 illustrates the key considerations relevant to both openness and Green Belt purposes in sector A, updated to reflect the current route options.
- 5.2.2. The baseline assessment of the Qualities Relevant to Green Belt openness and purposes remains unchanged from section 8 of the 2017 study.

5.3. Key Considerations Relevant to Green Belt Openness

- 5.3.1. The key considerations within Sector A remain unchanged from section 8 of the 2017 study. The flat landform and the uninterrupted rural landscape of fields and hedgerows continue to form key considerations in relation to the openness of the Green Belt within sector A.

5.4. Key Considerations Relevant to Green Belt Purposes

- 5.4.1. This sector continues to play a key role in the setting of the west of Cambridge.
- 5.4.2. Views towards Cambridge from the west remain some of the most distinctive and characteristic available, with the rural landscape of the sector forming the foreground in those views.
- 5.4.3. The Green Belt in this sector continues to retain open countryside, of a strongly rural character, close to the centre of the city and prevents the sprawl of built development as far as the M11, retaining the distinctive rural separation between the edge of the city and the M11. It also continues to contribute to maintaining separation between Cambridge and the necklace villages, particularly Coton in this case.

5.5. Proposed Rapid Transport Route Options through the Sector

- 5.5.1. Adams Road Option – This option follows one of the Option B route alignments discussed in the 2017 study. On leaving the West Cambridge site, the route would follow the existing cycle route along the southern edge of West Cambridge, north of the University athletics ground and along Adams Road. Current proposals suggest that the cycle/pedestrian route would be located to the south of the bus route for this option.
- 5.5.2. Rifle Range Access Option - This option broadly follows the ‘hybrid’ Option B route alignment discussed in the 2017 study. After following the existing cycle route along the

southern edge of West Cambridge for approximately 150 metres, it would turn south and run close to the western edge of the athletics ground, then turn east to follow an existing hedgerow and then the existing edge of Cambridge along the rifle range track north of the University rugby ground. As with the Adams Road Option, it is assumed that the cycle/pedestrian route would be located to the south of the bus route for this option.

- 5.5.3. Both options would cross the M11 at the same location and follow the same route through the West Cambridge site, which is outside the sector.

5.6. Preservation of Green Belt Openness

- 5.6.1. The stretches of either of the route options that pass through West Cambridge and the stretch of the Adams Road option along Adams Road would be located outside of the Green Belt and would therefore preserve the openness of the Green Belt.
- 5.6.2. The Adams Road Option, for the stretch where it would be located within the Green Belt, follows the alignment of an existing cycleway along the edge of the existing built up area. Replacing the cycleway with a busway and accompanying footpath/cycleway would be a relatively small increase in infrastructure, through a largely flat area and therefore unlikely to require cut and fill operations. This would result in no significant volume of additional development and very limited additional visual effect on the Green Belt. This alignment would preserve the openness of the Green Belt.
- 5.6.3. For the Rifle Range Access Option, the effects would be similar to those described above, for the stretches of the route that runs along the existing cycleway and along the rifle range access track. Where the alignment turns south from the cycleway and runs close to the western edge of the athletics ground then turns east to the rifle range track, it would predominantly cross undeveloped farmland. Although the land rises slightly as the route heads south, it is assumed that the route could run at grade where it passes through undeveloped farmland, with minimal requirement for cut and fill operations, meaning that there would be no significant volume of development to affect the openness of the Green Belt and relatively little visual effect. Where the route passes over Bin Brook a bridge would be required. However, a bridge already exists across Bin Brook and it is assumed that a replacement bridge could be designed to minimise the volume of development that could affect the openness of the Green Belt and minimise the visual effect. This route is therefore considered to preserve the openness of the Green Belt in sub areas A.1 and A.3.

5.7. Potential for Conflict with Green Belt Purposes

- 5.7.1. As indicated above in relation to openness, the stretches of each of the route options that pass through West Cambridge or along Adams Road would be located outside of the Green Belt and there would be no conflict with any Green Belt purposes.
- 5.7.2. The Adams Road Option would result in a limited degree of change in character within the undeveloped countryside in sub area A.1, within an area of Supportive landscape as it runs along the southern edge of West Cambridge. There would be conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 2, as effects would relate to the setting of Cambridge. Without mitigation, these effects would not reduce over time. However, mitigation measures suggested below could help to contribute to the soft green edge of the

city and provide integration of the route, reducing conflict with Green Belt purposes over time.

- 5.7.3. North of the athletics ground, sub area A.3 does not have the character of countryside and the addition of the Rapid Transport Route would not change the character. There would therefore be no conflict with Green Belt purposes.
- 5.7.4. The Rifle Range Access Option would have similar effects to the Adams Road Option where it runs along the southern edge of West Cambridge. As it turns south, it would run across undeveloped countryside to the west and south of the existing University athletics ground, which is particularly sensitive as the closest area of countryside to the historic core of Cambridge, with open countryside running into the city being a key characteristic of this side of the city. In this context, the introduction of an element of transport infrastructure into the undeveloped countryside in in sub areas A.1 and A.3 that is of a clearly different nature to the existing fields and hedgerows would conflict with Green Belt purposes. It would also be visible in the characteristic views towards Cambridge from the west. For its full length through sub area A.3, this route option would pass through areas of Distinctive landscape and townscape, which are an important quality in sector A, introducing a new element that would detract from the distinctiveness of the area.
- 5.7.5. Where the proposed route passes through areas of Distinctive landscape in sub area A.3, there would be conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 1, as effects would relate to the character of Cambridge. Where the proposed route passes through areas of Supportive landscape in sub area A.1, there would be conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 2, as effects would relate to the setting of Cambridge. In both circumstances, this conflict would not reduce over time as the interruption to the flow of countryside up to the edge of Cambridge would be permanent.

5.8. Mitigation Proposals

- 5.8.1. A native species hedgerow with occasional hedgerow trees along the southern/western edge of the route where it adjoins farmland could help contribute to the soft green edge of the city and provide integration of the route, reducing conflict with Green Belt purposes over time. This mitigation measure would be applicable to both potential options.
- 5.8.2. Continuing the Rifle Range Access Option further along the southern edge of West Cambridge before turning south with a tighter radius bend, then running the alignment close along the western boundary of the athletics ground would reduce the amount of farmland lost to the route and reduce the change in character and effect on views, as the route would more closely align with the existing grain of the landscape.
- 5.8.3. Small areas of woodland planting adjacent to the bends in the Rifle Range Access Option, designed to reflect the rectilinear pattern of the existing fields, would reduce the conflict with the existing grain of the landscape.
- 5.8.4. The above measures would reduce but not eliminate the conflict with Green Belt purposes. They are illustrated on Figure 5.

5.9. Degree of Green Belt Conflict

5.9.1. The openness of the Green Belt would be preserved by either route option through sector A.

5.9.2. For the following stretches of the route options through sector A, there would be conflict with Green Belt purposes:

- The stretch of the Adams Road Option that would run along the southern edge of West Cambridge, as far as the western boundary of the athletics ground.
- The full extent of the Rifle Range Access Option.

5.9.3. For the stretches that have a degree of conflict with Green Belt purposes, the anticipated degree of harm as a result of conflict with Green Belt purposes of the nature described above would be as follows:

- The stretch of both options that would run along the southern edge of West Cambridge would result in a low degree of harm to the setting of Cambridge and thus a low degree of harm to Green Belt arising from a conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 2.
- The stretch of the Rifle Range Access Option that would run across undeveloped countryside to the west and south of the existing University athletics ground would result in a moderate degree of harm to the character and setting of Cambridge, particularly as the route would cut across the flow of the landscape into the edge of Cambridge, and thus a moderate degree of harm to Green Belt arising from a conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2. With the mitigation described in section 5.8, this could reduce over time to a moderate-low degree of harm to Green Belt purposes.
- The stretch of the Rifle Range Access Option that would run to the north of the University rugby ground and training pitch would result in a low degree of harm to the character of Cambridge and thus a low degree of harm to Green Belt arising from a conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 1.

6.0 Assessment of Sector B: North of Coton

6.1. Description of Sector

6.1.1. Sector B is located directly west of, and including part of the corridor of, the M11 and to the north of Coton, abutting the northern and eastern edges of the necklace village. The description of the sector remains unchanged from the 2017 study.

1.1.1. The two sub areas identified in sector B also remain unchanged. All of the route options for the proposed Rapid Transport Route would run through both sub areas, therefore they are both considered in the assessment.

6.2. Baseline Assessment of Qualities Relevant to Green Belt Openness and Purposes

6.2.1. Figure 3 illustrates the key considerations relevant to both openness and Green Belt purposes in sector B, updated to reflect the current route options.

6.2.2. The baseline assessment of the Qualities Relevant to Green Belt Openness and Purposes remains unchanged from section 9 of the 2017 study.

6.3. Key Considerations Relevant to Green Belt Openness

6.3.1. The key considerations within Sector B remain unchanged from section 9 of the 2017 study. Within sub area B.2 the sloping landform and relative lack of vegetation remain key considerations in relation to openness. The orchard area and woodland within sub area B.1 remain visually contained and have limited visual openness in Green Belt terms.

6.4. Key Considerations Relevant to Green Belt Purposes

6.4.1. This sector continues to play an important role in the wider setting of the west of Cambridge. The sector also continues to form a key part of the rural setting to Coton, maintaining the rural character north of the village and preventing sprawl of the village northwards and eastwards. The landscape setting of Coton as a necklace village forms part of the character and wider setting of Cambridge.

6.5. Proposed Rapid Transport Route Options through the Sector

6.5.1. Option 1 – Running along the valley side mid-way between the A1303 and the northern edge of Coton, and cutting across a private garden area north of the existing covered reservoirs, before sweeping round approximately 50 metres north of the edge of Coton in the vicinity of Cambridge Road, then running through the orchard area to the north east of Coton and crossing the M11 approximately 200 metres north of the existing footbridge. Current proposals suggest that the cycle/pedestrian route would be located to the south of the bus route.

6.5.2. Option 2 - Running slightly lower down the valley side north of Coton than Option 1, through the gap between the existing covered reservoirs and the private garden area, then crossing Cambridge Road at the same location as Option 1 before running through the

orchard area to the north east of Coton and crossing the M11 at the same location as Option 1.

- 6.5.3. Option 3 – Broadly similar to Option 2 in the western part of the sector, before sweeping round to tightly follow the edge of Coton in the vicinity of Cambridge Road, then converging with the alignments of Options 1 and 2 within the orchard area to the north east of Coton and crossing the M11 at the same location.

6.6. Preservation of Green Belt Openness

Route Options

- 6.6.1. The stretches of all of the route options that pass through the area of orchards to the north east of Coton (sub area B.1) would be largely screened from view from the surrounding area. All options pass through an area of grassland immediately to the west of the M11, but this area is also visually well contained by woodland and tree belts. This area is also less steeply sloping than sub area B.2 and would require less cut and fill operations. All of the route options would preserve the openness of the Green Belt as a consequence.
- 6.6.2. Given the sloping landform within sub area B.2, there will be a requirement for earthwork operations to ensure a level route for all options, which will result in a small volume of development within the Green Belt. Whilst the sloping landform increases the visibility of the route, particularly as seen from elevated locations to the south, the current designs indicate that all route options would be cut into the landform to reduce wider visibility. Consequently, the openness of the Green Belt within sub area B.2 will be preserved by all of the route options.
- 6.6.3. There would be signage and lighting at the junction with Cambridge Road but this road already has street lights and road signage. In any event, as stated at paragraph 4.2.13 of the 2017 study, signage, lighting and road markings near road crossings are not considered to affect openness.

Bridge

- 6.6.4. The creation of the ramp providing the approach to the bridge over the M11 would require earthworks, with the bridge deck currently estimated to be approximately 4.7 metres above adjacent ground levels. The presence of these earthworks would in themselves mean that there would be a volume of new development within sub area B.1. However, given that this volume of development would be relatively small, would not be seen from the surrounding area due to the vegetated character of the sub area, it is considered that on balance the openness of the Green Belt would be preserved by the creation of the ramp.
- 6.6.5. In relation to the bridge itself (deck, parapets, etc), the crossing of the M11 would be contained within the wooded stretch of the M11 adjacent to the West Cambridge site. The construction of the physical structure of the bridge would lead to the creation of a volume of new development. However, the bridge would be relatively insignificant in the context of the M11, which is already in cutting in this vicinity and has affected the openness of the countryside. Consequently, it is considered that the openness of the Green Belt would be preserved by the construction of the bridge.

6.7. Potential for Conflict with Green Belt Purposes

Route Options

- 6.7.1. As mentioned above, the stretches of all of the route options that pass through sub area B.1 would be largely screened from view from the surrounding area. As a result, they would have no impact on the setting of Coton and there would be no conflict with Green Belt purposes.
- 6.7.2. Options 2 and 3 would run in broadly similar positions on the slope in the western part of sub area B.2, with Option 1 slightly higher up the slope and cutting across private garden land. There would be relatively minor differences between the options as they approach Cambridge Road, with Options 1 and 2 slightly higher up the slope. All of the options would run through undeveloped countryside and would have some effect on the character of the area in terms of the setting of the village and consequently the setting of Cambridge. Given the small-scale nature of sub area B.2, the removal of any elements of the landscape, such as hedgerows and trees, would have a greater effect on this rural character than they would in sector C, which is more open.
- 6.7.3. Where the proposed route options are located close to the village, there would be effects on the setting of Coton when considered from within the village. The route options would be visible from within the village, particularly towards the northern edge, affecting the character of the landscape. There would also be effects on the setting of the village when approaching from the north along Cambridge Road. As all three route options would be close to the village, it is likely that there would be a permanent loss of agricultural land adjacent to the edge of the village, between the proposed Rapid Transport Route and the settlement. However, conversely, where the existing village edge is poorly defined there is an opportunity to provide enhancements to the edge and improve this definition.
- 6.7.4. In sub area B.2, there would be some conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4. This conflict would be long-term, as the change in character of the rural setting of the village could not be fully offset by planting works and the setting of the village would be permanently altered by the potential loss of arable land adjacent to the village edge.
- 6.7.5. All of the route options will need to cross Cambridge Road. This will create a localised area where conflict with Green Belt purposes is greater than other stretches of the route through sub area B.2, as it is assumed that there will need to be a signalised crossing that would lead to a change in the character of the approach to the village resulting from the crossing infrastructure and the earthworks associated with the route running down the slope towards Cambridge Road. As perceived from the village, the effects will be greater for Option 3, bringing new infrastructure close to the village edge. In contrast, approaching the village along Cambridge Road, the effects will be greater for Options 1 and 2 as they may be perceived as extending the village entrance into the countryside as a result of the signalised crossing.

Bridge

- 6.7.6. The bridge over the M11 would be located within the wooded stretch of the M11 adjacent to the West Cambridge site. The approach ramp would extend into the area of grassland

immediately west of the M11, but this area is also visually contained by woodland and tree belts. Consequently, the bridge and ramp would have no impact on the setting of Coton and they would not cause any conflict with Green Belt purposes.

6.8. Mitigation

- 6.8.1. Except where Option 3 runs along the village edge, new hedgerow planting in native species along the southern side of the Rapid Transport Route through sub area B.2 would screen the hard surface of the bus route, footway/cycleway and any physical guides that may be required in views from the village edge and from public footpaths to the south. The hedgerows should be supplemented with tree planting including small areas of woodland where appropriate to strengthen the landscape structure and maintain the existing pattern of the landscape. Whilst there would be no harm to Green Belt in sub area B.1, it would be beneficial to provide a similar hedgerow along the southern site of the Rapid Transport Route in the first field east of Cambridge Road (used as an orchard) to protect the visual amenity of residents of properties on the north edge of Coton.
- 6.8.2. An appropriate use should be identified for areas of agricultural land between the Rapid Transport Route and the village edge which can no longer viably continue in agricultural use. The aim should be to prevent the land becoming disused and abandoned. Suitable uses might include species-rich grassland (with an appropriate management regime) or orchards. Where existing orchards east of Cambridge Road are severed by the Rapid Transport Route, appropriate uses might also include extending the existing allotment site and/or community greenspace uses for the benefit residents of the village.
- 6.8.3. The above measures would reduce but not eliminate the conflict with Green Belt purposes. They are illustrated on Figure 6.

6.9. Degree of Green Belt Conflict

Route Options

- 6.9.1. The openness of the Green Belt would be preserved by all route options through sector B.
- 6.9.2. There would be no conflict with Green Belt purposes for any of the routes through sub area B.1. Where the routes pass through sub area B.2, there would be conflict with Green Belt purposes for all options.
- 6.9.3. The conflict with Green Belt purposes in sub area B.2 would result in a moderate degree of harm to the setting of Cambridge resulting from changes to the character and setting of Coton as a necklace village. There would thus be a moderate degree of harm to Green Belt arising from a conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4. With the mitigation described in section 6.8, this could reduce over time to a moderate-low degree of harm to Green Belt purposes.

Bridge

- 6.9.4. On balance, it is considered that the bridge and its approach ramp would preserve the openness of the Green Belt within sector B.

- 6.9.5. There would be no conflict with Green Belt purposes from the proposed bridge and approach ramp within sector B.
- 6.9.6. The bridge itself and the ramp leading to it would not result in harm to Green Belt as openness would be preserved and there would be no conflict with Green Belt purposes.

7.0 Assessment of Sector C: West of Coton

7.1. Description of Sector

- 7.1.1. Sector C is located to the north west of Coton, abutting the northern and western edges of the necklace village. The northern boundary follows the A1303. The description of the sector remains unchanged from the 2017 study.
- 7.1.2. The two sub areas identified in sector C also remain unchanged. The proposed Rapid Transport Route remains unlikely to affect sub area C.2, given distance from the route options and the relative enclosure of sub area C.2. Sub area C.2 is therefore not assessed below.

7.2. Baseline Assessment of Qualities Relevant to Green Belt Openness and Purposes

- 7.2.1. Figure 4 illustrates the key considerations relevant to both openness and Green Belt purposes in sector C, updated to reflect the current route options.
- 7.2.2. The baseline assessment of the Qualities Relevant to Green Belt Openness and Purposes remains unchanged from section 10 of the 2017 study.

7.3. Key Considerations Relevant to Green Belt Openness

- 7.3.1. The key considerations within Sector C remain unchanged from section 10 of the 2017 study. The sloping landform and relative lack of vegetation within sector C remain key considerations in relation to openness within this sector.

7.4. Key Considerations Relevant to Green Belt Purposes

- 7.4.1. This sector continues to play an important role in the wider setting of the west of Cambridge. The sector also continues to form a key part of the rural setting to Coton, maintaining the rural character north of the village and preventing sprawl of the village north and westwards.

7.5. Proposed Rapid Transport Route Options through the Sector

- 7.5.1. Option 1 – Entering sector C in its north west corner before running south eastwards towards the break of slope and continuing eastwards to enter sector B closer to the A1303 than other options, at the southern end of a tree belt associated with the rear garden of a property on the A1303. Current proposals suggest that the cycle/pedestrian route would be located to the south of the bus route.
- 7.5.2. Option 2 - Entering sector C in its north west corner before running in a more southerly direction than Option 1 towards the break of slope, then heading eastwards to enter sector B approximately 60 metres south of Option 1.
- 7.5.3. Option 3 – Follows a similar alignment to Option 1 in the western part of the sector, then broadly following Option 2, sometimes slightly above it on the valley side.

7.6. Preservation of Green Belt Openness

- 7.6.1. Given the sloping landform with sub area C.1, for all options there will be a requirement for earthwork operations to ensure a level route, which will result in a small volume of development within the Green Belt. Whilst the sloping landform increases the visibility of the route, particularly as seen from elevated locations to the south, the current designs indicate that all route options would be cut into the landform to reduce wider visibility. Consequently, the openness of the Green Belt within sub area B.2 will be preserved by all of the route options.

7.7. Potential for Conflict with Green Belt Purposes

- 7.7.1. Options 2 and 3 would run in broadly similar positions on the valley side through sector C, with Option 1 located slightly higher up the slope. All of these options would run through undeveloped countryside. The landform and the angle of view towards the proposed route of the segregated bus route would reduce the visibility of all of the route options, as the foreground landform would screen some views of route. Careful design of the route and the vegetation associated with it should ensure that the route fits within the landscape in the longer-term. As long as the route sits below the break of slope when viewed from the north, this would also minimise visibility from the A1303. Option 1 remains above the break of slope for longer than Options 2 and 3, so would be more visible from the A1303. Where Option 2 has a more southerly orientation in the western part of the sector, this is likely to increase the visibility of vehicle lights on dull days/evenings from certain locations to the south, thus increasing the sense of intrusion into what is currently open farmland.
- 7.7.2. There would be some conflict with Cambridge Green Belt purpose 2 as a result of changes to the character of the area in terms of the setting of Coton and consequently the setting of Cambridge, which also equates to effects on National Green Belt purpose 4. This conflict would reduce further west as the route becomes further from the edge of Coton, until there would be no conflict within approximately the western half of sub area C.1 due to the distance from the edge of Coton.

7.8. Mitigation

- 7.8.1. Appropriate planting to integrate the scheme into the landscape could reduce the effects over time, potentially eliminating them altogether, due to the greater distance of the route options from Coton in sector C than sector B. Planting should comprise native species hedgerows with occasional hedgerow trees along the south side of the Rapid Transport Route, to screen it in views from the south. New hedgerows, generally on an east-west alignment, should reflect the pattern and grain of the surrounding landscape and relate to the existing hedgerows that run down the slope. Woodland planting in field corners could also be appropriate.
- 7.8.2. Potential mitigation measures are illustrated on Figure 7.

7.9. Degree of Green Belt Conflict

- 7.9.1. The openness of the Green Belt would be preserved by all route options through sector C.

- 7.9.2. Where the routes are located in relatively close proximity to Coton, for approximately the eastern half of the sector, there would be conflict with Green Belt purposes for all options. This conflict would not exist in the western half of the sector due to distance from the edge of Coton.
- 7.9.3. The conflict with Green Belt purposes in sub area C.1 would result in a moderate degree of harm, in close proximity to Coton, to the setting of Cambridge resulting from changes to the setting of Coton as a necklace village. There would thus be a moderate degree of harm to Green Belt, arising from a conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4. The degree of harm would reduce further west, until there is no harm for approximately the western half of the sector. Where there is harm, the mitigation described in section 7.8 could reduce it over time to a low or potentially no degree of harm.

8.0 Conclusions

- 8.1.1. The following sections of the proposed route options would preserve openness and not conflicting with Green Belt purposes:
- Within sector A, the stretch of the Adams Road Option that runs along Adams Road is outside the Green Belt and would therefore preserve the openness of the Green Belt and not conflict with Green Belt purposes.
 - Within sector A, the openness of the Green Belt would be preserved and there would be no conflict with purposes for the stretch of the Adams Road Option that runs to the north of the University athletics ground.
 - Within sector B, the openness of the Green Belt would be preserved and there would be no conflict with purposes for any of the routes through sub area B.1.
 - Within sector B, the openness of the Green Belt would be preserved and there would be no conflict with purposes from the proposed bridge and its approach ramp.
 - Within sector C, the openness of the Green Belt would be preserved and there would be no conflict with purposes for any of the routes through approximately the western half of sub area C.1.
- 8.1.2. The following stretches of the proposed options would have some conflict with Green Belt purposes. In all cases, Green Belt openness would be preserved:
- Within sector A, the stretch of the Adams Road Option that would run along the southern edge of West Cambridge, as far as the western boundary of the athletics ground, due to conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2.
 - Within sector A, the full extent of the Rifle Range Access Option, due to conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2.
 - Within sector B, where the routes pass through sub area B.2, there would be conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 2 for all options.
 - Within sector C, the stretches of all route options within approximately the eastern half of the sector would conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 2.
- 8.1.3. The degree of harm for each of the stretches of the proposed routes that conflict with Green Belt purposes is as follows:
- Within sector A, the stretches of both options that would run along the southern edge of West Cambridge, would result in a low degree of harm to Green Belt as a result of the conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2 resulting from changes to the character and setting of Cambridge.
 - Within sector A, the stretch of the Rifle Range Access Option that would run across undeveloped countryside to the west and south of the existing University athletics ground would result in a moderate degree of harm to Green Belt as a result of the conflict with National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2 resulting from changes to the character and setting of Cambridge. With the

recommended mitigation, this could reduce over time to a moderate-low degree of harm.

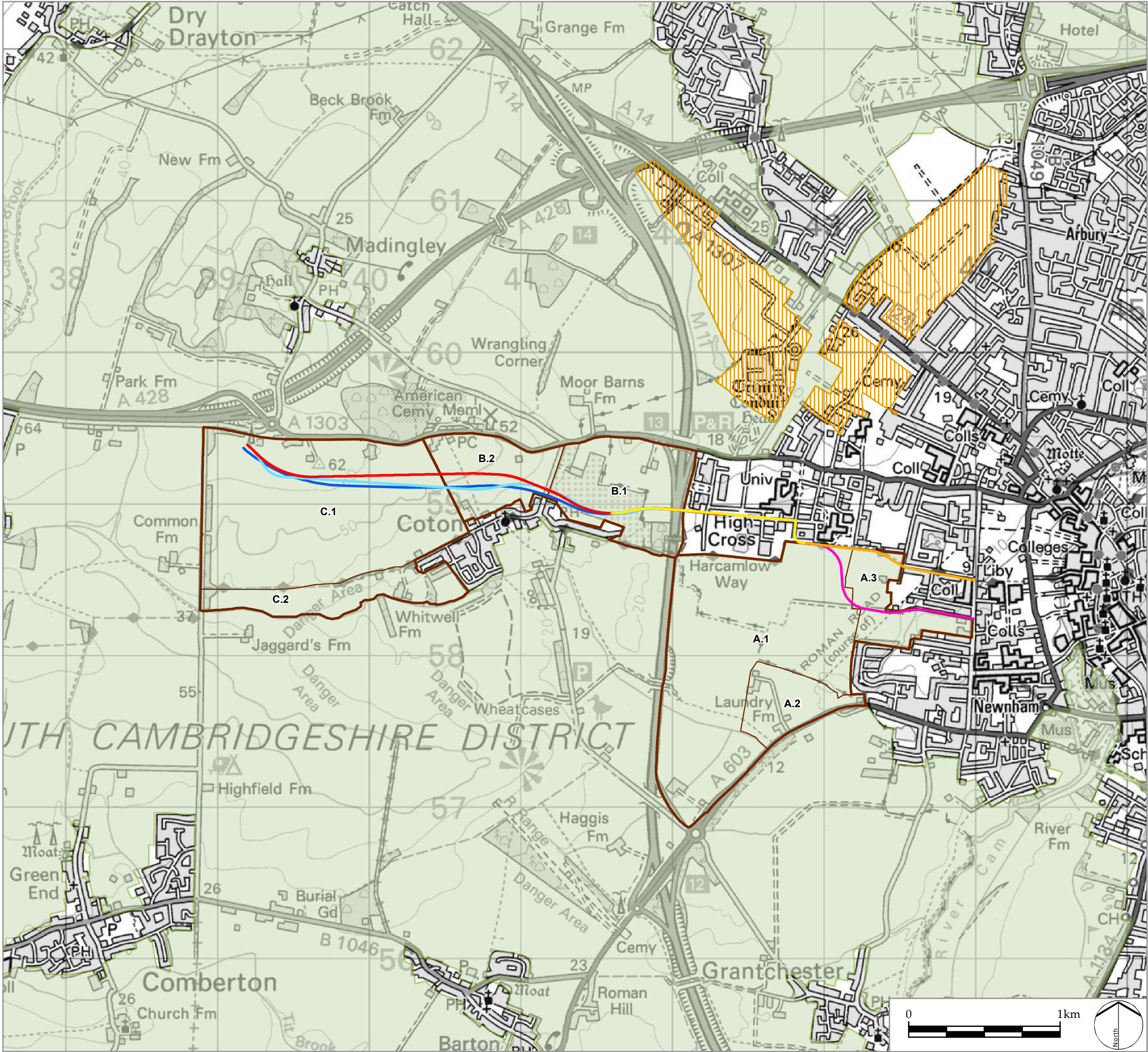
- Within sector A, the stretch of the Rifle Range Access Option that would run to the north of the University rugby ground and training pitch would result in a low degree of harm to the character of Cambridge and thus a low degree of harm to Green Belt arising from a conflict with National Green Belt purpose 4 and Cambridge Green Belt purpose 1.
- Within sector B, all three route options would result in a moderate degree of harm in sub area B.2, due to the potential conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4. This would be due to the changes in the setting of Cambridge that result from changes to the character and setting of Coton as a necklace village. With the recommended mitigation, this could reduce over time to a moderate-low degree of harm.
- Within sub area C.1, all three route options would result in a moderate degree of harm in close proximity to Coton, due to the potential conflict with Cambridge Green Belt purpose 2, which also equates to conflict with National Green Belt purpose 4. This would be due to the changes in the setting of Cambridge that result from changes to the character and setting of Coton as a necklace village. The degree of harm would reduce further west, until there would be no harm for approximately the western half of the sector. Where there is harm, the recommended mitigation could reduce it over time to a low or potentially no degree of harm.

8.1.4. The outcomes of the assessment of the various route options are summarised in the table on the following pages.

Route Option	Preservation of Openness	Conflict with Purposes	Degree of Harm
Sector A			
Adams Road option – along southern edge of West Cambridge to western boundary of athletics ground	Yes	Yes	Low
Adams Road option – north of athletics ground	Yes	No	N/A
Adams Road option – along Adams Road	Outside Green Belt	Outside Green Belt	N/A
Rifle Range access option – along southern edge of West Cambridge	Yes	Yes	Low
Rifle Range access option – across open fields west and south of athletics ground	Yes	Yes	Moderate, reducing to moderate-low with mitigation
Rifle Range access option – north of rugby ground and training pitch	Yes	Yes	Low
Sector B			
All options – within sub area B.1	Yes	No	N/A
All options – within sub area B.2	Yes	Yes	Moderate, reducing to moderate-low with mitigation
All options – bridge and approach ramp	Yes	No	N/A

Route Option	Preservation of Openness	Conflict with Purposes	Degree of Harm
Sector C			
All options – within eastern half of sector	Yes	Yes	Moderate, reducing to the west. Reducing to low/none with mitigation
All options – within western half of sector	Yes	No	N/A

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- LEGEND
- Phase 1 Preferred Option - M11 Crossing and West Cambridge
 - Phase 1 Preferred Option - Coton Options
 - Option 1 - Red Route - Northern Route
 - Option 2 - Light Blue Route - New Proposed Southern Route
 - Option 3 - Dark Blue Route - Original Southern Route
 - Phase 1 Preferred Option - Grange Road Options
 - Phase 1 - Adams Road Option
 - Phase 1 - Rifle Range Access Option
 - Green Belt
 - Developments under construction / permitted
 - Assessment Sectors
 - Assessment Sub Areas

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CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 1 ADDENDUM

DRAWING TITLE
Figure 1:
Assessment Sectors and Sub Areas

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LEGEND

Phase 1 Preferred Option - M11 Crossing and West Cambridge

Phase 1 Preferred Option - Coton Options

Option 1 - Red Route - Northern Route

Option 2 - Light Blue Route - New Proposed Southern Route

Option 3 - Dark Blue Route - Original Southern Route

Phase 1 Preferred Option - Grange Road Options

Phase 1 - Adams Road Option

Phase 1 - Rifle Range Access Option

Green Belt

Assessment Sectors

A.1 Assessment Sub Areas

Long Distance Footpath

Clipped hedgerow

Tall hedgerow or tree/woodland belt

Photograph locations (refer to 2017 report)

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PHASE 1 ADDENDUM

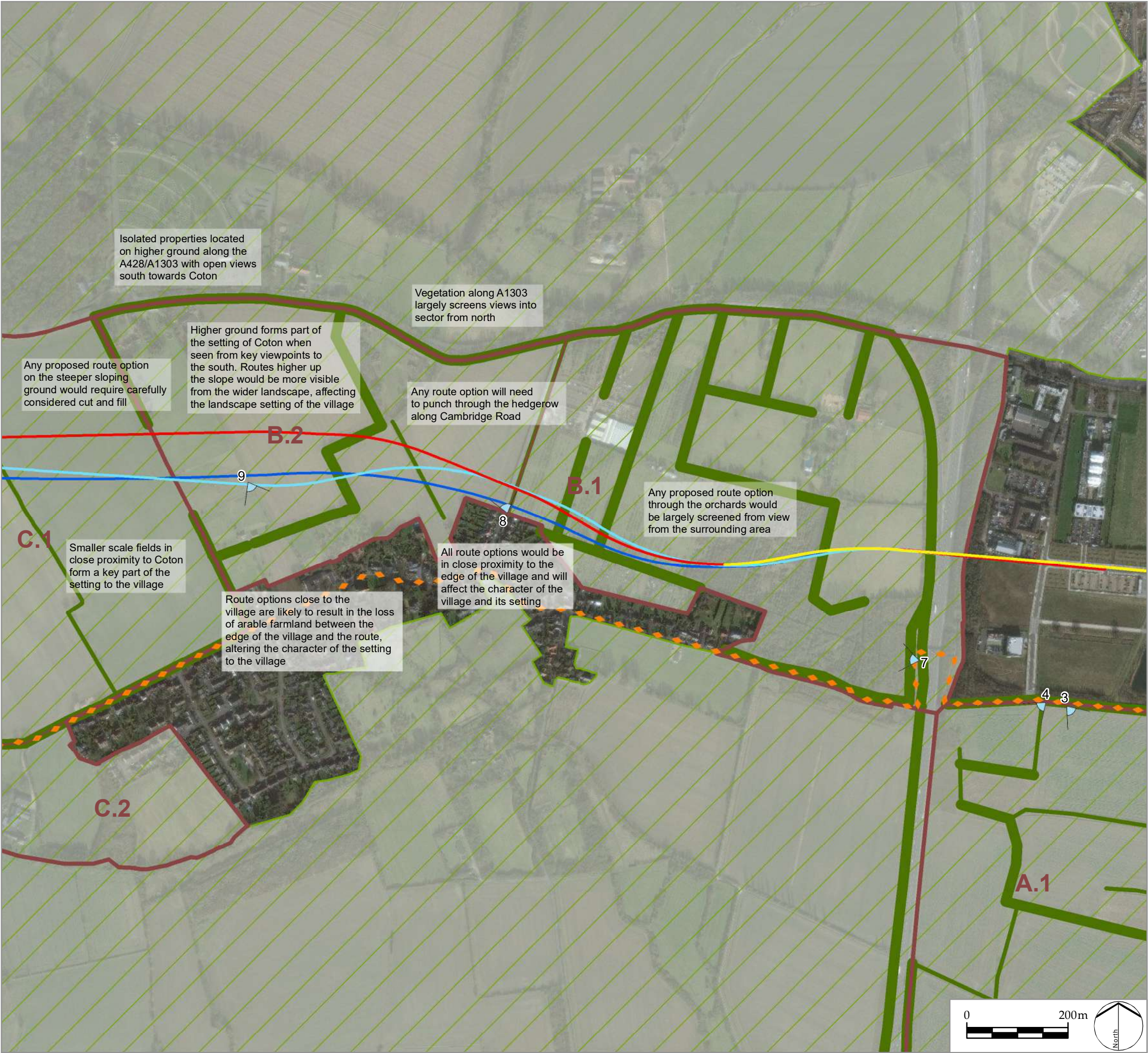
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Figure 2:
Sector A Analysis

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LEGEND

Phase 1 Preferred Option - M11 Crossing and West Cambridge

Phase 1 Preferred Option - Coton Options

Option 1 - Red Route - Northern Route

Option 2 - Light Blue Route - New Proposed Southern Route

Option 3 - Dark Blue Route - Original Southern Route

Phase 1 Preferred Option - Grange Road Options

Phase 1 - Adams Road Option

Phase 1 - Rifle Range Access Option

Green Belt

Assessment Sectors

A.1 Assessment Sub Areas

Long Distance Footpath

Clipped hedgerow

Tall hedgerow or tree/woodland belt

Photograph locations (refer to 2017 report)

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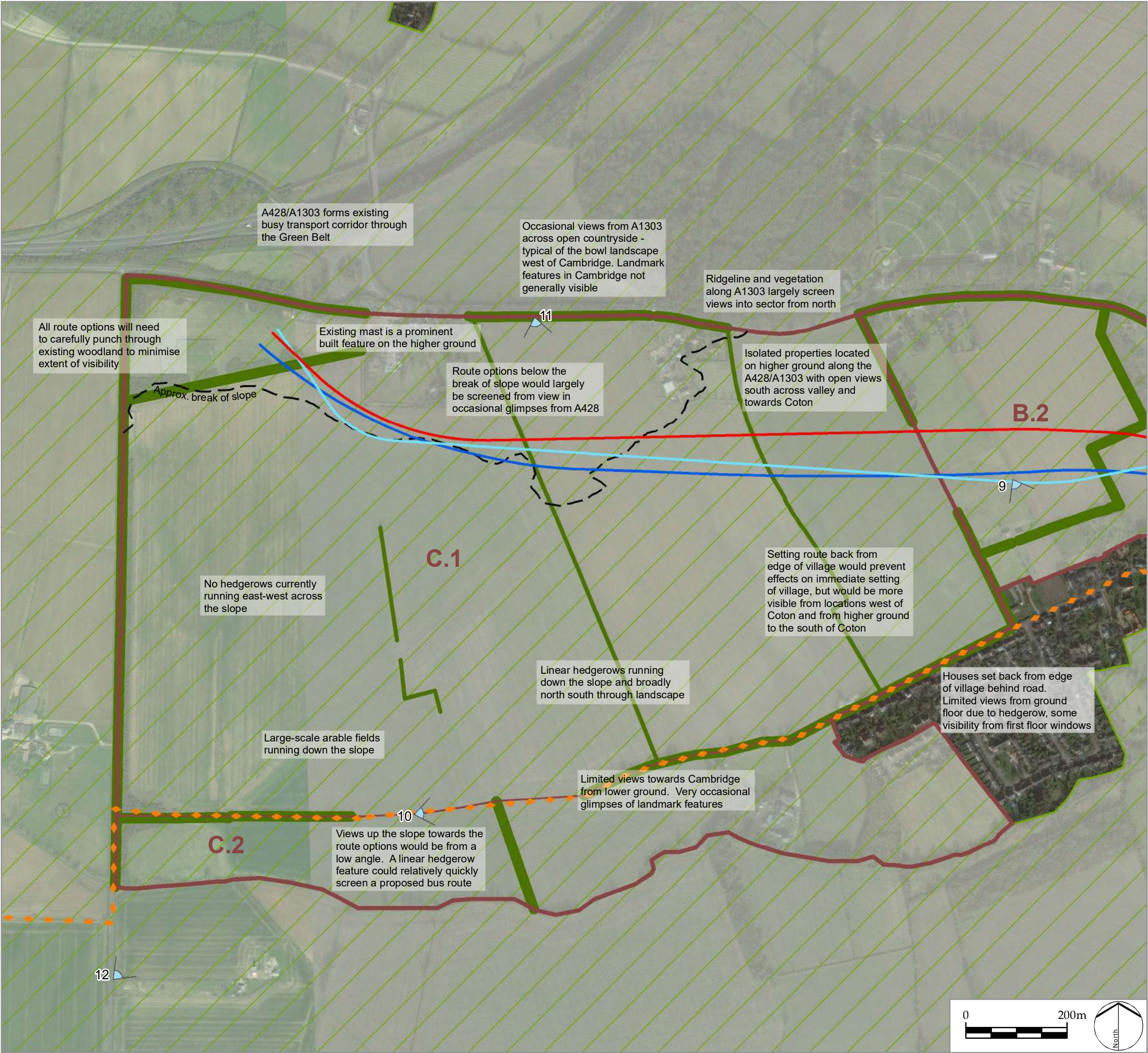
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Figure 3:
Sector B Analysis

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LEGEND

Phase 1 Preferred Option - M11 Crossing and West Cambridge

Phase 1 Preferred Option - Coton Options

Option 1 - Red Route - Northern Route

Option 2 - Light Blue Route - New Proposed Southern Route

Option 3 - Dark Blue Route - Original Southern Route

Phase 1 Preferred Option - Grange Road Options

Phase 1 - Adams Road Option

Phase 1 - Rifle Range Access Option

Green Belt

Assessment Sectors

A.1 Assessment Sub Areas

Long Distance Footpath

Clipped hedgerow

Tall hedgerow or tree/woodland belt

Photograph locations (refer to 2017 report)

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CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 1 ADDENDUM

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Figure 4:
Sector C Analysis

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LEGEND

Phase 1 Preferred Option - M11 Crossing and West Cambridge

Phase 1 Preferred Option - Grange Road Options

Phase 1 - Rifle Range Access Option

Phase 1 - Adams Road Option

Green Belt

Assessment Sectors

A.1

Assessment Sub Areas

Proposed realignment of Rifle Range Access Option

- Both route options
1.

Native species hedgerow with occasional hedgerow trees along southern/western edge of route (both options)
- Rifle Range Access Option
2.

Realign Rifle Range Access Option with tighter radius bend, then running close along western boundary of athletics ground

3.

Woodland planting (native species appropriate to local area) to emphasise existing grain of the landscape

4.

Areas to be planted and managed to enhance biodiversity

5.

Tree planting to replace any losses arising from construction of route

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CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 1 ADDENDUM

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Figure 5:
Sector A Mitigation Proposals

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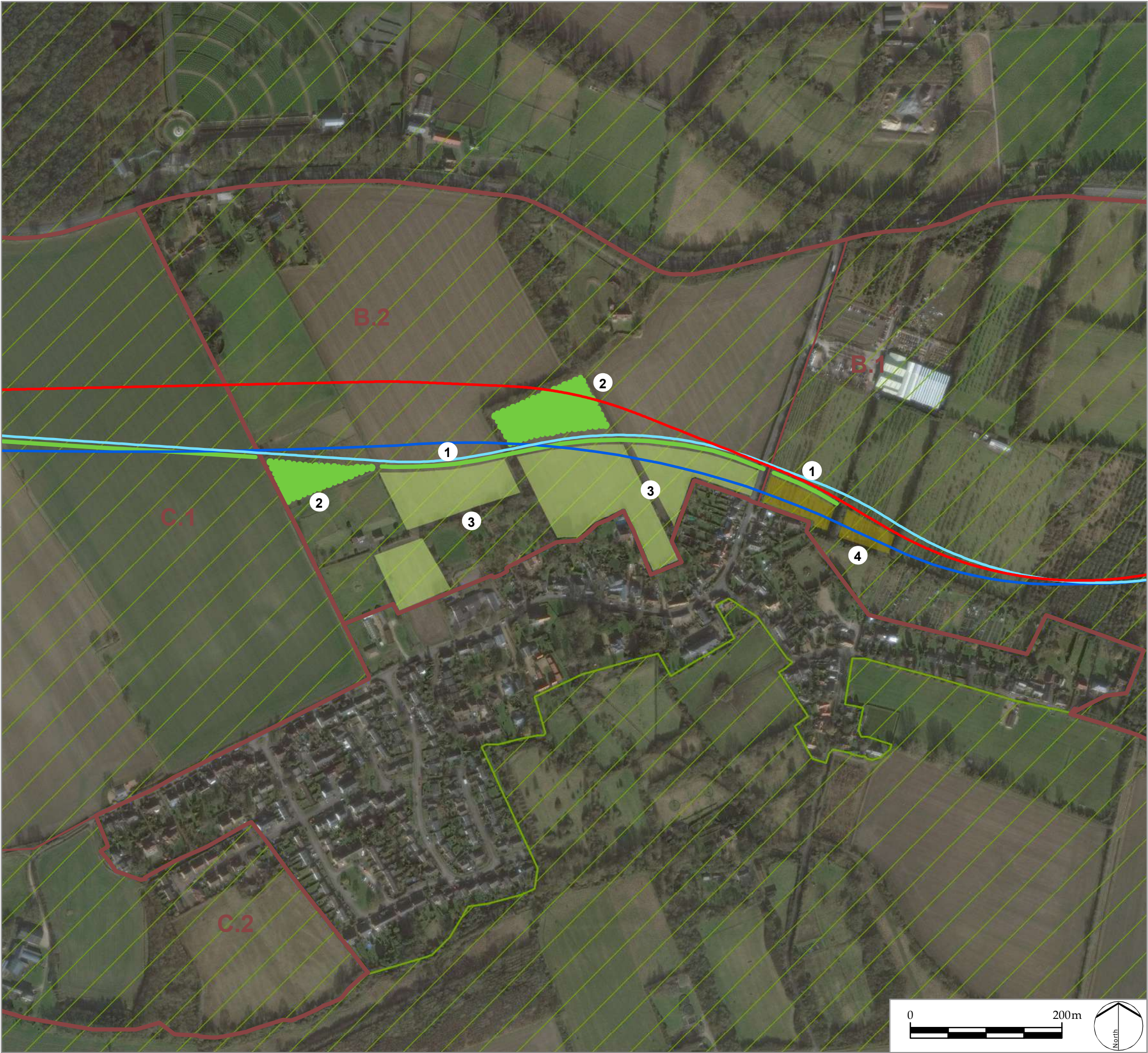
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LEGEND

Phase 1 Preferred Option - Coton Options

- Option 1 - Red Route - Northern Route
- Option 2 - Light Blue Route - New Proposed Southern Route
- Option 3 - Dark Blue Route - Original Southern Route

- Green Belt
- Assessment Sectors
- A.1 Assessment Sub Areas

- Note: Mitigation shown for Option 2 – New Proposed Southern Route. Similar mitigation applies to other options.
- 1. Native species hedgerow with occasional hedgerow trees along southern side of route
 - 2. Woodland planting (native species appropriate to local area) to strengthen landscape structure
 - 3. Identify appropriate uses for land no longer viable for agriculture, eg species-rich grassland (with appropriate management regime) or orchards
 - 4. As point 3 but uses could also include allotments or community greenspace

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PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 1 ADDENDUM

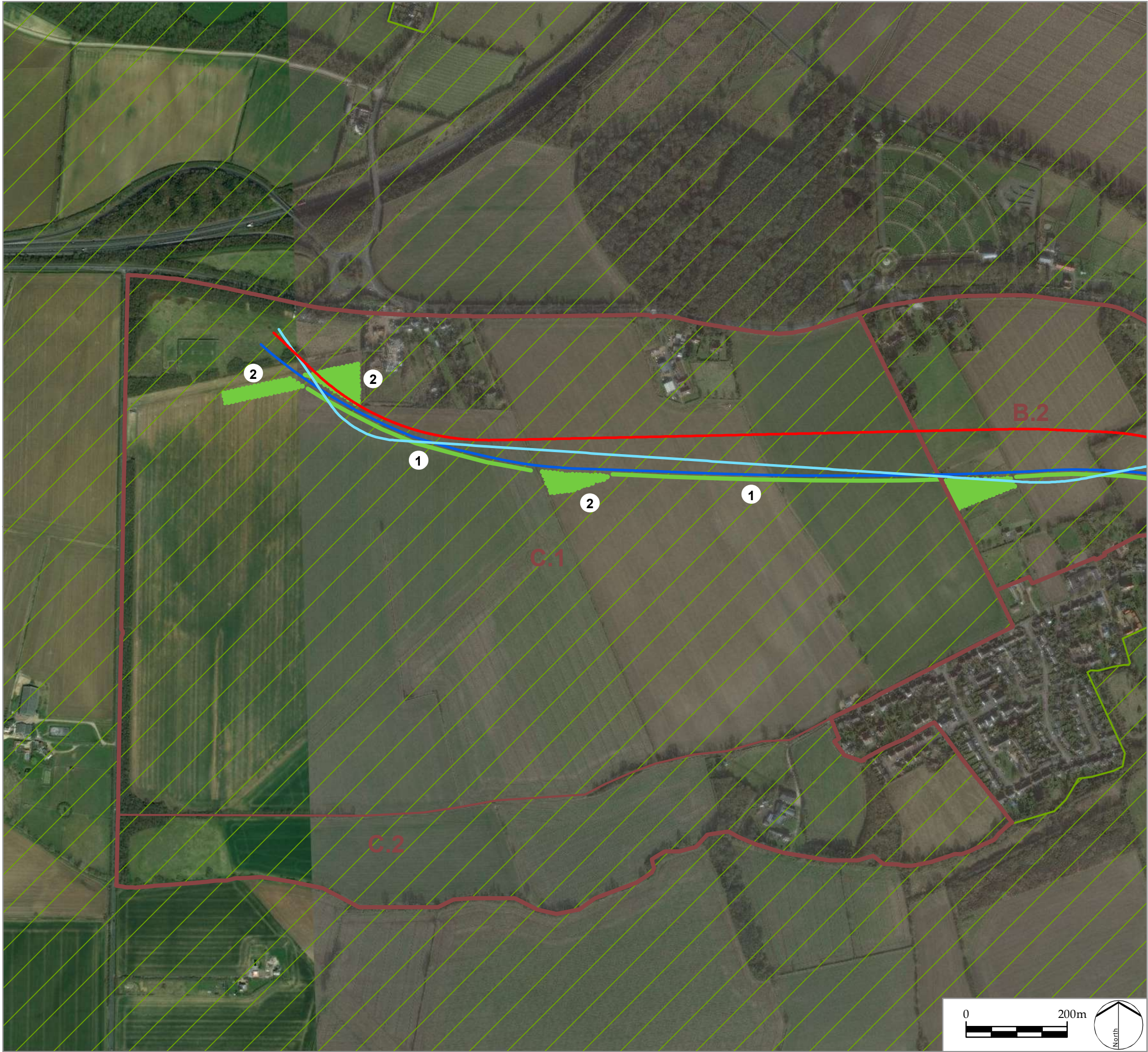
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Figure 6:
Sector B Mitigation Proposals

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LEGEND

Phase 1 Preferred Option - Coton Options

Option 1 - Red Route - Northern Route

Option 2 - Light Blue Route - New Proposed Southern Route

Option 3 - Dark Blue Route - Original Southern Route

Green Belt

Assessment Sectors

A.1 Assessment Sub Areas

Note: Mitigation shown for Option 3 – Original Southern Route. Similar mitigation applies to other options.

1. Native species hedgerow with occasional hedgerow trees along southern side of route

2. Woodland planting (native species appropriate to local area) to strengthen landscape structure

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CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
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Figure 7:
Sector C Mitigation Proposals

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**Appendix 3: Cambourne to Cambridge Rapid Transport Route -
Phase 2 Consideration of Green Belt Issues by LDA dated
September 2019**

Cambourne to Cambridge Rapid Transport Route – Phase 2

Consideration of Green Belt Issues

September 2019

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Version: 0.3

Version date: 27/09/19

Comment Final

This document has been prepared and checked in accordance with ISO 9001:2015.

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Figure 4: Cultural Designations

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Figure 10: Gateways and Approaches

Figure 11: Townscape and Landscape Role and Function

Figure 12: Sector A Analysis

Figure 13: Sector B Analysis

Figure 14: Sector C Analysis

Figure 15: Photograph 1

Figure 16: Photographs 2 and 3

Figure 17: Photographs 4 and 5

Figure 18: Photographs 6 and 7

Figure 19: Photographs 8 and 9

Figure 20: Photographs 10 and 11

Figure 21: Photographs 12 and 13

Figure 22: Photographs 14 and 15

1.0 Introduction

1.1. Appointment and Scope

- 1.1.1. This study was commissioned by Cambridgeshire County Council on behalf of the Greater Cambridge Partnership (referred to in this report as the County) in July 2019. The study considers potential options for the alignment of a stretch of the proposed public transport link between Cambourne and Cambridge, between Maddingley Mulch Roundabout at the junction of the A428 and St Neots Road, and the eastern edge of Hardwick. This stretch of the route will run through the Cambridge Green Belt.
- 1.1.2. This stretch of the proposed public transport link forms part of the longer proposed Phase 2 route between Cambourne and Maddingley Mulch Roundabout, with the stretch from Hardwick to Cambourne being located outside the Green Belt.
- 1.1.3. Phase 1 of the route will run between from the vicinity of Maddingley Mulch Roundabout on the A428 to the western edge of Cambridge and was the subject of a separate report issued in September 2017, with an addendum issued in August 2019 to review refined route options.
- 1.1.4. A series of options for the alignment of Phase 2 of the public transport link between Maddingley Mulch Roundabout and Cambourne have been consulted on during 2019 by the Greater Cambridge Partnership. In addition to the route options, two options for a Park & Ride facility have also been consulted on. These are both located within the Green Belt; one at Scotland Farm, north of the A428 at the junction with Scotland Road, and one named Waterworks straddling St Neots Road and accessed off Maddingley Mulch Roundabout.
- 1.1.5. This report assesses Green Belt considerations in relation to the three route options presented in the public consultation document, as well as the two Park & Ride options. It is acknowledged that other options may be considered, which would need to be assessed in relation to Green Belt considerations if they are taken forward.
- 1.1.6. This report forms one of many considerations in assessing the emerging preferred options for the public transport link.

1.2. Proposed Development

- 1.2.1. Cambourne to Cambridge Better Public Transport aims to deliver a sustainable transport network/system that connects areas between Cambourne and Cambridge along the A428/A1303, as well as contribute to enhanced quality of life by relieving congestion and improving air quality within the surrounding areas along the A428/A1303 and within Cambridge city centre. It also looks to improve the cycling and walking links between Cambourne and Cambridge. It will help connect communities with employment sites, the city and each other. It is a scheme promoted by the Greater Cambridge Partnership, an agreement set up between a partnership of local organizations and Central Government, to help secure future economic growth and quality of life in the Greater Cambridge city region.
- 1.2.2. This project aims to deliver new high-quality public transport, cycling and walking infrastructure. This would increase the number of choices people have to travel, and in

turn help to reduce congestion and improve quality of life. This is needed to accommodate the planned growth in the area.

- 1.2.3. The proposed public transport link from Madingley Mulch Roundabout, on the A428, to the edge of Hardwick would run through Green Belt land.
- 1.2.4. Figure 1 shows the potential route options considered in this study, as well as the two Park & Ride options. In brief, the route and Park & Ride options are as follows, with further detail provided in Sections 8-10 of this report:
 - Option 1 (Off-road segregated route) - would provide an off-road public transport route, in the space between the existing A428 and St Neots Road. It would require the removal of much of the existing vegetation between the two routes, to create a new carriageway 6.0-7.3m wide with grass verges to either side. The existing roads would be retained on their current alignments.
 - Option 2 (On-road with junction improvements – low-cost alternative) - would utilise the existing alignment of St Neots Road and be provided entirely on existing roads.
 - Option 3 (On-road with public transport priority lanes) – would also run along St Neots Road, but would create bus priority lanes along both sides of the existing carriageway. This would require St Neots Road to be widened to approximately 14m, to allow a central carriageway of 6m and public transport lanes 4m wide to either side. This option would require some removal of vegetation along the north of St Neots Road, but to a lesser extent than Option 1.
 - Scotland Farm Park & Ride – This option would be located adjacent to Scotland Road to the west and the A428 to the south. Current proposals indicate that the Park & Ride would be accessed from a new signalised junction off Scotland Road. It would not be located on the route of the proposed public transport link between Cambourne and Cambridge.
 - Waterworks Park & Ride - This option would be located to the west of the Madingley Mulch Roundabout and south of the A428, extending across St Neots Road and into the field to the south. Current proposals indicate that the main Park & Ride access would be from Madingley Mulch Roundabout and then via a signalised junction on St Neots Road, which would also allow access between the two parts of the site. The proposed public transport link between Cambourne and Cambridge would approach the Park & Ride from the west, along St Neots Road, utilising one of the options considered later in this report. The public transport link would then continue south of the Park & Ride utilising one of the options considered in the August 2019 Phase 1 Addendum report.

1.3. Structure of the Report

- 1.3.1. Section 2 summarises the relevant policy background applicable to Green Belt openness and purposes in the Cambridge context and reviews relevant previous policy and studies that have identified specific elements or qualities of Cambridge and its surrounding landscape that are relevant to Green Belt purposes.

- 1.3.2. Section 3 outlines the overarching considerations that apply to the proposed route options for the public transport route through the Cambridge Green Belt, as well as those relating to the Park & Ride options within the Green Belt.
- 1.3.3. Section 4 describes the methodology used in carrying out this study.
- 1.3.4. Section 5 presents the results of baseline studies and analysis, which enable Cambridge and its surroundings to be understood in the context of Green Belt openness and purposes.
- 1.3.5. Section 6 draws out qualities of the city and its surrounding landscape that contribute to the performance of Green Belt purposes.
- 1.3.6. Section 7 introduces the sector assessments for the different sectors.
- 1.3.7. Sections 8-10 contain detailed assessments of the proposed route and Park & Ride options within each of the Green Belt sectors, in terms of whether the routes or Park and Ride facilities preserve the openness of the Green Belt or would conflict with Green Belt purposes. The test of the new NPPF (2019) has then been applied to identify any potential harm to Green Belt that would arise from the different options, before a separate judgement has been made on the degree of any potential harm to the Green Belt.
- 1.3.8. Section 11 provides conclusions in relation to both the route and Park & Ride options.

2.0 Policy and Previous Studies

2.1. Green Belt Policy Tests

- 2.1.1. Paragraph 146 of the National Planning Policy Framework (NPPF) states that certain forms of development are ‘not inappropriate’, provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in Green Belt. These forms of development include ‘local transport infrastructure which can demonstrate a requirement for a Green Belt location’. The Planning Appraisal prepared by Strutt and Parker demonstrates that a Green Belt location is required for the proposed development.
- 2.1.2. On the basis that the proposed public transport link would comprise 'local transport infrastructure which can demonstrate a requirement for a Green Belt location', the test under paragraph 146 is whether the scheme would preserve the openness of the Green Belt and not conflict with the purposes of including land in Green Belt.
- 2.1.3. Paragraph 143 states that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. Paragraph 144 states that, when considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. ‘Very special circumstances’ will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.
- 2.1.4. This report therefore firstly considers whether the proposed route options and Park & Ride sites preserve the openness of the Green Belt and avoid conflict with Green Belt purposes. Where the report identifies that openness is not preserved or there is conflict with any Green Belt purposes, the report identifies the degree of potential harm to the Green Belt. The Planning Appraisal prepared by Strutt & Parker sets out wider considerations regarding the overall planning balance of the scheme, including matters related to Green Belt and whether the proposals are not inappropriate development or whether very special circumstances are considered to be required.

2.2. Openness of the Green Belt

- 2.2.1. Paragraph 133 of the NPPF states that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open. The essential characteristics of Green Belts are their openness and their permanence. Whilst the NPPF does not contain a definition of openness, it is usually understood to mean the absence of built development.
- 2.2.2. In addition, Planning Practice Guidance on Green Belt identifies matters that may need to be taken into account when assessing the impact of proposals on Green Belt, including:
 - openness is capable of having both spatial and visual aspects – in other words, the visual impact of the proposal may be relevant, as could its volume;

- the duration of the development, and its remediability – taking into account any provisions to return land to its original state or to an equivalent (or improved) state of openness; and
- the degree of activity likely to be generated, such as traffic generation.

2.2.3. Since both the Rapid Transport Route and the Park & Ride facility are intended to be permanent, remediability is not relevant. As the proposed public transport link will only be used by buses and occasional maintenance or emergency vehicles, the degree of activity will be low; this is taken into account where appropriate in the assessments in sections 8-10 of this report. However, the Park & Ride facility is likely to generate a much higher degree of activity, which is also taken into account where appropriate in the assessments in sections 8-10 of this report.

2.3. Green Belt Purposes

2.3.1. At the national level, paragraph 134 of the NPPF sets out five purposes for Green Belt. The five purposes are as follows:

1. To check the unrestricted sprawl of large built-up areas
2. To prevent neighbouring towns merging into one another
3. To assist in safeguarding the countryside from encroachment
4. To preserve the setting and special character of historic towns
5. To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

2.3.2. These purposes are referred to in this report as the **National Green Belt purposes**. Although they are not numbered in the NPPF, they are numbered in this report for ease of reference.

2.3.3. National Green Belt purpose 5 appears from its wording to be equally applicable to all Green Belt land and is therefore not relevant in identifying the relative importance of different areas of Green Belt land to the performance of Green Belt purposes. In addition, the route chosen for the proposed public transport link or Park & Ride facility does not make any difference to the degree to which this purpose is performed. Consequently, it is not considered further in this study.

2.3.4. At a local level, three purposes have been defined for the Cambridge Green Belt in local policy¹. They are as follows:

1. Preserve the unique character of Cambridge as a compact, dynamic city with a thriving historic centre
2. Maintain and enhance the quality of its setting

¹ Refer to Cambridge Local Plan 2018, Adopted October 2018. Cambridge Green Belt purposes identified at paragraph 2.52 and South Cambridgeshire Local Plan, Adopted September 2018. Cambridge Green Belt purposes identified at paragraph 2.30.

3. Prevent communities in the environs of Cambridge from merging into one another and with the city.

2.3.5. These are referred to as the **Cambridge Green Belt purposes** in this report and have similarly been numbered for ease of reference, although they are unnumbered in the relevant policy documents.

2.3.6. The principal relationships between the Cambridge Green Belt purposes and the National Green Belt purposes are readily apparent from their wording. Cambridge Green Belt purpose 1 (character) and 2 (setting) derive from National Green Belt purpose 4. Cambridge Green Belt purpose 3 (merging) clearly relates to National Green Belt purpose 2 but, since the presence of necklace villages close to the outskirts of Cambridge is widely recognised as a key element of the city's character, it is also relevant to National Green Belt purpose 4. When the qualities that contribute to character and setting are considered in greater detail, other relationships between the Cambridge Green Belt purposes and the National Green Belt purposes become apparent. For example, various aspects of the character and setting of Cambridge also contribute to the performance of National Green Belt purposes 1, 2 and 3. These interrelationships are highlighted further in section 6 of this report, particularly within the table in section 6.1.

2.4. Previous Studies

2.4.1. The Cambridge Inner Green Belt Boundary Study, November 2015, was undertaken by LDA Design for Cambridge City Council and South Cambridgeshire District Council. Section 2.3 of the Study sets out a series of policy documents and previous studies that have identified relevant qualities of Cambridge and its surrounding landscape that contribute to the performance of Green Belt purposes. This study does not repeat that information, but accepts the conclusion of that chapter of the 2015 study, as follows:

"Whilst there is significant variation in the number of Green Belt qualities mentioned in the various studies and policy documents, there is notable consistency among those mentioned, with a number of substantively the same qualities mentioned in several different documents. The up to date analysis undertaken in the course of the present study largely confirms the relevance of the previously identified qualities as criteria for the Green Belt assessment."

3.0 Overarching Green Belt Considerations

3.1. Strategic Approach to Development around Cambridge

- 3.1.1. Cambridge City Council and South Cambridgeshire District Council, under the duty to cooperate and given the interdependencies between the two Councils through the location of key employment sites, patterns of travel to work and access to services and facilities, have jointly considered the approach to sustainable development in and around Cambridge. South Cambridgeshire District set out at paragraph 2.44 of their Adopted Local Plan (September 2018) that the sustainable development sequence for the two authorities is about:

“balancing the sustainability merits of land on the edge of Cambridge in terms of accessibility to services and facilities and reducing emissions with the sustainability merits of land in the Green Belt on the edge of Cambridge in terms of protecting the special characteristics of Cambridge as a compact historic city”.

- 3.1.2. Paragraph 2.46 goes on to state:

“Cambridge City Council and South Cambridgeshire District Council jointly reached the view on the extent of change on the edge of Cambridge where only minor revisions to the inner Green Belt boundary are proposed in the Local Plans”.

- 3.1.3. The Adopted version of the Cambridge Local Plan (October 2018) indicates at paragraph 2.25 that the sustainable development strategy is:

“a considerable challenge for the Cambridge area. There is a need for new homes to support the jobs. The aim is to provide as many of those new homes as close to the new jobs as possible to minimise commuting and to minimise and mitigate harmful effects for the environment, climate change and quality of life. The need for jobs and homes has to be considered within the context of a tightly-drawn Green Belt, which aims to protect the unique character of Cambridge as a compact, dynamic city with a thriving historic centre, maintain and enhance the quality of the city’s setting, and prevent the city merging with the ring of necklace villages. The Green Belt and its purposes help underpin the quality of life and place in Cambridge, which are fundamental to economic success. Achieving an appropriate balance between these competing arms of sustainable development is a key objective of the development strategy for the new local plans”.

- 3.1.4. It continues at paragraph 2.27:

“The overarching development strategy for the administrative areas of both Cambridge and South Cambridgeshire for the period to 2031 follows a broadly similar sequence for the preferred location and distribution of new development as the 2006 strategy. Put simply, the preferred sequential approach for new development can be described as: (first) being within the existing urban area of Cambridge; (second) being within the defined fringe sites on the edge of Cambridge; (third) within the six small-scale Green Belt sites proposed to be released from the inner Green Belt boundary, four of which are within the city; (fourth) within existing and newly identified new settlement locations at Cambourne, Northstowe, Bourn Airfield and Waterbeach; and lastly in identified villages.”

- 3.1.5. The protection of the Green Belt on the edge of Cambridge, for the reasons identified above, has resulted in the need to develop new settlements beyond the Green Belt, such as Cambourne and the Bourn Airfield site, and provide the necessary high quality transport infrastructure to allow sustainable travel. In addition, Policy SS/7 of the Adopted South Cambridgeshire Local Plan requires the creation of a comprehensive movement strategy from Cambourne and the allocated Bourne Airfield to Cambridge, as follows:

“The new village will be founded on a comprehensive movement network for the whole village, that connects key locations including the village centre and schools to encourage the use of sustainable modes of travel and includes:

a. Significant Improvements in Public Transport, including:

- i. Provision of a segregated bus link from Cambourne to Bourn Airfield new village across the Broadway, and on through the development to the junction of the St Neots Road with Highfields Road;*
- ii. Any measures necessary to ensure that a bus journey between Caldecote / Highfields and the junction of the A428 and the A1303 is direct and unaffected by any congestion suffered by general traffic;*
- iii. Provision of high quality bus priority measures or busway on or parallel to the A1303 between its junction with the A428 and Queens Road, Cambridge”*

- 3.1.6. This provides the context for the consideration of a proposed improved public transport route from Cambourne to Cambridge, of which the subject of this report, the proposed stretch of public transport link from Madingley Mulch Roundabout to Hardwick and the proposed Park & Ride facility, would form part.

4.0 Methodology

4.1. Introduction

- 4.1.1. This study draws significantly from Cambridge Inner Green Belt Boundary Study (November 2015) (the 2015 study), as did the 2017 Phase 1 study. The principal requirement of that study is to assess how land in the Inner Cambridge Green Belt performs against Green Belt purposes. Both National Green Belt purposes (with the exception of purpose 5) and Cambridge Green Belt purposes are considered, as identified in section 2.4 of this study.
- 4.1.2. This study is required to take the assessment process a stage further than the 2015 study and assess whether the different route and Park & Ride options would preserve the openness of the Green Belt or conflict with the purposes of including land in Green Belt. In situations where openness is not preserved or there would be potential conflict with Green Belt purposes, the degree of Green Belt conflict that would result is then considered.

4.2. Methodology

- 4.2.1. The methodology for this study broadly follows that of the 2015 study, but as follows:
- Stage 1: Identification of sectors and sub areas within the Green Belt to form the basis of the assessment;
 - Stage 2: Baseline studies and analysis to inform considerations relevant to openness of the Green Belt and potential conflict with Green Belt purposes;
 - Stage 3: Identification of qualities to inform the assessment of preservation of openness and the identification of any conflict with Green Belt purposes; and
 - Stage 4: Assessment of sectors to identify:
 - whether the proposed route options preserve the openness of the Green Belt; and
 - whether the proposed route options conflict with Green Belt purposes.

- 4.2.2. These stages are described in further detail below.

Stage 1: Identification of Sectors and Sub Areas within the Inner Green Belt

- 4.2.3. The sectors and sub areas used for the assessment are shown on Figure 2. The sectors are defined on a simple spatial basis utilising the sector identified as part of the 2017 study west of Coton as a starting point. Roads are used to divide one sector from another. This provides a clear and robust structure for presentation of the assessment.
- 4.2.4. The definition of the sectors on a simple spatial basis, as described in the previous paragraph, does not reflect variations in land use, character or context, which occur in the majority of the sectors. All sectors are therefore divided into sub areas where there are clear changes in these characteristics that would affect the application of the assessment criteria to different areas of land. This enables a robust and transparent assessment of the various sub areas.

Stage 2: Baselines Studies and Analysis (Section 5 of this Report)

- 4.2.5. A series of studies were undertaken as part of the 2015 study, to build up an understanding of Cambridge and its surrounding landscape, in the context of the considerations which are relevant to the performance of Green Belt purposes and to inform the assessment of openness. These extended out far enough to cover all of the proposed route options from Madingley Mulch Roundabout to Hardwick. The studies cover a range of aspects which have a bearing on how the issues raised by Green Belt purposes (sprawl, merging, encroachment, setting and character) are manifested in Cambridge and its surrounding landscape or are perceived by residents or visitors to the city. They include matters relating to the physical form and scale of the city, its historical development, its relationship to its hinterland, townscape and landscape character, the experience of approaching and arriving at the city, and how the city is perceived from the surrounding landscape.
- 4.2.6. Townscape character assessment assists not only in identifying the historic core of the city but also in identifying other areas of townscape which are distinctive to Cambridge and contribute to its particular character. Its findings reflect the historical development of the city and contribute to an understanding of the nature of the urban edges which adjoin the Green Belt, and the character of the villages within the Green Belt. Landscape character assessment assists in identifying important components of the landscape setting of the city and the wider countryside, enabling it to be studied within its context, and the relationship between the city and its surroundings to be properly understood. These assessments are therefore of particular relevance to National Green Belt purpose 4 and Cambridge Green Belt purposes 1 and 2.
- 4.2.7. The findings of the baseline studies, so far as relevant to the areas affected by the route and Park & Ride options, are summarised in section 5 of this report and are taken directly from the 2015 study.
- 4.2.8. The findings of the baseline studies and analysis are presented on a series of drawings and photograph panels. Figures 3-11 show the extent of the proposed route and Park and Ride options. Figures 12-14 illustrate the key Green Belt considerations that relate to each sector. Figures 15-21 are photograph panels that illustrate the findings of the baseline analysis.

Stage 3: Identification of Qualities Relevant to Openness and Green Belt Purposes (Section 6 of this Report)

- 4.2.9. This stage draws from the surveys and analysis work in stage 2 to identify how the 16 qualities of the city and its surrounding landscape identified in the 2015 study, which directly contribute to openness and the performance of Green Belt purposes, relate to each of the assessment sectors. Seven of the qualities relate to areas of Green Belt close to the edge of Cambridge, so are not relevant to areas more remote from the city such as those which are the subject of this report. The analysis in this report is therefore limited to the nine qualities which are relevant to all parts of the Green Belt, although all 16 qualities are set out in section 6 for completeness.

Stage 4: Assessment of Sectors (Sections 8-10 of this Report)

- 4.2.10. Sections 8-10 of this report contain detailed assessments of the proposed route and Park & Ride options within each of the Green Belt sectors, in terms of whether the options preserve the openness of the Green Belt or would conflict with Green Belt purposes.
- 4.2.11. Initially, the nine relevant qualities identified in stage 3 are used as the criteria against which the sectors and sub areas are considered to identify key considerations relevant to openness and Green Belt purposes within each sub area. The assessments are presented in a tabulated format for each sector, with summary text at the end of the table drawing out the key points from the criteria-based assessment of each sub area under the two headings of openness and Green Belt purposes.
- 4.2.12. Within each sub area, the degree to which the openness of the Green Belt would be preserved is considered for each of the different route or Park & Ride options. This has two main aspects in relation to this assessment, the volume or physical size of the proposed development and its visual impact. Where either of these two aspects indicates a potential reduction in openness, other aspects are considered, including the duration of the effect and the purpose of the development.
- 4.2.13. For the purposes of the assessment, it is considered that:
- Where the route is constructed over flat landform or across the face of a slope requiring relatively modest and balanced cut and fill to create the bus route, the necessary earthworks would not affect openness. A reduction in openness could arise where the route is significantly elevated above existing ground levels or where there is more substantial cut and fill or a significant imbalance between cut and fill.
 - Where there would be a visible change to the character of the landscape, there may be a reduction in openness.
 - The surface of the public transport link and footway/cycleway, and the physical guides alongside the busway would not affect openness.
 - Signage, lighting and road markings near road crossings would not affect openness.
- 4.2.14. Within each sub area, any potential conflict with Green Belt purposes as a result of the different route options is also assessed, using the 'Qualities Relevant to Openness and Green Belt Purposes' as the starting point. For the purposes of this report, any negative effect on a particular Green Belt purpose, even if only slight, is considered to be a conflict with the Green Belt purpose.
- 4.2.15. The assessments conclude with commentary on whether the option preserves openness or conflicts with Green Belt purposes. This is followed by a separate judgement on the degree of any potential Green Belt conflict.

5.0 Baseline Studies and Analysis

5.1. Introduction

- 5.1.1. As stated above, this section summaries the key findings of a series of studies undertaken in the 2015 study, which build up an understanding of Cambridge and its surrounding landscape, focussing on considerations that are relevant to the performance of Green Belt purposes. These covered a range of aspects that have a bearing on how the issues raised by Green Belt purposes are manifested in Cambridge and its surrounding landscape or are perceived by residents or visitors to the city. They include matters relating to the physical form and scale of the city, its historical development, its relationship to its hinterland, townscape and landscape character, the experience of approaching and arriving at the city, and how the city is perceived from the surrounding landscape. Whilst these studies were originally undertaken to understand the contribution of the Cambridge Green Belt to Green Belt purposes, they also inform consideration of openness.
- 5.1.2. The material has been checked, validated and updated as necessary for the purposes of the present study, by means of desktop studies, site survey and analysis.

5.2. Historical Development of Cambridge and the Villages

- 5.2.1. Key points:
- Location of Cambridge at a meeting point of several landscapes: Fens to the north and east, Claylands to the west, Chalk Ridge to the south and east.
 - A small town until the 19th century.
 - Substantial growth during the 19th and 20th centuries, continuing into the early 21st century.
 - Little expansion west of the city, save for the University's West Cambridge site being developed in recent years.
 - Varied local factors influencing the location and form of villages.
 - Distinctive character of many villages and notable landscape features within them.

5.3. Environmental Designations

- 5.3.1. There are numerous environmental designations within Cambridge and the Green Belt, covering a range of habitats and with many different reasons for designation, which contribute to the character and setting of the city. Those within the area covered by the proposed public transport link and Park & Ride facilities are shown on Figure 3.
- 5.3.2. Key points:
- Relatively few environmental designations in the vicinity of the proposed route options and Park & Ride facilities.
 - SSSI covering Madingley Wood.
 - County Wildlife Site along road verge of A428 slip road.

5.4. Cultural Designations

5.4.1. Figure 4 shows cultural designations within the relevant section of the Green Cambridge Belt, which contribute to the character and setting of the city.

5.4.2. Key points:

- Conservation Area and listed buildings in Coton, southern part of Hardwick and Madingley.
- Registered Parks and Gardens at Cambridge American Cemetery, Madingley Hall and Childerley Hall.

5.5. Recreational Routes and Country Parks

5.5.1. Figure 5 shows recreational routes within and through the Cambridge Green Belt, as well as the locations of country parks close to edge of Cambridge. These contribute to the character and setting of the city, and also allow access into the countryside close to the edge of the city.

5.5.2. Key points:

- Limited rural rights of way network, predominantly direct routes between villages e.g. Dry Drayton to Hardwick and Hardwick to Coton.
- Long distance footpath routes through area (Wimpole/Harcamlow Way through Coton and south of Hardwick, and Pathfinder long Distance Walk through Dry Drayton).
- Country Park in the rural landscape south east of Coton.

5.6. Topography and Geology

5.6.1. Figure 6 illustrates the topography of the Cambridge Green Belt and the surrounding area.

5.6.2. Key points:

- Topography reflects two of the three landscapes that surround Cambridge: Fens and Claylands.
- Proposed route options run from a ridgeline of the Claylands towards the city.
- Proposed Park & Ride facilities also located on the ridgeline or more minor ridgelines from it.

5.7. Townscape Character

5.7.1. Townscape character assessment (see Figure 7) assists not only in identifying the historic core of the city but also in identifying other areas of townscape which are distinctive to Cambridge and contribute to its particular character. However, this has previously only been undertaken within Cambridge and Green Belt villages relevant to previous studies. Madingley is sufficiently physically and visually separated from any of the proposals for its townscape character to be unaffected and both Dry Drayton and Hardwick are located outside the Green Belt.

5.8. Landscape Character

5.8.1. The characterisation approach adopted for the built area of Cambridge has been extended into the landscape (see Figure 8). Understanding landscape character is fundamental to understanding what gives a landscape its distinctive identity. Landscape character assessment assists in identifying important components of the landscape setting of a settlement. It enables the settlement to be studied within its context, and the relationship between the settlement and its surroundings to be properly understood. This assessment has only been undertaken within the boundaries of the Green Belt, since areas beyond the Green Belt boundary are not relevant to this study.

5.8.2. Key points:

- Three main landscapes of Fens, Claylands and River Valleys.
- All route and Park & Ride options pass through the Western Claylands.

5.9. Green Corridors into Cambridge

5.9.1. Green corridors are widths of countryside or green space, with public access, penetrating from the open countryside into the urban fabric of Cambridge. However, given the separation between the edge of Cambridge and the route and Park & Ride options, these are not relevant to this current study.

5.10. Visual Assessment

5.10.1. Figure 9 shows the results of a visual assessment of Cambridge, with particular emphasis on the interrelationship between the city edge and the surrounding landscape. However, given the separation between the edge of Cambridge and the route and Park & Ride options, many of the features identified in previous studies are not relevant to this current study.

5.10.2. Key points:

- Distinctive/memorable features in the surrounding countryside, to the east of the current area of interest.

5.11. Approaches and Gateways

5.11.1. The 2015 study identifies the character of approaches and gateways to Cambridge (see Figure 10). However, given the separation between the edge of Cambridge and the Phase 2 route and Park & Ride options, these are not relevant to this current study. There are no views of the city from the areas covered by this study.

5.12. Pattern of Distribution of Villages

5.12.1. Cambridge is surrounded by an open rural landscape containing a number of villages. Villages are scattered throughout the Green Belt of Cambridge, with patterns related to their origins and development over time. Figure 8 shows landscape types and character areas, each with their characteristic settlement pattern.

- 5.12.2. Coton forms one of the necklace villages around Cambridge and remains physically separated from Cambridge by the M11 and an area of orchards. The West Cambridge development has extended Cambridge westwards towards Coton.
- 5.12.3. Madingley to the north of the current area of interest is sufficiently physically and visually separated from any of the proposals to be unaffected by the route or Park & Ride options. Dry Drayton to the north and Hardwick to the south are located outside the Green Belt, so are not relevant to this study.
- 5.12.4. Key points:
 - Villages scattered throughout the Green Belt, with their distribution reflecting local landscape characteristics.
 - Presence of villages close to Cambridge contributes significantly to the quality of the setting of the city.
 - Coton remains separated from Cambridge by orchards and the M11, despite development at West Cambridge.

5.13. Character and Identity of Villages

- 5.13.1. Each village possesses qualities which contribute positively to their character and identity and therefore to the quality of the setting of Cambridge.
- 5.13.2. Coton forms one of the necklace villages around Cambridge. It has remained relatively compact, with some more recent development to the east and west. It retains its historic core at the centre of the village, with areas of countryside immediately adjacent to this historic core, north and south of the village.
- 5.13.3. Key points:
 - Villages vary in their size, form and other qualities, so that each village has its own particular character and identity.
 - Individual identity is most intact in villages which avoided large 20th century expansion but has been diluted in those which saw significant 20th century growth.
 - Inner necklace villages enrich the setting of Cambridge and emphasise the rural character of the landscape surrounding the city.
 - Coton retains its historic core and remains relatively compact in its rural setting.

5.14. Townscape and Landscape Role and Function

- 5.14.1. The assessment of the 'function' that townscape and landscape plays in contributing to the distinctiveness of Cambridge (see Figure 11) and its setting is based on a methodology established by LDA Design and endorsed by the Countryside Agency (The Countryside Agency and Scottish Natural Heritage, 2002). This methodology was piloted in Winchester (Landscape Design Associates, 1998) and subsequently developed on other projects relating to historic towns and cities.
- 5.14.2. Distinctive Townscape/Landscape consists of those areas that are specifically recognisable and distinctive to the city. They include townscape and landscape

components such as distinctive buildings, quintessential views, the interaction of buildings forming spaces or the setting to local events, topographical features, setting and backdrops to the city, areas of rich biodiversity, historic approach routes and landmarks of distinctive character. These areas, frequently contiguous with the Historic Core, often borrow from or bestow character to it. Distinctive townscape / landscape is so distinctive to the city that similar areas or features are unlikely to be found in other historic towns and cities and it may well be unique.

- 5.14.3. Supportive Townscape/Landscape consists of those areas of townscape/landscape that support the character of the Historic Core and Distinctive areas of the city. They provide the backdrop and ambience, and bolster the sense of place of the city and its approaches. Supportive areas and features are of a kind that may be found in other towns and cities but, due to their particular location or the way they influence the character and setting of the city, they are locally distinctive, recognisable to those familiar with the city as important elements of its character and identity.
- 5.14.4. Connective Townscape/Landscape consists of those areas of townscape/landscape that are an integral part of the city and its environs but may lack individual distinction or do not make a significant contribution to the setting of the city. This does not signify that these areas are unimportant, or lacking in their own identity; they may have significant merit in their own right. Rather, they are often areas with little relationship to their landscape setting, or to landmarks within the Historic Core or its landscape setting. Due to their location or character, they may contribute little to views of the city or other elements of its setting. Generic development forms with little sense of place can also contribute to the loss of local identity.
- 5.14.5. Key points:
 - Supportive landscape along the A1303 to Madingley Mulch Roundabout, where the relationship of the city to the adjacent rural landscape is an important aspect of its setting.
 - Areas of Connective townscape/landscape present around Coton and may still be important but, depending on individual circumstances, may have potential to accommodate change.
 - Landscape north of A428 and west of Long Road is classified as Outer rural areas of the Green Belt.

5.15. Summary of Baseline Studies and Analysis

- 5.15.1. The studies and analysis presented in this section enable a thorough understanding of aspects of Cambridge and its surrounding landscape that are relevant to openness and Green Belt purposes. The main findings arising from the various studies that are relevant to the proposed public transport link and Park & Ride facility are summarised below and lead to the identification of qualities that directly contribute to openness and the performance of Green Belt purposes. These qualities are set out in section 6.
- 5.15.2. The main findings drawn from the studies and analysis contained in this section are:

- There are relatively few environmental and cultural designations in the vicinity of any of the proposed Phase 2 route or Park & Ride options.
- The rights of way network in the vicinity of the route and Park & Ride options is relatively sparse, although there are still good links between settlements.
- The city has its origins at the meeting point of three landscapes which, in terms of topography and landscape character, are still readily apparent in the landscape surrounding the city at the present day. The route and Park & Ride options are located on the higher ground of the Claylands.
- There is an area of Distinctive landscape along the A1303 and an area of Connective townscape/landscape around Coton, reflecting the important role played by the landscape in the setting of the city.
- The villages surrounding Cambridge are a notable feature, with their distribution reflecting the historic qualities of the landscape, and some villages very close to the city edge. Coton remains relatively compact, with a rural setting, and separated from Cambridge by orchards and the M11. Madingley is sufficiently physically and visually separated from any of the proposals to be unaffected by the route or Park & Ride options and both Dry Drayton and Hardwick are located outside the Green Belt.

6.0 Qualities Relevant to Openness and Green Belt Purposes

6.1. Introduction

- 6.1.1. The baseline studies and analysis summarised in section 5 were undertaken to gain a good understanding of Cambridge and its surroundings, focussing on considerations which are relevant to the performance of Green Belt purposes and openness. From this work, it is apparent that the National Green Belt purposes, Cambridge Green Belt purposes and openness are manifested and performed in various ways specific to Cambridge and its surrounding landscape. This section draws from the 2015 study, which defined 16 qualities of Cambridge and its surrounding landscape which directly contribute to the performance of Green Belt purposes.
- 6.1.2. The 16 qualities are explained in detail in the 2015 study, which is replicated in the remainder of this section where relevant to this study. Further information that is not relevant to the areas covered by this study is provided in the 2015 study. The qualities are not listed in order of importance. They are all important and each contributes to the performance of Green Belt purposes, as well as an understanding of openness.
- 6.1.3. In terms of Green Belt purposes, the table on the following pages shows the relationship between each of the 16 qualities, the National Green Belt purposes and Cambridge Green Belt purposes. The majority of these qualities contribute to the performance of more than one Green Belt purpose. The table also identifies which qualities are relevant to each of the assessment sectors, as some of the qualities relate more specifically to the edge of the city, whilst others are more relevant in the rural areas.
- 6.1.4. As set out in the methodology in Section 4 of this report, the 16 qualities are used as the criteria for assessing the current level of openness and the contribution to Green Belt purposes of the three sectors and sub areas discussed in section 4.2 and shown on Figure 2. This forms the starting point for the assessment of any potential conflict with Green Belt purposes resulting from the different route and Park & Ride options. The test relating to preservation of openness is addressed separately, as discussed in Section 4.2.

Qualities Relevant to Openness and Green Belt Purposes	National Green Belt Purposes				Cambridge Green Belt Purposes			Relevance to Green Belt Sectors		
	1. Sprawl	2. Merging	3. Encroachment	4. Setting/ Character	1. Character	2. Setting	3. Merging	Sector C	Sector D	Sector E
1. A large historic core relative to the size of the city as a whole	*			*	*					
2. A city focussed on the historic core				*	*					
3. Short and/or characteristic approaches to the historic core from the edge of the city	*			*		*				
4. A city of human scale easily crossed by foot and by bicycle	*			*	*					
5. Topography providing a framework to Cambridge				*		*		*	*	*
6. Long distance footpaths and bridleways providing access to the countryside				*		*		*	*	*
7. Key views of Cambridge from the surrounding landscape				*		*		*	*	*
8. Significant areas of Distinctive and Supportive townscape and landscape				*	*	*		*	*	*
9. A soft green edge to the city			*	*		*				
10. Good urban structure with well-designed edges to the city	*									
11. Green corridors into the city	*			*	*	*				
12. The distribution, physical and visual separation		*		*	*	*	*	*	*	*

Qualities Relevant to Openness and Green Belt Purposes	National Green Belt Purposes				Cambridge Green Belt Purposes			Relevance to Green Belt Sectors		
	1. Sprawl	2. Merging	3. Encroachment	4. Setting/ Character	1. Character	2. Setting	3. Merging	Sector C	Sector D	Sector E
of the necklace villages										
13. The scale, character, identity and rural setting of the necklace villages		*		*		*	*	*	*	*
14. Designated sites and areas enriching the setting of Cambridge				*		*		*	*	*
15. Elements and features contributing to the character and structure of the landscape	*			*		*		*	*	*
16. A city set in a landscape which retains a strongly rural character			*	*		*		*	*	*

6.2. Qualities

1. A Large Historic Core Relative to the Size of the City as a Whole

- 6.2.1. This quality is concerned with compactness, identified by Holford and Myles Wright in their 1950 report (The Holford Report) as being an important characteristic of the city. Cambridge Green Belt purpose 1 refers to 'a compact, dynamic city with a thriving historic centre'. In addition to being a key part of the special character of the city, it is also relevant to the issue of urban sprawl, which would reduce the relative size of the historic core in proportion to the size of the entire city.
- 6.2.2. In the case of Cambridge, its special historic character depends not only on the relatively large and intact historic core, but also on the fact that this has not been 'swamped' by more recent development. Despite the presence of business parks and post-war peripheral housing estates and other development, the scale of the historic core relative to the overall city is such that Cambridge still retains its historic character. If substantial peripheral development were to be permitted in Cambridge, more modern development would begin to dominate and, as the scale of the historic core is fixed, it would be inevitable that the overall historic character of the settlement would begin to be eroded. If Cambridge were to grow beyond a certain point, it would no longer have the character of a historic city, but rather would become merely a city with a historic core - a very different character of settlement. Development has already extended furthest from the historic core to the east and south of the city, in a largely unstructured way that gives the impression of urban sprawl.
- 6.2.3. The issue of scale is, therefore, of vital significance to the protection of the special character of Cambridge. It needs to retain the feeling of being a small city, one still dominated by its historic core, if it is to retain its special character. The Green Belt has an essential role to play in this and the prevention of sprawl.

2. A City Focused on the Historic Core

- 6.2.4. This quality is also relevant to compactness and to Cambridge Green Belt purpose 1. The study by Colin Buchanan and Partners in 2001 (The Buchanan Report) emphasised the importance of the city's historic core and associated university colleges as part of the special character of Cambridge. The buildings and historic core are also identified as Defining Character in the Cambridge Landscape Character Assessment of 2003 (CLCA).
- 6.2.5. The 2015 study describes how Cambridge did not expand much beyond its medieval limits until the 19th century. Today, despite extensive expansion since that time, Cambridge is formed of a network of neighbourhood hubs and commercial areas or developments (such as industrial development around the railway and Cambridge Science Park) located around a single core, which is focused on the medieval area. The core is a vibrant social, cultural and economic focus to the city. There are a finite number of compact, single centred historic cities in the England and this aspect of

Cambridge is an important quality that should be safeguarded. The Green Belt plays an important role in this.

- 6.2.6. There is a danger that, if the city expands much beyond its current size, the existing core will not be accessible to residents of the outer areas of the city due to the distance, and inconvenience of travelling, between residential areas and the centre. This might lead to the development of alternative urban cores that provide the economic and social focus for large areas of the city, competing with the historic centre and irretrievably altering the historic form and function of Cambridge.

3. Short and/or Characteristic Approaches to the Historic Core from the Edge of the City

- 6.2.7. This quality is again associated with compactness and sprawl and is also key to the perception of Cambridge as a historic city when approaching and arriving. The Holford Report identified *'open countryside near the centre of the town on its west side'* as an important characteristic, which is reflected in short, characteristic approaches to the historic core from the west. The importance of a sense of arrival is also emphasised in the CLCA. However, given the separation of the route and Park & Ride options from the edge of Cambridge, this purpose is of limited relevance to this study.

4. A City of Human Scale Easily Crossed by Foot and by Bicycle

- 6.2.8. This quality is also concerned with compactness and sprawl but is unrelated to Cambridge's historic character. It is concerned with how people living and working in the city perceive its compact scale in their day to day lives.
- 6.2.9. Cambridge has a tradition of cycling. Much of the population, particularly students, travel the city by foot or by bicycle. This is made possible by the relatively small size of the city. As Cambridge expands, so does the distance of travel between different parts of the city.
- 6.2.10. The centre and the west sides of Cambridge are of a small, human scale and easily crossed by foot and bicycle. This is a quality of Cambridge, in which the Green Belt plays an important part. However, as with purpose 4 above, the separation of the route and Park & Ride options from the edge of Cambridge, this purpose is of limited relevance to this study.

5. Topography Providing a Framework to Cambridge

- 6.2.11. This quality is central to understanding the setting and history of the city, reflecting Cambridge's origins and location at the meeting point of three landscapes. The significance of topography as a component of the setting of the city is recognised in the CLCA, which identifies 'high ground' as Defining Character.
- 6.2.12. The landform surrounding Cambridge is illustrated on Figure 6. The relationship of the city to the topography is one of the key defining qualities of Cambridge.

6. Long Distance Footpaths and Bridleways Providing Access to the Countryside

- 6.2.13. Once Green Belts have been defined, the NPPF states that they have positive roles to play, including *“looking for opportunities to provide access”* (paragraph 81). The accessibility of the countryside surrounding Cambridge is an important aspect of its setting, enabling people to appreciate the landscape setting and the relationship between the city and countryside.
- 6.2.14. Long distance routes, and also shorter, local footpaths and bridleways providing access into the countryside in the immediate vicinity of Cambridge, are important qualities of the setting and special character of the city that should be preserved and continue to be enhanced.

7. Key Views of Cambridge from the Surrounding Landscape

- 6.2.15. This quality is also an important element of the setting of Cambridge. Views of the historic core are one of the aspects stated in the Structure Plan 2003 to be of particular importance to the quality of the city. They are also identified as Defining Character in the CLCA and are identified in the South Cambridgeshire Core Strategy 2007 (SCCS) as an aspect of the special character of Cambridge.
- 6.2.16. There are a number of viewpoints that are important and the qualities of these views should be preserved and, where possible, enhanced. The viewpoints identified on Figure 9 are amongst the most important on the west side of the city, as it is from these locations that people can best appreciate the various qualities of Cambridge. However, the proposed route and Park & Ride options are located in the opposite direction to the majority of key views and beyond the indicative area of the Green Belt from which Cambridge can be seen.

8. Significant Areas of Distinctive and Supportive Townscape and Landscape

- 6.2.17. The 2015 study demonstrates how areas of Distinctive and Supportive townscape and landscape contribute most strongly to the distinctiveness of Cambridge and its setting. They are, therefore, important areas to protect. However, as discussed in that study, these areas are not in every respect of greater importance than the remaining areas of influence (with the exception of Visually Detracting Townscape/Landscape), as all areas play a crucial role in the setting and perception of the city. The importance of Connective Townscape/Landscape and Outer Rural Areas lies in linking between and forming a foil to areas of Historic Core and Distinctive and Supportive townscape and landscape.
- 6.2.18. Figure 11 identifies Distinctive and Supportive townscape and landscape as the most essential areas to be safeguarded from the adverse effects of development. However, other areas should also be safeguarded from change which would cause adverse effects on the qualities of the setting and special character of Cambridge.

9. A Soft Green Edge to the City

- 6.2.19. The Buchanan Report referred to the interface between the city and the countryside as being an aspect of Cambridge’s special character and the CLCA refers to edges as

having the potential to be either Defining Character or Supporting Character. Soft green edges contribute significantly to the setting of the city, particularly on its west side. They also play a role in National Green Belt purpose 3 in reducing the urbanising influences of the built area on the adjacent countryside.

- 6.2.20. It is important to preserve existing soft green edges and to seek opportunities for planting to improve existing or future city edges which lack this quality. However, the separation of the route and Park & Ride options from the edge of Cambridge, this purpose is of limited relevance to this study.

10. Good Urban Structure with Well Designed Edges to the City

- 6.2.21. This quality is of relevance to National Green Belt purpose 1. One of the factors that contribute to urban sprawl is poorly designed urban edges which do not create a well considered long-term edge to a city. Again, the separation of the route and Park & Ride options from the edge of Cambridge, indicate that this purpose is of limited relevance to this study.

11. Green Corridors into the City

- 6.2.22. The Holford Report referred to '*green wedges along the river*' as being an important quality and they are also identified as such in the Buchanan Report, the City Council's 2002 Inner Green Belt Boundary Study, the Structure Plan 2003, the CLCA and the SCCS. They are key components of the character and setting of the city and also play an important role in maintaining urban structure and thus reducing sprawl. However, given the separation of the route and Park & Ride options from the edge of Cambridge, this purpose is of limited relevance to this study.

12. The Distribution, Physical and Visual Separation of the Necklace Villages

- 6.2.23. This quality is also mentioned in the Holford Report, the Buchanan Report, the City Council's 2002 Inner Green Belt Boundary Study, the Structure Plan, the CLCA and the SCCS. It has long been regarded as an important component of the character and setting of the city and is clearly related to National Green Belt purpose 2.
- 6.2.24. It is essential to preserve the pattern of distribution of villages around Cambridge and their physical separation from other settlements. The Green Belt provides protection for the countryside around and between settlements. Although all areas of open countryside in the Green Belt play a role to a greater or lesser extent in separating settlements, those areas of land that are considered to be most critical in separating settlements within the immediate setting of Cambridge must be protected. The role of individual areas in maintaining separation between settlements requires careful consideration of topography and vegetation, which can prevent intervisibility, and of land that is perceived as being part of the setting of a particular village and thus 'belonging' to that village rather than another.

13. The Scale, Character, Identity and Rural Setting of the Necklace Villages

- 6.2.25. The Buchanan Report specifically refers to the character of the villages surrounding the city, and the qualities of setting, scale and character of the villages are also referred to

in the SCCS. The varying sizes and character of the villages, each with their own distinct identity, is an important component of the setting of the city.

- 6.2.26. It is apparent that the villages that saw significant growth in the 20th century have become more generic and are less distinctive than those that saw little growth, where the historic character and the relationship between all parts of the village and the surrounding landscape remains largely intact.
- 6.2.27. The rural setting of villages is also a fundamental component of their character. Despite the proximity of Cambridge, all the villages within the study area retain an entirely or largely rural character and it is essential that this should remain the case. The Green Belt has a critical role to play in protecting these qualities of the necklace villages.

14. Designated Sites and Areas Enriching the Setting of Cambridge

- 6.2.28. Designated sites are identified as Supporting Character in the CLCA or, in some circumstances, potentially Defining Character. The SCCS identifies them as a component of the special character of Cambridge.
- 6.2.29. All features, sites and areas covered by environmental, cultural and access designations are important elements that enrich the appearance of the landscape and people's experience of it. They are all part of the setting and special character of Cambridge that should be preserved.

15. Elements and Features Contributing to the Character and Structure of the Landscape

- 6.2.30. This quality is defined as Supporting Character or, on occasion, Defining Character in the CLCA and is identified in the SCCS as a component of the special character of Cambridge. In addition to contributing to the character and setting of the city, this quality is relevant to National Green Belt purpose 1 in that a strong landscape structure provides containment and natural barriers to inhibit urban sprawl.
- 6.2.31. There is a pattern of elements and features within the city and the landscape, ranging from large scale features such hills, rivers, woodlands and tall University buildings, to smaller scale elements such as hedgerows, farm buildings, and a network of smaller watercourses, that are fundamental to the character of different landscape character areas, and also to the setting and special character of Cambridge.

16. A City Set in a Landscape which Retains a Strongly Rural Character

- 6.2.32. The '*open countryside near the centre of the town on its west side*' is identified as important in the Holford Report, and the SCCS identifies this quality as a component of the special character of Cambridge. In addition to character and setting, it is also relevant to National Green Belt purpose 3, in that a strongly rural landscape indicates that encroachment on the countryside is being resisted, whereas countryside that is significantly affected by urban influences creates a perception of encroachment.

- 6.2.33. It is important that the landscape surrounding Cambridge retains this rural character. The rural nature of the landscape around Cambridge is a key quality of the setting and special character of the city, particularly in providing a setting to the urban form when seen from key views, in providing settings to necklace villages, and in contributing to people's perception of the city as they approach it along communication routes.
- 6.2.34. The rural landscape setting is especially apparent in the area west of the city, where the presence of agricultural land immediately adjacent to Distinctive townscape areas and extending into the city close to the historic core is particularly important.

7.0 Introduction to Sector Assessments

7.1. Introduction

- 7.1.1. The following sections of the report assess the three sectors of the Green Belt identified on Figure 2 to understand the key considerations for each sector in relation to openness and their performance in relation to Green Belt purposes, consider whether the proposed route or Park & Ride options could be delivered whilst preserving the openness of the Green Belt, identify any potential conflicts with Green Belt purposes, and finally to identify the degree of any potential Green Belt conflict.
- 7.1.2. The sector assessments are presented in a consistent manner using a standard template. After a brief introduction giving an overview of the sector, the sector is assessed against each of the qualities identified in section 6.2, that are relevant to the sectors being assessed (see table at the end of Section 6.1), to ensure that each sector is considered in relation to all criteria which are relevant to the Green Belt openness and purposes. All sectors are divided into sub areas where the assessment of one or more criteria differs between one part of the sector and another. Sub areas are presented as separate columns within the sector assessment but, where the assessment against a particular criterion is the same for all sub areas, the columns are merged. If the proposed public transport link or Park & Ride facility is unlikely to affect a particular sub area, assessment of that sub area has been omitted. This is the case for sub areas C.2 and E.1-2.
- 7.1.3. Following the criteria-based assessment, conclusions relevant to openness and Green Belt purposes are summarised, drawing out the key points from the criteria-based assessment. This is followed by assessment of the extent to which the openness of the Green Belt will be preserved by the proposals, identification of any potential conflicts with Green Belt purposes, and where necessary, identification of the degree of any potential Green Belt conflict.

7.2. Green Belt Sector Assessments

- 7.2.1. The assessment of the sectors and sub areas is set out on the following pages. The 2015 study showed that almost all areas of land within the Inner Green Belt are important to Green Belt purposes, but the reasons differ from one area to another. It identified that west of the city, the Inner Green Belt plays a critical role in maintaining the impression of a compact city, with countryside close to the historic core. The rural character of the land emphasises this and is seen as the foreground in views from approaches to the city, the M11 and the countryside west of the M11. The land west of the M11 extends this rural character into the wider countryside and forms the rural setting for Coton.

8.0 Assessment of Sector C: West of Coton

8.1. Description of Sector

- 8.1.1. Sector C is located to the north west of Coton, abutting the northern and western edges of the necklace village. The northern boundary generally follows the A1303 but has been extended for this Phase 2 study to include an area of land between the A428 and St Neots Road, which is included in one of the Park & Ride options. The eastern boundary follows the boundary of the gardens to Coton Court and some reservoirs to the north of Coton, at the transition between a small-scale landscape and larger scale arable fields. The southern boundary follows the course of Bin Brook, with the western boundary following the linear alignment of Long Road.
- 8.1.2. Land use in most of the sector is large scale arable farmland (see Photographs 2-3 at Figure 16). However, there are some smaller scale areas to the south of the Harcamlow Way/Wimpole Way, adjacent to Bin Brook (see Photograph 4 at Figure 17), and north of St Neots Road (see Photographs 5-7 at Figures 17-18). The larger arable fields are steeply sloping and contain limited hedgerows. Other than the Harcamlow Way/Wimpole Way, there are no public rights of way through this sector.
- 8.1.3. Three sub areas have been identified within this sector, with the sector having been extended to include sub area C.3 for this study. Of these, the proposed public transport link and Park & Ride options are unlikely to affect sub area C.2, given distance from the options and the relative enclosure of sub area C.2. Sub area C.2 is therefore not assessed below.

8.2. Baseline Assessment of Qualities Relevant to Green Belt Openness and Purposes

- 8.2.1. Figure 12 illustrates the key considerations relevant to both openness and Green Belt purposes in sector C.

Qualities Relevant to Green Belt Openness and Purposes	Sub Area C.1 – Large sloping arable fields	Sub Area C.3 – St Neots Road/A428 loop
5. Topography providing a framework to Cambridge	This sub area is located on the south facing slopes of a clay ridgeline to the west of Cambridge. This is one of a series of ridgelines within the Claylands landscape to the west of Cambridge, which form a key element of the topographic bowl in which Cambridge is located. This provides physical and visual containment to the	This sub area is located on the top of the same clay ridgeline as sub area C.1. The ridgeline would be highly visible from the north and south if the ridgeline wasn't well vegetated. Sub area C.3 also has an area of artificial topography, where the landform is mounded at a higher level than the

Qualities Relevant to Green Belt Openness and Purposes	Sub Area C.1 – Large sloping arable fields	Sub Area C.3 – St Neots Road/A428 loop
	west of the city in a marked contrast to the lower lying ground on which Cambridge is located and the Fen landscape to the north and east of the city, physically manifesting the underlying geology. The sloping topography within this sector makes it highly visible from the south and consequently contributes to the openness of the Green Belt in this location.	surrounding roads.
6. Long distance footpaths and bridleways providing access to the countryside	There is a limited network of footpaths through this sub area, with limited access through the rural setting west of Coton. The exception to this is the Harcamlow Way/Wimpole Way, which is a bridleway in this location and runs along the boundary between sub areas C.1 and C.2, from the western edge of Coton to Long Road.	There are no public rights of way through this sub area. However, there is a cycleway along the southern edge of St Neots Road that is a continuation of a route along the A1303 from Cambridge.
7. Key views of Cambridge from the surrounding landscape	There are no key views in or through this sub area. However, there are occasional panoramic views into the sub area, across open countryside, from the A1303. There are also occasional glimpsed views of some of the landmark features in the historic core of Cambridge when approaching Coton from the west on the Harcamlow	There are no key views in or through this sub area. Vegetation along the A1303 and St Neots Road screens views into the sub area from more distant locations with panoramic views into sub area C.1.

Qualities Relevant to Green Belt Openness and Purposes	Sub Area C.1 – Large sloping arable fields	Sub Area C.3 – St Neots Road/A428 loop
	<p>Way/Wimpole Way. From Red Meadow Hill there is a key view east towards the city. From some locations, it is possible to also see Sector C from Red Meadow Hill (see Photograph 1 at Figure 15), in a separate part of the view to the landmarks within the historic core of Cambridge. There are also additional locations on Red Meadow Hill that have clear views towards sector C. The sloping topography within this sub area makes it highly visible from the south and consequently contributes to the openness of the Green Belt in this location.</p>	
8. Significant areas of Distinctive and Supportive townscape and landscape	<p>The northern edge of the sub area, on the highest ground, forms part of the Supportive landscape associated with the approach to Cambridge on the A1303 and around Madingley Woods. Most of the remainder of the sub area is Connective landscape, forming part of the wider landscape setting to Cambridge.</p>	<p>This sub area is within the outer rural area of the Green Belt.</p>

Qualities Relevant to Green Belt Openness and Purposes	Sub Area C.1 – Large sloping arable fields	Sub Area C.3 – St Neots Road/A428 loop
12. The distribution, physical and visual separation of the necklace villages	Coton is one of the necklace villages surrounding Cambridge. However, the location of the sub areas to the west of the village means that sector C makes no contribution to the physical and visual separation between Coton and Cambridge. Whilst the sub areas provide some physical separation between Coton and Madingley, there are existing transport corridors that provide physical and visual separation at present, alongside existing vegetation and the landform.	
13. The scale, character, identity and rural setting of the necklace villages	The western part of Coton is predominantly post-war suburban housing and not as historic as areas towards the centre of the village. This sector provides part of the rural setting of the village to the north and west. Its relationship with Bin Brook is also a key part of its identity, with the village located on the lower ground in the valley of the brook and the large, sloping arable fields forming containment and a rural setting to the village. This sector is immediately adjacent to the existing edge of Coton. From the west, existing vegetation on the edge of the village screens views of the edge of the village. From the north, a single hedgerow runs along the edge of the village, allowing a stronger visual relationship between the settlement and the adjacent countryside.	This sub area is separated from Coton by sub area C.1 and the vegetation along the A1303 and St Neots Road provides visual separation from the village.

Qualities Relevant to Green Belt Openness and Purposes	Sub Area C.1 – Large sloping arable fields	Sub Area C.3 – St Neots Road/A428 loop
14. Designated sites and areas enriching the setting of Cambridge	These sub areas do not adjoin the Coton Conservation Area. There are no environmental or cultural designations within the sub areas.	
15. Elements and features contributing positively to the character and structure of the landscape	<p>There are relatively few hedgerows through the sub area. Those that do occur are often low, clipped features, running north-south down the slope. There are tree belts along Long Road to the west and the A1303 to the north that create physical and visual containment to the landscape, as well as a tall hedgerow running east to west through the Waterworks Park & Ride site. However, the majority of this sub area is open or contains lower hedgerows, meaning that there is very little physical or visual containment to the east or south, contributing to the visual openness of the Green Belt.</p> <p>An existing mast is located on high ground in the north west corner of this sub area. It forms a prominent feature on the high ground that does not contribute positively to the character of the landscape.</p>	<p>There are tree belts along the A1303 and St Neots Road that create physical and visual containment to the landscape. However, the sub area is contained by road infrastructure, which does not contribute positively to the character of the landscape.</p>

Qualities Relevant to Green Belt Openness and Purposes	Sub Area C.1 – Large sloping arable fields	Sub Area C.3 – St Neots Road/A428 loop
16. A city set in a landscape which retains a strongly rural character	This sub area retains a rural character, with only occasional glimpses of any features identifying the close proximity of Cambridge to the sub area. There are a series of individual properties and a small business park along the A1303, on the high ground on the north edge of the sub area. Coton, as a nucleated village with relatively little modern sprawl, does not detract from the rural character of the sub area.	The sub area is contained by road infrastructure, which does not create a rural character. However, the amount of vegetation around the sub area does soften the infrastructure.

8.3. Key Considerations Relevant to Green Belt Openness

- 8.3.1. The sloping landform and relative lack of vegetation within much of sector C are key considerations in relation to openness within this sector, although sub area C.3 is much more vegetated and contains road infrastructure. It has a rural character, despite the presence of road infrastructure in the north and to the west. There is limited built development within sector C, which consists predominantly of open farmland with occasional individual properties and a small business park along the A1303 to the north of the sector, road infrastructure and the existing mast in the north west corner of the sector.

8.4. Key Considerations Relevant to Green Belt Purposes

- 8.4.1. This sector plays an important role in the wider setting of the west of Cambridge, located on a Claylands ridgeline that forms part of the backdrop to views out from and across Cambridge in this direction. The landform forms part of the edge to the bowl landscape within which Cambridge is set, providing a framework to Cambridge. It is also visible in views from the south, such as from Red Meadow Hill.
- 8.4.2. The sector also forms a key part of the rural setting to Coton, maintaining the rural character north of the village and preventing sprawl of the village north and westward. Woodland belts along the northern and western boundaries of the sector are important to the wooded character of the local landscape and form a positive

feature. Development within the sector is restricted to isolated properties along the ridge line and the existing mast that is also located on the higher ground.

8.5. Proposed Park & Ride Option within the Sector

- 8.5.1. The Waterworks Park & Ride Option is located within this sector. It would be located in the north west of sub area C.1 and extend across St Neots Road into sub area C.3. Current proposals indicate that the main Park & Ride access would be from Madingley Mulch Roundabout and then via a signalised junction on St Neots Road, which would also allow access between the two parts of the site. The proposed public transport link between Cambourne and Cambridge would approach the Park & Ride from the west, along St Neots Road, utilising one of the options considered later in this report. The public transport link would then continue south of the Park & Ride utilising one of the options considered in the August 2019 Phase 1 Addendum report. Existing vegetation in the north of sub area C.3 could be retained, but vegetation along the northern side of St Neots Road would be removed and gaps created in vegetation along the southern side. In addition, vegetation along the field boundary south of the existing mast, within sub area C.1, would need to be removed. New planting in the form of tree belts is proposed to the east and south of the Park & Ride, as well as within the parking areas. The detailed design of this planting has yet to be undertaken.

8.6. Preservation of Green Belt Openness

- 8.6.1. Given the sloping landform within sub area C.1, and the artificially mounded landform within sub area C.3, there will be a requirement for cut and fill operations to ensure level parking areas, which will result in a volume of development within the Green Belt. The exact design of the Park & Ride would determine how large a volume of cut and fill would be required across the two parts of the Park & Ride facility. There would also be a requirement for small buildings such as ticket offices and/or bus shelters within the Park & Ride, which would add built development within the Green Belt. In addition, the parking areas within both parts of the Park & Ride would introduce additional hard surfacing, on which large numbers of vehicles would be parked throughout the day, and the requirement for lighting, which would be visible infrastructure during the day and new lit areas at night. The introduction of increased signage, lighting and road markings near the proposed road junction between the two parts of the site is not considered to affect openness. The removal of vegetation along St Neots Road and south of the existing mast would also increase the visibility of the Park & Ride, particularly in views from the south and from Red Meadow Hill. This visibility could be reduced over time by replacement planting where possible, but visibility would remain in the short to medium term or longer in locations where replacement planting is not possible. Consequently, there would be a reduction in openness of the Green Belt within both sub areas C.1 and C.3.

8.7. Potential for Conflict with Green Belt Purposes

- 8.7.1. The Park & Ride would protrude into the undeveloped countryside within sub area C.1. This would introduce development into an area where very little development is currently visible. Removing vegetation south of the existing mast would remove the containment that the tree belt currently offers. Similarly, within sub area C.3 the removal of the tree belt along the northern side of St Neots Road would remove existing screening and allow increased visibility of the proposed Park & Ride. Although road infrastructure is already present around sub area C.3, the vegetation currently reduces the visibility of that infrastructure. This would result in conflict with National Green Belt purpose 3, which is consequently conflict with Cambridge Green Belt purpose 2 and National Green Belt purpose 4.
- 8.7.2. The landform and the angle of view towards the site would reduce visibility of the proposals from locations to the south, as the foreground landform would screen some views of the Park & Ride. However, the removal of the vegetation south of the existing mast would potentially increase the extent of visibility into the northern part of sub area C.1, including from Red Meadow Hill, as would the presence of lighting within the parking areas. However, the proposed Park & Ride option would be located far enough west from the edge of Coton to avoid changes to the character of the setting of Coton and consequently the setting of Cambridge, which equates to no conflict with Cambridge Green Belt purpose 2 or National Green Belt purpose 4 in this regard.
- 8.7.3. The location of the proposed Park & Ride option is far enough from existing settlements to prevent settlements margining into one another, avoiding conflict with Cambridge Green Belt purpose 3 and National Green Belt purpose 2.

8.8. Degree of Green Belt Conflict

- 8.8.1. The proposed Park & Ride would introduce a volume of new development, extensive hard paved areas with parked vehicles and lighting with a permanent visual effect on the openness of the Green Belt.
- 8.8.2. The proposed Park & Ride would conflict with Green Belt purposes. The anticipated degree of harm as a result of impact on openness and conflict with Green Belt purposes of the nature described above would be as follows:
- Within sub area C.1, the proposed Park & Ride would extend towards the break of slope and the edge of the landform visible from the wider area. The removal of the vegetation south of the existing mast would also increase the potential visibility of the Park & Ride, including from Red Meadow Hill, at least until any proposed vegetation becomes established. This would result in a degree of encroachment beyond an area currently contained and a moderate-low degree of harm as a result of the impact on openness and conflict with National Green Belt purpose 3, Cambridge Green Belt purpose 2 and National Green Belt purpose 4. Due to the effects of lighting in particular, a low degree of harm would remain even once new planting along the southern and eastern boundaries of the site is established.

- Within sub area C.3, the proposed Park & Ride would result in vegetation loss and extensive earthworks. This would expose the proposed parking area within sub area C.3 to view from the east and south. Existing road infrastructure reduces the rural character of the area, but the removal of the vegetation combined with the extent of earthworks required would have a further urbanising effect on the area, resulting in a moderate degree of harm to Green Belt arising from the impact on openness and conflict with National Green Belt purpose 3, Cambridge Green Belt purpose 2 and National Green Belt purpose 4. Planting along the eastern edge of the Park & Ride could reduce this conflict over time to a moderate-low degree of harm Green Belt purposes.

9.0 Assessment of Sector D: Road corridors north and east of Hardwick

9.1. Description of Sector

- 9.1.1. Sector D is located to the north west of Coton, along St Neots Road and the A428. The northern boundary follows the northern edge of the A428. The eastern boundary follows an extension northward from Long Road. The southern boundary follows the hedgerow or front garden boundary south of St Neots Road and the western boundary follows the Green Belt boundary, which coincides with Cambridge Road and the grade separated junction of the A428 and Scotland Road/St Neots Road.
- 9.1.2. The sector is the corridor of St Neots Road, with a grass verge and wide vegetated belt along the northern edge of the road, adjacent to the A428, and a strip of grass verge with a foot/cycle way along the southern edge of the road (see Photographs 8-11 at Figures 19 and 20). A length of the sector has residential properties fronting on to the road, where the grass verge gives way to a footway and parking bays. In areas where there are no residential properties there is a clipped hedgerow along the boundary of adjacent fields. Where there are residential properties, the boundary of the sector is formed by the front garden boundary of the houses. There are no formal public rights of way through this sector.
- 9.1.3. Given the narrow width of sector D, only two sub areas have been identified. One following the corridor of St Neots Road and the other following the A428 corridor. Of these, the proposed route options are unlikely to directly affect the corridor of the A428. Only sub area D.1 is therefore assessed below.

9.2. Baseline Assessment of Qualities Relevant to Green Belt Openness and Purposes

- 9.2.1. Figure 13 illustrates the key considerations relevant to both openness and Green Belt purposes in sector D.

Qualities Relevant to Green Belt Openness and Purposes	Sub area D.1 – St Neots Road
5. Topography providing a framework to Cambridge	This sub area is located on the top a clay ridgeline to the west of Cambridge. This is one of a series of ridgelines within the Claylands landscape to the west of Cambridge, which form a key element of the topographic bowl in which Cambridge is located. This provides physical and visual containment to the west of the city in a marked contrast to the lower lying ground on which Cambridge is located and the Fen landscape to the north and east of the city, physically manifesting the underlying geology. The ridgeline would be highly visible from the north and south if the ridgeline wasn't well vegetated.

Qualities Relevant to Green Belt Openness and Purposes	Sub area D.1 – St Neots Road
6. Long distance footpaths and bridleways providing access to the countryside	There are no public rights of way through this sub area. However, there is a cycleway along the southern edge of St Neots Road that is a continuation of a route along the A1303 from Cambridge.
7. Key views of Cambridge from the surrounding landscape	There are no key views in or through this sub area. Vegetation along the A1303 and St Neots Road prevent views into the sector from more distant locations with panoramic views.
8. Significant areas of Distinctive and Supportive townscape and landscape	This sub area is within the outer rural area of the Green Belt. Land to the west of the sub area is located outside the Green Belt.
12. The distribution, physical and visual separation of the necklace villages	Coton is one of the necklace villages surrounding Cambridge. However, the location of this sub area to the west of the village means that it makes no contribution to the physical and visual separation between Coton and Cambridge. Whilst the sub area is located between Coton and Madingley, there are existing transport corridors that provide physical and visual separation at present, alongside existing vegetation and the ridgeline on which the sector is located. Hardwick, immediately to the west of the sector, is located outside the Green belt and is not a necklace village.
13. The scale, character, identity and rural setting of the necklace villages	Containment by existing vegetation means that this sector is visually separated from the setting of any necklace villages or any other villages within the Green Belt. Hardwick is located immediately to the west of the sector, but outside of the Green Belt. The corridor of St Neots Road already influences the northern edge of Hardwick, meaning that it has a semi-rural setting to the north.
14. Designated sites and areas enriching the setting of Cambridge	There are no environmental or cultural designations within the sub area.
15. Elements and features contributing positively to the	There is a tree belt along the northern side of St Neots Road that creates physical and visual containment to the landscape. A lower hedgerow to the south allows some

Qualities Relevant to Green Belt Openness and Purposes	Sub area D.1 – St Neots Road
character and structure of the landscape	visibility over agricultural fields to the south.
16. A city set in a landscape which retains a strongly rural character	This sector retains a semi-rural character, with the vegetation to the north of St Neots Road preventing visibility of the A428 beyond. There is no visibility of Cambridge from the sector. There are a row of individual properties and small businesses to the south of St Neots Road at the centre of the sector, which front on to St Neots Road.

9.3. Key Considerations Relevant to Green Belt Openness

- 9.3.1. The containment of the St Neots Road corridor by existing vegetation is a key consideration in relation to openness within this sector. The vegetation provides visual and physical containment from the surrounding landscape. It has a semi-rural character, despite the presence of additional road infrastructure to the north and the village of Hardwick to the west. There is existing built development within sub area D.1, in the form of the row of houses and businesses to the south of the road, at the centre of the sector.

9.4. Key Considerations Relevant to Green Belt Purposes

- 9.4.1. This sector plays a limited role in the wider setting of the west of Cambridge, given its physical and visual separation from the city. The woodland belt along the northern edge of sub area D.1 is important to the wooded character of the local landscape and forms a positive feature. It also provides containment to the sector and prevents visual intrusion from the A428 to the north. Development within the sector is restricted to a row of properties and businesses along the southern edge of St Neots Road.

9.5. Proposed Public Transport Link Options through the Sector

- 9.5.1. All of the proposed route options would enter the Green Belt in the vicinity of the junction between St Neots Road and Cambridge Road.
- 9.5.2. Option 1 – would provide an off-road public transport route, between the alignments of the A428 and St Neots Road. It would require the removal of much of the existing vegetation between the two routes, to create a new carriageway 6.0-7.3m wide with grass verges to either side. The current proposals indicate enhancements along the existing St Neots Road, including new tree planting between properties and the existing carriageway, and a 3m wide footway and cycleway to the south of the existing road. The improvements to the footway and cycleway would potentially require

additional vegetation removal to the south of St Neots Road, including removal of the existing hedgerow and potentially front garden boundary vegetation. Detailed design of the proposals, including any proposed planting, would be required once the final option has been chosen.

- 9.5.3. Option 2 – would utilise the existing alignment of St Neots Road and be provided entirely on existing roads. As with Option 1, the current proposals indicate enhancements along the existing St Neots Road, including new tree planting between properties and the existing carriageway, and a 3m wide footway and cycleway to the south of the existing road. The improvements to the footway and cycleway would potentially require vegetation removal to the south of St Neots Road, including removal of the existing hedgerow and potentially front garden boundary vegetation. Detailed design of the proposals, including any proposed planting, would be required once the final option has been chosen.
- 9.5.4. Option 3 – would also run along St Neots Road, but would create bus priority lanes along both sides of the existing carriageway. This would require St Neots Road to be widened to approximately 14m, to allow a central carriageway of 6m and public transport lanes 4m wide to either side. This option would require significant removal of vegetation along the north of St Neots Road, but to a lesser extent than Option 1. As with both other options, the current proposals indicate enhancements along the existing St Neots Road, including new tree planting between properties and the existing carriageway, and a 3m wide footway and cycleway to the south of the existing road. The improvements to the footway and cycleway would potentially require additional vegetation removal to the south of St Neots Road, including removal of the existing hedgerow and potentially front garden boundary vegetation. Detailed design of the proposals, including any proposed planting, would be required once the final option has been chosen.

9.6. Preservation of Green Belt Openness

- 9.6.1. All options would potentially require the removal of the hedgerow boundary along the southern edge of St Neots Road. This would extend development into the undeveloped countryside south of the road by a small amount. However, limited earthworks would be required for this element of the proposals and the extension of the cycle route southwards would preserve the openness of the Green Belt.
- 9.6.2. Option 1 would potentially require the removal of the majority of the vegetation between St Neots Road and the A428, much of which is currently on sloping landform or slight bunding and would require some earthworks to create the off-road route alignment. However, careful design should be able to create a balance of cut and fill meaning that there would be no significant volume of development to affect the openness of the Green Belt. Option 3 would require similar, but slightly less extensive, vegetation clearance and earthworks. Both options are considered to preserve the openness of the Green Belt in sector D.

- 9.6.3. Option 2 would not require removal of vegetation to the north of St Neots Road and utilise the existing road. This alignment of would preserve the openness of the Green Belt.

9.7. Potential for Conflict with Green Belt Purposes

- 9.7.1. All three options would potentially protrude into the undeveloped countryside south of St Neots Road. This would introduce development into an area where very little development is currently visible. Removing the vegetation south of the existing road alignment would remove the containment that the hedgerow currently offers, at least in the short to medium term until any replacement planting could become established. Although road infrastructure is already present within sector D, the vegetation currently reduces the visibility of that infrastructure. This would result in conflict with National Green Belt purpose 3, which is consequently conflict with Cambridge Green Belt purpose 2 and National Green Belt purpose 4.
- 9.7.2. Option 1 would require the removal of much of the vegetation north of St Neots Road. This would both introduce additional road infrastructure into sector D and open up visibility of the A428 and traffic along it in views looking north. Option 3 would have similar impacts, but potentially with a lesser degree of vegetation removal. Both of these options would increase the encroachment of development into the countryside and extend visibility of transport infrastructure. This would result in conflict with National Green Belt purpose 3, which is consequently conflict with Cambridge Green Belt purpose 2 and National Green Belt purpose 4.
- 9.7.3. Option 2 is not anticipated to require vegetation removal to the north of the route and would have no additional conflict with Green Belt purposes.

9.8. Degree of Green Belt Conflict

- 9.8.1. All of the proposed route options would preserve the openness of the Green Belt.
- 9.8.2. All of the proposed route options would conflict with Green Belt purposes. The anticipated degree of harm as a result of conflict with Green Belt purposes of the nature described above would be as follows:
- For all options, the potential removal of vegetation to the south of St Neots Road would also increase the potential visibility of St Neots Road, at least until any proposed vegetation becomes established. This would result in a small degree of encroachment beyond an area currently partially contained by the hedgerow and a low degree of harm in the short to medium term to National Green Belt purpose 3, which is consequently conflict with Cambridge Green Belt purpose 2 and National Green Belt purpose 4.
 - For Option 1 and Option 3, the removal of the vegetation north of St Neots Road would increase the potential visibility of the proposed public transport corridor, as well as opening up visibility of the A428 corridor, which would not be fully mitigated by any replacement planting as it would not be able to replicate the

current depth of planting. This would result in a medium degree of encroachment beyond an area currently contained and a moderate degree of harm to National Green Belt purpose 3, which is consequently conflict with Cambridge Green Belt purpose 2 and National Green Belt purpose 4. However, appropriate planting in suitable locations, such as a belt of woodland planting south of St Neots Road, could result in a reduction in the degree of harm over time. This would also apply to any retention of the vegetation between St Neots Road and the A428. Both of these factors can only be confirmed during the detailed design process but could potentially reduce the degree of harm to low over time.

10.0 Assessment of Sector E: South of Dry Drayton

10.1. Description of Sector

- 10.1.1. Sector E is located to the south of Dry Drayton, abutting the southern edge of the village. The northern boundary follows the road between Dry Drayton and Madingley. The eastern boundary follows the tree belts around the parkland at Madingley Hall and continues along the access track to Park Farm. The southern boundary follows the northern edge of the A428, and the western boundary follows the eastern edge of Scotland Road.
- 10.1.2. Land use in most of the sector is large scale arable farmland with occasional grazing (see Photographs 12-15 at Figures 21 and 22). The field pattern runs broadly north to south, parallel to Callow Brook, which runs north from Hardwick towards Dry Drayton. Tree belts also follow the same north south alignment throughout this sector. The landform slopes down towards the fens north of the sector and undulates in relation to watercourses such as Callow Brook, which feed into the River Great Ouse further north
- 10.1.3. Three sub areas have been identified within this sector, responding to the landform and field pattern. Of these, the proposed Park & Ride facility is unlikely to affect any sub areas other than E.3, with the next-closest sub area E.2 physically and visually separated from the proposed Park & Ride facility by an existing hedgerow. Only sub area E.3 is therefore assessed below.

10.2. Baseline Assessment of Qualities Relevant to Green Belt Openness and Purposes

- 10.2.1. Figure 14 illustrates the key considerations relevant to both openness and Green Belt purposes in sector E.

Qualities Relevant to Green Belt Openness and Purposes	Sub Area E.3 – North east facing arable fields
5. Topography providing a framework to Cambridge	This sub area is located on the north east facing slopes of a clay ridgeline to the west of Cambridge. This is one of a series of ridgelines within the Claylands landscape to the west of Cambridge, which form a key element of the topographic bowl in which Cambridge is located. This provides physical and visual containment to the west of the city in a marked contrast to the lower lying ground on which Cambridge is located and the Fen landscape to the north and east of the city, physically manifesting the underlying geology. The undulating topography within this sector creates areas of containment as well as areas that are highly visible and contribute to the openness of the Green Belt in this location. Parts of sub area E.3 are not

Qualities Relevant to Green Belt Openness and Purposes	Sub Area E.3 – North east facing arable fields
	visible from areas further to the north (see Photographs 14 and 15) due to the topography.
6. Long distance footpaths and bridleways providing access to the countryside	There is a limited network of footpaths through this sector, linking Dry Drayton to the north with Hardwick to the south. There is a single public footpath through sub area E.3, linking Callow Brook and Scotland Road, with the next closest public right of way located east of Callow Brook along the eastern boundary of the sub area.
7. Key views of Cambridge from the surrounding landscape	There are no key views in or through this sub area. However, there are occasional panoramic views into the sub area, across open countryside, from Scotland Road to the west. There are limited locations within the surrounding landscape with views into sub area E.3 due to the combination of landform and vegetation.
8. Significant areas of Distinctive and Supportive townscape and landscape	This sub area is within the outer rural area of the Green Belt. Land to the west of the sub area is located outside the Green Belt.
12. The distribution, physical and visual separation of the necklace villages	Dry Drayton to the north of sector E and Hardwick to the south are both located outside the Green Belt. Madingley to the east is sufficiently separated from sector E, both physically and visually, not to require consideration.
13. The scale, character, identity and rural setting of the necklace villages	Sub area E.3 is sufficiently distant from both Dry Drayton and Madingley to avoid any effect on their character, identity and rural setting. The corridor of the A428 and St Neots Road also creates physical and visual separation from Hardwick.
14. Designated sites and areas enriching the setting of Cambridge	There are no environmental or cultural designations within the sub area.
15. Elements and features contributing positively to the character and structure of the landscape	There is a tree belt along the northern side of the A428 that creates physical and visual containment to the landscape. Callow Brook runs along the eastern boundary of sub area E.3, with vegetation along its course, and creates an important feature of the local landscape. The footbridge over the A428, which allows pedestrian movement between Hardwick and Dry Drayton, is a

Qualities Relevant to Green Belt Openness and Purposes	Sub Area E.3 – North east facing arable fields
	prominent feature in the landscape adjacent to the south of sub area E.3 and does not make a positive contribution to the landscape, along with the presence of the A428 and the elevated junction of the A428 and Scotland Road. There are also a number of large buildings at Scotland Farm to the west of the sub area that detract from the character of the area.
16. A city set in a landscape which retains a strongly rural character	This sector retains a rural character, with the vegetation along the northern edge of the A428 reducing visibility of the road beyond, although its presence is still notable. There is no visibility of Cambridge from the sector. There are individual properties and businesses to the west, along Scotland Road, which do begin to diminish the rural character in the south of the sub area.

10.3. Key Considerations Relevant to Green Belt Openness

- 10.3.1. The undulating landform and pattern of vegetation within much of sector E are key considerations in relation to openness within this sector, although sub area E.3 is much less vegetated and is already influenced by road infrastructure to the south. It has a rural character, despite the presence of the road infrastructure to the south. There is limited built development within sector E, which consists predominantly of open farmland, but there are occasional individual properties and a small business park along Scotland Road to the south west of the sector, road infrastructure and the existing footbridge over the A428 on the southern boundary of the sector.

10.4. Key Considerations Relevant to Green Belt Purposes

- 10.4.1. This sector plays a limited role in the wider setting of the west of Cambridge, given its physical and visual separation from the city. The undulating landform is also important to the character of the sector, along with its relationship to Callow Brook through the sector.
- 10.4.2. The presence of road infrastructure to the south of the sector has an influence on the rural character, although the sector does form part of the wider rural approach to Cambridge from the west. The vegetation along the southern edge of the sector is important to the wooded character of the local landscape and forms a positive feature. Linear woodland belts within the sector are also important to this character. Development within the sector is found in isolated properties along Scotland Road and the existing footbridge over the A428 to the south.

10.5. Proposed Park & Ride Option within the Sector

- 10.5.1. The Scotland Road Park & Ride Option is located within this sector. It would be located in the south west of sub area E.3, adjacent to Scotland Road to the west and the A428 to the south. Current proposals indicate that the Park & Ride would be accessed from a new signalised junction off Scotland Road. It would not be located on the route of the proposed public transport link between Cambourne and Cambridge. Existing hedgerows along the northern and western boundaries of sector E.4 would be largely retained, with the exception of the new access point. Careful design at the detailed design stage should also allow the existing vegetation along the A428 to be retained. New planting in the form of tree belts is proposed around all perimeters of the Park & Ride, as well as within the parking areas, but is yet to be fully designed.

10.6. Preservation of Green Belt Openness

- 10.6.1. Despite the undulating landform within much of sector E, the southern area of sub area E.3 is relatively flat. This should minimise the requirement for cut and fill operations to construct the Park & Ride facility. There would be a requirement for small buildings such as ticket offices and/or bus shelters within the Park & Ride, which would add built development within the Green Belt. In addition, the parking areas within the Park & Ride would introduce additional hard surfacing, on which large numbers of vehicles would be parked throughout the day, and the requirement for lighting, which would be visible infrastructure during the day and new lit areas at night. The introduction of increased signage, lighting and road markings at the proposed access into the site is not considered to affect openness. Given these factors and the current openness of the eastern boundary of the proposed P&R, there would be a reduction in openness of the Green Belt within sub area E.4.

10.7. Potential for Conflict with Green Belt Purposes

- 10.7.1. The Park & Ride would be entirely located within the undeveloped countryside of sub area E.3. This would introduce development into an area where some existing built development is visible, and which is influenced by the presence of the A428, but sub area E.3 itself is currently undeveloped. This would result in conflict with National Green Belt purpose 3, which is consequently conflict with Cambridge Green Belt purpose 2 and National Green Belt purpose 4.
- 10.7.2. The location of the proposed Park & Ride option is far enough from existing settlements to prevent settlements merging into one another, avoiding conflict with Cambridge Green Belt purpose 3 and National Green Belt purpose 2 in this regard.

10.8. Degree of Green Belt Conflict

- 10.8.1. The proposed Park & Ride would introduce a volume of new development, extensive hard paved areas with parked vehicles and lighting with a permanent visual effect on the openness of the Green Belt.

10.8.2. The proposed Park & Ride would conflict with Green Belt purposes. The anticipated degree of harm as a result of impact on openness and conflict with Green Belt purposes of the nature described above would be as follows:

- The proposed Park & Ride would introduce development into a currently undeveloped area, although the area is influenced by the presence of the A428 which does diminish the rural character within the south of the sector. The retention of vegetation to the north, west and particularly to the south would help to limit this encroachment, but visibility from the east would be open until any proposed vegetation becomes established. This would result in a medium degree of encroachment beyond an area currently partially contained by the hedgerow and a resulting in a moderate degree of harm to Green Belt arising from the impact on openness and a conflict with National Green Belt purpose 3, Cambridge Green Belt purpose 2 and National Green Belt purpose 4. Planting along the eastern edge of the Park & Ride could reduce this conflict over time to a moderate-low degree of harm to Green Belt purposes.

11.0 Conclusions

- 11.1.1. Both of the proposed Park & Ride facilities would introduce a volume of new development with a permanent visual effect on the openness of the Green Belt. In addition, the parking areas within both of the Park & Ride facilities would introduce additional hard surfacing, on which large numbers of vehicles would be parked throughout the day, and the requirement for lighting, which would be visible infrastructure during the day and new lit areas at night. They would also both have some conflict with National Green Belt purpose 3, Cambridge Green Belt purpose 2 and National Green Belt purpose 4.
- 11.1.2. The degree of harm for each of the proposed Park & Ride facilities is as follows:
- Waterworks Park & Ride would result in a degree of encroachment within sub area C.1, beyond an area currently contained by existing tall vegetation and a moderate-low degree of harm arising from the impact on openness and conflict with National Green Belt purpose 3, Cambridge Green Belt purpose 2 and National Green Belt purpose 4. Due to the effects of lighting in particular, a low degree of harm would remain even once the new boundary planting is established.
 - Waterworks Park & Ride would also result in a moderate degree of harm to Green Belt within sub area C.3 arising from the impact on openness and a conflict with National Green Belt purpose 3, Cambridge Green Belt purpose 2 and National Green Belt purpose 4. Planting along the eastern edge of the Park & Ride could reduce this conflict over time to a moderate-low degree of harm to Green Belt purposes.
 - Scotland Farm Park & Ride would result in a moderate degree of harm to Green Belt within sub area E.4 arising from the impact on openness and a conflict with National Green Belt purpose 3, Cambridge Green Belt purpose 2 and National Green Belt purpose 4. Planting along the eastern edge of the Park & Ride could reduce this conflict over time to a moderate-low degree of harm to Green Belt purposes.
- 11.1.3. All of the proposed route options for the public transport link along St Neots Road would preserve the openness of the Green Belt. They would, however, all have some conflict with National Green Belt purpose 3, Cambridge Green Belt purpose 2 and National Green Belt purpose 4.
- 11.1.4. The degree of harm for each of the proposed route options is as follows:
- For all options, there would be a low degree of harm in the short to medium term to National Green Belt purpose 3, which is consequently conflict with Cambridge Green Belt purpose 2 and National Green Belt purpose 4, as a result of encroachment south of St Neots Road, at least until any proposed vegetation becomes established.
 - For Option 1 and Option 3, there would also be a moderate degree of harm to National Green Belt purpose 3, which is consequently conflict with Cambridge

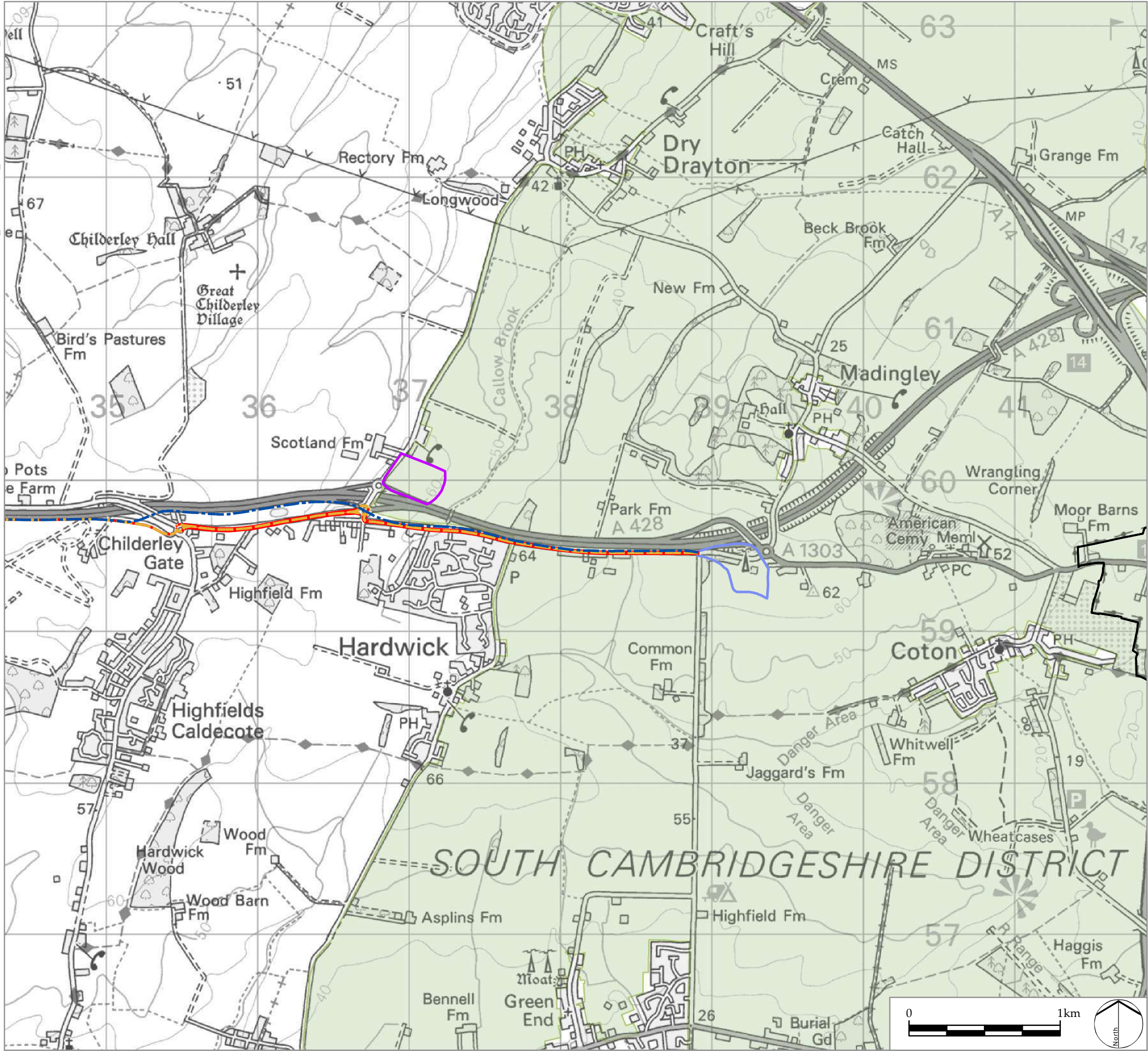
Green Belt purpose 2 and National Green Belt purpose 4, as a result of the increased visibility of road infrastructure following the removal of the vegetation north of St Neots Road. If retention of some vegetation between St Neots Road and the A428 or suitable planting of vegetation is confirmed during the detailed design stage, this could potentially reduce the degree of harm to low over time.

- 11.1.5. The outcomes of the assessment of the various route options are summarised in the table on the following pages.

	Preservation of Openness	Conflict with Purposes	Degree of Harm
Sector C			
Waterworks Park & Ride – south of St Neots Road (within sub area C.1)	No	Yes	Moderate-low reducing to low with planting
Waterworks Park & Ride – north of St Neots Road (within sub area C.3)	No	Yes	Moderate reducing to moderate-low with planting
Sector D			
All Options in relation to works south of St Neots Road	Yes	Yes	Low
Public transport link – Option 1	Yes	Yes	Moderate, with potential to reduce to low with planting/vegetation retention.
Public transport link – Option 2	Yes	No	N/A
Public transport link – Option 3	Yes	Yes	Moderate, with potential to reduce to low with planting/vegetation retention.

	Preservation of Openness	Conflict with Purposes	Degree of Harm
Sector E			
Scotland Road Park & Ride	No	Yes	Moderate reducing to moderate-low with planting

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LEGEND

Phase 2 route options

- Route Option 1 – Off-road segregated route
- Route Option 2 – On-road with junction improvements – low-cost alternative
- Route Option 3 – On-road with public transport priority lanes

Scotland Farm Park & Ride

Waterworks Park & Ride

District Boundary

Green Belt

LD&A DESIGN

PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

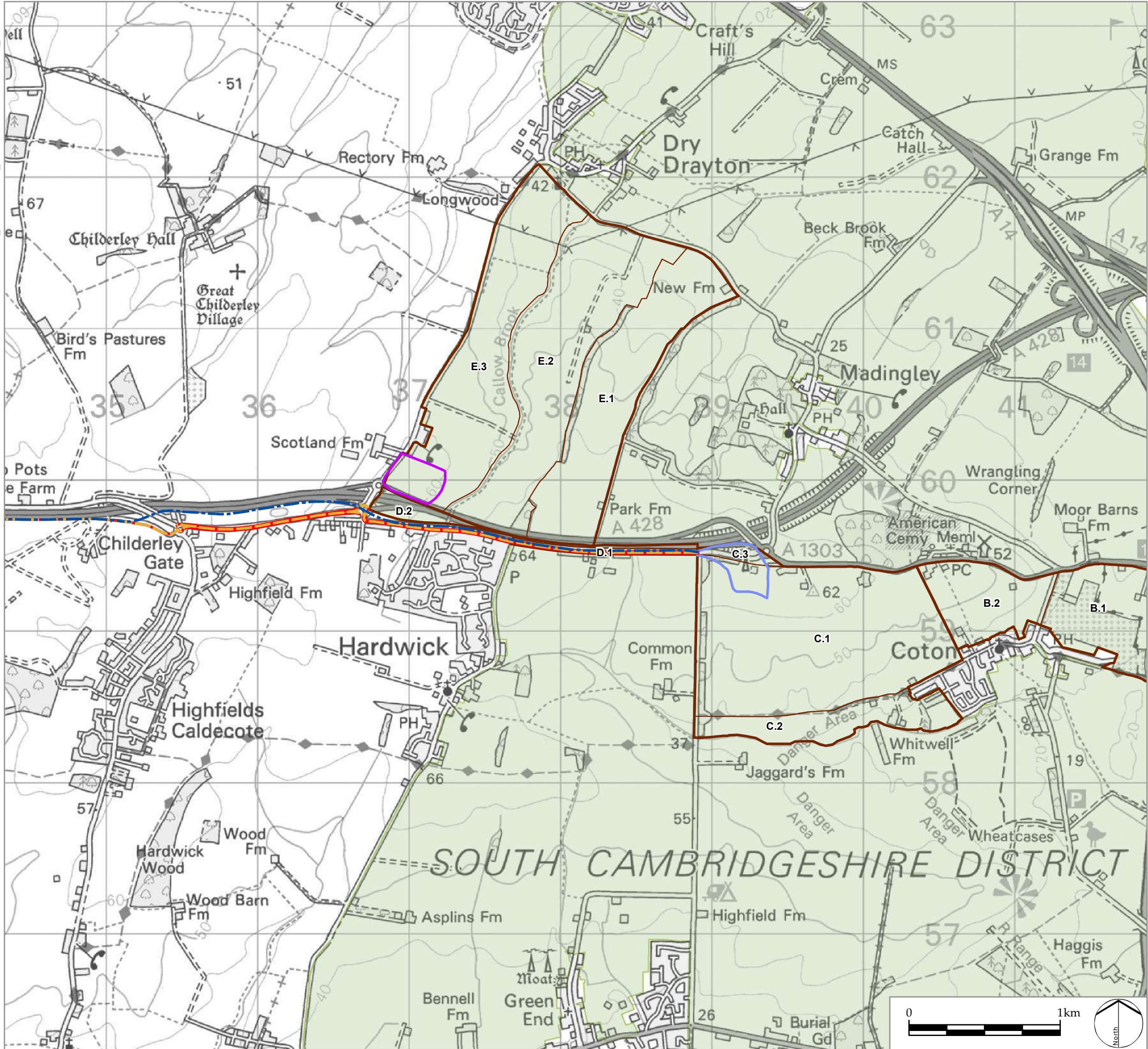
DRAWING TITLE
Figure 1:
Study Area

ISSUED BY	Peterborough	T: 01733 310 471
DATE	Sep 2019	DRAWN VW
SCALE @A3	1:25,000	CHECKED RK
STATUS	Final	APPROVED ChC

DWG. NO. 7069_101

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site.
Area measurements for indicative purposes only.
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Sources: Ordnance Survey, Cambridge City Council, Mott Macdonald

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LEGEND

Phase 2 route options

- Route Option 1 – Off-road segregated route
- Route Option 2 – On-road with junction improvements – low-cost alternative
- Route Option 3 – On-road with public transport priority lanes

Scotland Farm Park & Ride

Waterworks Park & Ride

Green Belt

Assessment Sectors

Assessment Sub Areas

LDA DESIGN

PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

DRAWING TITLE
Figure 2:
Assessment Sectors and Sub Areas

ISSUED BY	Peterborough	T: 01733 310 471
DATE	Sep 2019	DRAWN MSo
SCALE @A3	1:25,000	CHECKED RK
STATUS	Final	APPROVED ChC

DWG. NO. 7069_102

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Sources: Ordnance Survey, Cambridge City Council, Mott Macdonald

Phase 2 route options

-  Route Option 1 – Off-road segregated route
-  Route Option 2 – On-road with junction improvements – low-cost alternative
-  Route Option 3 – On-road with public transport priority lanes
-  Scotland Farm Park & Ride
-  Waterworks Park & Ride
-  Green Belt
-  Site of Special Scientific Interest
-  Ancient Woodland
-  County Wildlife Site

LDÄ DESIGN

PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

DRAWING TITLE

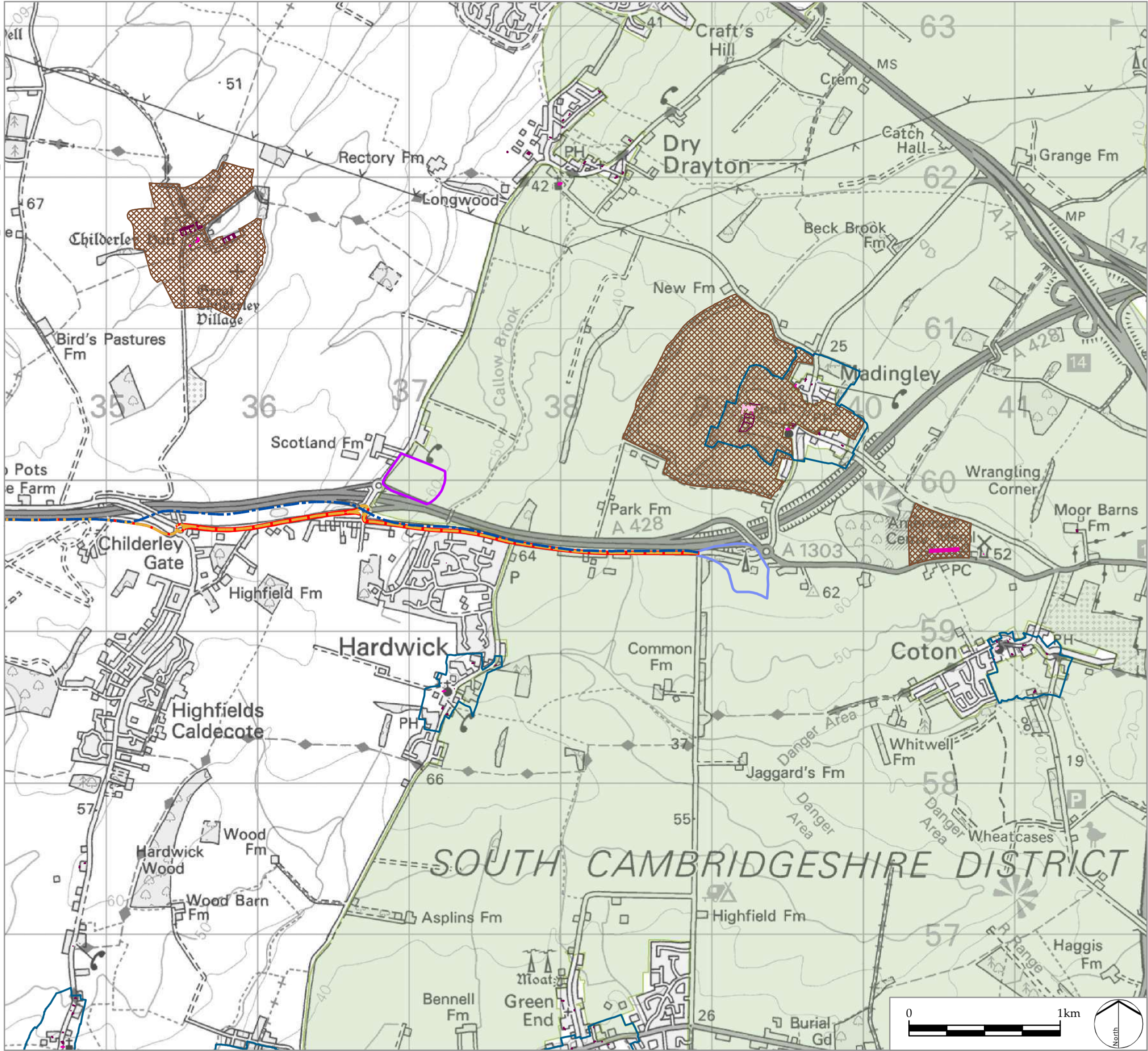
**Figure 3:
Environmental Designations**

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LEGEND

Phase 2 route options

- Route Option 1 – Off-road segregated route
- Route Option 2 – On-road with junction improvements – low-cost alternative
- Route Option 3 – On-road with public transport priority lanes

Scotland Farm Park & Ride

Waterworks Park & Ride

Green Belt

Conservation Area

Registered Park and Garden

Listed Building

I II* II

LDA DESIGN

PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

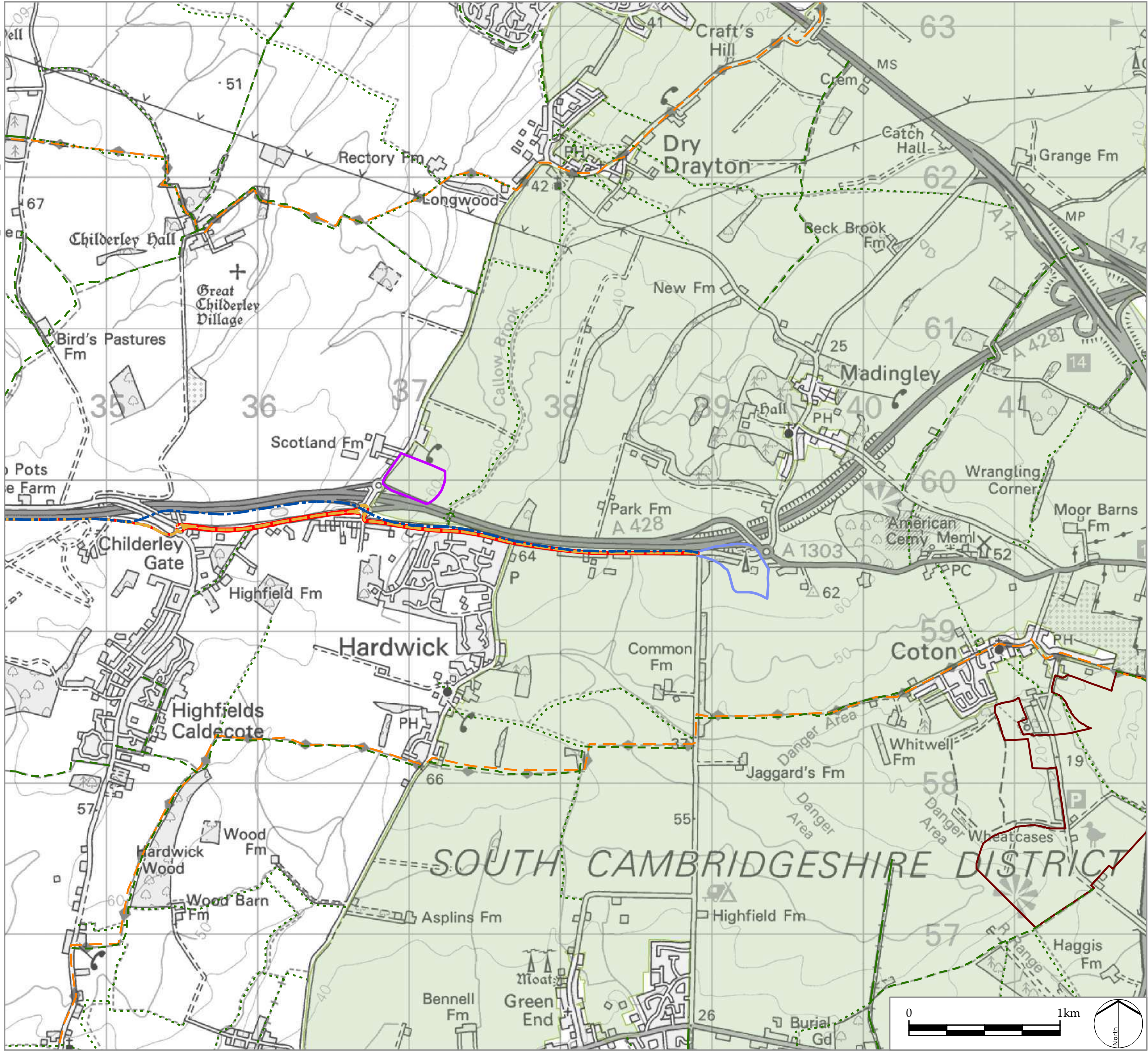
DRAWING TITLE
Figure 4:
Cultural Designations

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LEGEND

Phase 2 route options

- Route Option 1 – Off-road segregated route
- Route Option 2 – On-road with junction improvements – low-cost alternative
- Route Option 3 – On-road with public transport priority lanes

Scotland Farm Park & Ride

Waterworks Park & Ride

Green Belt

Country Park

Long Distance Footpath

Byway

Bridleway

Footpath

LD&A DESIGN

PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

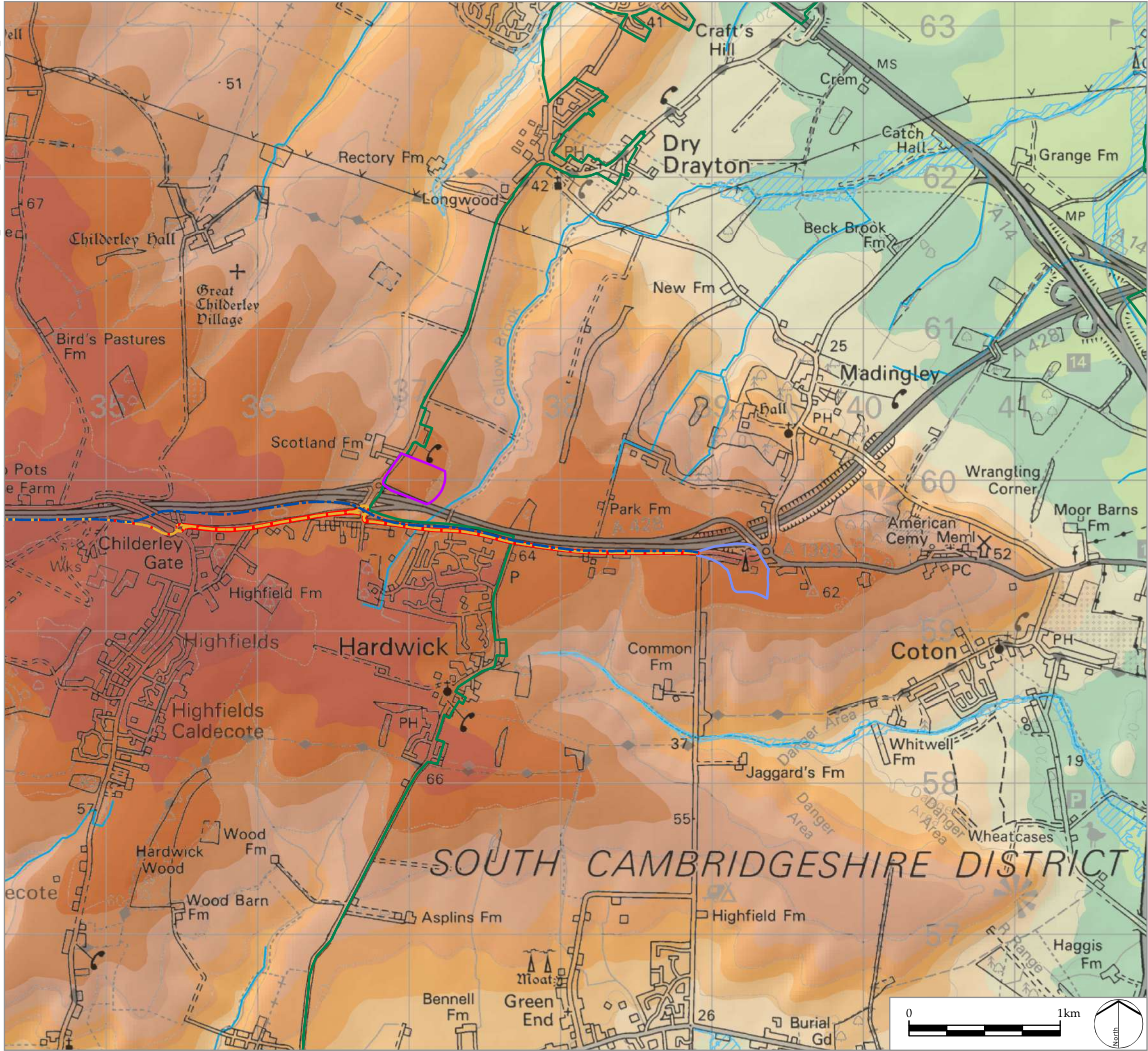
DRAWING TITLE
Figure 5:
Recreational Routes and Country Parks

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LEGEND

Phase 2 route options

- Route Option 1 – Off-road segregated route
- Route Option 2 – On-road with junction improvements – low-cost alternative
- Route Option 3 – On-road with public transport priority lanes
- Scotland Farm Park & Ride
- Waterworks Park & Ride
- Green Belt Boundary
- Watercourses
- Floodplain (Environment Agency Flood Zone 3)

Elevation (m AOD)

70 - 75	35 - 40
65 - 70	30 - 35
60 - 65	25 - 30
55 - 60	20 - 25
50 - 55	15 - 20
45 - 50	10 - 15
40 - 45	5 - 10

LDA DESIGN

PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

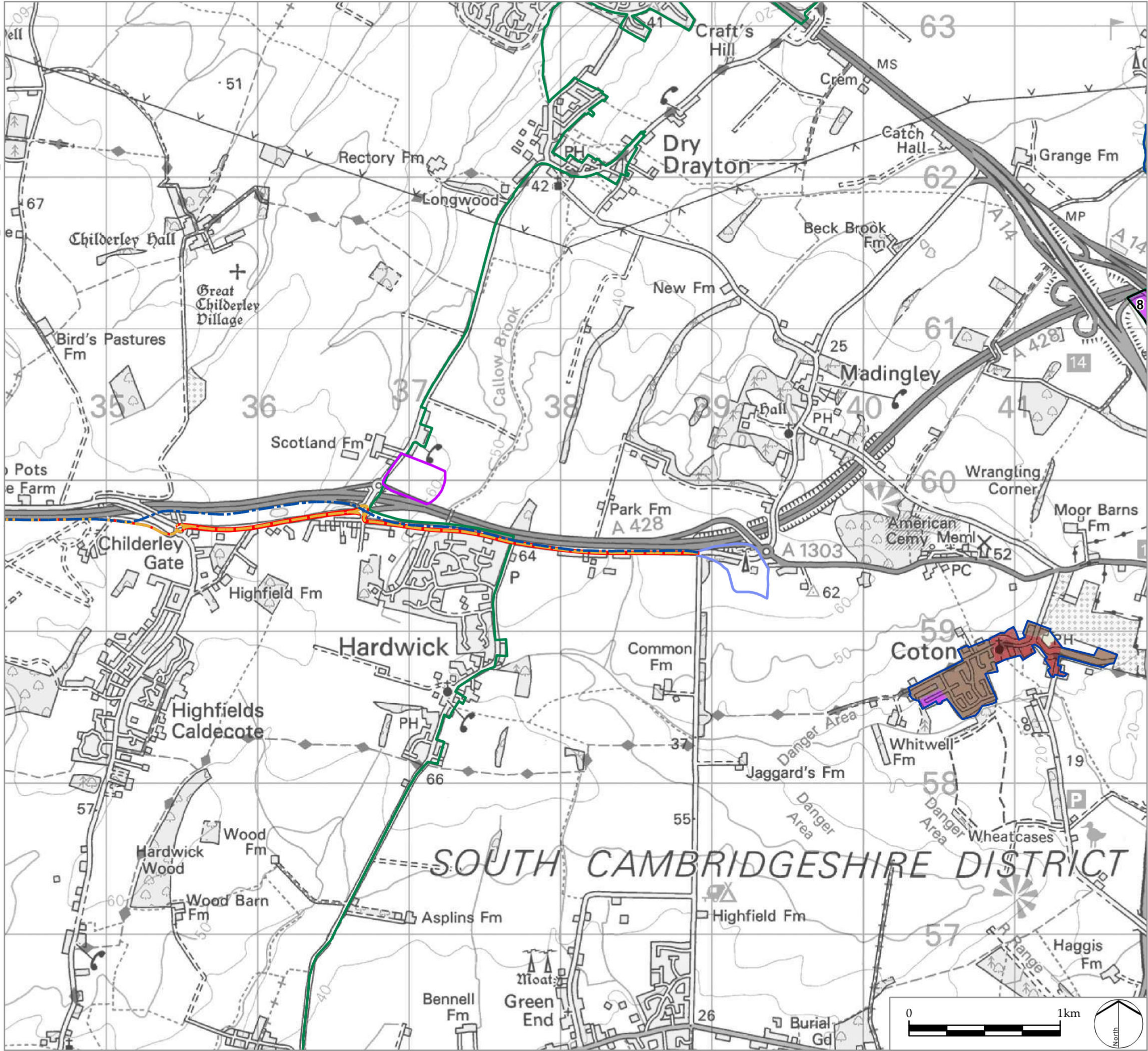
DRAWING TITLE
Figure 6:
Topography and Drainage

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LEGEND

Phase 2 route options

- Route Option 1 – Off-road segregated route
- Route Option 2 – On-road with junction improvements – low-cost alternative
- Route Option 3 – On-road with public transport priority lanes

Scotland Farm Park & Ride

Waterworks Park & Ride

Green Belt Boundary

Townscape Character Type

- Historic Core
- Green Spaces and Green Corridors
- 1900-1945 Suburban Housing
- Post-war Suburban Housing
- 21st Century Mixed Use Development

Townscape Character Area 8 North West Cambridge

Necklace Village

LD&A DESIGN

PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

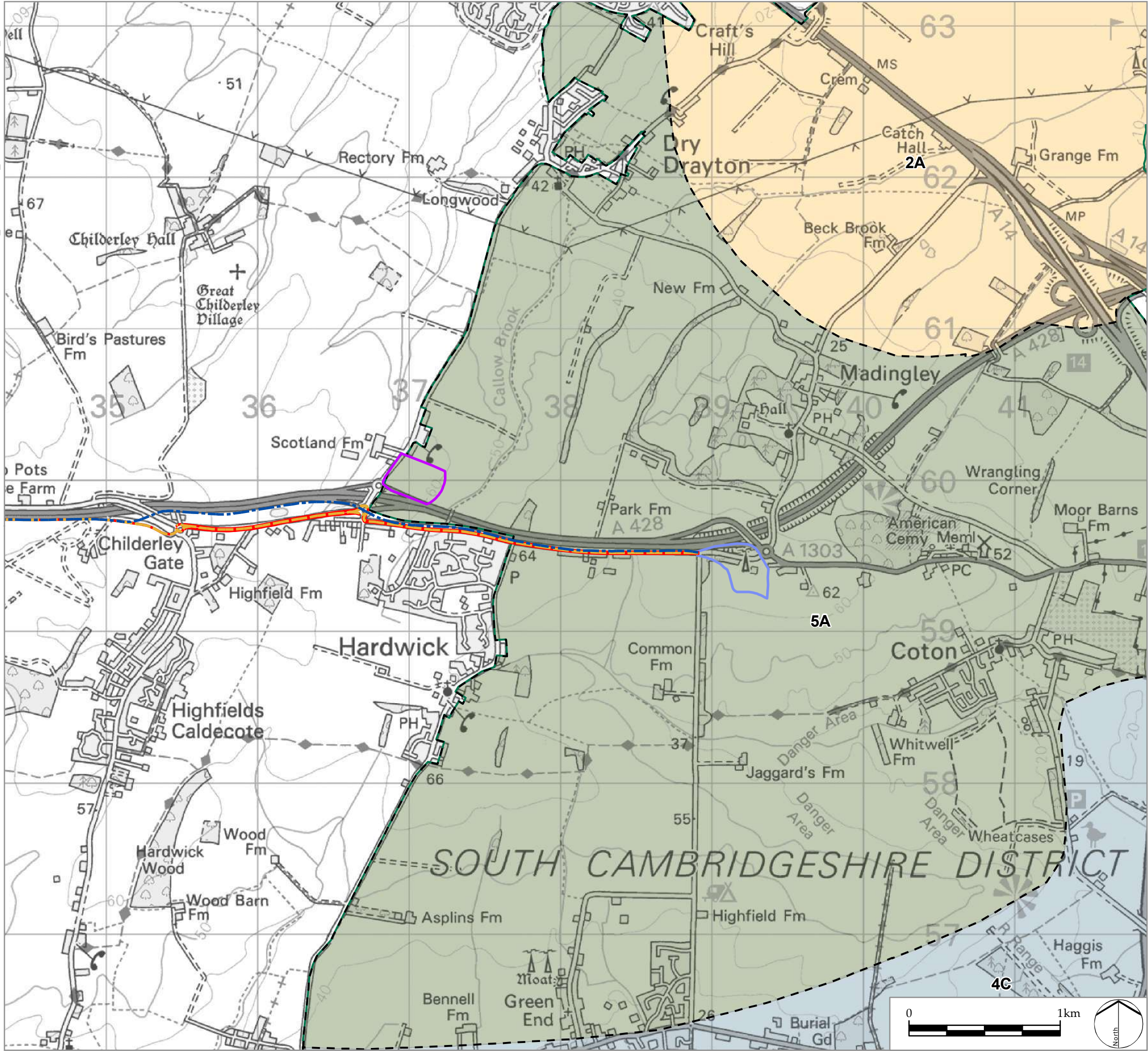
DRAWING TITLE
Figure 7:
Townscape Character

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LEGEND

Phase 2 route options

Route Option 1 – Off-road segregated route

Route Option 2 – On-road with junction improvements – low-cost alternative

Route Option 3 – On-road with public transport priority lanes

Scotland Farm Park & Ride

Waterworks Park & Ride

Green Belt Boundary

Landscape Type

Landscape Character Area

Fen Edge

2A. Western Fen Edge

River Valleys

4C. Rhee and Bourn Valleys

Claylands

5A. Western Claylands

Landsc

Area boundary

LD A DESIGN

PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

DRAWING TITLE
Figure 8:
Landscape Character

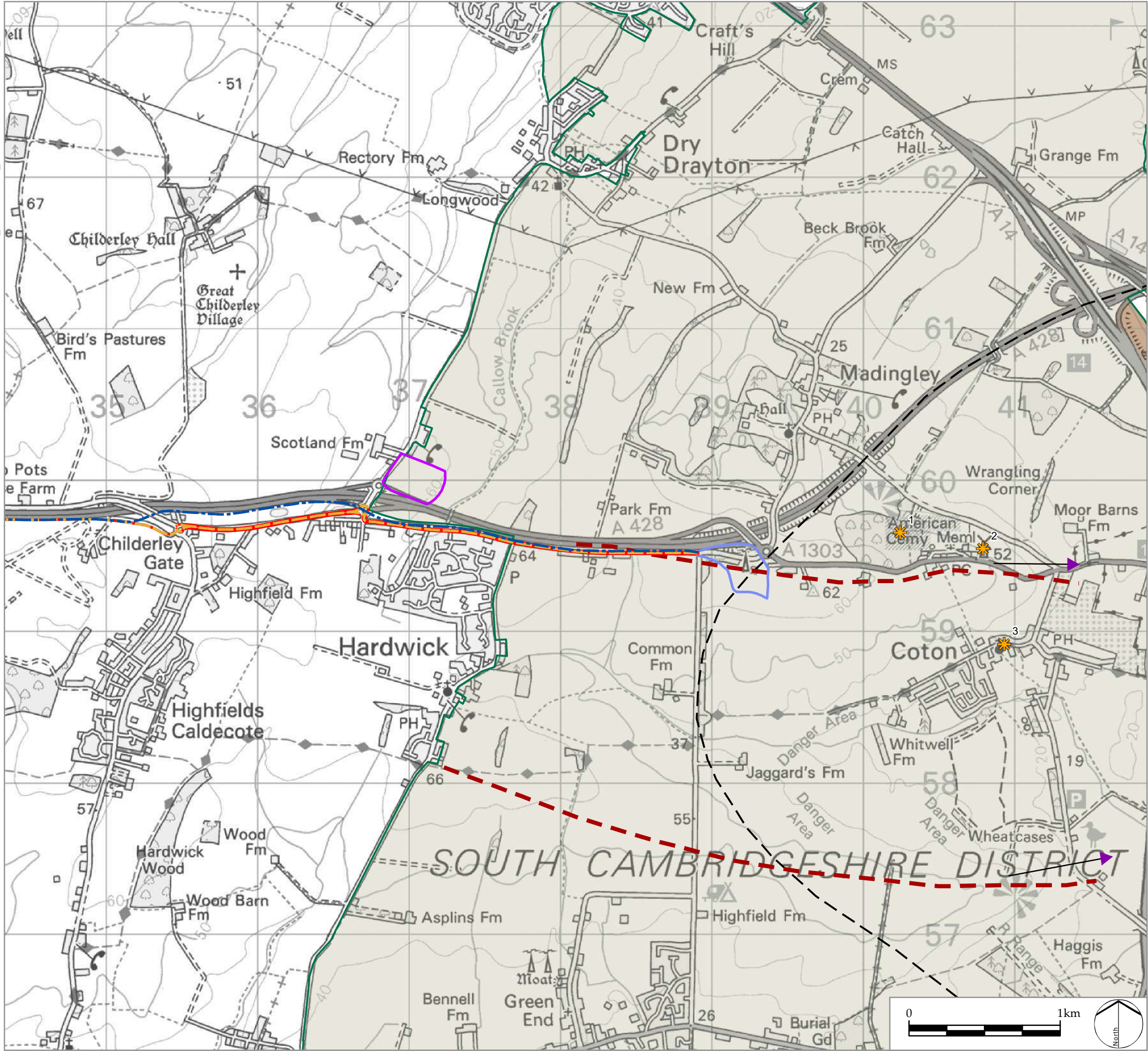
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LEGEND

Phase 2 route options

- Route Option 1 – Off-road segregated route
- Route Option 2 – On-road with junction improvements – low-cost alternative
- Route Option 3 – On-road with public transport priority lanes

Scotland Farm Park & Ride

Waterworks Park & Ride

Green Belt Boundary

Approximate area of Green Belt from which Cambridge may be seen

Key elevated view

Ridgeline

Distinctive / memorable features in the setting of Cambridge

- American Cemetery
- Windmill
- Coton village church

Townscape / countryside interface - elevation, foreground character and built edge character as seen in immediate views from routes close to Cambridge

Level views, mixed foreground, mixed urban edge

Rural setting with scattered villages

LDA DESIGN

PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

DRAWING TITLE
Figure 9:
Visual Assessment

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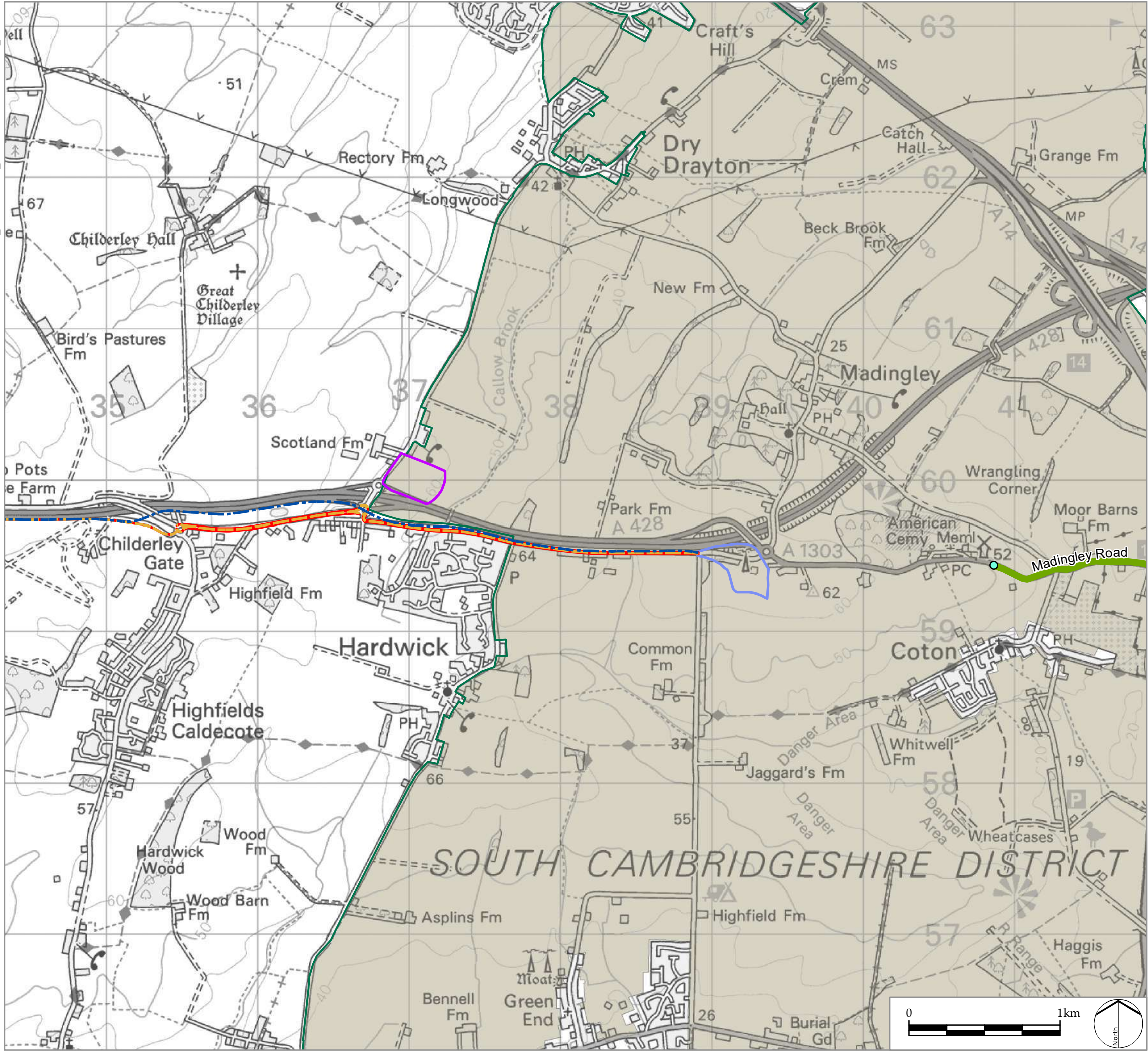
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LEGEND

Phase 2 route options

- Route Option 1 – Off-road segregated route
- Route Option 2 – On-road with junction improvements – low-cost alternative
- Route Option 3 – On-road with public transport priority lanes

Scotland Farm Park & Ride

Waterworks Park & Ride

Green Belt Boundary

Rural land within Green Belt

Gateways

- First view of Cambridge

Character of Approach

- Green/treed

LD&A DESIGN

PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

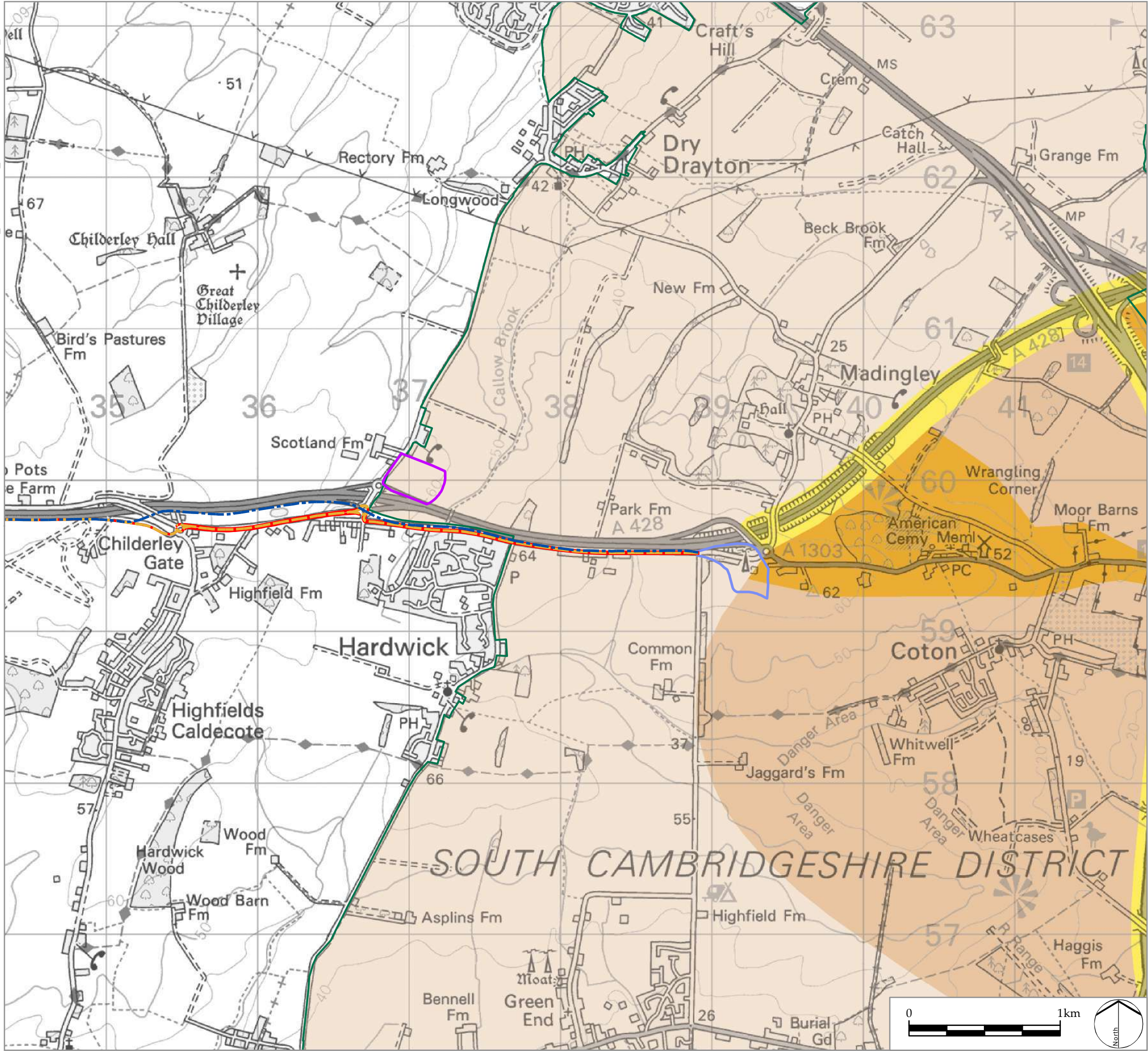
DRAWING TITLE
Figure 10:
Gateways and Approaches

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DATE	Sep 2019	DRAWN VW
SCALE @A3	1:25,000	CHECKED RK
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LEGEND

Phase 2 route options

- Route Option 1 – Off-road segregated route
- Route Option 2 – On-road with junction improvements – low-cost alternative
- Route Option 3 – On-road with public transport priority lanes

Scotland Farm Park & Ride

Waterworks Park & Ride

Green Belt Boundary

Supportive townscape/landscape

Connective townscape/landscape

Visually detracting townscape/landscape

Outer rural areas of the Green Belt

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PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

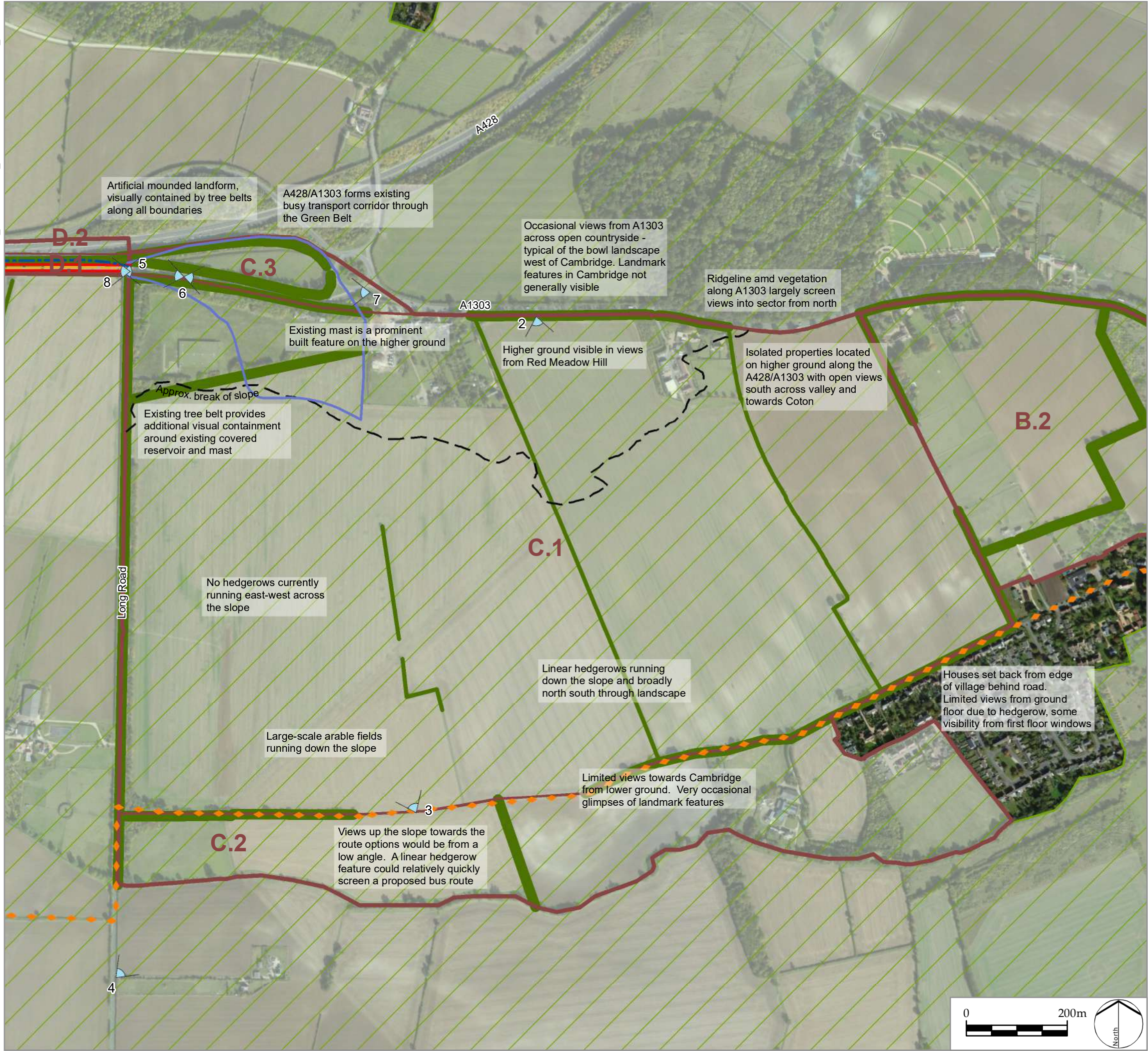
DRAWING TITLE
Figure 11:
Townscape and Landscape Role and Function

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LEGEND

- Phase 2 route options
- Route Option 1 – Off-road segregated route
 - Route Option 2 – On-road with junction improvements – low cost alternative
 - Route Option 3 – On-road with public transport priority – lanes
- Waterworks Park & Ride
- Green Belt
- Assessment Sectors
- C.1 Assessment Sub Areas
- Long Distance Footpath
- Clipped hedgerow
- Tall hedgerow or tree/woodland belt
- Photograph locations

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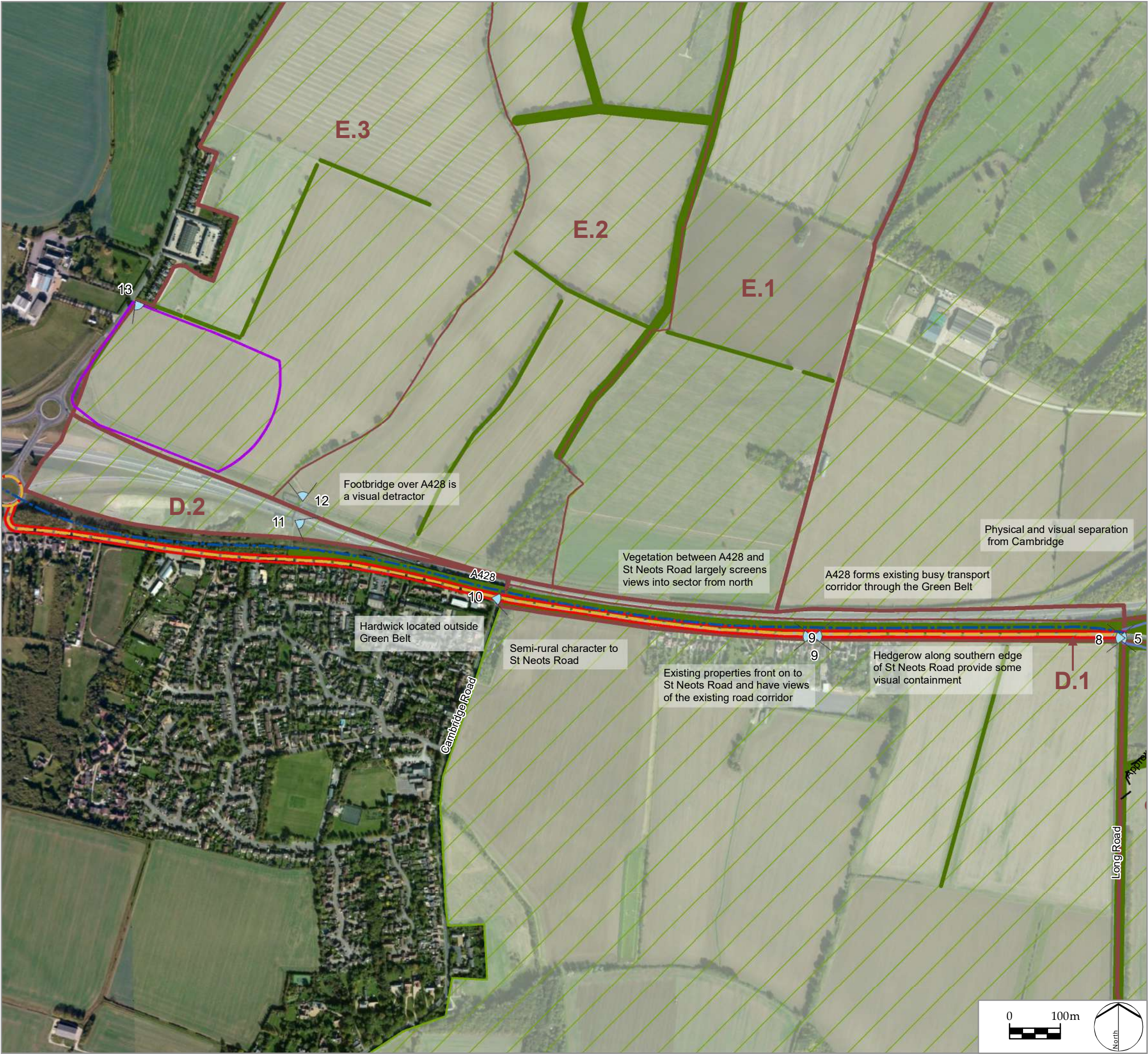
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CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

DRAWING TITLE
Figure 12:
Sector C Analysis

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LEGEND

Phase 2 route options

- Route Option 1 – Off-road segregated route
- Route Option 2 – On-road with junction improvements – low cost alternative
- Route Option 3 – On-road with public transport priority – lanes

Scotland Farm Park & Ride

Waterworks Park & Ride

Green Belt

Assessment Sectors

D.1 Assessment Sub Areas

Clipped hedgerow

Tall hedgerow or tree/woodland belt

Photograph locations

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PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

DRAWING TITLE
Figure 13:
Sector D Analysis

ISSUED BY	Peterborough	T: 01733 310 471
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LEGEND

Phase 2 route options

- Route Option 1 – Off-road segregated route
- Route Option 2 – On-road with junction improvements – low cost alternative
- Route Option 3 – On-road with public transport priority – lanes

Scotland Farm Park & Ride

Waterworks Park & Ride

Green Belt

Assessment Sectors

C.1 Assessment Sub Areas

Long Distance Footpath

Clipped hedgerow

Tall hedgerow or tree/woodland belt

Photograph locations

LDĀDESIGN

PROJECT TITLE
CAMBOURNE TO CAMBRIDGE RAPID TRANSIT ROUTE
PHASE 2

DRAWING TITLE
Figure 14:
Sector E Analysis

ISSUED BY	Peterborough	T: 01733 310 471
DATE	Sep 2019	DRAWN VW
SCALE @A3	1:10,000	CHECKED RK
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Photograph 1: Permissive route at Coton Countryside Reserve, west of Red Meadow Hill



Photograph 1: Permissive route at Coton Countryside Reserve, west of Red Meadow Hill
This viewpoint gives elevated views northwards across the valley of Bin Brook. Coton is visible in the middle distance, set within vegetation, with the church spire set against a wooded backdrop. There are glimpsed views of traffic travelling along the A1303 on the skyline, above the sloping ground north of Coton. The existing mast forms a prominent feature on the skyline.

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Peterborough				A428 CAMBOURNE TO CAMBRIDGE BUSWAY	
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STATUS	Final	APPROVED	ChC		
DWG. NO. 7069_115_VP1				Figure 15: Photograph 1	

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Photograph 2: A1303 north of Sector C
This viewpoint allows elevated views across open countryside west of Cambridge. It is an example of the intermittent views occasionally available from the A1303. Cambridge itself, with its landmark features, is not visible and Coton is not visible down in the valley of Bin Brook due to the foreground landform.



Photograph 3: Harcamlow Way/Wimpole Way west of Coton
This viewpoint looks northwards from the Harcamlow Way towards the A1303. Looking eastwards towards Cambridge, the spire of Coton church is occasionally visible along this route, although not from this specific location, but woodland screens much of the rest of the village from view. There are occasional glimpses of development in Cambridge, with a few of the landmark features within the historic core visible. The A1303 has very little impact on this view, with the mast on the high ground in the centre of the view forming a prominent elevated feature.

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STATUS	Final	APPROVED	ChC		
DWG. NO. 7069_116_VP2_3				Figure 16: Photographs 2 and 3	

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Photograph 4: Long Road, south west of Sector C
This viewpoint gives elevated views from the ridgeline south of Sector C and Bin Brook. Much of the sloping ground within Sector C is visible. The spire of Coton church is visible, but woodland screens much of the rest of the village from view. There are glimpses of development in Cambridge, with a few of the landmark features within the historic core visible. The A1303 has very little impact on this view, with the mast on the high ground forming a prominent elevated feature.



Photograph 5: Long Road on north west boundary of Sector C
This viewpoint provides channelled views along St Neots Road, from the existing footpath/cycleway on the southern side of the road. The tree belts along both sides of the road restrict views and prevent visibility towards Cambridge or any areas of open countryside, as well as screening the A428 from view.

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STATUS	Final	APPROVED	ChC		
DWG. NO. 7069_117_VP4_5				Figure 17: Photographs 4 and 5	



Photograph 6 (east): St Neots Road looking east, within Sector C
Similarly to nearby viewpoints, this location provides channelled views along St Neots Road from the existing footpath/cycleway on the southern side of the road. The tree belts along both sides of the road restrict views and prevent visibility towards Cambridge or any areas of open countryside, as well as screening the A428 from view.



Photograph 6 (west): St Neots Road looking west, within Sector C
Similarly to nearby viewpoints, this location provides channelled views along St Neots Road from the existing footpath/cycleway on the southern side of the road. The tree belts along both sides of the road restrict views and prevent visibility towards any areas of open countryside, as well as screening the A428 from view.



Photograph 7: A1303 roundabout with St Neot's Road, north east of Sector C
This viewpoint looks westward, away from Cambridge. Tree belts around the area of Sector C between the A428 and St Neots Road are prominent in the view and prevent wider views. Extensive road infrastructure is visible, but little other built development.

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DWG. NO. 7069_118_VP6_7

PROJECT TITLE
A428 CAMBOURNE TO CAMBRIDGE BUSWAY

DRAWING TITLE
Figure 18:
Photographs 6 and 7



Photograph 8: Long Road on eastern boundary of Sector D
This viewpoint looks west along St Neots Road towards Hardwick, from the existing footpath/cycleway on the southern side of the road. Vegetation along both sides of the road is lower than it is further to the east, but still restricts views towards any areas of open countryside or built developments, as well as screening the A428 from view.



Photograph 9 (east): St Neots Road looking east, within Sector D
This viewpoint looks east along St Neots Road, from the existing footpath/cycleway on the southern side of the road. Vegetation along the northern side of the road restricts views towards any areas of open countryside, as well as screening the A428 from view. A row of residential properties restricts views to the south.



Photograph 9 (west): St Neots Road looking west, within Sector D
This viewpoint looks west along St Neots Road, from the existing footpath/cycleway on the southern side of the road and across the parking laybys outside the row of residential properties that screen views to the south. Vegetation along the northern side of the road restricts views towards any areas of open countryside, as well as screening the A428 from view.

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DWG. NO. 7069_119_VP8_9

PROJECT TITLE
A428 CAMBOURNE TO CAMBRIDGE BUSWAY

DRAWING TITLE
Figure 19:
Photographs 8 and 9



Photograph 10: Cambridge Road on western boundary of Sector D
This viewpoint provides channelled views along St Neots Road, from the existing footpath/ cycleway on the southern side of the road. The tree belt along the northern side of the road prevents visibility of any areas of open countryside, as well as screening the A428 from view. Vegetation along the southern side of the road is lower and consists of a hedgerow only.



Photograph 11: Hardwick footbridge, within Sector D
This viewpoint provides elevated views over the strip of vegetation between the A428 and St Neots Road. Traffic is visible along the A428, but the vegetation prevents views towards the landmarks of Cambridge and the open countryside between Hardwick and Coton. Built development in Hardwick is also largely screened by the vegetation strip.

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Peterborough				A428 CAMBOURNE TO CAMBRIDGE BUSWAY			
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STATUS				DRAWING TITLE			
				Figure 20:			
DWG. NO. 7069_120_VP10_11				Photographs 10 and 11			

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Photograph 12: Hardwick footbridge, south of Sector E
This viewpoint provides elevated views over the undulating landform of Sector E. Built development along Scotland Road is visible amongst trees and woodland, and there are occasional views to higher landform in the distance. Dry Drayton church forms a landmark feature further north than the arc of view illustrated above. The A428 is a prominent feature to the left of the view.



Photograph 12: Scotland Road, west of Sector E
This viewpoint provides a view through a gap in the hedgerow along the eastern side of Scotland Road. The landform drops away to the south east, towards the Hardwick footbridge. The landscape appears wooded beyond the large arable field in the foreground, with the A428 screened from view and very little built development visible other than the footbridge. None of the landmarks in Cambridge are visible.

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Peterborough				A428 CAMBOURNE TO CAMBRIDGE BUSWAY	
t: 01733 310471					
DATE	Sep 2019	DRAWN	RK	DRAWING TITLE	
SCALE@A3	NTS	CHECKED	RK		
STATUS	Final	APPROVED	ChC		
DWG. NO. 7069_121_VP12_13				Figure 21: Photographs 12 and 13	



Photograph 14: Footpath from Dry Drayton churchyard, north of Sector E
This viewpoint has views over the undulating landform of Sector E. The southern part of the Sector, including the A428, is screened from view by the intervening landform. The landform also prevents views towards any of the landmarks in Cambridge and any of the necklace villages.



Photograph 15: Dry Drayton Road, north west of Madingley Hall and north of Sector E
This viewpoint also has views over the undulating landform of Sector E, which is more wooded in the east. The southern part of the Sector, including the A428, remains screened from view by a combination of the woodland and the intervening landform. The landform also prevents views towards any of the landmarks in Cambridge and any of the necklace villages.

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Peterborough				A428 CAMBOURNE TO CAMBRIDGE BUSWAY	
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DATE	Sep 2019	DRAWN	RK	DRAWING TITLE	
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STATUS	Final	APPROVED	ChC		
DWG. NO. 7069_122_VP14_15				Figure 22: Photographs 14 and 15	

Appendix 4: High court judgment for Samuel Smith Old Brewery (Tadcaster) and Oxton Farm against North Yorkshire County Council and Darrington Quarries Ltd (2018)



Neutral Citation Number: [2018] EWCA Civ 489

Case No: C1/2017/0829

IN THE COURT OF APPEAL (CIVIL DIVISION)
ON APPEAL FROM THE ADMINISTRATIVE COURT
PLANNING COURT
MR JUSTICE HICKINBOTTOM
[2017] EWHC 442 (Admin)

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 16 March 2018

Before:

Lord Justice Lewison
and
Lord Justice Lindblom

Between:

(1) Samuel Smith Old Brewery (Tadcaster)
(2) Oxton Farm

Appellants

- and -

(1) North Yorkshire County Council
(2) Darrington Quarries Ltd.

Respondents

Mr Peter Village Q.C. and Mr Ned Helme (instructed by **Pinsent Masons LLP**)
for the **Appellants**
Ms Nathalie Lieven Q.C. and Ms Hannah Gibbs (instructed by **North Yorkshire County**
Council) for the **First Respondent**
Mr Jonathan Easton (instructed by **Walker Morris LLP**) for the **Second Respondent**

Hearing date: 19 December 2017

**Judgment Approved by the court
for handing down
(subject to editorial corrections)**

Lord Justice Lindblom:

Introduction

1. Did a mineral planning authority misapply government policy for “mineral extraction” in the Green Belt when determining an application for planning permission for an extension to a limestone quarry in North Yorkshire? That is the basic question in this appeal.
2. The appellants, Samuel Smith Old Brewery (Tadcaster) and Oxton Farm, appeal against the order of Hickinbottom J., as he then was, dated 7 March 2017, dismissing their claim for judicial review of the planning permission granted by the first respondent, North Yorkshire County Council, in September 2016, for an extension to the operational face of Jackdaw Crag Quarry, a magnesian limestone quarry owned and operated by the second respondent, Darrington Quarries Ltd.. The quarry, which extends to about 25 hectares, is in the Green Belt, about 1.5 kilometres to the south-west of Tadcaster. It has been operated by Darrington Quarries for many years, planning permission for the extraction of limestone having first been granted in July 1948 and subsequently renewed.
3. The proposal here was submitted as an application for planning permission in October 2009. Approval was sought for an extension of about six hectares, which was expected to yield about two million tonnes of crushed rock over a period of seven years. Planning permission was granted on 7 January 2013, but later quashed for failings in the environmental impact assessment. The application eventually came back to the county council’s Planning and Regulatory Functions Committee on 9 February 2016. In her report to committee the county council’s Corporate Director – Business and Environmental Services recommended that planning permission be granted, and the committee accepted that recommendation. After a section 106 agreement was entered into, planning permission was granted on 22 September 2016.
4. Samuel Smith and Oxton Farm challenged the planning permission on the grounds that the officer misdirected the committee on the policy for minerals development in the Green Belt in paragraph 90 of the National Planning Policy Framework (“the NPPF”), so that the committee approached its decision, wrongly, on the basis that the proposal was not for “inappropriate development” in the Green Belt and did not have to be justified by “very special circumstances”. Hickinbottom J. rejected that argument. Samuel Smith and Oxton Farm appealed on the basis that he was wrong to do so. Lewison L.J. granted permission to appeal on 17 May 2017.

The issues in the appeal

5. The appeal raises the same four issues as were dealt with in the court below, namely:
 - (1) whether, in assessing the likely effect of the proposed development on the “openness” of the Green Belt, the county council’s committee erred in failing to consider its visual impact on the Green Belt;
 - (2) whether, in particular, the officer misled the committee in confining herself to the absence of “built” development as a relevant criterion of “openness”;
 - (3) whether the officer’s report was inconsistent in its conclusions on the likely impact of the development on “openness”; and

- (4) whether the officer misled the committee in advising that because the proposed development would adjoin the existing quarry, it would not be in conflict with the aim of preserving “openness”.

NPPF policy for the Green Belt

6. Paragraph 17 of the NPPF includes, as the fifth in the list of 12 “core land-use planning principles”, the principle that “planning should”, among other things, “take account of the different roles and character of different areas, promoting the vitality of our main urban areas, protecting the Green Belts around them ...”.
7. In section 9 of the NPPF, “Protecting Green Belt land”, paragraph 79 declares that “[the] fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence”. Paragraph 80 refers to the “five purposes” served by the Green Belt: first, “to check the unrestricted sprawl of large built-up areas”; second, “to prevent neighbouring towns merging into one another”; third, “to assist in safeguarding the countryside from encroachment”; fourth, “to preserve the setting and special character of historic towns”; and fifth, “to assist in urban regeneration, by encouraging the recycling of derelict and other urban land”. Paragraph 81 says local planning authorities “should plan positively” to do several things in the Green Belt, including “to retain and enhance landscapes [and] visual amenity”. Paragraph 85, which indicates the approach to be adopted in defining Green Belt boundaries, says, among other things, that local planning authorities should “not include land which is unnecessary to keep permanently open”.
8. The policies for development control in the Green Belt include these (in paragraphs 87 to 90):
 - “87. As with previous Green Belt policy, inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances.
 88. When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. ‘Very special circumstances’ will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.
 89. A local planning authority should regard the construction of new buildings as inappropriate in Green Belt. Exceptions to this are:
 - buildings for agriculture and forestry;
 - provision of appropriate facilities for outdoor sport, outdoor recreation and for cemeteries, as long as it preserves the openness of the Green Belt and does not conflict with the purposes of including land within it;
 - the extension or alteration of a building provided that it does not result in disproportionate additions over and above the size of the original building;
 - the replacement of a building, provided the new building is in the same use and not materially larger than the one it replaces;

- limited infilling in villages, and limited affordable housing for local community needs under policies set out in the Local Plan; or
- limited infilling or the partial or complete redevelopment of previously developed sites (brownfield land), whether redundant or in continuing use (excluding temporary buildings), which would not have a greater impact on the openness of the Green Belt and the purpose of including land within it than the existing development.

90. Certain other forms of development are also not inappropriate in Green Belt provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in Green Belt. These are:

- mineral extraction;
- engineering operations;
- local transport infrastructure which can demonstrate a requirement for a Green Belt location;
- the re-use of buildings provided that the buildings are of permanent and substantial construction; and
- development brought forward under a Community Right to Build Order.”

Development plan policy

9. When planning permission was granted for Darrington Quarries’ proposal, the relevant provisions of the development plan included several policies of the Selby District Core Strategy Local Plan, adopted in 2013. Policy SP3, “Green Belt”, replicated the fundamental principle in paragraph 87 of the NPPF – that inappropriate development in the Green Belt will not be approved unless the applicant has demonstrated “very special circumstances”. Policy SP13, “Scale and Distribution of Economic Growth”, stated, in paragraph D, that “development should be sustainable and be appropriate in scale and type to its location, not harm the character of the area, and seek a good standard of amenity”. Policy SP18, “Protecting and Enhancing the Environment”, which corresponds broadly to the policy in paragraph 109 of the NPPF, said that “[the] high quality and local distinctiveness of the natural and man-made environment will be sustained by” several specific means. These included “1. Safeguarding and, where possible, enhancing the historic and natural environment including the landscape character and setting of areas of acknowledged importance”, and “5. Identifying, protecting and enhancing locally distinctive landscapes, areas of tranquillity, public rights of way and access, open spaces and playing fields through Development Plan Documents”.

The officer’s report to committee

10. In section 4 of her report, “Consultations”, the officer referred to the consultation response of the county council’s Principal Landscape Architect on the “Potential Landscape Impacts” (in paragraphs 4.109 to 4.118).
11. As reported by the officer, that response contained a number of observations about the likely visual effects of the development, including these: that “the change in character would be permanent ...”, and “although the restored landscape may well be of considerable landscape and visual interest in itself, the quality of the Locally Important Landscape Area

as a whole would be compromised” – though there were “other detractors in this locality, particularly the A64 and the overhead power lines” (paragraph 4.109); that “as the site ... is an extension to an existing quarry the change in local character is considered to be of less significance than if it was a new site”, but “the larger the quarry, the less the capacity of the existing landscape to absorb it without its overall character being changed” (paragraph 4.110); that, as the Principal Landscape Architect had put it, “the quarry extension would still result, as with continuation of quarrying, in an exposed face close to the skyline which is likely to be as visible as it is at present if not more, and which would be closer to Warren House Farm and Cottages where there would be less benefit from restoration of the existing quarry”, and that the “proposed bunding and planting could help residents during the operational period but in the long term could cut off the long distance views that are currently obtained” (paragraph 4.111); that “the impact on perception of landscape quality and tranquillity could be greater even though there would be a smaller area of active disturbance at any one time” (paragraph 4.112); that “grade 2 agricultural land ... would be replaced by a deep lower level landscape restored to calcareous grassland of mainly nature conservation rather than agricultural value”, and “Crag Wood is already partly isolated by quarrying, and would remain as a prominent landscape feature perched unnaturally above the quarry floor but linked to it by new woodland planting” (paragraph 4.113); that “the proposed extension is likely to be visible from parts of the A64 and some areas of the countryside” (paragraph 4.114); and that, again as the Principal Landscape Architect put it, “Mitigation and ‘restoration’ measures would soften the landscape and visual impacts, and the nature conservation value of the new landscape would be much greater, but landscape character and quality would be permanently changed, so the impact cannot be described as neutral” (paragraph 4.115).

12. Clarifying that response to consultation, the Principal Landscape Architect had confirmed that she was “not objecting in principle to the application to extend the quarry”, but that the concerns she had raised about the potential landscape impact made it “particularly important to ensure that mitigation measures are maximised” (paragraph 4.118).
13. In section 7 of the report, “Planning Considerations”, under the heading “Landscape Impact”, the officer noted (in paragraph 7.41) that the Principal Landscape Architect had “reviewed the proposed development and in a response dated 11th August 2015 states that as the application in question was approved in January 2013 (before being quashed in December 2013 on procedural grounds) it would be difficult to justify an objection in principle unless there have been substantial changes in the landscape context since that date”. She then (in paragraphs 7.41 to 7.45) set out the salient points in the Principal Landscape Architect’s response, and said this (in paragraph 7.45):

“7.45 As part of this assessment, it is important to consider that the ... Principal Landscape Architect does not object to the proposed development outright. Instead, the County Planning Authority’s Principal Landscape Architect recommends the use of the previous draft (2014) [section 106 agreement] as a mechanism to control the development.”

She went on to say (in paragraph 7.47):

“7.47 In terms of policy compliance, it is considered that the proposed screening could protect the environment and residential receptors from potential landscape and visual impacts and it is considered that subject to the mitigation measures (controlled through the provisions of a [section 106 agreement]) that the proposed

development is in accordance with ‘saved’ policy 4/1 part (d) of the NYMLP; Policy SP18 of the adopted Selby Core Strategy Local Plan; ‘saved’ policy ENV9 of the Selby District Local Plan; the NPPF and NPPG.”

In a passage of her report headed “Cumulative impacts (including the relocation of High Pressure Pipeline)”, the officer noted Samuel Smith’s concern on this question (in paragraph 7.107), but concluded (in paragraph 7.116) that “[it] is not considered that the realigned pipeline would result in any significant cumulative environmental impacts ...”. Under the heading “Impacts upon the Green Belt” she began by referring to the relevant national and local policy context (in paragraphs 7.117 to 7.119):

“7.117 The Selby Core Strategy Local Plan identifies the application site within the West Yorkshire Green Belt. The Green Belt serves to prevent neighbouring towns from merging into one another, to assist in safeguarding the countryside from encroachment, to preserve the setting and special character of historic towns and, to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

7.118 From a national planning perspective, the NPPF reaffirms previous Green Belt policy and states that mineral extraction is not considered to be an inappropriate activity within the Green Belt, provided that developments preserve the openness of the Green Belt and do not conflict with the purposes of including land in the Green Belt. However, Mineral Planning Authorities should ensure that planning conditions for mineral working sites within Green Belts achieve suitable environmental standards and restoration, an approach which is mirrored within Policy SP13 of the Selby District Core Strategy Local Plan. Generally, when any large-scale development or redevelopment of land occurs within the Green Belt (including mineral extraction), it should, insofar as possible, contribute to the achievement of the objectives for the use of land in Green Belts. This approach applies to large scale developments irrespective of whether they are appropriate development.

7.119 Policy SP3 of the adopted Selby District Local Plan Core Strategy also advocates the protection of Green Belt land stating that, “*planning permission will not be granted for inappropriate development unless the applicant has demonstrated that very special circumstances exist to justify why permission should be granted*”.”

She then turned to Samuel Smith’s objection (in paragraph 7.120):

“7.120 Consultation responses from the objector SSOBT stated that the application site falling within the Green Belt is critical in the determination of the proposal and added that “*mineral extraction remains inappropriate development in the Green Belt unless it can be demonstrated that the proposal both preserves the openness of the Green Belt and doesn’t conflict with the purposes of including land within the Green Belt*”. The objector also stated that one of the aims of the Green Belt, in “*assisting in urban regeneration will be materially harmed by the development*”. The objector from The Old School also states that “*the area is virtually unspoilt Green Belt and is valued by hundreds every week*”.”

Her own conclusions followed (in paragraphs 7.121 to 7.126):

“7.121 When considering applications within the Green Belt, in accordance with the NPPF, it is necessary to consider whether the proposed development will firstly preserve the openness of the Green Belt and secondly ensure that it does not conflict with the purposes of including land within the Green Belt.

7.122 It is considered that the proposed development preserves the openness of the Green Belt and does not conflict with the purposes of including land within the Green Belt. Openness is not defined, but it is commonly taken to be the absence of built development. Although the proposed development would be on existing agricultural land, it is considered that because the application site immediately abuts the existing operational quarry, it would not introduce development into this area of a scale considered to conflict with the aims of preserving the openness of the Green Belt.

7.123 In terms of whether the proposed development does not conflict with the purposes of including land within the Green Belt, the proposed quarrying operations are not considered to conflict with the purposes of including land within the Green Belt. Equally, it is not considered that the proposed development would undermine the objective of safeguarding the countryside from encroachment as it should be considered that the site is in conjunction with an operational quarry which will be restored. The proposed development is a temporary use of land and would also be restored upon completion of the mining operations through an agreed DRMP.

7.124 The purposes of including land within the Green Belt to prevent the merging of neighbouring towns and impacts upon historic towns are not relevant to this site as it is considered the site is adequately detached from the settlements of Stutton, Towton and Tadcaster. It is also important to note that the A64 road to the north severs the application site from Tadcaster.

7.125 As mentioned in the response from SSOBT, one of the purposes of the Green Belt is assisting in urban regeneration which the objector claims will be undermined by the proposed development. Given the situation of the application site, adjacent to an existing operational quarry and its rural nature, and the fact that minerals can only be worked where they are found, it is considered that the site would not, therefore, undermine this aim of the Green Belt.

7.126 The restoration scheme is to be designed and submitted as part of a Section 106 Agreement, it is considered that there are appropriate controls to ensure adequate restoration of the site. Due to the proposed restoration of the temporary quarry and the fact that it is considered the proposal doesn't conflict with the aims of the Green Belt, it is considered that the proposed development would not materially harm the character and openness of the Green Belt, and would, therefore, comply with Policy SP3 and SP13 of the Selby District Core Strategy Local Plan and NPPF.”

14. In section 8 of her report, “Conclusion”, the officer said, in paragraphs 8.4 and 8.5:

“8.4 It is considered that the proposed screening could protect the environment and residential receptors from potential landscape and visual impacts.

8.5 Due to the proposed restoration of the temporary quarry and the fact that it is considered the proposal doesn't conflict with the aims of the Green Belt, it is considered that the proposed development would not materially harm the character and openness of the Green Belt."

Paragraphs 89 and 90 of the NPPF

15. In several cases the meaning and effect of the policies in paragraphs 89 and 90 of the NPPF have been considered by the court.
16. In *Europa Oil and Gas Ltd. v Secretary of State for Communities and Local Government* [2013] EWHC 2643 (Admin), a case in which mineral extraction was proposed in the Green Belt, Ouseley J. said (in paragraph 64) that "any correct analysis of the proviso to NPPF 90 ... has to start from the different premise that such exploration or extraction can be appropriate", and "[the] premise ... for a proper analysis is that there is nothing inherent in the works necessary, generally or commonly found for extraction, which would inevitably take it outside the scope of appropriate development in the Green Belt". He added (in paragraph 65) that "some level of operational development for mineral extraction ... has to be appropriate and necessarily in the Green Belt without compromising the two objectives", and "[were] it otherwise, the proviso would always negate the appropriateness of any mineral extraction in the Green Belt and simply make the policy pointless". He observed (in paragraph 66) that, "as Green Belt policies NPPF 89 and 90 demonstrate, considerations of appropriateness, preservation of openness and conflict with Green Belt purposes are not exclusively dependent on the size of building or structures but include their purpose". These concepts, he said, "are to be applied, in the light of the nature of a particular type of development". He went on to say (in paragraph 67) that "[one] factor which affects appropriateness, the preservation of openness and conflict with Green Belt purposes, is the duration of development and the reversibility of its effects". He recalled the truism that "[minerals] can only be extracted where they are found". The "general thrust" of that reasoning was duly endorsed by this court ([2014] EWCA Civ 825: see the judgment of Richards L.J., at paragraphs 35 to 41, in particular paragraph 37).
17. In *Timmings and another v Gedling Borough Council* [2014] EWHC 654 (Admin), where the proposal was for the development of a crematorium and cemetery in the Green Belt, Green J. said (in paragraph 74 of his judgment) that "[any] construction harms openness quite irrespective of its impact in terms of its obtrusiveness or its aesthetic attractions or qualities". But he went further. He stated (in paragraph 78), apparently as general propositions, that "there is a clear conceptual distinction between openness and visual impact", and that "it is ... wrong *in principle* to arrive at a specific conclusion as to openness by reference to visual impact". In the appeal to this court ([2015] EWCA Civ 10), which was unsuccessful, those propositions were not contentious, and the court said nothing about them.
18. In his judgment on the appeal in that case, Richards L.J. said (at paragraph 31) that paragraphs 89 and 90 of the NPPF are "properly to be read as closed lists". Paragraph 89, he said, "states the general rule that the construction of new buildings is inappropriate development and sets out the only exceptions to that general rule", while paragraph 90 "sets out other forms of development (mineral extraction, engineering operations, etc) that are appropriate provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in Green Belt". There was "no general test that development

is appropriate provided it preserves the openness of the Green Belt and does not conflict with the purposes of including land within the Green Belt”.

19. In *R. (on the application of Lee Valley Regional Park Authority) v Epping Forest District Council* [2016] EWCA Civ 404, when referring specifically to the broad and basic statement of national Green Belt policy in paragraph 79 of the NPPF, with its emphasis on the “essential characteristics of Green Belts” as “their openness and their permanence”, I said that “[the] concept of “openness” here means the state of being free from built development, the absence of buildings – as distinct from the absence of visual impact” (paragraph 7 of my judgment). This reflects the essential and enduring function of government policy for the Green Belt in keeping land free from development inimical to its continued protection as Green Belt, even where the visual impact of such development on the openness of the Green Belt may not be unacceptable. It recognizes that Green Belt policy regards most forms of development as, in principle, “inappropriate” in the Green Belt simply because it would be there. But it does not mean that the expression “the openness of the Green Belt”, when used in various specific contexts within the development control policies in paragraphs 87 to 90, is to be understood as excluding the visual effects of a particular development on the openness of the Green Belt. That is not so – as this court subsequently explained in *Turner v Secretary of State for Communities and Local Government* [2016] EWCA Civ 466.

20. In *Lee Valley Regional Park Authority* (at paragraph 18), in the light of previous authority, I set out this understanding of the distinction between development that is, in principle, “inappropriate”, and that which is not:

“18. A fundamental principle in national policy for the Green Belt, unchanged from PPG2 to the NPPF, is that the construction of new buildings in the Green Belt is “inappropriate” development and should not be approved except in “very special circumstances”, unless the proposal is within one of the specified categories of exception in the “closed lists” in paragraphs 89 and 90. ... The distinction between development that is “inappropriate” in the Green Belt and development that is not “inappropriate” (i.e. appropriate) governs the approach a decision-maker must take in determining an application for planning permission. “Inappropriate development” in the Green Belt is development “by definition, harmful” to the Green Belt – harmful because it is there – whereas development in the excepted categories in paragraphs 89 and 90 of the NPPF is not. ...”.

21. Later (in paragraph 26), I said:

“26. That is not to say ... that proposals for the erection of agricultural buildings in the Green Belt will escape other policies in the NPPF, and in the development plan, including policies directed to the visual effects of development and the protection of the countryside or the character of the landscape. Policies of this kind will bear not only on proposals for development that is inappropriate in the Green Belt but also on proposals for development that is appropriate. When such policies are applied, the size and bulk of the building, and its “siting, materials [and] design” ..., are likely to be important considerations. Establishing the status of a proposed development – inappropriate in the Green Belt or appropriate – remains only the first step for the decision-maker As paragraph 88 of the NPPF makes plain, inappropriate development can prove to be acceptable if “very special circumstances” are shown to exist And development that is not inappropriate,

because it is within one of the exceptional categories in paragraphs 89 and 90 and thus not potentially harmful to the Green Belt “by reason of inappropriateness”, may still be unacceptable for other planning reasons.”

22. In *Turner Sales L.J.* said (in paragraphs 14, 15 and 16 of his judgment):

- “14. The concept of “openness of the Green Belt” is not narrowly limited to the volumetric approach suggested by [counsel]. The word “openness” is open-textured and a number of factors are capable of being relevant when it comes to applying it to the particular facts of a specific case. Prominent among these will be factors relevant to how built up the Green Belt is now and how built up it would be if redevelopment occurs ... and factors relevant to the visual impact on the aspect of openness which the Green Belt presents.
15. The question of visual impact is implicitly part of the concept of “openness of the Green Belt” as a matter of the natural meaning of the language used in para.89 of the NPPF. I consider that this interpretation is also reinforced by the general guidance in paras[.]79-81 of the NPPF, which introduce section 9 on the protection of Green Belt Land. There is an important visual dimension to checking “the unrestricted sprawl of large built-up areas” and the merging of neighbouring towns, as indeed the name “Green Belt” itself implies. Greenness is a visual quality: part of the idea of the Green Belt is that the eye and the spirit should be relieved from the prospect of unrelenting urban sprawl. Openness of aspect is a characteristic quality of the countryside, and “safeguarding the countryside from encroachment” includes preservation of that quality of openness. The preservation of “the setting ... of historic towns” obviously refers in a material way to their visual setting, for instance when seen from a distance across open fields. Again, the reference in para.81 to planning positively “to retain and enhance landscapes, visual amenity and biodiversity” in the Green Belt makes it clear that the visual dimension of the Green Belt is an important part of the point of designating land as Green Belt.
16. The visual dimension of the openness of the Green Belt does not exhaust all relevant planning factors relating to visual impact when a proposal for development in the Green Belt comes up for consideration. ... But it does not follow from the fact that there may be other harms with a visual dimension apart from harm to the openness of the Green Belt that the concept of openness of the Green Belt has no visual dimension itself.”

Sales L.J. referred to the first instance judgment in *Timmins*, and said (in paragraph 18) that Green J. had gone too far in stating the two propositions I have mentioned. He went on to say (in paragraphs 23 and 25):

- “23. At [paragraph 22 of his judgment in *R. (on the application of Heath and Hampstead Society) v Camden London Borough Council* [2007] EWHC 977 (Admin)] Sullivan J said, “The loss of openness (i.e. unbuilt on land) within the Green Belt or Metropolitan Open Land is of itself harmful to the underlying policy objective”. Since the concept of the openness of the Green Belt has a spatial or physical aspect as well as a visual aspect, that statement is true in the context of the NPPF as well, provided it is not taken to mean that openness is *only* concerned with the spatial issue. Such an interpretation accords with the guidance on

interpretation of the NPPF given by this court in [*Timmins*] and [*Redhill Aerodrome Ltd. v Secretary of State for Communities and Local Government* [2014] EWCA Civ 1386], to the effect that the NPPF is to be interpreted as providing no less protection for the Green Belt than PPG 2. ...

...

25. This [i.e. paragraph 37 of Sullivan J.'s judgment in *Heath and Hampstead Society*] remains relevant guidance in relation to the concept of openness of the Green Belt in the NPPF. The same strict approach to protection of the Green Belt appears from [paragraph 87] of the NPPF. The openness of the Green Belt has a spatial aspect as well as a visual aspect, and the absence of visual intrusion does not in itself mean that there is no impact on the openness of the Green Belt as a result of the location of a new or materially larger building there. But, as observed above, it does not follow that openness of the Green Belt has no visual dimension.

26. ... At any rate, Sullivan J does not say that the openness of the Green Belt has no visual dimension. Hence I think that Green J erred in *Timmins* in taking the *Heath and Hampstead Society* case to provide authority for the two propositions he sets out at [paragraph 78] of his judgment, to which I have referred above."

Sales L.J. said that the inspector in *Turner* had been "entitled to take into account the difference in the visual intrusion on the openness of the Green Belt as he did ..." (paragraph 27).

Issue (1) – the impact of the development on the visual openness of the Green Belt

23. For Samuel Smith and Oxton Farm, Mr Peter Village Q.C. submitted that although the officer had referred in her report to the likely effects of the development on the landscape and to its visual impacts more generally, she had not done so in considering the visual effect of the development on the "openness of the Green Belt" as such, and that this failure was fatal to the county council's grant of planning permission.
24. The judge had rejected the challenge on this ground on the basis that the county council was not required in law to take into account those impacts in considering the openness of the Green Belt (paragraphs 50 to 66 of his judgment), and that, in any event, the officer's conclusion, and the members', would have been no different if she had (paragraphs 67 and 68). When referring to the Court of Appeal's decision in *Turner*, the judge said that the court had held "not that [the inspector] was *obliged* to take visual impact into account, but only that, in the circumstances of the particular case, he was *entitled* to do so", and "nowhere does Sales LJ suggest that a decision-maker is required to take into account visual impact in every Green Belt case in which openness is an issue" (paragraph 51). He did not suggest that, on a fair reading of the officer's report, she did take visual impact into account when considering the "openness of the Green Belt". He concluded that the officer "did not err in not taking into consideration any potential visual impact from the development" on the openness of the Green Belt (paragraph 65).
25. Mr Village submitted that the judge's analysis was incorrect. The county council had to confront the question of whether the proposed development would, in visual as well as spatial terms, preserve the "openness of the Green Belt" and thus satisfy the general proviso

in paragraph 90 of the NPPF. It failed to do that. Guided by the officer's advice, the members had assumed that the effect of the development on the visual openness of the Green Belt was not, and could not be, a relevant consideration in establishing whether the proposal was for "inappropriate" development in the Green Belt. But in this case it plainly was. This would be an extension of six hectares to an existing quarry of some 25 hectares. As one would expect for a development of this nature and this scale, and as the officer had accepted, there would be considerable landscape and visual impacts. From the Principal Landscape Architect's comments it was clear that those impacts could not be fully mitigated. But they were not brought into account in the officer's consideration of the effect of the development on the "openness of the Green Belt". They should have been. Under the policy in paragraph 90, they were an "obviously material" consideration (see *CREEDNZ Inc. v Governor General* [1981] 1 N.Z.L.R. 172). Had they been considered, the only reasonable conclusion for the committee would have been that the development would not preserve the openness of the Green Belt, and that this was therefore "inappropriate development", which would have had to be justified by "very special circumstances". Samuel Smith's planning consultant had made this point in letters of objection to the county council dated 23 October 2014 and 19 August 2015. But, submitted Mr Village, even if this were a case in which the effect of the development on the visual openness of the Green Belt could be disregarded in applying the policy in paragraph 90, the officer would have had to explain why. And she did not. This, in itself, was a fatal flaw. The judge was also wrong to conclude that the decision would have been no different if the effects of the development on visual openness had been considered.

26. Those submissions were countered by Ms Nathalie Lieven Q.C. for the county council, and Mr Jonathan Easton for Darrington Quarries.
27. Ms Lieven stressed the fundamental principle that matters of planning judgment are for the decision-maker, not the court. Mr Village's argument was, she submitted, an attack on the officer's planning judgment. The committee report should be read fairly, and as a whole. The officer did not take visual impact into account when considering the likely effect of the development on the "openness of the Green Belt". But at that stage she did not have to repeat the advice she had already given on landscape and visual impact. As she explained in paragraphs 7.37 to 7.47 of her report, in her planning judgment – which the members obviously accepted – there would be no material harm to the landscape and no other unacceptable visual impacts. When she came to consider the "openness of the Green Belt" she was concerned only with the likely effects on physical openness.
28. The advice in paragraphs 7.117 to 7.126 of the officer's report was, Ms Lieven submitted, legally impeccable. The officer did not misconstrue the policy in paragraph 90 of the NPPF. In paragraph 7.118 she identified "precisely the correct test", and in paragraph 7.122 she applied it properly – just as Ouseley J. had indicated in *Europa Oil*, with the endorsement of this court. Whether the effects of a development on the openness of the Green Belt were significant enough to disqualify the proposal from the status of "not inappropriate" development was a matter for the planning judgment of the decision-maker – which did not have to include, in every case, a consideration of the effects of the development on the visual openness of the Green Belt. This understanding of the policy was consistent with what Sales L.J. said in paragraph 15 of his judgment in *Turner*. Applying relevant local planning policy – in particular Policy SP3 and Policy SP13 – the officer had concluded that there was no basis for rejecting the proposal on the grounds of landscape or visual impact. That conclusion formed the backdrop to her conclusion, in paragraph 7.126 of her report, that the development "would not materially harm the character and openness of the Green

Belt, and would, therefore, comply with Policy SP3 and SP13 of the [local plan] and NPPF” – a conclusion she repeated in paragraph 8.5.

29. Ms Lieven also submitted, however, that the court should not hesitate to exercise its discretion, under section 31(2A) of the Senior Courts Act 1981, to uphold the county council’s decision. As the judge concluded (in paragraph 67 of his judgment), the decision would have been the same if the alleged error had not been made.
30. Mr Easton adopted Ms Lieven’s submissions. Under the policy in paragraph 90 of the NPPF, he submitted, development for minerals extraction was, in principle, “not inappropriate” in the Green Belt. So long as the test in the preamble in paragraph 90 was properly understood by the decision-maker, as it was here, its application was “quintessentially a matter of planning judgment”. It did not inevitably require a consideration of the effect of a development on the visual openness of the Green Belt in every such case. But anyway, in the light of what Sales L.J. said in paragraph 15 of his judgment in *Turner*, “visual openness” was inherent in the purposes of the Green Belt, and it followed that if the purposes of the Green Belt were properly considered by the decision-maker, there must have been a proper consideration of “visual openness” in that exercise.
31. On discretion, Mr Easton submitted that, in conclusions not the subject of any criticism in these proceedings, the officer had found that the proposal complied with policies SP13 and SP18 of the local plan. Policy SP13 is concerned with, among other things, the avoidance of “harm [to] the character of the area”, Policy SP18 with, among other things, the protection of the landscape. It would have been a complete answer to Mr Village’s argument, Mr Easton submitted, if those conclusions, and the assessment on which they were based, had simply been replicated in the part of the report where she dealt with the effect of the development on the openness of the Green Belt. At worst, therefore, if the court had to exercise its discretion, the only sensible conclusion would be that the committee’s decision would have been the same.
32. In my view there is force in Mr Village’s argument here. On a fair reading of the officer’s report as a whole, one is left, I think, with the troubling impression that the policy in paragraph 90 of the NPPF was misunderstood and misapplied, and the conclusion, therefore, that the county council’s decision was unlawful and cannot be allowed to stand.
33. Ms Lieven was, of course, right to emphasize that the court must not intrude on the decision-maker’s exercise of planning judgment, except where the principles of public law compel it to do so. That is a point repeatedly stressed by this court (see, for example, my judgment in *Barwood Strategic Land II LLP v East Staffordshire Borough Council* [2017] EWCA Civ 893, at paragraphs 9 to 14). Ms Lieven was also right to remind us of this court’s recent warnings against excessive legalism infecting the planning system (see my judgment in *St Modwen Developments Ltd. v Secretary of State for Communities and Local Government* [2017] EWCA Civ 1643, at paragraph 7). And she was right to submit that an officer’s report to committee must be read with reasonable benevolence (see my judgment in *Mansell v Tonbridge and Malling Borough Council* [2017] EWCA Civ 1314, at paragraph 42). However, none of those familiar principles detracts from the need for the court to intervene where a planning decision has been made by a local planning authority on the basis of a misunderstanding and misapplication of national planning policy.
34. The approach to be taken to the interpretation of NPPF policy is well established and needs no elaboration here. Such statements of policy should be interpreted objectively in

accordance with the language used, read always in its proper context, and not as if they were statutory or contractual provisions (see the judgment of Lord Reed in *Tesco Stores Ltd. v Dundee City Council* [2012] UKSC 13, at paragraphs 18 and 19). It is necessary to distinguish between issues of interpretation, appropriate for judicial analysis, and issues of planning judgment in applying that policy; and not to elide the two (see Lord Carnwath's judgment in *Suffolk Coastal District Council v Hopkins Homes Ltd.* [2017] UKSC 37, at paragraphs 22 to 26).

35. Here, in my view, the crucial question is whether the officer, with whom it may be assumed the committee agreed, grasped the true meaning of the preamble in paragraph 90 of the NPPF. I do not think she did.
36. As the judge recognized (in paragraphs 14 and 15 of his judgment), the policies in paragraphs 89 and 90 of the NPPF are differently framed. The policy in paragraph 89, which is concerned with “new buildings” in the Green Belt, and defines six categories of such development that are not to be regarded, in principle, as “inappropriate in the Green Belt”, does not contain a generic qualification or proviso applicable to all six categories. The first category, “buildings for agriculture and forestry”, is unqualified. The other five are all subject to some qualification or proviso, two of them – the second and the sixth – by reference, in part, to “the openness of the Green Belt”. By contrast, the policy in paragraph 90, which is concerned with “[certain] other forms of development” that “are also not inappropriate in Green Belt” contains, in its preamble, a proviso that applies to all five categories of development to which it relates. There are two separate elements to that proviso. The first is the preservation of “the openness of the Green Belt”; the second is the avoidance of conflict with “the purposes of including land in Green Belt”. The focus in this case is on the first of those two elements.
37. The concept of “the openness of the Green Belt” is not defined in paragraph 90. Nor is it defined elsewhere in the NPPF. But I agree with Sales L.J.’s observations in *Turner* to the effect that the concept of “openness” as it is used in both paragraph 89 and paragraph 90 must take its meaning from the specific context in which it falls to be applied under the policies in those two paragraphs. Different factors are capable of being relevant to the concept when it is applied to the particular facts of a case. Visual impact, as well as spatial impact, is, as Sales L.J. said, “implicitly part” of it. In a particular case there may or may not be other harmful visual effects apart from harm in visual terms to the openness of the Green Belt. And the absence of other harmful visual effects does not equate to an absence of visual harm to the openness of the Green Belt.
38. As a general proposition, however, it seems to me that the policy in paragraph 90 makes it necessary to consider whether the effect of a particular development on the openness of the Green Belt can properly be gauged merely by its two-dimensional or three-dimensional presence on the site in question – the very fact of its being there – without taking into account the effects it will have on the openness of the Green Belt in the eyes of the viewer. To exclude visual impact, as a matter of principle, from a consideration of the likely effects of development on the openness of the Green Belt would be artificial and unrealistic. The policy in paragraph 90 does not do that. A realistic assessment will often have to include the likely perceived effects on openness, if any, as well as the spatial effects. Whether, in the individual circumstances of a particular case, there are likely to be visual as well as spatial effects on the openness of the Green Belt, and, if so, whether those effects are likely to be harmful or benign, will be for the decision-maker to judge. But the need for those judgments to be exercised is, in my view, inherent in the policy.

39. The first part of the question posed by the preamble in paragraph 90 – whether the development would “preserve” the openness of the Green Belt – cannot mean that a proposal can only be regarded as “not inappropriate in Green Belt” if the openness of the Green Belt would be left entirely unchanged. It can only sensibly mean that the effects on openness must not be harmful – understanding the verb “preserve” in the sense of “keep ... safe from harm” – rather than “maintain (a state of things)” (Shorter Oxford English Dictionary, 4th edn.). There may be cases in which a proposed development in the Green Belt will have no harmful visual effects on the openness of the Green Belt. Indeed, there may be cases in which development will have no, or no additional, effect on the openness of the Green Belt, either visual or spatial. A good example might be development of the kind envisaged in the fourth category of development referred to in paragraph 90 of the NPPF – “the re-use of buildings provided that the buildings are of permanent and substantial construction”. But development for “mineral extraction” in the Green Belt, the category of development with which we are concerned, will often have long-lasting visual effects on the openness of the Green Belt, which may be partly or wholly repaired in the restoration phase – or may not. Whether the visual effects of a particular project of mineral working would be such as to harm the openness of the Green Belt is, classically, a matter of planning judgment.
40. In my view, therefore, when the development under consideration is within one of the five categories in paragraph 90 and is likely to have visual effects within the Green Belt, the policy implicitly requires the decision-maker to consider how those visual effects bear on the question of whether the development would “preserve the openness of the Green Belt”. Where that planning judgment is not exercised by the decision-maker, effect will not be given to the policy. This will amount to a misunderstanding of the policy, and thus its misapplication, which is a failure to have regard to a material consideration, and an error of law.
41. That such an error occurred in this case is, I think, clear.
42. The proposed development was a substantial extension to a large existing quarry, with a lengthy period of working and restoration. As the Principal Landscape Architect recognized in her response to consultation, and the officer acknowledged without dissent in her report, there would be permanent change to the character of the landscape (paragraphs 4.109 and 4.115 of the report). The “quality of the Locally Important Landscape Area as a whole would be compromised” (paragraph 7.41). The exposed face of the extended quarry would be as visible as that of the existing quarry, if not more so (paragraphs 4.111 and 7.42). Long distance views could be cut off by the proposed bunding and planting. Agricultural land would ultimately be replaced by a “deep lower level landscape” of grassland (paragraph 4.113). The “character and quality” of the landscape would be “permanently changed” and the “impact cannot be described as neutral” (paragraphs 4.115 and 7.44). Concluding her assessment of “Landscape Impact”, the officer was satisfied that the “proposed screening could protect the environment and residential receptors from potential landscape and visual impacts”, and that with the proposed mitigation measures the development would comply with national and local policy (paragraphs 7.47 and 8.4).
43. That assessment did not deal with the likely effects of the development on the openness of the Green Belt as such, either spatial or visual. It does show, however, that there would likely be – or at least could be – effects on openness in both respects, including the closing-off of long distance views by the bunding and planting that would screen the working

(paragraph 4.111 of the officer's report). The officer's conclusion overall (in paragraph 7.47) was, in effect, that the proposed screening would be effective mitigation, without which the development would not be acceptable. But this was not followed with any discussion of the harmful effects that the screening measures themselves might have on the openness of the Green Belt.

44. The officer's assessment of the development's likely effects on the openness of the Green Belt is to be found in the section of her report headed "Impacts upon the Green Belt". It is clear from paragraph 7.121 that she understood the need, under the policy in paragraph 90 of the NPPF, to consider both the likely effects of the proposed development on the openness of the Green Belt and also whether it would conflict with the purposes of including land in the Green Belt. The first of those two questions she considered in paragraph 7.122, the second in paragraphs 7.123 to 7.125, her conclusion following in paragraph 7.126. She did not say, in so many words, that the development was "not inappropriate" in the Green Belt, but that is plainly what she did conclude. There was no consideration of "very special circumstances" to justify development that was "inappropriate".
45. So it is to paragraph 7.122 that one must look, at least in the first place, to see whether the officer considered the relevance of visual impact to the effect of this development on the openness of the Green Belt. Did she confront this question, and bring the committee's attention to it? I do not think she did. She neither considered, in substance, the likely visual impact of the development on the openness of the Green Belt nor, it seems, did she ask herself whether this was a case in which an assessment of visual impact was, or might be, relevant to the question of whether the openness of the Green Belt would be preserved. Indeed, her observation that openness is "commonly taken to be the absence of built development" seems deliberately to draw the assessment away from visual impact, and narrow it down to a consideration of spatial impact alone. And the burden of the assessment, as I read it, is that because the further extraction of limestone would take place next to the existing quarry, the "scale" of the development would not fail to preserve the openness of the Green Belt. This seems a somewhat surprising conclusion. But what matters here is that it is a consideration only of spatial impact. Of the visual impact of the quarry extension on the openness of the Green Belt, nothing is said at all. That was, it seems to me, a significant omission, which betrays a misunderstanding of the policy in paragraph 90 of the NPPF.
46. One must not divorce paragraph 7.122 from its context. The report must be read fairly as a whole. The question arises, therefore: did the officer address the visual impact of the development on the openness of the Green Belt in the remaining paragraphs of this part of her report, or elsewhere? I do not think she did. Her consideration of the effects of the development on the "purposes of including land in the Green Belt", in paragraphs 7.123 to 7.125, is unexceptionable in itself. However, she did not, in these three paragraphs, revisit the question of harm to the openness of the Green Belt, either in spatial or in visual terms. The conclusion to this part of the report, in paragraph 7.126, is that the "character and openness of the Green Belt" would not be materially harmed by the development – a conclusion repeated in paragraph 8.5 – and that the proposal would therefore comply with Policy SP3 and Policy SP13 of the local plan and the NPPF. But I cannot accept that this conclusion overcomes the lack of consideration of visual impacts on "openness" in the preceding paragraphs. It seems to treat "character" as a concept distinct from "openness". Even if these two concepts can be seen as related to each other, and however wide the concept of "character" may be, there is no suggestion here that the officer was now providing a conclusion different from that in paragraph 7.122, or additional to it.

47. The same may also be said of the officer's earlier discussion of "Landscape Impact" in paragraphs 7.41 to 7.47. Her assessment and conclusions in that part of her report are not imported into paragraph 7.122, or cross-referred to as lending support to her conclusion there. As the judge said (in paragraph 26 of his judgment), the officer's conclusion in paragraph 7.47 was that "with the proposed mitigation, the potential adverse landscape and visual impact ... would be acceptable in the sense that it was outweighed by other factors such as the social and economic benefits of continued mineral extraction on site: a point expressly minuted as having been made by the Head of Planning [Services] at the 9 February 2016 Committee meeting". This point might have been relevant to an argument on "very special circumstances" justifying "inappropriate development" in the Green Belt, but this is not how it was presented to the committee. Nor was it carried into the officer's discussion of the effect of the development on the openness of the Green Belt, and the question of whether it was or was not "inappropriate" development, requiring such justification.
48. The officer's final "Conclusion" in section 8 takes one no further. No other passage of the report has been relied on as providing advice to the members on this point.
49. I can only conclude, therefore, that the advice given to the committee by the officer was defective. It was defective, at least, in failing to make clear to the members that, under government planning policy for mineral extraction in the Green Belt in paragraph 90 of the NPPF, visual impact was a potentially relevant and potentially significant factor in their approach to the effect of the development on the "openness of the Green Belt", and hence to the important question of whether the proposal before them was for "inappropriate" development in the Green Belt – and, indeed, in implying that the opposite was so. She ought to have advised the members that they were entitled to take visual impact into account when determining that issue. One can go further. On the officer's own assessment of the likely effects of the development on the landscape, visual impact was quite obviously relevant to its effect on the openness of the Green Belt. So the consideration of this question could not reasonably be confined to spatial impact alone.
50. Even the first of those two defects, on its own, shows a failure to understand national planning policy properly and to apply it lawfully. The officer's approach was inconsistent with Sales L.J.'s analysis in *Turner* (in particular, in paragraphs 14, 15, 16, 23, 25 and 26). She adopted an overly narrow conception of the "openness of the Green Belt", and, in consequence, failed to exercise the planning judgments required by paragraph 90 of the NPPF. In my view, therefore, the advice in her report was significantly misleading (see paragraph 42(3) of my judgment in *Mansell*).
51. It may be that the officer was herself led into error by the approach taken at first instance in *Timmins*, especially the two propositions later disapproved by this court in *Turner* – that "there is a clear conceptual distinction between openness and visual impact", and that "it is ... wrong in principle to arrive at a specific conclusion as to openness by reference to visual impact". When the application for planning permission went before the committee on 9 February 2016, judgment had yet to be given by this court in *Lee Valley Regional Park Authority* (on 22 April 2016) and *Turner* (on 18 May 2016). It is understandable, therefore, that the officer may have relied, mistakenly, on the misapprehension of NPPF policy in *Timmins*. We need not speculate about that. Whatever the reason may be, the officer's approach was at fault, and her error was not corrected with any further advice to the committee before planning permission was eventually granted on 22 September 2016.

52. As for discretion, I cannot accept the submissions made by Ms Lieven and Mr Easton. The question on which the county council erred in law was pivotal in its decision. I do not think one can be confident at all that if the effect of the development on the “openness of the Green Belt” had been properly considered in the officer’s report, the committee’s decision would likely have been the same as it was. It might very well have been different. If the conclusion had been that, because of its visual impact, the development would damage the “openness of the Green Belt”, and that this was, therefore, “inappropriate” development in the Green Belt, planning permission for it could not have been granted unless “very special circumstances” had been demonstrated. The officer’s report contained no alternative assessment on the basis that, contrary to her view, the proposal was “inappropriate” development, and no advice to the members on the question of “very special circumstances” if this were so. In these circumstances, as Mr Village submitted, it would be wrong for the court to exercise its discretion to save the planning permission.
53. In the light of those conclusions, I can take the remaining issues more shortly.

Issue (2) – the absence of “built” development as a criterion of “openness”

54. Mr Village submitted that the officer misled the members with her advice, in paragraph 7.122 of her report, that the term “openness” was commonly taken to mean the absence of “built” development, thus leading them to think that, under national policy for the Green Belt, quarrying was, in principle, less harmful to the openness of the Green Belt than the erection of buildings.
55. Ms Lieven and Mr Easton submitted that this complaint was unreal. The officer did not ignore the likely effect of the development on the openness of the Green Belt. She quite plainly accepted that this was an issue the committee had to address. Had she thought that the extraction of minerals was exempt from such assessment because it was not “built” development, she would not have done that.
56. It seems to me that Mr Village’s argument here probably goes too far. It is true that the way in which the officer put her advice in paragraph 7.122 – as well as narrowing the concept of openness to a consideration purely of spatial impact, which is enough to vitiate her assessment and the committee’s decision – can also be read as confining that concept to the effects of “built” development alone. This too was in error, at least in the sense that it was, on its face, inaccurate and potentially misleading advice. And it is certainly of a piece with the officer’s mistaken concentration on the spatial aspect of openness to the exclusion of the visual.
57. But I think one might take a more generous view, which is also perhaps more realistic. The intended emphasis here may have been simply on the absence of development, rather than on the absence of “built” development as such. Although the officer did not refer explicitly to the policy in paragraph 90 of the NPPF, it seems clear from paragraphs 7.121 to 7.126 of her report that she was purporting to apply that policy. She did not suggest that the proposed development of mineral extraction fell beyond the reach of the policy, so that its effect on the “openness of the Green Belt” could be put entirely to one side. Read together with paragraph 7.121 of the report, paragraph 7.122 cannot be said to steer the committee away from considering the effect of the development on the “openness of the Green Belt” altogether, or necessarily to treat “mineral extraction” in the Green Belt as subject to a less

stringent policy than “built” development. Nor can it be said that the officer neglected the effects of the development on the purposes of including land in the Green Belt.

58. In my view, therefore, this mistake in the officer’s advice would not have been enough on its own to warrant the quashing of the planning permission. If anything, it merely compounds the error that was fatal to the decision – which was to limit the consideration of the effects of the proposed development on the “openness of the Green Belt” to spatial impact and nothing more.

Issue (3) – inconsistency in paragraphs 7.122 and 7.126 of the officer’s report

59. Mr Village submitted that the officer’s conclusion in paragraph 7.122 of her report, that the “proposed development preserves the “openness” of the Green Belt”, was irreconcilable with her conclusion in paragraph 7.126, repeated in paragraph 8.5, that “the proposed development would not materially harm the character and openness of the Green Belt” (my emphasis). The former conclusion, said Mr Village, implies a finding of no harm to “openness”, the latter a finding of some, though not material, harm. This was a significant inconsistency. A finding of any harm to “openness” must lead to the conclusion that the proviso in paragraph 90 of the NPPF was not met.
60. I cannot accept this argument. As Ms Lieven and Mr Easton submitted, it subjects the officer’s report to an overly semantic analysis (see paragraph 42(2) of my judgment in *Mansell*). There was nothing inconsistent between the two conclusions. Assume for the moment that she did understand the concept of the “openness of the Green Belt” in paragraph 90 – which, as I have explained, I do not think she did. It might then have been open to her, in theory, to find that the effect of the development on openness, whilst appreciable, would nevertheless “preserve” it. As I have said, the concept of preserving “the openness of the Green Belt” in paragraph 90 is not, and cannot be, synonymous with the concept of no physical change. Otherwise, as the court recognized in *Europa Oil*, the policy would be unworkable. Once this is grasped, it is not hard to see why the officer should have expressed her conclusions in paragraphs 7.122 and 7.126 as she did. There is no real ambiguity in the advice she was giving in those two paragraphs. In both places she was effectively saying that in her view, despite the reduction in the “openness of the Green Belt”, the development would not fail to “preserve” it. In this respect, therefore, the development was not “inappropriate” under the policy in paragraph 90. This might have been, in itself, a surprising conclusion, even untenable. But it did not involve a contradiction in the officer’s advice, or a misunderstanding of the verb “preserve” as it is used in the policy.

Issue (4) – development adjoining the existing quarry

61. Mr Village submitted that the officer’s advice suffered from the same defect as was found by Sullivan J. in *Heath and Hampstead Society* (at paragraph 37) – that “[the] approach adopted ... runs the risk that Green Belt ... will suffer the death of a thousand cuts”, and that “[while] it may not be possible to demonstrate harm by reason of visual intrusion as a result of an individual – possibly very modest – proposal, the cumulative effect of a number of such proposals, each very modest in itself, could be very damaging to the essential quality of openness of the Green Belt ...”. That phenomenon, Mr Village contended, was overlooked in this case. In concluding, in paragraph 7.122 of her report, that “because the

application site immediately abuts the existing operational quarry”, the development would not “conflict with the aims of preserving the openness of the Green Belt”, the officer took into account an immaterial consideration.

62. I am unable to accept that submission. As Ms Lieven and Mr Easton submitted, the officer was entitled to take into account the fact that the proposed working of limestone would not be a new quarry, but the extension of an existing one, which had been operating for a long time. This was not an immaterial consideration. It was relevant to the development’s effect on the “openness of the Green Belt”. I do not think the officer was ignoring the cumulative effect of the quarry and the extension now proposed, or sanctioning an incremental erosion of openness – the mischief of “death [by] a thousand cuts” to which Sullivan J. referred in *Heath and Hampstead Society*. I think she was simply saying that, in the circumstances, the “scale” of the proposed development would not constitute an unacceptable reduction of openness. As I have said, this seems a somewhat surprising conclusion – to say nothing more. How it could be said that mineral extraction on this “scale” would “preserve” the openness of the Green Belt, whether or not as an extension to an existing quarry, is by no means clear – though it might conceivably be so. But leaving that aside, it can fairly be said that, in basing her conclusion solely on the “scale” of the development, the officer was restricting herself to its spatial impact on openness, which was to misapply NPPF policy. Whether her conclusion was also unreasonable, even as it stood, we do not have to decide.

Conclusion

63. For the reasons I have given, I would allow this appeal, and order that the county council’s grant of planning permission be quashed.

Lord Justice Lewison

64. I agree.

**Appendix 5: Appeal decision for Turner v Secretary of State for
Communities and Local Government and Another [2016] EWCA
Civ 466**

Neutral Citation Number: [2016] EWCA Civ 466
IN THE COURT OF APPEAL (CIVIL DIVISION)
ON APPEAL FROM THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION
PLANNING COURT
MRS JUSTICE LANG DBE
[2015] EWHC 2788 (Admin)

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 18/05/2016

Before :

LADY JUSTICE ARDEN
LORD JUSTICE FLOYD
and
LORD JUSTICE SALES

Between :

John Turner	<u>Appellant</u>
- and -	
(1) Secretary of State for Communities and Local Government	<u>Respondents</u>
(2) East Dorset Council	

Michael Rudd (instructed by **Hawksley's Solicitors**) for the **Appellant**
Richard Kimblin QC (instructed by **Government Legal Department**) for the **Respondent**
The 2nd Respondent did not appear and was not represented

Hearing dates : 4 May 2016

Judgment

Lord Justice Sales:

1. This is an appeal from the judgment of Lang J in which she dismissed an application under section 288 of the Town and Country Planning Act 1990 to quash a decision of a Planning Inspector to refuse to grant planning permission for development of a plot of land on Barrack Road, West Parley, Ferndown, Dorset (“the site”). The site is located in the South East Dorset Green Belt. The appellant developer submits that the Inspector erred in his interpretation and application of para. 89 of the National Planning Policy Framework (“the NPPF”) concerning the circumstances in which development on the Green Belt may not be regarded as inappropriate and in his approach to the concept of the “openness” of the Green Belt.

Factual background

2. Barrack Road is characterised by a mix of residential and commercial properties spasmodically placed along the road. The eastern side of the road where the site is located does not have a continuously built up frontage. The site is in open countryside, and not in an urban area or settlement.
3. There is a static single unit mobile home stationed on the site which is used for residential purposes. Adjacent to this is a substantial area of a commercial storage yard which is used for the storage of vehicles; the preparation, repair, valeting and sale of commercial vehicles and cars; the ancillary breaking and dismantling of up to eight vehicles per month; and the ancillary sale and storage of vehicle parts from a workshop on the site. A certificate of lawful existing use was granted in 2003 for the mobile home and lawful use has been established in respect of the storage yard in a planning appeal decision. We were told that the storage yard has capacity to park some 41 lorries as an established lawful use of the site.
4. The appellant’s application for planning permission is for a proposal to replace the mobile home and storage yard with a three bedroom residential bungalow and associated residential curtilage. Another area of land adjacent to the site would be retained to continue the existing commercial enterprise. In his application, the appellant compared the proposed redevelopment with the existing lawful use of the land for the mobile home and 11 parked lorries in order to suggest that the volume of the proposed bungalow would be less than the volume of the mobile home and that many lorries and that, accordingly, the proposed redevelopment “would not have a greater impact on the openness of the Green Belt” than the existing lawful use of the site, with the result that it should not be regarded as inappropriate development in the Green Belt (para. 89 of the NPPF).
5. The local planning authority refused the application. The Inspector, Mr Philip Willmer, dismissed the appellant’s appeal. He found that the proposed redevelopment was inappropriate development in the Green Belt, notwithstanding that it would replace the existing lawful use of the site, and that there were no “very special circumstances” (para. 87 of the NPPF) which would justify the grant of permission for the development. The judge dismissed the application to quash his decision.

The policy framework

6. This appeal turns on the application of the NPPF, and in particular para. 89. Section 9 of the NPPF is headed "Protecting Green Belt land". It starts at paras. 79-81 with a statement of some broad principles:

"79. The Government attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence.

80. Green Belt serves five purposes:

- * To check the unrestricted sprawl of large built-up areas;
- * to prevent neighbouring towns merging into one another;
- * to assist in safeguarding the countryside from encroachment;
- * to preserve the setting and special character of historic towns; and
- * to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

81. Once Green Belts have been defined, local planning authorities should plan positively to enhance the beneficial use of the Green Belt, such as looking for opportunities to provide access; to provide opportunities for outdoor sport and recreation; to retain and enhance landscapes, visual amenity and biodiversity; or to improve damaged and derelict land."

7. The provisions relating to inappropriate development are at paras. 87-90:

"87. As with previous Green Belt policy, inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances.

88. When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.

89. A local planning authority should regard the construction of new buildings as inappropriate in Green Belt. Exceptions to this are:

- * buildings for agriculture and forestry;

- * provision of appropriate facilities for outdoor sport, outdoor recreation and for cemeteries, as long as it preserves the openness of the Green Belt and does not conflict with the purposes of including land within it;
- * the extension or alteration of a building provided that it does not result in disproportionate additions over and above the size of the original building;
- * the replacement of a building, provided the new building is in the same use and not materially larger than the one it replaces;
- * limited infilling in villages, and limited affordable housing for local community needs under policies set out in the Local Plan; or
- * limited infilling or the partial or complete redevelopment of previously developed sites (brownfield land), whether redundant or in continuing use (excluding temporary buildings), which would not have a greater impact on the openness of the Green Belt and the purpose of including land within it than the existing development.

90. Certain other forms of development are also not inappropriate in Green Belt provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in Green Belt. These are:

- * mineral extraction;
- * engineering operations;
- * local transport infrastructure which can demonstrate a requirement for a Green Belt location;
- * the re-use of buildings provided that the buildings are of permanent and substantial construction; and
- * development brought forward under a Community Right to Build Order."

The Inspector's decision

8. An important part of the appellant's case before the Inspector was his contention that his application fell within the sixth bullet point in para. 89 of the NPPF, so that the proposed development by building the bungalow would not count as inappropriate development in the Green Belt. The Inspector dismissed this contention in paras. 8 to 15 of his decision. At para. 8 he set out the sixth bullet point and recorded the appellant's argument and at para. 9 he explained that the development would not constitute limited infilling. The issue therefore turned on the question of impact on the openness of the Green Belt. The Inspector dealt with this as follows:

“10. The appellant contends that if the development were to go ahead then, in addition to the loss of the volume of the mobile home, or potentially a larger replacement double unit, a further volume of some 372.9 cubic metres, equivalent to eleven commercial vehicles that he has demonstrated could be stored on the appeal site, might also be off set against the volume of the proposed dwelling, thereby limiting the new dwelling’s impact on the openness of the Green Belt.

11. Openness is essentially freedom from operational development and relates primarily to the quantum and extent of development and its physical effect on the appeal site. The Certificate of Lawful Existing Use conveys that the use of the land may be for a mobile home rather than a permanent dwelling. In this respect the mobile home may be replaced with another and I have no doubt, if planning permission is not granted for this development, that over time this may well occur. However, the Certificate of Lawful Existing Use is for the use of the land for the siting of a mobile home for residential purposes, which is distinct from the replacement of one dwelling with another.

12. In my view, therefore, no valid comparison can reasonably be made between the volume of moveable chattels such as caravans and vehicles on one hand, and permanent operational development such as a dwelling on the other. While the retention of the mobile home and vehicles, associated hardstandings etc., will inevitably have their effect on the openness of the Green Belt, this cannot properly be judged simply on measured volume which can vary at any time, unlike the new dwelling that would be a permanent feature. I am therefore not persuaded that the volume of the mobile home and the stored/displayed vehicles proposed to be removed should be off-set in terms of the development’s overall impact on openness.

13. Accordingly, while the replacement of the current single unit mobile home, or even a replacement double unit and vehicles, with the new dwelling might only result in a marginal or no increase in volume, these two things cannot be directly compared as proposed by the appellant.

14. I noted that existing commercial vehicles were parked on either side of the access road to the site during my site visit. However, as I saw, due to their limited height they do not close off longer views into the site. On the other hand the proposed bungalow, as illustrated, that would in any case be permanent with a dominating symmetrical front façade and high pitch roof, would in my view obstruct views into the site and appear as a dominant feature that would have a harmful impact on openness here.

15. For the reasons set out I consider that the proposed development would have a considerably greater impact on the openness of the Green Belt and the purpose of including land within it than the existing lawful use of the land. I therefore conclude that the proposal does not meet criterion six of the exceptions set out in paragraph 89 of the Framework and, therefore, would be inappropriate development, which by definition is harmful to the Green Belt. I give substantial weight to this harm.”

9. It is this part of the Inspector’s reasoning which is under challenge. (I should mention that although in paras. 11 and 12 of the decision the Inspector referred to “operational development” rather than simply “development”, the judge correctly found that this was an immaterial slip and there is no appeal in that regard). Having found that the redevelopment was inappropriate development in the Green Belt, it is unsurprising that the Inspector found that there were not adequate grounds to justify the grant of planning permission.

The appeal: discussion

10. On the appellant’s section 288 application the appellant had three grounds of challenge to the Inspector’s decision, of which two are relevant on this appeal: (i) the Inspector failed to treat the existing development on the site as a relevant material factor to be taken into account in considering whether the sixth bullet point of para. 89 was applicable, and (ii) the Inspector wrongly conflated the concept of openness in relation to the Green Belt with the concept of visual impact. The judge rejected all the grounds of challenge and the appellant now appeals to this Court, relying again on these two grounds.
11. In his oral submissions, Mr Rudd developed the first ground somewhat. His submission was that the Inspector was wrong to say that no valid comparison could be made between the volume of moveable chattels (mobile home and lorries) on the site and a permanent structure in the form of the proposed bungalow; on the proper construction of the concept of “openness of the Green Belt” as used in the sixth bullet point in para. 89 of the NPPF the sole criterion of openness for the purpose of the comparison required by that bullet point was the volume of structures comprising the existing lawful use of a site compared with that of the structure proposed by way of redevelopment of that site (“the volumetric approach”); a comparison between the volume of existing development on the site in this case in the form of the mobile home and 11 lorries as against the volume of the proposed bungalow showed that there would be a lesser impact on the openness of the Green Belt if the existing development were replaced by the bungalow and the Inspector should so have concluded; and the Inspector erred by having regard to a wider range of considerations apart from the volume of development on the site (including the factor of visual impact) in para. 14 of the decision on the way to reaching his conclusion at para. 15. This last point overlaps with the second ground of challenge and it is appropriate to address both grounds together, as the judge did.
12. I do not accept these submissions by Mr Rudd. First, in so far as it is suggested that the Inspector did not address himself to the comparative exercise called for under the sixth bullet point in para. 89, the suggestion is incorrect. The Inspector set out that

bullet point and then proceeded to make an evaluative comparative assessment of the existing lawful use and the proposed redevelopment in paras. 10 to 15 of the decision.

13. The principal matter in issue is whether the Inspector adopted an improper approach to the question of openness of the Green Belt when he made that comparison. The question of the true interpretation of the NPPF is a matter for the court. In my judgment, the approach the Inspector adopted was correct and the judge was right so to hold.
14. The concept of “openness of the Green Belt” is not narrowly limited to the volumetric approach suggested by Mr Rudd. The word “openness” is open-textured and a number of factors are capable of being relevant when it comes to applying it to the particular facts of a specific case. Prominent among these will be factors relevant to how built up the Green Belt is now and how built up it would be if redevelopment occurs (in the context of which, volumetric matters may be a material concern, but are by no means the only one) and factors relevant to the visual impact on the aspect of openness which the Green Belt presents.
15. The question of visual impact is implicitly part of the concept of “openness of the Green Belt” as a matter of the natural meaning of the language used in para. 89 of the NPPF. I consider that this interpretation is also reinforced by the general guidance in paras. 79-81 of the NPPF, which introduce section 9 on the protection of Green Belt Land. There is an important visual dimension to checking “the unrestricted sprawl of large built-up areas” and the merging of neighbouring towns, as indeed the name “Green Belt” itself implies. Greenness is a visual quality: part of the idea of the Green Belt is that the eye and the spirit should be relieved from the prospect of unrelenting urban sprawl. Openness of aspect is a characteristic quality of the countryside, and “safeguarding the countryside from encroachment” includes preservation of that quality of openness. The preservation of “the setting ... of historic towns” obviously refers in a material way to their visual setting, for instance when seen from a distance across open fields. Again, the reference in para. 81 to planning positively “to retain and enhance landscapes, visual amenity and biodiversity” in the Green Belt makes it clear that the visual dimension of the Green Belt is an important part of the point of designating land as Green Belt.
16. The visual dimension of the openness of the Green Belt does not exhaust all relevant planning factors relating to visual impact when a proposal for development in the Green Belt comes up for consideration. For example, there may be harm to visual amenity for neighbouring properties arising from the proposed development which needs to be taken into account as well. But it does not follow from the fact that there may be other harms with a visual dimension apart from harm to the openness of the Green Belt that the concept of openness of the Green Belt has no visual dimension itself.
17. Mr Rudd relied upon a section of the judgment of Green J sitting at first instance in *R (Timmins) v Gedling Borough Council* [2014] EWHC 654 (Admin) at [67]-[78], in which the learned judge addressed the question of the relationship between openness of the Green Belt and visual impact. Green J referred to the judgment of Sullivan J in *R (Heath and Hampstead Society) v Camden LBC* [2007] EWHC 977 (Admin); [2007] 2 P&CR 19, which related to previous policy in relation to the Green Belt as set out in Planning Policy Guidance 2 (“PPG 2”), and drew from it the propositions

that “there is a clear conceptual distinction between openness and visual impact” and “it is therefore wrong *in principle* to arrive at a specific conclusion as to openness by reference to visual impact”: para. [78] (Green J’s emphasis). The case went on appeal, but this part of Green J’s judgment was not in issue on the appeal: [2015] EWCA Civ 10; [2016] 1 All ER 895.

18. In my view, Green J went too far and erred in stating the propositions set out above. This section of his judgment should not be followed. There are three problems with it. First, with respect to Green J, I do not think that he focused sufficiently on the language of section 9 of the NPPF, read as part of the coherent and self-contained statement of national planning policy which the NPPF is intended to be. The learned judge does not consider the points made above. Secondly, through his reliance on the *Heath and Hampstead Society* case Green J has given excessive weight to the statement of planning policy in PPG 2 for the purposes of interpretation of the NPPF. He has not made proper allowance for the fact that PPG 2 is expressed in materially different terms from section 9 of the NPPF. Thirdly, I consider that the conclusion he has drawn is not in fact supported by the judgment of Sullivan J in the *Heath and Hampstead Society* case.
19. The general objective of PPG 2 was to make provision for the protection of Green Belts. Paragraph 3.2 stated that inappropriate development was, by definition, harmful to the Green Belt. Paragraph 3.6 stated:

“Provided that it does not result in disproportionate additions over and above the size of the original building, the extension or alteration of dwellings is not inappropriate in Green Belts. The replacement of existing dwellings need not be inappropriate, providing the new dwelling is not materially larger than the dwelling it replaces ...”
20. It was the application of this provision which was in issue in the *Heath and Hampstead Society* case. It can be seen that this provision broadly corresponds with the fourth bullet point in para. 89 of the NPPF and that it has a specific focus on the relative size of an existing building and of the proposed addition or replacement.
21. The NPPF was introduced in 2012 as a new, self-contained statement of national planning policy to replace the various policy guidance documents that had proliferated previously. The NPPF did not simply repeat what was in those documents. It set out national planning policy afresh in terms which are at various points materially different from what went before. This court gave guidance regarding the proper approach to the interpretation of the NPPF in the *Timmins* case at para. [24]. The NPPF should be interpreted objectively in accordance with the language used, read in its proper context. But the previous guidance – specifically in *Timmins*, as in this case and in *Redhill Aerodrome Ltd v Secretary of State for Communities and Local Government* [2014] EWCA Civ 1386; [2015] 1 P & CR 36 to which the court in *Timmins* referred, the guidance on Green Belt policy in PPG 2 – remains relevant. In particular, since in promulgating the NPPF the Government made it clear that it strongly supported the Green Belt and did not intend to change the central policy that inappropriate development in the Green Belt should not be allowed, section 9 of the NPPF should not be read in such a way as to weaken protection for the Green Belt: see the *Redhill Aerodrome* case at [16] per Sullivan LJ, quoted in *Timmins* at [24].

22. The *Heath and Hampstead Society* case concerned a proposal to demolish an existing residential building on Metropolitan Open Land (which was subject to a policy giving it the same level of protection as the Green Belt) and replace it with a new dwelling. Sullivan J rejected the submission that the test in para. 3.6 was solely concerned with a mathematical comparison of relevant dimensions: [19]. However, he accepted the alternative submission that the exercise under para. 3.6 was primarily an objective one by reference to size, where which particular physical dimension was most relevant would depend on the circumstances of a particular case, albeit with floor space usually being an important criterion: [20]. It was not appropriate to substitute a test such as “providing the new dwelling is not more visually intrusive than the dwelling it replaces” for the test actually stated in para. 3.6, namely whether the new dwelling was materially larger or not: [20]. As Sullivan J said, “Paragraph 3.6 is concerned with the size of the replacement dwelling, not with its visual impact”: [21]. In that regard, also at para. [21], he relied in addition on para. 3.15 of PPG 2 which made specific provision in relation to visual amenities in the Green Belt. Neither para. 3.6 of PPG 2 (with its specific focus on comparative size of the existing and replacement buildings) nor para. 3.15 of PPG 2 refer to the concept of the “openness of the Green Belt”. They do not correspond with the text of the sixth bullet point in para. 89 of the NPPF, and section 9 of the NPPF contains no provision equivalent to para. 3.15 of PPG 2. It is therefore not appropriate to treat this part of the judgment in *Heath and Hampstead Society* as providing authoritative guidance on the interpretation of the sixth bullet point in para. 89 of the NPPF. At paras. [22] and [36]-[38] Sullivan J emphasised that the relevant issue in the case specifically concerned the application of para. 3.6 of PPG 2 and whether the proposed replacement house was materially larger than the existing house.
23. At para. [22] Sullivan J said, “The loss of openness (i.e. unbuilt on land) within the Green Belt or Metropolitan Open Land is of itself harmful to the underlying policy objective”. Since the concept of the openness of the Green Belt has a spatial or physical aspect as well as a visual aspect, that statement is true in the context of the NPPF as well, provided it is not taken to mean that openness is *only* concerned with the spatial issue. Such an interpretation accords with the guidance on interpretation of the NPPF given by this court in the *Timmins* and *Redhill Aerodrome* cases, to the effect that the NPPF is to be interpreted as providing no less protection for the Green Belt than PPG 2. The case before Sullivan J was concerned with a proposed new, larger building which represented a spatial intrusion upon the openness of the Green Belt but which did not intrude visually on that openness, so he was not concerned to explain what might be the position under PPG 2 generally if there had been visual intrusion instead or as well.
24. Sullivan J gives a general reason for the importance of spatial intrusion at para. [37] of his judgment:
- “The planning officer’s approach can be paraphrased as follows:
- ‘The footprint of the replacement dwelling will be twice as large as that of the existing dwelling, but the public will not be able to see very much of the increase.’

It was the difficulty of establishing in many cases that a particular proposed development within the Green Belt would of itself cause ‘demonstrable harm’ that led to the clear statement of policy in para. 3.2 of PPG 2 that inappropriate development is, by definition, harmful to the Green Belt. The approach adopted in the officer’s report runs the risk that Green Belt of Metropolitan Open Land will suffer the death of a thousand cuts. While it may not be possible to demonstrate harm by reason of visual intrusion as a result of an individual – possibly very modest – proposal, the cumulative effect of a number of such proposals, each very modest in itself, could be very damaging to the essential quality of openness of the Green Belt and Metropolitan Open Land.”

25. This remains relevant guidance in relation to the concept of openness of the Green Belt in the NPPF. The same strict approach to protection of the Green Belt appears from para. 87 of the NPPF. The openness of the Green Belt has a spatial aspect as well as a visual aspect, and the absence of visual intrusion does not in itself mean that there is no impact on the openness of the Green Belt as a result of the location of a new or materially larger building there. But, as observed above, it does not follow that openness of the Green Belt has no visual dimension.
26. What is also significant in this paragraph of Sullivan J’s judgment for present purposes is the last sentence, from which it appears that Sullivan J considered that a series of modest visual intrusions from new developments would be a way in which the essential quality of the openness of the Green Belt could be damaged, even if it could not be said of each such intrusion that it represented demonstrable harm to the openness of the Green Belt in itself. At any rate, Sullivan J does not say that the openness of the Green Belt has no visual dimension. Hence I think that Green J erred in *Timmings* in taking the *Heath and Hampstead Society* case to provide authority for the two propositions he sets out at para. [78] of his judgment, to which I have referred above.
27. Turning back to the Inspector’s decision in the present case, there is no error of approach by the Inspector in his assessment of the issue of impact on the openness of the Green Belt. In paras. 11 to 13 the Inspector made a legitimate comparison of the existing position regarding use of the site with the proposed redevelopment. This was a matter of evaluative assessment for the Inspector in the context of making a planning judgment about relative impact on the openness of the Green Belt. His assessment cannot be said to be irrational. It was rational and legitimate for him to assess on the facts of this case that there is a difference between a permanent physical structure in the form of the proposed bungalow and a shifting body of lorries, which would come and go; and even following the narrow volumetric approach urged by the appellant the Inspector was entitled to make the assessment that the two types of use and their impact on the Green Belt could not in the context of this site be “directly compared as proposed by the appellant” (para. 13). The Inspector was also entitled to take into account the difference in the visual intrusion on the openness of the Green Belt as he did in para. 14.

Conclusion

28. For the reasons given above, I would dismiss this appeal.

Lord Justice Floyd:

29. I agree.

Lady Justice Arden DBE:

30. I also agree.

Appendix 6: Appeal decision for Europa Oil and Gas Ltd v Secretary of State for Communities and Local Government & Ors [2013] EWHC 2643 (Admin) (25 July 2013)

Appeal Decision

Inquiry sat from 22 April to 1 May and on 11 June 2015

Site visit made on 30 April 2015

by J S Nixon BSc(Hons) DipTE CEng MICE MRTPI MCIHT

an Inspector appointed by the Secretary of State for Communities and Local Government

Decision date: 7 August 2015

Appeal Ref: APP/YB3600/A/11/2166561

Bury Hill Wood, Coldharbour Lane, Holmwood, Surrey, RH5 6HN.

- The appeal is made under section 78 of the Town and Country Planning Act 1990 (the Act) against a refusal to grant permission.
 - The appeal is made by Europa Oil and Gas Ltd against the decision of Surrey County Council (the Council).
 - The application Ref. No: 2008/0169/PS, dated 1 December 2008 was refused by notice dated 30 June 2011.
 - The development proposed is for the construction of an exploratory well-site, including plant, buildings and equipment with preliminary short-term drill stem test for one exploratory borehole, the erection of security fencing and associated works to an existing track.
 - This decision supersedes that issued on 26 September 2012. That decision on the appeal was quashed by order of the High Court.
-

Decision

1. For the reasons given below, this appeal is allowed and planning permission granted for the construction of an exploratory drill-site, including plant, buildings and equipment; the use of the drill-site for the drilling of one exploratory borehole and subsequent short-term test for hydrocarbons; the erection of security fencing; to undertake the necessary groundwater monitoring; and the carrying out of associated works to an existing access and track, all on 0.79ha, for a temporary period of up to 3-years, with restoration to forestry on land at Bury Hill Wood, Coldharbour Lane, Holmwood, Surrey, RH5 6HN in accordance with the terms of the application, Ref. No: 2008/0169/PS, dated 1 December 2008, and the plans submitted therewith, subject to the conditions contained in the attached Schedule.

Clarification

2. This project was recommended by Officers for approval, subject to conditions. However, it was refused by Members for three reasons. This refusal was appealed and an inquiry was held into the appeal in July 2012. Before the start of that inquiry, the Council confirmed that it was no longer contesting the second reason for refusal of planning permission pertaining to the evidence to show that an exploratory drill-site could be located outside the Surrey Hills Area of Outstanding Natural Beauty (AONB). The Council also confirmed that, having regard to the recent felling of trees by the Forestry Commission, the words "*have the potential to irreversibly damage the historic banks and trees*"

and” should be deleted from the third reason for refusal. Following the inquiry the appeal was dismissed.

3. Subsequent to the appeal decision, there was a successful challenge in the High Court and the Inspector’s decision quashed. Further to this, the High Court decision was challenged in the Court of appeal by the Leith Hill Action Group (LHAG), but on this occasion the challenge failed. The starting point of this appeal is that the previous decision and the conclusions reached have no legal effect and the merits of the case must be determined as if they had not been considered previously. I have dealt with the appeal on this basis and, as noted above, my decision replaces the previous decision. Whereas the Officer’s original Report and recommendation is taken into account, I have reached my own conclusions on the main issues.
4. As to the description of the appeal proposal, in its notice of refusal the Council describes the development as for the *“construction of an exploratory drill-site, including plant, buildings and equipment; the use of the drill-site for the drilling of one exploratory borehole and subsequent short-term test for hydrocarbons; the erection of security fencing; and the carrying out of associated works to an existing access and track, all on 0.79ha, for a temporary period of up to 3-years, with restoration to forestry”*.
5. Since the 2012 inquiry, the Environment Agency (EA) has introduced a permitting regime and its requirements in respect of groundwater monitoring have tightened up. For this scheme, up to 5No. groundwater monitoring boreholes would now be necessary. These would involve the use of a small rig to drill the boreholes and subsequent testing during the 3-months prior to the commencement of the main drilling and then for the duration of the drilling and a further 6-months following the dismantling of the main rig and compound. There are two suggestions as to how this extra item could be incorporated into the development envelope. The first is to amend the description of the application and the second to see the groundwater monitoring as an essential component of safeguarding the hydrology and attach an appropriate condition to any planning permission.
6. Having considered both suggestions, and recognising that the description of a project is not always definitive, I am minded to adopt both approaches. On this basis, the description of the appeal scheme would be *“the construction of an exploratory drill-site, including plant, buildings and equipment; the use of the drill-site for the drilling of one exploratory borehole and subsequent short-term test for hydrocarbons; the erection of security fencing; to undertake necessary groundwater monitoring; and the carrying out of associated works to an existing access and track, all on 0.79ha, for a temporary period of up to 3-years, with restoration to forestry”*. This represents a comprehensive description of the proposed works and I have considered the appeal on this basis. In doing so I am satisfied that the groundwater monitoring scheme would not impose material adverse impacts on any identified interest and should be of benefit to the groundwater regime and that the amended details had been adequately canvassed in the consolidated Environmental Statement, the evidence and in questioning and discussion at the inquiry.
7. Further to the appeal application, the Appellants have made a related planning application for the underground drilling corridor from the appeal site to the Holmwood Prospect (the pan-handle application). This has still to be

determined by the Council. As part of this later application the Environmental Statement (ES) submitted with the appeal application was updated and consolidated into an ES covering both applications. The Council issued a Regulation 22 in respect of this ES and a detailed technical response was supplied by the Appellants. This along with the evidence to the inquiry, especially on highways and traffic and the updated Written Ecological Statement, means that I am satisfied with the adequacy of the environmental input and have taken this consolidated ES into account in reaching my decision.

Background

8. The appeal site of some 0.79ha is located in the countryside to the north of the village of Coldharbour and to the west of Coldharbour Lane, which links the village with Dorking, further to the north. It lies within a managed plantation woodland belonging to the Forestry Commission (FC) and forms a part of the Abinger Forest. The existing vegetation comprises some mature conifers, silver birch and young deciduous trees and undergrowth, with bracken showing a strong presence. There is evidence of former quarrying on the land.
9. The main site compound, where the exploratory drill-rig would be located, along with a wellhead cellar and related plant, equipment and temporary buildings would be connected to Coldharbour Lane along an existing FC access track that would be upgraded. A turning area and flare pit would be located to the south of the main compound. The internal site layout has undergone minor revisions since the original application, but again I am satisfied that no-one would be materially affected by the changes and these were adequately aired in the evidence and at the inquiry. Importantly, there was general acceptance that it should effect some improvements. Accordingly, I have taken the latest iteration into account in my decision.

Planning Policy

10. The development Plan (DP) comprises the Surrey Minerals Plan Core Strategy, Development Plan Document, 2011 (MCS), the Mole Valley Local Plan, 2000 (MVLDP) and the Mole Valley Core Strategy, Development Plan Document, 2009 (MVCS). In addition, there is the Surrey Hills Management Plan 2014-2019 (SHMP), which has been revised recently following publication of the National Planning Policy Framework (the Framework).
11. The Framework is a material consideration and this is supplemented by the Planning Practice Guidance (PPG), which delivers implementation details on the Framework policies. With respect to the DP policies, this is not a situation where, in the terms set out in paragraph 14 of the Framework, the DP is absent, silent or the relevant policies out of date.

Main Issues

12. Having regard to the policy background referred to above, the evidence presented to the inquiry, the written representations and visits to the appeal site and surroundings, it follows that the main issues to be decided in this appeal are:-
 - i. whether the proposal amounts to inappropriate development in the Green Belt and if so whether the harm, by reason of inappropriateness, and any other harm would be clearly outweighed by other

considerations, so as to amount to the very special circumstances necessary to justify the development;

- ii. the effect on Green Belt openness, its permanence and the purposes of the Green Belt;
 - iii. whether the proposed exploratory drill-site could reasonably be located outside the AONB;
 - iv. whether the proposal constitutes major development within the terms espoused by the Framework in relation to AONBs;
 - v. the effect the scheme would have on the landscape and natural beauty of the AONB and on the public appreciation and enjoyment of it;
 - vi. the effect traffic movements associated with the appeal scheme would have on local residents and highway users; and
 - vii. the need for the development and its consistency with the Government's policies for minerals and energy development.
13. In addition to the main issues identified, a number of other matters were raised by Objectors and these have also been considered before moving to an overall planning balance.

Reasons

Overview

14. The first thing to say is that the inquiry was assured that the appeal project relates to the winning of oil/gas by conventional means. It is not, nor could become a scheme that would or could employ 'fracking' techniques. On the basis of the evidence presented, I concur. This has clearly not been appreciated by some Objectors and confirmation of this should remove a number of concerns.
15. The purpose of the appeal proposal is to explore for hydrocarbons in the Holmwood Prospect, which is UK Onshore Licence PEDL143. The proposal would involve offset drilling to the Holmwood Prospect, which lies approximately under Coldharbour Village. Four phases are proposed: site clearance and preparation; equipment assembly and drilling operations; testing and evaluation (if hydrocarbons are found); and site reinstatement. These phases are scheduled to last for 6-weeks, 5-weeks, up to 4-days and 6-weeks respectively. Planning permission is sought for a period of 3-years, with main operations extending over a core 18-week period. The Regulatory Authority the EA requires groundwater monitoring, which would extend either side of this core period.
16. The development would be for exploratory purposes only, to establish whether hydrocarbons are present. Although, this exploratory work falls under the broad head of mineral operations, the Framework and the PPG make clear that the three phases of mineral operations, exploration, appraisal and production should be treated as separate and distinct operations. This decision is undertaken on this premise. Moreover, as noted above, a further application for the offset drilling route (the Panhandle) has been submitted and is under consideration by the Council. As such, the Appellants submit that a grant of

permission for this appeal proposal would still need to be backed up by permission for the later application before drilling could commence. Thereafter, if viable reserves were found, an entirely new and separate planning application for a suitable location for extraction would be required.

Whether the proposal amounts to inappropriate development in the Green Belt and if so whether the harm, by reason of inappropriateness, and any other harm would be clearly outweighed by other considerations, so as to amount to the very special circumstances necessary to justify the development

17. The key starting point is that all the potential sites for exploration fall within the boundaries of the Metropolitan Green Belt. Within the DP MCS Policy MC3 covers mineral development in the Green Belt and advises that anything other than extraction and primary treatment constitutes inappropriate development. Strictly speaking, exploration and appraisal do not fall under these heads, thereby suggesting that the appeal proposal is inappropriate. Moreover, paragraph 147 of the Framework clearly distinguishes between the three phases of development, exploration, appraisal and production. Taken at face value, it is not difficult to see why this could be judged to reinforce the inappropriateness tag in terms of the MCS Policy MC3.
18. Notwithstanding, this simplistic approach has been reviewed by the recent High Court (HC) Judgement following the 2012 appeal decision. In paragraph 42 of the HC decision, there is a clear conclusion that the works in exploration and appraisal of a mineral resource must be treated as a part of the mineral extraction/ production, albeit discrete and separate phases. This means that exploration and appraisal of a mineral resource are not inappropriate activities by definition, but would only be treated as inappropriate if they adversely affect the openness or any other purposes of the Green Belt designation identified in paragraph 80 of the Framework. Under these circumstances, paragraph 90 of the Framework offers more up-to-date advice than MCS Policy MC3 and since the HC Judgement the PPG has been amended to reflect this.
19. Looked at in the round, the HC Judgement is sensible and pragmatic. Without exploration and appraisal it would be extremely difficult, if not impossible, to prove the extent and viability of a mineral resource, the extraction and production of which would not necessarily be inappropriate. As paragraph 90 of the Framework advises, inappropriateness would only arise in circumstances where the openness and/or other purposes of the Green Belt would be compromised. As such, it is necessary to move to ascertain if appeal scheme would be inappropriate development in the Green Belt, by assessing its effect on Green Belt openness, its permanence and the purposes of the Green Belt.
20. There is no dispute that paragraph 79 of the Framework explains the essential characteristics of Green Belts, which are their openness and permanence. Similarly, it is accepted that paragraph 80 of the Framework sets out the five purposes of Green Belts. Of these five, the only one directly relevant to the appeal scheme is the third, pertaining to assisting in safeguarding the countryside from encroachment.
21. Insofar as openness is concerned, the appeal site is not open in the sense of it being an undeveloped field. Nevertheless, it is free from physical development and the activity in the area is almost exclusively limited to local and visitor traffic. Against this background, I am in no doubt that, for the period of the

- drilling contract, the openness of the Green Belt would be materially compromised and the construction of the compound, the attendant buildings and rig, the operations and the vehicle movement and parking would encroach in this area of countryside that forms part of the Green Belt.
22. Thus, for the duration of the exploration, the appeal proposal would conflict with one essential characteristic and one purpose of the Green Belt. Even so, in applying the reasoning behind the HC Judgement, it is difficult to see many circumstances where the openness of the Green Belt would not be compromised to some extent for the duration of mineral operations. It is equally difficult to identify circumstances where active mineral operations would assist in safeguarding the countryside from encroachment. Helpfully, the Judgement refers to some parameters that might aid assessment.
23. One of these is the duration of the operation, with a clear implication that the shorter it is the proportionately less weight should be attached to the inappropriateness argument. In similar vein, there is also an invitation to look at whether the proposal would contain elements over and above the normal or generally appropriate for a particular operation. Lastly, would the restoration deliver something that would closely replicate the previous landscape character and visual contribution to the area?
24. Against this background, when looking at the implications for the Green Belt characteristics and purposes, common sense 'directs' the decision maker to look beyond the exploratory and operational phases to determine the effects of development for the longer term on the characteristics and purposes of the Green Belt. Unless this is done, then one would almost inevitably reach a conclusion on the policy, aptly described in the HC Judgement as "*straining at the gnat only to swallow the elephant*". This is clearly not the intention of Government policy.
25. Looking at this case in the context of the other 'suggested' criteria, as this would be a temporary operation for only some 18-weeks, with the site returned, thereafter, to its original form, the longer term harm to the permanence of the Green Belt would be negligible and to its openness very short term. As the encroachment into the countryside would be significantly mitigated by the restoration proposals, although the scheme may not actively assist in safeguarding the countryside from encroachment, it would have a neutral effect in the longer term. Moreover, in an area of managed woodland similar changes could occur at any time. Next, there is nothing that would be done here that would not normally be expected of a similar exploratory contract. Finally, minerals can only be won where they are located and no site suitable for exploration beyond the Green Belt boundary has been suggested.
26. Drawing these strands together, if the works had been permanent or even very long term, then the characteristics and purposes of the Green Belt could have been materially compromised and the proposed development deemed inappropriate with the attendant presumption against. This is a matter of planning judgement. As this activity would comprise a proportionate, short-term, temporary and fully reversible activity it should not be judged as inappropriate development in the Green Belt and, therefore, not attract the negative presumption. Having said this, there would be the harm to the characteristics and purposes of the Green Belt during the 18-week contract

period and this is a negative factor to be weighed in the overall planning balance.

Whether the proposed exploratory drill-site could reasonably be located outside the AONB

27. The position has changed with time and now SCC and some Objectors accept that there would not be a viable site outside the AONB from where to explore the resource. Looking at the detail of the sites outside the AONB, I accept that those that could be used are just as likely to raise objections, albeit not ones stemming directly from the impact of the operation on the AONB.
28. However, the overriding argument against pursuing sites beyond the AONB boundary for the exploratory rig is the diminishing likelihood that the horizon of the resource would be intercepted. From all the sites outside the AONB it is almost certain that the two levels of the Holmwood Prospect resource, within the Portland Sandstone and the Corallian Sandstone, would not be intercepted by a single bore. As such, two boreholes would be necessary, even if parts of the two could be coincident at shallower depths. This would increase the duration of the exploration project and would add to the costs and harm.
29. On the basis of this, I am satisfied that no reasonable site for the proposed exploratory drilling operation has been identified outside the boundary of the AONB. Moreover, of those sites in the AONB that have been assessed, the appeal site would be the least intrusive option and minimise the risks of requiring an extension to the contract period.

Whether the proposal constitutes major development within the terms espoused by the Framework for AONBs

30. Owing to the construction of the AONB policies, it is important to establish if the appeal scheme constitutes major development in the terms that would trigger paragraph 116 of the Framework. The test in paragraph 116 is more restrictive if a proposal in an AONB is defined as 'major'. No definition of 'major development' is defined in the Framework and neither can enlightenment be gleaned from the PPG. The Appellants contend that it does not constitute 'major development'.
31. Nevertheless, relying on legal opinions (in particular, a legal opinion delivered by James Maurici QC in respect of an issue in the South Downs National Park) and s.2 of the Town and Country Planning (Development Management Procedure) (England) Act 2010, the Council, the Leith Hill Action Group (LHAG) and some other Objectors take a different view. In combination, these identify a possible list of criteria upon which to base any assessment. These define 'major development' as the winning or working of minerals on a site exceeding 1 ha; a scheme defined as EIA development; a project falling under Schedule 2 of the EIA Regulations; and an application that necessitated various impact assessments.
32. Having said this, there is case law, which clearly divines that the 2010 Act cannot be transposed into general planning assessments and that there should be no universal definition of 'major development'. The general thrust is that it falls to the decision maker, having regard to the local circumstances and the particular factors of the case.

33. The current exploratory proposals have been appraised against this background. First, the site is less than 1 ha in extent. Secondly, in looking at criteria for 'major development' it is not clear that they are intended to apply to exploratory works as opposed to the recovery and operational stages. Thirdly, in this instance the works would essentially last for only 18-weeks, which would be extremely short term, even in the context of mineral operations. Next, although impact assessments have been provided as part of the ES and supporting evidence, none were contained in the reasons for refusal, other than the effect on the AONB, which is dealt with as a discrete issue. Finally, as some Objectors consider that the quantity of oil/gas is not worth the trouble of recovery, this can hardly be taken as a ringing endorsement for deeming this a 'major operation'.
34. So on the basis that the scheme would not be significant in areal extent, would be temporary and very short term I do not consider it to be 'major development' in any common sense meaning. As such, there is no obligation on the Appellants to meet the tests in paragraph 116 of the Framework, and demonstrate that the project would be in the public interest and constitute exceptional circumstances. This, of course, is not the same as concluding that there would be no adverse impact on the AONB and I move next to assess the level of this.

The effect the scheme would have on the landscape and natural beauty of the AONB and on the public appreciation and enjoyment of it

35. The appeal site lies within the Greensand Hills: Leith Hills landscape character area as defined in the Surrey Hills Landscape Assessment, 1998. The value of the AONB is described in the Surrey Hills Management Plan 2014-2019 as *"...one of England's finest landscape, equivalent in beauty to a National Park.... Its landscape mosaic of farmland, woodland, heaths, downs and commons has inspired some of the country's greatest artists, writers and architects over the centuries. The Surrey Hills attract millions of visitors every year who contribute to the economy of the area in sectors as diverse as wine production and wood fuel. The Hills are protected as part of London's Metropolitan Green Belt and provide an outstanding natural resource for London and Surrey residents to enjoy outdoor pursuits, taste local food and explore market towns and picture postcard perfect villages."* The importance of these landscape features is not in dispute and all agree that parts of Coldharbour Lane are an example of a sunken lane.
36. The policy base relied on by the various parties is generally sourced from the same documents. In the first place, paragraph 17 of the Framework identifies the core planning principles and in these recognise the intrinsic character and beauty of the countryside. Pertaining to the Surrey Hills AONB designation, paragraph 109 of the Framework seeks to protect valued landscape and in paragraph 115 AONBs are awarded the highest level of protection, along with National Parks and the Broads. This is consistent with the DP and SHMP policies in terms of protection.
37. The Framework ^(paragraph 123) aims to identify and protect areas of tranquillity and MVCS Policy CS13 requires particular attention to be paid to the effects of development on tranquillity, an approach supported by the SHMP.
38. Even allowing for the points in agreement, the various parties ascribe markedly different levels of landscape and visual harm to the scheme. From the

Council's perspective, and largely supported by the Mole Valley District Council, the Capel Parish Council, LHAG and local Objectors, it concludes that there would be a significant adverse effect on the landscape resource, comprising the characteristics, features, aesthetic and perceptual qualities that define the special character of the Surrey Hills AONB and the setting of Leith Hill: Hills and Views, Tranquillity and Inspiration, and Country Lanes and Public Rights of Way (PROWs).

39. Weighed against this the Appellants conclude that the level of intrusion would be of a lower order, always judging their conclusions alongside the short-term temporary and wholly reversible nature of the appeal project. Accordingly, they judge the effects would not significantly harm the enjoyment of the special qualities of the Surrey Hills by the public for the duration of the appeal scheme and there would be no lasting adverse effects on the public enjoyment of the AONB. As such, they conclude that the landscape and visual effects would not be sufficient to justify dismissing the appeal.
40. Having stated their positions, all parties agreed that the best way of demonstrating their points was by way of an extensive site visit to look from within the appeal site and from vantage points near and far. A site visit programme was planned, with input from all main parties, and this was undertaken over a full day.
41. From what I saw, I am in no doubt that the effects of the development for the duration of the exploration on both the landscape character and visual presentation would be significant in the immediate vicinity of the proposed compound and along Coldharbour Lane when HGVs are passing. With the best will in the world, it would be impossible to disguise the site or the activity when passing close by or using the Lane at certain times.
42. As for impacts from further afield, the direct effect on landscape character and visual impact would diminish very rapidly with distance. The compound could not be seen from Coldharbour Lane or easily, if at all, from the nearest sensitive dwellings. There is already a blemish on the nearby landscape character with the 'abandoned' cleared area used by a film crew, though this may be in the pipeline for restoration. The restoration proposed for the appeal site would be sensitive to the locality and, with the use of more broad leaf trees, should deliver an ecological benefit, in line with SHMB Policies WL1 and B5.
43. The only distant views would be of the rig itself, which at a height of 35 m would be visible from a number of important public vantage points. Even so, only the upper reaches of the rig would be visible – a maximum of some 21 m – and in most cases much less. Even then, the full height would only be seen for a maximum of some 5-6 weeks. Although the impact could be mitigated significantly by choosing an appropriate colour for the rig, the inquiry was advised that, owing to commercial interests, this was not feasible, but the colour should not stand out too much.
44. Users of the Lane and those living nearby would be affected during the two periods of construction and reinstatement. Even though these would be of short duration, as the HGV convoys pass, the impact on the landscape character and visual contribution would be significant. To this must be added the potential for damage to the banks on the section of sunken lane, though the risks of damage could be reduced by the installation of in-cab cameras.

The noise and lighting associated with the compound and drilling operation would impact on those closest to the site and the Lane, but from the information submitted, I do not anticipate that any would be affected inordinately.

45. Moving next to the specific topic of tranquillity, the direction of travel is clearly to establish and protect areas where tranquillity is identified as a benefit to be enjoyed. Virtually without exception, it is accepted that this a locality where tranquillity can be experienced and that the activity generated by the appeal scheme would lessen this, within the envelope affected by the drill-site compound and along Coldharbour Lane.
46. Notwithstanding, there are two factors that militate against attaching great weight to this. In the first place, there is the very limited duration of the intrusion and the full restitution of the ambient levels of tranquillity. Secondly, at present the tranquillity of the area is lessened by overflying aircraft noise. This is understood to be occasioned by the changing of flight paths serving Gatwick Airport. Though this could be temporary, there are no guarantees in place.
47. Summing up on these factors, if the impacts identified on landscape character, visual quality and tranquillity, were to be for a permanent or significant duration, then this would materially conflict with the policy aims and objectives for the Surrey Hills AONB. The simple and compelling fact is that the harm would be reversed entirely in terms of landscape character, visual integrity and tranquillity, with a restoration scheme that would arguably be an improvement in landscape and ecological diversity. Yes, the restoration would take a little time, but it would not be particularly noticeable after 1 or 2 years, with the under-storey regenerating very quickly, and even then only from very close to. The longer views would be reinstated immediately following the 5-week drilling period and subsequent dismantling of the drill-rig.
48. Thus, I am in no doubt that the adverse effects on the landscape and natural beauty of the AONB and on the public appreciation and enjoyment are negative factors for the duration of the contract and must be weighed in the overall planning balance. However, the reversibility of the harm militates against judging the overall harm to be significant. I am also mindful that site clearance and restoration could take place in a managed forestry environment, delivering very similar degrees of impact irrespective of the appeal project.
49. Before closing on this issue, there was another matter raised by some participants to the inquiry and this pertains to the possibility of some arguments being double counted and, thereby, risking potential challenge. The particular concern stems from the considerations of the scheme as 'major development' within the AONB and the effects the development would have on the integrity of the AONB. The topics canvassed where arguments were thought to be most vulnerable were the short duration of the operation and the total reversibility of the landscape credentials.
50. It is extremely difficult to entirely divorce the two, but by way of explanation on the approach I have taken, the reversibility of the landscape impact does not feature in the arguments on whether the project constitutes 'major development' or not. Only the short-term nature of the operation contributes to this issue. On the other hand, the compelling argument when considering the effects on the landscape and other aspects of the AONB is the ability to

entirely replicate and potentially improve the landscape character and visual offer. The same applies to the tranquillity of the area. However, the fact that the restitution of these features would be comparatively rapid must reduce the level of harm to the AONB and I am content that this should not be considered double counting.

The effect traffic movements associated with the appeal scheme would have on local residents and highway users

51. There is no doubt that the concerns about the effects of traffic loom very large in representations made by local residents. In particular, they feel that the Appellants and the Council, as local highway authority (LHA), have not acknowledged the likely impacts the traffic would have on the accessibility and living conditions for residents and the enjoyment and safety of cyclists and walkers attracted to the area. In some ways their fears were fuelled as the inquiry progressed, with three points appearing vulnerable to challenge.
52. The first of these was the Appellants' designated holding lay-by point for HGVs on the A24 prior to them accessing Knoll Road, before then turning into Coldharbour Lane for passage to the appeal site. Secondly, it was contended by local people that the cycle usage of Coldharbour Lane had increased significantly since the Olympic Games of 2012, and this has not been recognised. Thirdly, in 2013 a width restriction order was imposed on Coldharbour Lane, which did not reveal itself in the Appellants' or the Council's evidence to the inquiry. Bearing these points in mind, it was clear to me that the latest position with respect to the Transport Management Plan (TMP), endorsed by the LHA had not been validated on-site. Relevant LHA Officers were not available to respond to the concerns.
53. There is no doubt that a relatively large volume of HGVs – some 1,100 movements – would use the Lane during the construction and dismantling of the drill-rig site and compound. However, this would be spread over a period of 12 weeks, with a predicted maximum of only some 30 movements in any single day. To reduce the effects of HGV movements, the 'working day' would be restricted to between the hours of 0930 to 1500 hours Monday to Friday and 0930 to 1300 hours on Saturdays. This would allow virtually all peak traffic movements and travel to and from the nearby schools to be complete before HGV movements to the appeal site begin. To further assist in local access, the HGVs would travel in convoys of two or three vehicles along Coldharbour Lane to and from the site.
54. Having said this, it should not be envisaged that there would be no difficulties of access for those served by Coldharbour Lane. There would still be some inconvenience, not least because Coldharbour Lane is narrow over long sections and overtaking or passing is difficult at best and for short periods nigh on impossible. This would be exacerbated by the length of Coldharbour Lane that would have to be traversed by the HGVs, with a traveling time for each convoy of between five and 10 minutes.
55. There is one further difficulty that must be added to the mix and this is the 3-day closure to through traffic of Coldharbour Lane during the hours of 0930 to 1800 hours, other than for access. This would be required to bring the drill-rig in and to take it out at the end of the contract. Alternative routes for general traffic are available, but they are less than ideal and would undoubtedly occasion some inconvenience.

56. Notwithstanding, the HGV traffic usage of Coldharbour Lane, including the two temporary closures, would not, of itself, be a show stopper for the proposed borehole exploration. Yes there would be some inconvenience, but outside the peak hours I strongly suspect that those taking access from Coldharbour Lane would manage their activities to minimise personal inconvenience. Then again, it would only be for two publicised 6-week periods and for a few minutes duration six, eight or, possibly, ten times a day, between the hours of 0930 and 1500 hours, while the convoys traverse the Lane.
57. It was a challenge to the holding point on the A24 and waiting point on Knoll Road for the HGVs to assemble before setting off in convoy along Coldharbour Lane that called into question the highway evidence presented to the inquiry and the LHA's agreement to the proposed TMP. When looked at on site, the lay-by indicated as the holding point was found not to be a lay-by at all, but a junction acceleration/ deceleration lane and, thus, unsuitable for the purpose intended.
58. The site visit toward the end of the inquiry did look at other options and these certainly exist, though invariably more distant from the assembly point in Knoll Road. Moreover, there are still permissions/ agreements to be secured for their use. However, from what I saw, I am satisfied that a suitable location could be found and there are reasonable prospects that any restrictions on use could be overcome. This could be secured by a negative condition.
59. The only downside of a changed assembly location would be that the increased distance between the holding point on the A24 and Knoll Road would lead to the probability of greater traffic dispersion. In turn, this could mean a longer waiting time for the HGVs in Knoll Road before setting off along Coldharbour Lane. This would extend the period HGVs wait on Knoll Road outside residential property and inhibit the use of the Knoll Road/Coldharbour Lane junction and the use of private drives to property.
60. In the original TMP, it was envisaged that HGVs would wait for no longer than 1-2 minutes. The more remote holding point could extend this by a couple of minutes and to this must be added the clearance time for traffic travelling north on Coldharbour Lane to clear the narrow section. In total, however, I do not envisage that the duration of waiting on Knoll Road would exceed 5-minutes four or five times a day. Once again there would be some minor short-term inconvenience, but this would not be inordinate.
61. I also studied the likely visual impact of the waiting HGVs on Knoll Road, but find that the most adjacent properties on the same side as the waiting HGVs are significantly elevated and should experience very little loss of outlook or noise intrusion. For the key property on the opposite side of the road, the main windows are orientated away from the parked HGVs and toward the junction of Knoll Road and Coldharbour Lane. Once again, I anticipate only a transient problem. In terms of access to private drives, there could be some short term inconvenience, but with the Banksmen or Marshalls being on hand at the Knoll Road/Coldharbour Lane junction I would imagine they could assist if an undue perturbation occurred.
62. Access to property on and accessed by Coldharbour Lane is seen as problematical by a number of people. General reference is made to this above, but looking at this more specifically I do not envisage the inconvenience would be of more than very short duration. There would be occasions when residents

and/or deliveries would be held up, but for a relatively short period and not during the busier periods of the day. My experience in similar circumstances is that people manage their lives to avoid inconvenience wherever possible, and I have little doubt that this would occur here. Crucially, the HGV management team would be in radio contact and this would enable HGV movements to be managed in the event of an emergency.

63. The HGV movements would operate in convoys of two or three vehicles moving into or out of the site at any one time. This should mean that the inconvenience to local users would be minimised. While it would not be practical to forewarn every property about an impending convoy movement, vehicles wishing to enter the affected sections of Coldharbour Lane from either end and at a junction at an intermediate point would be advised by the HGV Banksmen. The timings for the two 6-week periods for HGV movements and the two temporary closures would be publicised locally and via the Parish Councils. This could be done by attaching an appropriately worded condition.
64. Under normal circumstances, the traverse period for HGV between the site and Knoll Road and *vice versa* would be a matter of five minutes if travelling at 30 mph average or seven or eight minutes at 20 mph average. Clearly a convoy could be held up by a number of factors such as slower moving traffic, opposing traffic or cyclists on the narrowest of sections. Even so, I firmly believe the delays should be manageable and the reduction in the speed limit for HGVs to 30mph should assist in reducing accident risk.
65. As for the width restriction Order, the clear intention was to restrict the use of the Knolls Road/Coldharbour Lane route by HGVs. Notwithstanding, the Order does not preclude use for access to land and properties along the route and, of course, the appeal site would comply in this regard. Thus, although the Order seems to have been missed in the evidence, it would actually have little if any bearing on the proposed operation and movement of HGVs to and from the appeal site. At worst, it is merely a pointer to the lack of due diligence on the part of those overseeing the highway interests. At best it will draw public attention to the width restriction Order, which may assist in future observance.
66. Safety of other road users is the most crucial aspect of the access arrangements. With HGV Banksmen in place, and in communication with the HGV drivers, potential hazards should be known and risks minimised. Signs at the entry points will warn users of possible HGV movements and during the working week I do not envisage particular problems. I draw support for this from the lack of any accident record on Coldharbour Lane over recent times and, although the vehicle movements would increase during the period of exploration, the management protocols in place, including the lowering of the speed limit for HGVs, should offset this.
67. My only outstanding concern would be the HGV movements on Saturday mornings. This is a period when general traffic usually reduces, and cyclists could be expected to avail themselves of the less busy period. An increase in the use by cyclists was reflected in the update report produced in March 2015, but this excluded information at weekends, when most cyclists are said to traverse the Lane. Importantly, evidence shows that the route along Coldharbour Lane has become a popular route for cyclists in recent times, and especially since the Olympics in 2012.

68. Although restricting HGV movements totally on Saturdays would mean that there would have to be a correspondingly higher number of movements during the week there may be a balance of advantage in this. I am mindful that if large numbers of cyclists do use the Lane on Saturdays, then this would not make the passage of HGVs easy and this may indicate to the contractors and LHA that precluding HGV movements on Saturdays would be in both their and the public's interest. However, only a survey would furnish the necessary information to inform this decision and this can be covered by condition.
69. Access to the appeal site would utilise an existing Forestry Commission access and the necessary junction upgrade would not result in the loss of any mature trees. However, the under-storey would be cleared to provide an adequate visibility, but this should largely re-generate in the following season. HGVs would not wait on Coldharbour Lane itself, before moving off to the north, but would wait on the access track and join Coldharbour Lane in convoy. There should be no cause for anyone associated with the appeal project to park in the open area on the opposite side of Coldharbour Lane to the appeal site access. Under these circumstances, a condition would be unnecessary and extremely difficult if not impossible to enforce. For site staff, the HGV Banksman would be on hand to remove any staff tempted to linger.
70. The banks of Coldharbour Lane are a particularly important feature of the sunken lane and need to be protected from 'erosion' caused by passing vehicles. Crucially, prevention is key. No-one could advance a realistic solution for remediation of the banks following damage. Having said this, it is necessary to be realistic about the level of risk that would be caused by the HGV movements etc to and from the appeal site.
71. We are talking about professional HGV drivers under the direction of dedicated Banksman, working to an approved TMP. Although the Lane is narrow, and extremely so in places, it is never of a width less than an HGV, with reasonable clearance. As such, I think the fears are somewhat overstated. Importantly, additional preventative measures could be worse than the cure, at least as far as local people are concerned. To further narrow the Lane over the sunken sections to reduce the risks of impact would inhibit general movement and access. A before and after condition survey would be carried out, though that would not prevent accidental abuse.
72. The problems I foresee would be the temptation for an HGV driver to overtake a cyclist or for opposing vehicles to try to pass on a narrow sunken section of the sunken Lane. The alternative would be to wait behind until a clear section of road presented itself. I am sure that most, if not all drivers, would adopt the safer course. However, the danger is that if anything untoward were to occur the finger of blame would inevitably be pointed at the Contractors, irrespective of the actual 'culprit'. Thus, to ensure that HGV drivers associated with the exploratory contract are persuaded this way, a camera in the cab to record activity would go a long way to safeguard the situation and prevent misdirected accusations. This could be required by condition.
73. Walkers are also major users of the Lane and require catering for. This could be done with warning signs where known formal and informal tracks meet or cross Coldharbour Lane. For those walking along the Lane itself, the reduced speed of HGVs would assist and allow both walker and driver to take the appropriate avoiding action. Such arrangements are never without risk, but

again the in-cab camera would act as a deterrent and provide evidence should this be required.

74. Questions about light, noise and air quality were raised, but the evidence from the ES is that none would be compromised to any undue degree. As such these aspects do not amount to a material ground for resisting the project. The question of ambient tranquillity of the area for recreation and wider enjoyment is considered elsewhere.
75. To summarise on the effects of traffic movements, it is certain they would not go unnoticed. There would be an increase in HGV movements and this would cause some inconvenience and, almost certainly, local irritation. This is a negative aspect to be weighed in the balance. Even so, the introduction of a TMP and additional reinforcing conditions where necessary would minimise the levels of interference, inconvenience and risk. Once again, it has to be remembered that this would be for the short duration of the exploratory scheme. As said, when faced with potential disruption people are invariably adept at managing their lives to minimise the inconvenience to themselves.
76. Under these circumstances, the proposals would create some small tension with the DP Policies MOV2 in the MVCS or Policy 1 in the SMLP and this must be weighed in the overall balance. Crucially, however, the cumulative impacts would not meet the definition of severe given in paragraph 32 of the Framework.

The need for the development and its consistency with the Government's policies for minerals and energy development

77. There are two opposing arguments on this issue. On the one hand, the Framework emphasises that minerals are essential to support sustainable economic growth and the economic advantage they deliver. In addition, Government confirms the continuing need for fossil fuels for many years and the benefits of a secure energy supply. On the back of this, the need to extract fossil fuels is strongly encouraged, commensurate with protection of the environment. On the other hand, whereas much of this is accepted in principle, the small quantum of oil and gas thought to be in the Holmwood Prospect and even if located the relatively low chance of this being won (1 in 3 or 4) does not outweigh the harm to the environment.
78. The first thing to note here is that we are talking only about exploration and not final recovery, though this is now accepted as a part of mineral extraction. Secondly, the policies supporting the winning of oil and gas do not set any lower limit. In this case, the fact that the resource 'under' the appeal site was claimed to have the potential to be the fifth largest on-shore reserve in the UK, as confirmed in a Competent Persons Report, was not challenged. It might only provide a resource to serve the entire needs of the country for a few days (2-4 days), but as potentially the fifth largest on-shore resource it must fall within the 'policy of encouragement'.
79. One can look at the submissions to the inquiry about need from both sides, and some may be specific to one type of operation or another. However, I am under no illusion that the Government's current direction of travel is one of a strong line of encouragement for exploration and to maximise the recovery of the country's oil and gas reserves. Thirdly, it is not disputed that the 1 in 3 or 1 in 4 probabilities of recovery are high by industry standards.

80. Next, in answer to my questions, it was agreed that the knowledge of any winnable resource of oil or gas was important in both benefiting the balance of payments and strengthening the Government's negotiating position in terms of the need for imports, the costs of importation and ultimately fuel pricing. Finally, the operation in terms of exploration and possible subsequent winning of the resource would contribute to the economy in terms of jobs and tax and some, albeit a low level of local spend.
81. Finally on this issue, it was claimed that as a 'Penny Share' company Europa is a speculative enterprise and not 'fit and proper' persons to be granted the planning permission. I have attached no weight to this line of argument. In the first place, they are able to associate with an awarded on-shore Licence and I am sure this would have required checks. Secondly, there is fear that the Company would not be able to afford the level of restoration required. As this is FC land, I am certain the FC will have made certain that in agreeing to lease the land to Europa its position in this regard will have been covered. Finally, the planning process is designed to regulate the use of land, and is not intended to discriminate against one party or another. The process allows for regulation and control through the imposition of conditions or by employing a s.106 Obligation. Crucially, the FC has raised no concerns in this regard.
82. Overall, I am in no doubt that the exploration of the potential resource accords with Government's encouraging policies for investigating and winning onshore oil and gas. If successful, the site would offer the fifth largest on-shore resource and by industry standards the omens are good. Moreover, there are additional benefits in terms of the economy, though, of course, most of the tax and the balance of payments benefits would not arise if and until any identified oil and gas were won. Albeit this proposal is only for exploratory development, all these attract weight in its support.

Other matters

83. A number of concerns are expressed about the threat to the ecological integrity of the area. These relate particularly to badgers and birds. The starting point for assessment of the likely effects of the exploration on the local ecology is that an ES has been prepared and this includes a section on ecology. As noted previously, this was updated in November 2014 and again in March 2015, with a Written Statement. The second point is that, informed by the ES, Natural England raises no objections and neither does the Council's Ecological Officer, the EA nor the Surrey Wildlife Trust. Disquiet raised by any of these responsible authorities would have triggered a high level of concern to be weighed in the balance. However, in the absence of any sustained objection from the responsible agencies, it is difficult to accord material weight to submissions that are unsupported by professionally accredited objective evidence and evaluation.
84. For my part, I did observe the badger setts below the appeal site, which appear active. Even so, there is no objective evidence to the effect that these would be physically affected by the scheme and, bearing in mind their relationship to the compound, I see no reason to depart from this view. What may well happen is that the foraging area for the badgers using the setts may be interfered with or an outlier sett be located within the sphere of influence. However, having regard to the general expanse of open land in the area and the short term of the exploration drilling, I am satisfied that there would be no

long term adverse effects. As a failsafe, a pre-operation survey would be undertaken to establish if any changes had taken place and, if necessary, for appropriate action to be taken.

85. As for birds, I am grateful to the local resident who submitted lists and photographs of the local birdlife and I did see several of these species on my site visit. In particular, the red-listed fire crest and nightjar are drawn to attention, with several other locally important species. There do appear to be some differences in the lists supplied, though this may stem from the more localised study undertaken for the ES in the context of the proposed site compound and the effects the operation might have. However, there is no suggestion that any particular species would be materially adversely affected by the development proposal. Moreover, there are legal requirements in respect of breeding birds and the Ecological Monitoring and Management Plan, required by condition, should ensure that these duties are honoured. The timings of the activities associated with the exploratory contract could be controlled to assist in minimising problems and an Ecological Clerk of Works would be present on site during the operations.
86. The pollution affecting light, noise and air quality generated by the vehicle movements associated with the development have been looked at earlier. However, the construction and operational work in and around the site compound would introduce their own levels of intrusion. What can best be said is that conditions and sensible operating practices should minimise the effects. From the submissions in the ES, and the conditions suggested, I am confident that no dwellings or businesses would be affected to any marked degree and the vast majority not at all.
87. The two areas of most concern would be to walkers and other leisure users passing near to the site and the night-time lighting for aviation purposes on the top of the drill-rig, which would no doubt intrude in the night sky over much wider distances. These aspects cannot be mitigated entirely and do constitute a small objection to be weighed in the balance. Nevertheless, this would, once again, last for a very short period.
88. Next, the potential effects on the hydrological status of the area are raised, not least by Sutton and East Surrey Water. The safeguarding of groundwater quality is always important, especially where it is used as a potable resource. However, the regime recently introduced by the EA would provide for more robust testing and checking for any leakage from the site operations into the underlying groundwater. This should reduce significantly the dangers of a loss at source travelling along pathways to sensitive receptors. With this monitoring in place, it should be much easier and quicker to introduce remediation. In the absence of any worries raised by the Regulator, objections could only have attracted more weight if they had relied on technical evidence and evaluation. As it is, they seem to be almost entirely precautionary and the management proposals for the site and EA's monitoring should answer any doubts.
89. Penultimately, there are some objections on the basis that the road management and closures would cause businesses and customers inconvenience. The submissions on this point are largely subjective, with no independent assessment of the likely economic effects. First off, it would be silly to say that there would be no effects. Even so, as said before, people and

businesses would manage the inconvenience. Other than for the two 3-day closures of Coldharbour Lane, when access might be more difficult, though not denied, businesses and customers would have unfettered access during the peak hours. As such, there may be a small level of inconvenience that constitutes a negative factor, but not of itself crucial. This conclusion also covers the leisure activities associated with the Coldharbour Conservation Area and the Leith Hill Tower.

90. Finally, there was some challenge to Appellants' assertion that the development would be sustainable and attract the presumption in favour that the Framework endows. The Framework invites consideration to be given to the three strands of sustainability – economic, social and environmental.
91. In this context, there would be some economic benefits during the exploration stage and more to follow if the results were positive. In particular, jobs would be sustained and financial benefits would accrue. I do not believe there would be any social benefits and, in all likelihood, albeit short-term there would be modest disbenefits to local residents, businesses and the tourist industry. As for the environment, the scheme would impose landscape character and visual harm and impinge on tranquillity for the duration of the contract. There could also be some short term interference with the ecological balance in the area. Overall, I do not agree that the scheme would be sustainable in the sense required in the Framework and, therefore, the presumption in favour does not apply.
92. Thus, in summary on these matters, there are some small negative elements to be weighed in the balance, but neither individually nor cumulatively do these points add great weight against the exploratory project.

The overall planning balance

93. There are an appreciable number of elements to the appeal scheme and the impacts it would have on a variety of interests. In the first place, I have found that the development would not constitute inappropriate development, which by definition would be harmful to the Metropolitan Green Belt. As for the essential characteristics of Green Belts, the compound and activity would impinge on its openness and one of the five purposes of Green Belts, assisting in safeguarding the countryside from encroachment, would also be breached. However, to temper this, the operations would be very short-term and entirely reversible, thus ensuring the permanence of the Green Belt and greatly reducing the harm to this interest.
94. Although I do not find this to be major development in Framework terms, there would be harm to the AONB in terms of character, visual intrusion and infringement of the prevailing tranquillity. This reflects the high level of policy protection evinced by the Framework and development plan and less formal policies. However, the wholly reversible nature of the proposals and possible long-term benefits materially reduces the level of objection this harm attracts well below the threshold of significant.
95. Turning to other matters, the traffic, ecology, effects on businesses and visitor enjoyment are all topics that raise negative quotients in the balancing equation. Notwithstanding, taken individually or cumulatively, I have found these not to be compelling. Even the traffic protocols can be made to work effectively and safely through the TMP. In particular, because the duration of

the project is so short, I am certain local people, visitors and businesses would manage the inconveniences that would occur as best they can. No doubt the experience would prove irritating, but not life changing. The raft of conditions proposed would mitigate much of the feared harm. I am still left with the sense that local people, while objecting to the impacts of the exploration scheme, harbour a greater concern about what would happen should the oil and gas reserves be proven. Whereas this might be understandable, it can carry no weight in the conclusions leading to this decision.

96. On the benefit side, there are several key arguments in favour of the scheme. The exploration and winning of minerals is, in principle, consistent with and encouraged by national policies. Moreover, in industry terms the likelihood of finding oil and gas in the Holmwood Prospect is high and it could register as the fifth largest on-shore site in the UK. Next, no other realistic, better, or even equivalent alternative location from which to explore the Prospect has been established in any objective detail, either within or beyond the AONB boundary. The benefits that would flow from identification of the reserve in the short term carry some weight in their own right. However, without exploration there would be no means of establishing whether a viable resource exists, thereby delivering the greater long term benefits in terms of the economy, balance of payments, some aspects of sustainability and employment. Thus, these are all positive factors that attract very significant weight, even though some may not be fully realised in the short term.
97. On the physical aspects of the scheme, it would be of very short duration, would be fully reversible and should incorporate improvements in habitat biodiversity. The imposition of a comprehensive raft of conditions would minimise the vast majority of impacts and assist local interests.
98. Overall, I conclude for the reasons given above that the scheme would not be inappropriate development in the Green Belt. Moreover, the benefits clearly and convincingly outweigh the very short term harm to the Green Belt, the AONB and other interests. Even had I found the project to fall under the head of 'major development', I consider the assessment required by paragraph 116 of the Framework in terms of national benefits, the lack of alternatives, public benefits and the extremely limited duration of the effects on the environment, recreational opportunities and the extent the effects of the scheme could be moderated would constitute exceptional circumstances that would justify a favourable outcome in terms of the AONB.
99. In reaching my final position, and notwithstanding what I write in paragraph 3 above, I am mindful that some of my conclusions depart from those reached by the Inspector in the earlier appeal decision. The main difference is in my conclusion on inappropriateness in the context of the Green Belt. However, this stems almost entirely from the direction given by the HC Judgement in this regard. Any differences in my conclusions on the impact on the AONB are based on judgement and the ambient tranquillity for the area has diminished with the changes in flight path. As for the highway factors, it is not certain that the local Objectors raised their current concerns as forcibly with the previous Inspector. However, on the basis of the submission to the later inquiry, it was clear that some of the parameters of the TMP judged acceptable by the LHA had not been validated and, since 2012, there had been changes to the cycle usage of Coldharbour Lane and the width restriction Order that had been introduced after that date. Finally, it is not clear how extensively the draft

conditions were discussed at the earlier inquiry, but when some were questioned, it was necessary to make substantial changes to the wording to meet the tests in the PPG and to ensure the contract would be completed within the 18 weeks stipulated. Without these changes, this could have made allowing the appeal problematical.

Conditions

100. In the event I were minded to allow the appeal and grant planning permission, the parties produced a set of draft conditions. This followed two open discussions at the inquiry and several meetings and exchanges of drafts during the adjournment. The main difficulty encountered is the tension between the 18-week contract duration and the requirement to safeguard the interests of acknowledged importance identified. This particularly pertains to those regimes where testing would be necessary and the results of the testing need to be verified by the LPA. After exhaustive discussion and exchange of views, there is not an entire measure of agreement, but most suggestions by the Appellants/ Council are accepted for the reasons given and to accord with development plan policies. The comments submitted by LHAG have been considered and where they would comply with the PPG guidance and are not covered in other ways the wording has been adjusted.
101. In finalising the conditions, I have had regard to the PPG and to accord with the guidance contained therein I have made minor amendments to the wording of several in the interests of clarity and consistency.
102. Condition 1 has been revised to show the most recent plans and is required to ensure the permission is implemented in accordance with the terms of the application. As requested by the Council, a Tree Constraint Plan has been included. The suggestion by LHAG that a plan showing the rig height should be included is unnecessary as it already captured by the plans referred to. Condition 2 is essential to ensure that site operatives are conversant with the terms of the planning permission in the interests of the local environment and amenity.
103. Condition 3 is required to enable the Council to exercise planning control over the operation, so as to minimise the impact on local amenity and to comply with Schedule 5 paragraph 1 of the Town and Country Planning Act 1990.
104. Moving to Condition 4, this is required for a similar reason and to ensure the prompt and effective restoration of the site. In response to this, LHAG says that it would be self-defeating to force the Appellant to abandon the site before the site reinstatement is completed. This is scheduled to be a six week period. Therefore, in order for this Condition to have effect it should require cessation of operations (drilling and testing) after 12 weeks as well as vacation of site at 18 weeks. Although I can see the reasoning behind LHAG's suggestion, I believe it would be a hostage to fortune to tie the contractors down so tightly. The crucial target is that the exploration should be completed and the site restored ready for landscape planting within the 18 weeks. Condition 4 is unequivocal on this point. Within this period the contractor can fulfil activities either more quickly or more slowly than the outline plan, just so long as the 18 week target is met. Thus, any intermediate timings are unnecessary and potentially counterproductive.

105. Condition 5, pertaining to the hours of operation is essential to safeguard the environment and protect the amenities of local residents. Condition 6 establishes necessary limitations on operations for similar reasons. However, the EA believes that the initial proposals for the fence surrounding the site may need to be reviewed to ensure that there is adequate site security. At present it is a 2 metre post and a chain link fence. The EA's requirement may mean that there has to be a change from the original planning application proposals, which could be dealt with by means of a s.73 amendment. In this context, the Council responds that any s.73 application to carry out development not in accordance with Condition 1 (i.e. amend/revise plans) would be determined by the Council, with consultation/notification in accordance with its Statement of Community Involvement. Such an application may require the Appellants to submit a further Addendum to the Environmental Statement chapters on Landscape and Visual Impact and also Ecology. The EA is happy to deal with it in this way, provided the site security and fencing is deemed appropriate at the environmental permitting stage.
106. For my part, it is unfortunate that this was not resolved before the close of the inquiry. Notwithstanding, although a s.73 application could prove a tortuous and lengthy process, especially if the ES had to be revisited, it is an acceptable route forward within the planning legislation. As such, the Condition can remain unchanged and parties will be aware of the timing implications of the process.
107. Turning to Condition 7, which covers dust, this is essential in the interest of local amenity. Condition 8 embraces the noise environment and is needed to ensure the minimum disturbance and avoid nuisance to the locality. LHAG is worried that a method of calculation may be employed, which it considers less reliable than direct measurement. Whereas this may be true, the condition requires the method of calculation to be agreed with the Council prior to operations. If this is done then it will permit the Council to verify calculations with actual readings to secure the necessary level of accuracy. One problem with direct measurement is that it makes it more difficult to filter out other noise. As the Council submits, this approach accords with the measurement method described in British Standard 4142: 'Methods for rating and assessing industrial and commercial sound'. For these reasons I support the submitted draft, with the addition of the words 'except in emergency' when measuring for gas flaring.
108. Condition 9 is fully justified, and requires details to safeguard the ecological and biodiversity interests of the site. There is no dispute about the aims intended, but concerns are expressed by the Council about the way '*new or amending mitigation measures*' following the decommissioning phase will be readily enforced/secured. This is particularly so since the Council understands that the developer has a short-term one-year lease on the land (i.e. handing the area back to the Forestry Commission (FC) after that time, who will then have its own Forestry Management Plan). For this reason the Council considers that inclusion of any '*new or amending mitigation measures*' in a five year aftercare scheme is the most appropriate method for securing such measures.
109. This is a difficult matter, but the Condition, as worded, is not challenged in terms of outcome. It seems to me that irrespective of any '*new or amending mitigation measures*' that are needed, the usual monitoring and aftercare would extend outside the period the land would be leased from the FC.

Importantly, however, the permission and attendant conditions run with the land. It falls, therefore, to the developer and the FC to agree how any action to implement conditions beyond the period of tenure is handled. As I see it, this does not invalidate this condition. With one small amendment to the wording of the condition, the necessary monitoring and aftercare can be included as part of the Ecological Monitoring and Management Plan.

110. The first lighting Condition 10 is imperative to avoid endangering the safe movement of aircraft and the operation of the nearby Gatwick Airport. The second lighting Condition 11 seeks a Light Management Plan and is necessary in the interest of residential amenity and the local environment.
111. Condition 12 relates to soil contamination and is a matter of dispute with alternatives suggested by the Appellants and others. First, there is no submission that it is unnecessary or that the objectives embraced by the condition are flawed. It is essential to demonstrate that there has been no long term contamination of the near surface natural soils at the site as a result of the development and to ensure the site can be suitably restored, on completion of the exploration. The argument is about the appropriate wording that would best secure this, commensurate with meeting the developers' 18 week contract timescale.
112. The Environment Agency has no objection to the technical aspects of this condition saying that the important aspect is, just as it is for environmental permitting, that the ground is tested prior to and post the activity, to ensure there has been no deterioration. However, the condition has to be workable, and the limitation of 18 weeks appears to make this unachievable.
113. From the Appellants' comments the EA has noted that there are areas to be filled, where they "*will be building up the ground levels*". The implications related to this aspect of the work are not clear in the site preparation works section of the planning application documents. In the event that the developer/ applicant imports materials to make up the working level or the landscape profile, a further environmental permitting condition may be required.
114. The Appellants say that the condition as drafted is unworkable, because the development has to commence in order to prepare the levelled drilling compound. It is this work that would enable geochemical testing of the levelled compound as required by the condition. The timing will also cause problems, because the Appellants will be levelling the site and covering it with membrane as the work progresses to avoid leaving the final level open to deterioration, so the sampling will be progressive. Moreover, nothing is said in the condition about the filled areas, where the levels will be built up. An alternative condition is suggested by the Appellants, which can be seen below.
115. In response, the Council says that the condition states that the "*geochemical soil testing shall be carried out.....before site operations commence...*" This is not the same as '*before development commences*' in the CPA's opinion. The wording could be amended to '*before drilling operations commence*'.
116. As a basic principle, the Council considers it is correct and workable to require the methodology and scope of the pre and post development geochemical testing to be agreed in writing before commencement and therefore no change is required here. Timing should not be an issue – the soil

testing has to be carried out before the membrane is laid. This should be able to be incorporated into the programme by the Appellants, and with the samples only being taken from within the top 300mm of soil, should be a quick process.

117. The Appellants' alternative condition is worded as follows:

Condition 12: No development hereby permitted (save for anything done pursuant to Condition 16) (Ground and surface water monitoring) shall commence until geochemical baseline soil testing has been carried out across the drilling compound and a report submitted to the County Planning Authority for evaluation.

A Method Statement shall be submitted to the County Planning Authority identifying how the developer will identify any soil contamination at the decommissioning stage and how it will be dealt with, should it be encountered.

The Method Statement should also identify the proposed design and methods of prevention and remediation of any soil contamination should it occur.

Development (save for anything done pursuant to Condition 16 (Ground and surface water monitoring) shall not be commenced until the both the report and the method statement are approved.

118. This alternative text attracts an equal number of comments. In the first place, the EA will also be covering this aspect in the Environmental Permit (permit and surrender documents), which is normal practice. The Appellants are able to submit the same documentation to the Council and the EA, as a requirement of planning and environmental permitting, to prove that there has been no deterioration in soil quality across the site as a result of their works. The 18 week limit makes it difficult for this Condition 12 "Contamination" to be achieved. The final soil samples will take time to be analysed, and then the Council and the EA will need to be consulted to satisfy themselves the planning and environmental permitting obligations have been met.

119. The EA recognises that the alternative has been suggested to help resolve this issue, with respect to completing the work within 18 weeks to comply with the planning application proposal. The first section, testing the soils prior to works commencing, appears fine. The next two sections appear fine in their own right (a methodology for identifying soil contamination, proposed mitigation measures and methods of remediation if contamination has occurred), but may not be fine in the context of what is required for the site.

120. As the Appellants' alternative was written, the restoration work may be completed (to comply with the time schedule), a methodology of what will be done to clean-up the site if it has been contaminated will have been submitted, but any potential areas of contamination may be covered over by the restoration soils prior to getting the full sample results back. This could result in the need for a clean-up programme and remediation works being agreed, implemented and finalised outside the proposed 18 week planning timescale.

121. In the Council's view, the alternative is not acceptable. First, it does not include minimum sampling spacing; secondly, it does not specify that the methodology and scope of the pre and post testing should be approved in writing by the Council; and, thirdly, it does not specify that remediation shall

be carried out in accordance with the approved scheme – only that a Method Statement will be submitted and approved. The Council does not consider that this issue can simply be devolved to the EA, because it is not just a potential controlled waters issue – it is also a human health matter.

122. Having regard to the aforementioned views, I consider the need for the condition and how best to achieve the aims within the 18 week contract period. In the first place, on the basis of the evidence, I consider the prospect of the additional importation to be *de minimis* and, therefore, should be dealt with outside the condition as an 'emergency'. Secondly, I do not demur from the joint views of the Council and the EA that this is a matter of interest to both the planning and regulatory regimes. As such, it cannot be left solely to one agency and a condition is required for planning purposes.
123. As I said at the start of this topic, the tension between completing the contract and the 18 weeks allowed for this makes resolution of the differences difficult. Having said this, this is what the application seeks, the permission grants and the ES has covered. To extend the contract would mean going back to square one and this is in no-one's interest and so wording is required to deliver a sensible and pragmatic solution that accords with the tests in the PPG.
124. As I suggested at the inquiry when this condition was discussed, a mobile testing unit would remove many, if not all, of the problems and give the parties what they need to move forward. No-one disagreed that this is a feasible option. To achieve this, a baseline survey, as suggested in the Appellants' modified condition, could be done during the site construction and the results passed to the planning and regulatory authorities for their consideration during the 5 week period of the drilling process. It could be undertaken in a phased way either before the membrane is laid or, as seems more likely, progressively as the membrane is being completed. The spacing and timing protocols should be agreed before the commencement of the contract as part of the Method Statement.
125. This baseline would allow both the planning and regulatory regimes to determine the acceptable post evaluation contaminant thresholds for them (they may not be the same), which could then be tested against as the compound was dismantled and the membrane removed. With a mobile testing unit, any breaches would be identified immediately and that area left open until remediation measures are put in place. During the restoration phase the plan of the dismantling would have to be sensitive to meeting the 18 week contract period, but I am confident that this could be achieved, with very little chance of the 18 weeks being breached and only then in a case of emergency. We have to remember that one is not anticipating a breach in the integrity of the membrane leading to groundwater contamination and the check should be precautionary only. On this basis, and in the absence of any agreement between the parties, I have drafted a condition that meets the PPG tests and accommodates the wishes of the parties as far as is possible within this remit.
126. Draft Condition 13 deals with soils and is necessary to enable the County Planning Authority to adequately control the development and to secure restoration of the site to a condition capable of beneficial afteruse. The draft wording attracts no adverse comment.
127. The landscape and restoration Conditions 14 and 15 remain in dispute, with the Council arguing for two conditions and the Appellants for one. In the main,

the problems arise from the relationship between the Appellants and the Forestry Commission (FC) who own the land. In a nutshell, restoration proposals are usually undertaken in the first planting season following completion of the development. However, in this case, the Appellants seem to have a short term relationship with the owners of the land, and the inquiry is not privy to the detail. In my view, this is not crucial. As mentioned previously, the permission runs with the land and the necessary work would have to be overseen by the Appellants or their successors in title – the FC.

128. The key difficulty with the condition as drafted is that it requires a Landscape and Restoration Plan that complies with the aims and objectives of planning principles and these may not be entirely consistent with the FC's management regime. It was not possible to engage with the FC to ascertain its thoughts or expectations. Neither was the FC available to answer questions or to inform whether it has powers to avoid complying with a planning permission. If the latter, then no condition would overcome this and there would have to be an Legal Undertaking/Agreement. However, in the absence of this, it would have to comply with the permission as issued and, if changes are proposed, it would have to apply for a variation under s.73.
129. As such, I agree with the Appellants that one condition is sufficient and that the Council cannot dictate how the FC manages its land. However, from the Council's perspective, the restoration and subsequent maintenance must secure the approved scheme and assist in absorbing the site back into the local landscape as soon as practical and to enhance nature conservation interests. It must be assumed for the purposes of this permission that the landscape restoration scheme will reach maturity. To ensure this there must be a maintenance element. How the Appellants and the FC manage this is between them, subject to meeting the necessary end result. To reflect this, I have reworded some parts of Condition 14, including the reference to the FC. The FC can avail itself of s.73 if necessary. Condition 15, therefore, is omitted.
130. With Condition 15 omitted, the remainder of the Conditions have been renumbered in the Schedule of Conditions that follows. When discussing the draft conditions here, I have retained the numbers given to me in the draft.
131. Draft Condition 16 is essential to ensure appropriate baseline water quality monitoring and the protection of the water environment throughout the course of the development. There are no disagreements about the wording.
132. Then follows several conditions pertaining to highway and traffic matters. Condition 17 on routing is agreed as necessary for reasons of highway safety. Condition 18 covers delivery hours, and is fully justified in the interests of protecting the residential amenities of local residents. There is a suggestion from some that a shorter core time would be preferred. From my observations on site and the information contained in the composite ES I do not consider this to be necessary.
133. Condition 19 is included at my suggestion and requires a traffic survey and safety audit to be undertaken to assess changes in highway usage and is imperative in the interests of highway safety. There is no disagreement with the inclusion of this or to the wording proposed. However, this should not just solely be a survey, but must contain a risk based analysis - safety audit - of the findings.

134. Condition 20 requires a Traffic Management Scheme (TMS) to be prepared in the interests of highway safety. There is no disagreement with the aims and objectives, but there are a number of issues about the content and wording.
135. LHAG raises a number of points. First, it believes that details of the preliminary holding area on the A24 are a necessary part of the TMS. Secondly, it considers it to be essential to the operation of the TMS (as well as the safety of cyclists) that the TMS contains specific measures to cater for cyclists (as promised at 7.214 of the Environmental Statement). The requirement for such measures should, therefore, be an explicit part of the TMS description in this condition. Next, in order to preserve access to bike trails and walking routes on the East side of Coldharbour Lane, it proposes that the TMS should include a prohibition of all site-related traffic from parking or waiting in the area opposite the site entrance. Finally, it submits that parts of the TMS should be in operation “*..in advance of AND DURING the works*”.
136. The Council looks for an addition to the banksmen and escort details to include management of the progress of HGVs along Coldharbour Lane to protect trees and banks. On other points, it agrees with LHAG’s view on the holding area, but recommends an alternative reference in the TMS to simply ‘details of the preliminary holding area’. The Council considers that it would be advantageous for the Appellants to undertake a search for any other area (such as a large car park or depot area) to provide a rendezvous point off the public highway. This could avoid the problem whereby a broken-down vehicle etc blocks any A24 lay-by or any other part of the public highway used.
137. With reference to the issue of provisions for cyclist, recreational opportunities and residential amenities suggested by LHAG, this was discussed at the Conditions Session on 30 April 2015 and the Council considers that such provisions/requirements would not comply with paragraph 206 of the Framework. The Appellants comment that LHAG’s suggestions were discussed at the conditions sessions and where they meet the tests of paragraph 206 of the Framework have been incorporated. However, there are several items that fall outside the Framework remit and some that require consultation with individuals that would not be appropriate.
138. For my part, I believe that, with some minor amendments to reflect certain points, the suggested condition covers virtually all eventualities. It has to be remembered that any condition must meet the tests in the PPG and if a small part of a condition fails in this regard then the entire condition would be open to challenge. Thus, while appreciating the sincerity of LHAG’s proposals they would not comply. With regard to identifying a holding point, I favour a wider review to find the best option. As for cycling and safety, this should be covered in the Safety Audit required as part of Condition 19. I support having a camera in the cabs of the HGVs for reasons of both safety and road condition. This is looked at later.
139. Condition 21 requires that pre and post development condition surveys and subsequent repairs are undertaken taken in the interests of the long term preservation of the existing character of Coldharbour Lane and Knoll Road. This seems eminently sensible and is not disputed. Some of the content is challenged and this pertains to the need for a bond and the inclusion of reference to the closure Order on Coldharbour Lane.

140. In my view a bond would give the LHA some confidence about maintenance of the Lane etc, but without the agreement of the Council, who is both LPA and LHA, there is little point. There is no legal obligation on the LPA to enforce conditions and the clear indication is that it would not on this point. While nothing in s.59 of the Highways Act 1980 appears to preclude a planning condition, s.59 covers the recovery of expenses due to extraordinary traffic, and provides a fall-back position for the LHA. It should be remembered that one of the key features of planning legislation is that it should not be used where other primary legislation would better cover the matter. As for the closure Order, this is a matter of law. The Appellants cannot suspend or impose orders without negotiating the necessary legal processes.
141. Moving to Condition 22, this covers the method of construction and reinstatement protocols and is vital to ensure the future reinstatement of the site, consistent with Green Belt objectives. LHAG suggests that this condition should include a parking prohibition on the opposite side of Coldharbour Lane from the site entrance. As explained previously, I do not support this as it would be counterproductive and virtually impossible to enforce. As it happens, however, this should be covered in the Method of Construction/Reinstatement Statement under the section entitled "*a) parking and manoeuvring of for vehicles of site personnel, operatives and visitors*".
142. Draft Condition 23 requires wheel cleaning facilities to be installed in the interests of highway safety. Under many circumstances this is covered by highway legislation. However, in this instance, where cyclists form a considerable proportion of the traffic using Coldharbour Lane, and use the Lane primarily for leisure and sporting pursuits, I agree that there is sufficient justification in this instance to include this as part of the planning regime. There is no dispute about the wording.
143. Finally, I did canvass the inclusion of an in-cab camera/CCTV in the HGVs used for the contract. These are cheap and effective and, from experience, now widely used in London today in connection with cycle safety. The installation of cameras would assist in both highway safety and protection of the environment along the sunken sections of the Lane. I think that they would have a very positive influence on the standard of driving and in the event of an accident or other incident go a long way to establishing the onus of responsibility. The recordings would be made available to the LPA. Although the Appellants did not volunteer a separate condition in this regard, they did indicate that they were content to follow my lead. For these reasons I have added an appropriately worded condition.

Formal decision

144. Having regard to the evidence presented to the inquiry, the written representations and visits to the appeal site and surroundings, I am convinced that the short-term harm to the identified interests of acknowledged importance would be clearly and demonstrably outweighed by the fully reversible nature and the benefits of the scheme in national and local terms. I believe these do constitute exceptional circumstances and that none of the national or local policies referred to above would be unduly compromised over the medium of longer term. Accordingly, and having taken into account all other matters raised, this appeal succeeds.

J S Nixon

Inspector

SCHEDULE OF CONDITIONS

Approved documents

1. The development hereby permitted shall be carried out and completed in all respects strictly in accordance with the terms of this permission. The following approved plans are contained in the application:
 - Site Application Area – Drawing No. 2.9 (January 2007)
 - Rig Access Route to Site - Drawing No. 5.9 Rev A (July 2009)
 - Proposed Site Entrance & Vehicle Swept Paths - Drawing No. 4.1 (July 2007)
 - Site Layout Drilling Mode - Drawing No. 1.7 (April 2008)
 - Cross Section of Site & Flare Compound - Drawing No. 4.3 (August 2006)
 - Typical Section Through Cellar - Drawing No. 5.4 REV A (April 2015)
 - Flare Bund Containment Details – Drawing No. 4.5 (March 2015)
 - Site Layout Drill Stem Testing - Drawing No. 4.6 REV B (July 2007)
 - Plans & Elevations proposed Site Cabins - Drawing No. 4.7 (May 2007)
 - Rig 28 Lights – Drawing No. 02061_TCP_01 REV A (14 May 2014)
2. A copy of this decision notice, together with the approved plans and any schemes and/or details subsequently approved pursuant to this permission, shall be kept at the site office at all times and the terms and contents shall be made known to supervising staff on the site.

Temporary permission and commencement

3. This planning permission shall be limited to a period of three years from the date of this decision. The developer shall notify the County Planning Authority in writing within seven working days of the commencement of the implementation of the planning permission.
4. Within 18 weeks from the commencement of the development (save insofar that, for the purposes of this condition, anything done pursuant to Condition 15 (Ground and surface water monitoring) shall be deemed not to constitute commencement of development), all buildings, plant, machinery (both fixed and otherwise) and any engineering works connected therewith, on or related to the application site (including any hard surface constructed for any purpose), shall be removed from the application site and the drill-site shall be reinstated to a condition suitable for forestry save that this condition shall not operate to require the removal or cessation of anything done or to be done pursuant to Condition 15 (Ground and surface water monitoring). The site shall be fully restored in accordance with the detailed restoration scheme required under Condition 14.

Hours of operation

5. With the exception of emergencies, drilling, gas flaring and ingress and egress by relevant HGVs as specified in Condition 17, no lights shall be illuminated nor shall any operations or activities authorised or required by this permission, take place other than during the hours of:

0700 to 1800 hours on Monday to Friday

0700 to 1300 hours on Saturday

Apart from the exceptions referred to above, there shall be no working at any time on Sundays, Bank or National Holidays.

Limitations

6. Notwithstanding any provision to the contrary under Part 17 of the Town and Country Planning (General Permitted Development Order) 2015 or any subsequent Order (but subject to the proviso set out below):
- i. no plant, building or machinery, whether fixed or moveable, shall be erected pursuant to the said permitted development rights, on the application site.
 - ii. no lights or fences other than those permitted by this application shall be installed or erected at the application site.

Proviso: This condition, however, does not prohibit the exercise of and reliance on any permitted development right under which the ground and surface water monitoring scheme under Condition 15 could be carried out.

Dust

7. None of the development hereby permitted (save for anything done pursuant to Condition 15 (Ground and surface water monitoring)) shall commence until a scheme for appropriate on-site dust suppression has been submitted to the County Planning Authority and approved in writing. Such a scheme shall include measures necessary to minimise any impact upon local road users, residential properties located near the site, or any other sensitive interests of importance from the emission of dust from the application site. The approved scheme shall be implemented and retained in place for the duration of the development in a condition that ensures the aims of the approved scheme are met.

Noise

8. The level of noise arising from any operation, plant or machinery on site, at a height of 1.2m above ground level and at least 3.5m from the façade of any residential property or other noise-sensitive building most exposed to noise from the site shall not exceed the limits in the table below. Such noise levels may be measured directly at the relevant location(s) or may be calculated according to a method previously agreed in writing with the County Planning Authority.

Activities	Times of day	Noise limit L _{Aeq,30min} dB	Explanatory notes
Temporary operations such as site preparation and reinstatement	07:00h – 18:00h weekdays 07:00h – 13:00h Saturdays	55	These hours are limited by Condition 5
All activities save gas flaring (covered separately below)	07:00h – 18:00h daily	45	
Any activity save gas flaring (covered separately below)	18:00h – 07:00h daily	42	
Gas flaring	07:00h – 19:30h (except in emergencies)	53	Gas flaring shall only be undertaken in between the hours here specified.

Ecology and Bio-diversity

9. No development hereby permitted (including removal of vegetation, lopping of trees and other site clearance) but excluding anything done pursuant to Condition 15 (Ground and surface water monitoring) shall commence until an Ecological Monitoring and Management Plan has been submitted to and approved in writing by the County Planning Authority.

The plan will include details of the following:

- i. Methods, survey area(s) and programme for pre-commencement surveys for vegetation, badger, roosting and foraging bats, nesting birds (including nightjar and firecrest), reptiles, other protected species and invasive plant species;
- ii. Ecological protection and mitigation objectives and measures for site clearance, construction, operation and decommissioning phases of the consented development. These will include:

- a. Measures to address potential disturbance or harm to badger, roosting and foraging bats, nesting birds (including nightjar and firecrest), reptiles and other protected species,
 - b. Details of mitigation for potential lighting, noise and dust impacts on flora and fauna, and
 - c. Other protection measures for retained and adjacent vegetation and habitats;
- iii. Specifications for any habitat management and/or translocation necessary to address potential impacts on reptiles and other protected species, including exclusion fencing;
 - iv. Methods and programme for on-going ecological monitoring and aftercare of the development, including provision of an Ecological Clerk of Works to implement the Ecological Monitoring and Mitigation Plan and oversee mitigation works at the site; and
 - v. Measures for the control of Japanese knotweed and any other invasive plant species recorded by the ecological monitoring surveys.

The results of the pre-commencement ecological surveys shall be reported to the County Planning Authority in writing. Should the results of the pre-commencement ecological surveys require new or amended mitigation measures, the Ecological Monitoring and Management Plan will be amended and resubmitted to the County Planning Authority for further approval within one month of the surveys taking place.

The results of the monitoring surveys during site clearance, operational and decommissioning phases shall be reported to the County Planning Authority in writing.

The final approved Ecological Monitoring and Mitigation Plan shall be implemented in full and those protection measures that are required to be retained shall be maintained in a functional condition for the duration of the development and any agreed aftercare period.

Lighting

- 10. Obstacle lighting consisting of the 200 candela LL330 series shall be placed on the top of the drill-rig for the duration that the drill-rig is on site. The periods of illumination of obstacle lights, obstacle light locations and obstacle light photometric performance must all be in accordance with the requirements of 'CAP 168 Licensing of Aerodromes'.
- 11. No development hereby permitted (save for anything done pursuant to Condition 15 (Ground and surface water monitoring)) shall commence until a Light Management Plan has been submitted to the County Planning Authority and approved in writing. The Light Management Plan shall be in accordance with drawing no. 0277-1300-001 Rev A and shall include details of:
 - i. the siting of temporary security lighting for all phases of the development, taking into account the location of sensitive receptors;
 - ii. the hours lights would be illuminated and good practice measures to minimise the use of lights;

- iii. measures to control and minimise light spill;
- iv. measures for reviewing any unforeseen impacts;
- v. Practical measures to minimise upward waste of light from site luminaries and to minimise light spill into the surrounding woodland.

The approved Light Management Plan shall be implemented for the duration of the development.

Soil Contamination

12. No development hereby permitted (save for anything done pursuant to Condition 15 (Ground and surface water monitoring)) shall commence until a Method Statement for the geochemical baseline soil testing and how the developer will identify any soil contamination at the decommissioning stage and how this will be remediated has been submitted to and approved in writing by the County Planning Authority.

The Method Statement will include:-

- i. details of the proposed design;
- ii. details of minimum sample spacing and depths below existing ground level;
- iii. the method of testing samples using a mobile testing laboratory;
- iv. a programme for the geochemical baseline soil testing for the site and submission of results to the County Planning Authority;
- ii. the methods proposed to prevent soil contamination;
- iii. remediation methods for soil contamination should it occur during the contract period. The remediation methods shall deal with a sliding scale of contamination with protocols to cover each level of potential contamination identified; and
- v. a programme for identifying any soil contamination at the decommissioning stage and how it will be dealt with, should it be encountered, again on a sliding scale of contamination with protocols to cover each level of potential contamination identified. This programme should allow time within the 18-week contract period for the County Planning Authority to approve the test results in writing and for any necessary remediation to take place.

NB It should also be remembered that the test results at both pre construction and decommissioning stage will be of interest to the Environment Agency and its contamination thresholds may differ from those of the County Planning Authority.

Soils

13. All topsoil and subsoil shall be retained on the site for subsequent use in restoration. No soils or soil making material for use in the restoration shall be brought onto the site. Stored soil bunds shall not exceed 4m in height.

The restoration soils shall be spread over the site at an even depth and shall not exceed the final levels shown on The Restoration Profile Drawing No 4.10 dated July 2007.

Landscape and restoration

14. No development hereby permitted (save for anything done pursuant to Condition 15 (Ground and surface water monitoring)) shall commence until a Landscape and Restoration Plan to be implemented on the cessation of phase 3 of the development (testing and evaluation) shall be submitted to and approved in writing by the County Planning Authority.

The Landscape and Restoration Plan shall include details of:

- i. the excavation, storage and reinstatement of soils to ensure the survival of the of the existing seed bank;
- ii. programme for the implementation of the restoration, monitoring and aftercare;
- iii. provision for the enhancement of biodiversity focusing on native species and the results of the pre-commencement ecological surveys, whilst taking into account the use of the land for commercial forestry;
- iv. planting specification including details of species, planting sizes and proposed numbers/quantities/seed mix & application as appropriate;
- v. the reinstatement of the access track; and
- vi. details of any elements of the ground and surface water monitoring scheme approved under Condition 15 to be retained or continued on the site.

The plan as approved shall be carried out in full.

All planting implemented pursuant to this permission shall be maintained in good, healthy condition and be protected from damage for five years from the completion of site restoration. During that period any trees or shrubs which die, or are severely damaged or diseased shall be replaced in the next available planting season with others of a similar size and species.

Groundwater monitoring

15. No development shall commence until a scheme for the evaluation of groundwater and surface-water baseline quality and monitoring has been submitted to and approved in writing by the County Planning Authority. The scheme of works shall include full details of any proposed borehole design, installation details and monitoring (and include an action plan in the case of any identification of pollutants found beneath the appeal site prior to commencement of development). The development shall thereafter be carried out in accordance with the approved details.

Highways

Routing

16. No relevant vehicle (i.e. any HGV connected with the development hereby permitted and including any vehicle carrying parts of the drill-rig, but excluding

any vehicle used for the purposes of the ground and surface water monitoring) shall enter or leave the application site unless accompanied by an escort vehicle to ensure correct routeing in accordance with the approved Traffic Management Scheme (agreed in accordance with Condition 19 below).

Delivery hours

17. With the exception of the 2No. three day road closures, no relevant vehicle shall enter or leave the application site other than between the hours of 0930 to 1500 hours Monday to Friday and 0930 to 1300 hours on Saturdays; no relevant vehicles (as defined in Condition 16) shall enter or leave the site at any time on Sundays, Bank or National Holidays.

The developer shall notify the County Planning Authority in writing of the dates of any road closures at least seven working days prior to the road closure.

Traffic survey and safety audit

18. Prior to the submission of the Traffic Management Scheme a traffic survey shall be undertaken of all vehicles and pedestrians using Knoll Road and Coldharbour Lane on Saturdays between the hours of 0800 and 1400. This survey should cover all recreational activities, including cycling, which currently take place in Knoll Road and Coldharbour Lane. The results of this survey, combined with those of the traffic survey conducted in late 2014, supplemented by any pedestrian counts to fill in gaps, shall be used to produce a safety audit for the junction of Knoll Road and Coldharbour Lane and for the length of Coldharbour Lane between Knoll Road and the site access. The results of this audit shall be used to inform the Traffic Management Scheme required by Condition 19 below.

Traffic Management Scheme

19. No development (save for anything done pursuant to Condition 15 (Ground and surface water monitoring)) shall take place until a Traffic Management Scheme has been submitted to and approved in writing by the County Planning Authority.

The Traffic Management Scheme shall include:

- i. the provision, implementation and monitoring of traffic management measures (including details of the HGV holding area) to regulate the passage of relevant vehicles (as defined in Condition 16) travelling to and from the site and these measures shall take account of the road safety audit. Any mitigation measures should be subject to the road safety audit process;
- ii. details of the temporary road closures, the management of traffic, including emergency vehicles, during the road closures;
- iii. details of temporary warning signs for rights of way users at the point at which the rights of way meet Coldharbour Lane;
- iv. details of temporary signs and any appropriate road marking prohibiting all relevant vehicles from parking or waiting in Knoll Road other than in three temporary marked parking places;

- v. details of the publicity and prior notification signs to be provided to Capel, Holmwood and Wotton Parish Councils and to residents in Coldharbour Lane, Knoll Road, Abinger Road, Leith Hill Road, Lake Road, Broome Hall Road and Hen Hurst Cross Road in advance of and during the works;
- vi. banksmen and escort details, including management of the progress of HGVs along Coldharbour Lane to protect trees and banks.

The Traffic Management Scheme shall be implemented as approved and continue for the duration of the contract.

Pre and Post development Condition Survey and subsequent repairs

20. No works shall commence unless and until:

- i. A pre-development condition survey of Knoll Road and the section of Coldharbour Lane from the application site to Knoll Road (the route for HGVs agreed in the Traffic Management Scheme) has been carried out and submitted to the County Planning Authority and approved in writing.
- ii. A method statement has been submitted to the County Planning Authority and approved in writing identifying how any damage to the carriageway or highway verge, which may be inadvertently caused as a result of the development, will be made safe and remediated by the developer.

In the event of damage to the banks (as opposed to verges) of Coldharbour Lane (which it is agreed cannot be repaired), the method statement shall include steps to be taken to minimise the impact of the damage.

A post development condition survey of Knoll Road and the section of Coldharbour Lane from the application site to Knoll Road (the route for HGVs agreed in the Traffic Management Scheme) shall be undertaken by the developer and submitted to the County Planning Authority within three months of the completion of the development hereby approved. As part of this survey, a scheme, including the method of payment at the developer's expense, for the remediation of any damage to the public highway and its verges resulting from the passage of relevant vehicles (as defined in Condition 16) shall be submitted to and approved in writing by the County Planning Authority.

Method of construction/reinstatement

21. No development hereby permitted (save for anything done pursuant to Condition 15 (Ground and surface water monitoring)) shall commence until a Method of Construction/Reinstatement Statement has been submitted to the County Planning Authority and approved in writing. Such a Method Statement shall include details of:

- i. parking (both on and off site) and manoeuvring of vehicles for site personnel, operatives and visitors;
- ii. loading and unloading of plant and materials;

- iii. storage of plant and materials;
- iv. the protection of trees to remain on the appeal site and immediately adjacent to it; and
- v. programme of works.

Only the approved details shall be implemented during the site construction and reinstatement periods.

Wheel cleaning

22. No development hereby permitted (save for anything done pursuant to Condition 15 (Ground and surface water monitoring)) shall commence until a scheme for the prevention of contamination of the public highway has been submitted to and approved by the County Planning Authority in writing. Such a scheme shall specify all measures necessary to keep the public highway clean and prevent the creation of a dangerous surface on the highway. The scheme shall be implemented in full and the measures as approved shall be thereafter retained and used for the duration of the development.

In-cab cameras/CCTV

23. All relevant vehicles (as defined in Condition 16) shall be fitted with a camera or CCTV within the cab. This feature shall be fitted to give a forward view from the cab and capable of covering the width of the carriageway and immediate highway verges/banks. The cameras shall be running at all times the relevant vehicles are traversing the route of Knoll Road and Coldharbour Lane in either direction. The film/tapes shall be retained without deletion of content and made available to the County Planning Authority for a period to be agreed in writing with County Planning Authority, before commencement of the development hereby permitted.

APPEARANCES

FOR SURREY COUNTY COUNCIL:

Mr R Walton	Instructed by the County Council's Legal Officer
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He called:

Ms L Brown BA DipLA CMLI	Associate Landscape Architect, Atkins Ltd
Mr P M White MA MSc MRTPI	Technical Director with Atkins Ltd

FOR THE APPELLANTS:

Mr A Newcombe	Queens Counsel, instructed Charles Russell Speechlys LLP
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Assisted by:

Mr M Westmoreland Smith	Of Counsel
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They called:

Mr A Stuart BSc(Hons) MEng	Consultant Petroleum Engineer, Europa
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Mr S Kosky BA(Hons) DipTP MRTPI	Planning Director, Barton Willmore LLP
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Mr J Dodds BSc(Hons) DUC MSc MGeol FGS	Specialist in Hydrogeology and water management
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Mr I Burdis BSc (Hons)	Executive Vice President for AGR Petroleum Services
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Ms L Toyne BA Dip LA CMLI DipTP	Landscape Planning Director Barton Willmore
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Mr R D C Elliott BA(Hons) BSc(Hons) CEng MICE MIStructE	R Elliott Associates Ltd
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FOR THE LEITH HILL ACTION GROUP (LHAG)

Mr Stephen Whale	Of Counsel
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He called:

Mr Patrick Nolan MA FIA	Chair of LHAG
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Mr Hustings	For conditions sessions
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FOR THE SURREY HILLS AONB BOARD

Mr Clive Smith BA(T&CP) MRTPI DMS Planning Advisor

FOR MOLE VALLEY DISTRICT COUNCIL

Mr Christopher Robertson Planning Officer

FOR THE ENVIRONMENT AGENCY (Conditions discussions and Permit advice only)

Ms Jan Hookey

INTERESTED PERSONS

Councillor Paul Garber	Chair of Capel PC Planning Committee
Councillor Hazel Watson	County Councillor
Councillor Stephen Cooksey	County Councillor
Professor Colin Garner	Resident
Mr John Roberts	Resident
Mr John Simpson	Resident
Mr Keith Sargent	Resident
Mr William Travers	Resident
Ms Gillian Coton	Resident
Mrs Lucinda Butler-Manuel	Resident
Mr Hilary Hopper	Resident
Mr Sean Ede	Resident

DOCUMENTS HANDED IN AT THE INQUIRY

Attendance List (not included)

Document 1 – Letter of notification

Document 2 – Appellants' opening submissions

Document 3 – Opening submissions by Leith Hill Action Group

Document 4 – Third party submissions

Document 5 – Europa Oil and Gas (Holdings) Financial details

Document 6 – Surrey Hills AONB Management Plan 2104-2019

Document 7 – Counsel's opinion in respect of South Downs National Park Authority and the Framework

Document 8 – Lincolnshire County Council Report to Planning Committee Feb 2015

Document 9 – Extract from PPG 24: Planning and Noise

Document 10 – Mr White's errata and updates

Document 11 – Minutes of Surrey CC Planning Committee 25 May 2011

Document 12 – Screening opinion 2006

Document 13 – Minutes of Surrey CC Planning Committee 22 June 2011

Document 14 – Core Documents List

Document 15 – Mr Nolan's addenda sheet

Document 16 – Plan showing Environmental setting and water features

Document 17 – Letter from EA dated 10 April 2015

Document 18 – Note on EA's attitude to groundwater monitoring

Document 19 – Aide-memoire re groundwater and surface-water monitoring

Document 20 – Developing an intrusion map of England

Document 21 – Letter from Sutton and East Surrey Water (undated)

Document 22 – Report to Capel Parish Council 5 December 2014

Document 23 – Extract from Maximising Economic Recovery of UK Petroleum and relevant legal Judgement

Document 24 – Alternative site assessment – summary table

Document 25 – Photographs of parking in Knoll Road

Document 26 – Extract from the Guidelines for Landscape and Visual Assessment

Document 27 – Plan of combined photograph locations

Document 28 – Information in respect of cycling in Surrey

- Document 29 – Width restriction Order 2013 – Coldharbour Lane
- Document 30 – Note on traffic generation from Appellants
- Document 31 – Further note on traffic generation from Appellants
- Document 32 – Note on noise rating from Appellants
- Document 33 – Note on holding bays from Appellants
- Document 34 – Note on South Lodge from Appellants
- Document 35 – Submission on badgers from Chair of East Surrey Badger Protection Society
- Document 36 – e-mail from Appellants re badgers (10 June 2015)
- Document 37 – Evidence of badger activity on and around the appeal site
- Document 38 – Information on birds in the area
- Document 39 – Technical Note on Ecology from Appellants
- Document 40 – Plan showing flare bund containment details
- Document 41 – Plan showing typical section through the Cellar
- Document 42 – Site visit itinerary
- Document 43 – Draft conditions and comments
- Document 44 – Closing submission of Leith Hill Action Group
- Document 45 – Closing submission of Surrey County Council
- Document 46 – Closing submission of Europa Oil and Gas

**Appendix 7: Appeal decision for RJD Ltd and Gowling WLG
Trust Corporation Limited v Secretary of State for Communities
and Local Government (4 April 2019)**



Ministry of Housing,
Communities &
Local Government

Our ref: APP/M1900/W/17/3178839

Mr Douglas Symes (Agent)
D.K. Symes Associates
Appletree Farmhouse
39 Main Road
Middleton Cheney
Banbury
Oxfordshire
OX17 2ND

4 April 2019

Dear Sir,

**TOWN AND COUNTRY PLANNING ACT 1990 – SECTION 78 AND 79
APPEAL MADE BY RJD LTD AND GOWLING WLG TRUST CORPORATION LIMITED
LAND AT WARE PARK, WADESMILL ROAD, HERTFORD
APPLICATION REF: 3/0770-16**

1. I am directed by the Secretary of State to say that consideration has been given to the report of John Woolcock BNatRes(Hons) MURP DipLaw MRTPI, who held a public local inquiry on 1-4, 9-11, 18 May and 23-25 October 2018 into your client's appeal against the decision of Hertfordshire County Council (HCC) to refuse your client's application for planning permission for the phased extraction of sand and gravel, mobile dry screening plant, stockpile area, weighbridge, wheel cleaning facilities, ancillary site offices, construction of a new access onto Wadesmill Road with phased restoration to landscaped farmland at a lower level, in accordance with application ref: 3/0770-16, dated 4 March 2016.
2. On 23 February 2018, this appeal was recovered for the Secretary of State's determination, in pursuance of section 79 of, and paragraph 3 of Schedule 6 to, the Town and Country Planning Act 1990.

Inspector's recommendation and summary of the decision

3. The Inspector recommended that the appeal be dismissed and planning permission be refused.
4. The Inspector further recommended that your client's request to determine the appeal on the basis of an alternative 1.25 Mt scheme be declined.
5. For the reasons given below, the Secretary of State agrees with the Inspector's conclusions, except where stated, and agrees with his recommendations. He has decided to dismiss the appeal and refuse planning permission. He also declines your client's request to determine the appeal on the basis of the alternative 1.25 Mt scheme.

Ministry of Housing, Communities & Local Government
Maria Stasiak, Decision Officer
Planning Casework Unit
3rd Floor Fry Building
2 Marsham Street
London SW1P 4DF

Tel: 0303 444 1624
Email: PCC@communities.gsi.gov.uk

A copy of the Inspector's report (IR) is enclosed. All references to paragraph numbers, unless otherwise stated, are to that report.

Environmental Statement

6. In reaching this position, the Secretary of State has taken into account the Environmental Statement which was submitted under the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 and the environmental information submitted before the inquiry opened and during the inquiry (IR5). Having taken account of the Inspector's comments at IR351, the Secretary of State is satisfied that the Environmental Statement and other additional information provided complies with the above Regulations and that sufficient information has been provided for him to assess the environmental impact of the proposal.

Procedural matters

7. As set out by the Inspector at IR2, the original application was for the extraction of 2.6Mt sand and gravel, but this was subsequently changed to 1.75Mt. It is the scheme for the extraction of 1.75Mt which was refused by HCC in determining the application and that is now the appeal scheme.
8. As outlined by the Inspector at IR4, a second scheme proposed by the appellants would omit Phase 4 and the stockpile area from the 1.75Mt scheme, and reduce the tonnage of sand and gravel extracted to 1.25 Mt. The 1.25 Mt scheme was the subject of a separate planning application (Ref.3/2352/17), which was refused by HCC on 26 April 2018. The appellants have requested that the current appeal be decided by the Secretary of State on the basis that the 1.75 Mt scheme be considered first, and if found to be unacceptable, that a condition limiting the scheme to 1.25 Mt be imposed. All the written representations to HCC about the application for the 1.25 Mt scheme were submitted to the Inquiry.
9. A list of representations which have been received since the inquiry is at Annex A. The Secretary of State is satisfied that the issues raised do not affect his decision, and no other new issues were raised in this correspondence to warrant further investigation or necessitate additional referrals back to parties. Copies of these letters may be obtained on written request to the address at the foot of the first page of this letter.

Policy and statutory considerations

10. In reaching his decision, the Secretary of State has had regard to section 38(6) of the Planning and Compulsory Purchase Act 2004 which requires that proposals be determined in accordance with the development plan unless material considerations indicate otherwise.
11. In this case the development plan consists of the East Herts District Plan (EHDP), adopted in October 2018 and the saved policies of the Hertfordshire Minerals Local Plan Review (MLP) 2007. The Secretary of State considers that the development plan policies of most relevance to this case are those set out at IR38-42.
12. Other material considerations which the Secretary of State has taken into account include the National Planning Policy Framework ('the Framework') and associated planning guidance ('the Guidance'), and those other matters set out in IR55-56. The revised National Planning Policy Framework was published on 24 July 2018, and unless

otherwise specified, any references to the Framework in this letter are to the revised Framework.

13. In accordance with section 72(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 (the LBCA Act), the Secretary of State has paid special attention to the desirability of preserving or enhancing the character or appearance of conservation areas.

Emerging plan

14. Consultation on a review of the Minerals Local Plan (eMLP) was undertaken between December 2017 and February 2018. The consultation draft plan did not include the appeal site as a preferred area for sand and gravel extraction. The Local Mineral Planning Authority intends to submit the plan to the Secretary of State for examination in summer 2019. The Secretary of State considers that the emerging policies of most relevance to this case include draft policies 3, 4, 12, 14, 15 and 16.
15. The Bengoe Neighbourhood Plan is at an early stage of development, and has not yet been submitted to the local planning authority. Bengoe Field is identified in the draft as an area of designated local green space.
16. Paragraph 48 of the Framework states that decision makers may give weight to relevant policies in emerging plans according to: (1) the stage of preparation of the emerging plan; (2) the extent to which there are unresolved objections to relevant policies in the emerging plan; and (3) the degree of consistency of relevant policies to the policies in the Framework. Given the early stages of development, the Secretary of State considers that the eMLP carries limited weight and the emerging Bengoe Neighbourhood Plan carries little weight.

Main issues

Location of site

17. The Secretary of State notes that significant areas of the appeal scheme would be located outside the boundaries of the Preferred Area for mineral extraction. He agrees with the Inspector's analysis at IR441, and agrees that the scheme would not accord with MLP Policy 3.

Green Belt

18. The Secretary of State has considered carefully the Inspector's findings at IR362-374 about the impact of the scheme on the Green Belt. He agrees with the Inspector at IR366 that plant, equipment, access and activity associated with the mineral extraction here would, to some extent, impair the openness of the area, but not enough to exceed the threshold or tipping point for the purposes of applying paragraph 146 of the Framework.
19. He has also considered the Inspector's reasoning at IR366-374 in relation to the effect of the bunds and tree planting on the openness of the Green Belt and the setting of historic Hertford. In reaching his conclusion, the Secretary of State has taken into account that the bunds could exist for up to 10 years, which for GLVIA3 in landscape terms marks a boundary between medium term and long term effects (IR367), and that the adverse effects on openness would be fully reversible in time (IR368). He has also taken into account that there would be no permanent built development impacting on the openness of the Green Belt, and that tree planting does not constitute development and therefore is not inappropriate development in the Green Belt. He does not consider that the tree

planting would be in conflict with the purposes of the Green Belt. Overall the Secretary of State considers that the exception for mineral extraction at paragraph 146 of the Framework does apply, the proposed mineral extraction is therefore not inappropriate development in the Green Belt, and there is no conflict with local or national Green Belt policies.

Character and Appearance

20. The Secretary of State has carefully considered the Inspector's analysis at IR375-388. He agrees with the Inspector that while not subject to any designation given to landscape, the appeal site is a landscape resource and visual amenity of considerable importance because of its proximity to the urban area (IR378), and the fact the appeal site retains its natural landform makes it important in its local context (IR379). For the reasons given in IR375-382, the Secretary of State agrees with the Inspector that the operational development to extract, screen, stockpile and transport sand and gravel would have an adverse effect on the character and appearance of the area of major significance, albeit of a limited duration (IR388).
21. The Secretary of State has gone on to consider impacts following restoration. He agrees with the Inspector for the reasons given in IR384 that the restored landform would give the landscape an artificial crumpled appearance, and that the proposed low-level restoration would not be appropriate in the landscape context which applies here. He further agrees for the reasons given in IR385-388 that that appellants' hedgerow and tree planting would be the wrong landscape strategy for the appeal site (IR385) and that the cumulative impact of the appeal scheme, over time, adds to the overall harm to the landscape resource (IR387). He therefore agrees with the Inspector at IR388 that on restoration the scheme would have an adverse effect of moderate significance. Overall the Secretary of State agrees with the Inspector's conclusions that the appeal scheme would have an adverse effect on the character and appearance of the area of substantial significance (IR388), which carries substantial weight against the proposal (IR433), and would not be in accordance with MLP Policies 12 and 18(ii) (IR442).

Amenity and living conditions

22. The Secretary of State has carefully considered the Inspector's reasoning at IR389-402 and agrees with his analysis. Overall the Secretary of State agrees with the Inspector that the appeal scheme would have an adverse effect on the living conditions of residents and on the amenity of the area which carries moderate weight against the proposal and would not accord with MLP Policy 18(viii) or with the aim of the NPSE to avoid significant adverse impacts on the quality of life (IR394, 402, 433, 442).

Hydrogeology

23. For the reasons given at IR406-420, the Secretary of State agrees with the Inspector's analysis of the risks from the development to the hydrogeology, including groundwater pollution, harm to the aquifer and the public water supply. He agrees with the inspector's conclusion at IR419 that the risk of contaminating groundwater would give rise to an adverse effect of moderate significance, which should be given substantial weight because of the implications for the public water supply. He further agrees with the Inspector at IR420 that in the absence of an appropriate mechanism and planning condition to safeguard the aquifer, the proposed development would pose an unacceptable risk to groundwater pollution, and so would conflict with MLP Policies 17(iv) and 18(ix), and

would have an unacceptable adverse impact on the natural environment for the purposes of applying paragraph 205(b) of the Framework (IR420).

Benefits of the scheme

24. For the reasons given at IR429-431 and IR435 the Secretary of State considers that the employment and economic benefits, including the contribution of minerals from the appeal site, carries great weight in favour of the proposal. For the reasons given at IR403-405, the Secretary of State agrees with the Inspector at IR437 that the permanent enhancements to the PRoW network carry slight weight in favour of the scheme.

Other matters

25. The Secretary of State agrees with Inspector's reasoning in relation to highway safety, biodiversity and supply of housing (IR421-422, 423-425 and 428 respectively).

26. The Secretary of State agrees with the Inspector at IR 426 that, for the reasons stated, there would be some harm to agricultural land which would be an adverse effect of minor significance. He therefore considers that it carries slight weight against the proposal.

Planning conditions

27. The Secretary of State has given consideration to the Inspector's analysis at IR450-466, the recommended conditions set out at the end of the IR and the reasons for them, and to national policy in paragraph 55 of the Framework and the relevant Guidance. With the exception of the matter flagged up at IR464 he is satisfied that the conditions recommended by the Inspector comply with the policy test set out at paragraph 55 of the Framework. However, as he does not consider that the imposition of these conditions, either as outlined or in revised form, would overcome his reasons for dismissing this appeal and refusing planning permission, he has not referred back to parties on this matter.

Planning obligations

28. The Secretary of State has given consideration to the Inspector's analysis at IR467-470, the planning obligation dated 15 November 2018, paragraph 56 of the Framework, the Guidance and the Community Infrastructure Levy Regulations 2010, as amended. With the exception of the matters flagged up in IR469 and IR470, the Secretary of State agrees with the Inspector's conclusion that the obligation complies with Regulation 122 of the CIL Regulations and the tests at paragraph 56 of the Framework. However, the Secretary of State does not consider that the obligation, either as outlined or in revised form, would overcome his reasons for dismissing this appeal and refusing planning permission. He has therefore not referred back to parties on this matter.

Planning balance and overall conclusion

29. For the reasons given above, the Secretary of State considers that the appeal scheme is not in accordance with development plan policies relating to location, character and appearance, living conditions and amenity, and hydrogeology, and is not in accordance with the development plan overall. He has gone on to consider whether there are material considerations which indicate that the proposal should be determined other than in accordance with the development plan.

30. The Secretary of State considers that the employment and economic benefits, including the contribution of minerals from the appeal site, carries great weight in favour of the proposal, and that the permanent enhancements to the PRoW network carry slight weight in favour of the scheme.
31. The Secretary of State considers that the impact on landscape and character, and hydrogeology each carry substantial weight against the proposal. He considers that the impact on living conditions and amenity of local residents carries moderate weight against the proposal, and the harm to agricultural land carries slight weight against the proposal.
32. The Secretary of State considers that there are no material considerations which indicate the proposal should be determined other than in accordance with the development plan. He therefore concludes that the appeal should be dismissed, and planning permission should be refused.

The 1.25Mt scheme

33. For the reasons given at IR473-480, the Secretary of State agrees with the Inspector's conclusion at IR480 that the likelihood of prejudice arising is such that the Wheatcroft principles are not satisfied and the applicant's request to determine the appeal on the basis of the 1.25 Mt scheme should be declined.

Formal decision

34. Accordingly, for the reasons given above, the Secretary of State agrees with the Inspector's recommendation. He hereby dismisses your client's appeal and refuses planning permission for the phased extraction of sand and gravel, mobile dry screening plant, stockpile area, weighbridge, wheel cleaning facilities, ancillary site offices, construction of a new access onto Wadesmill Road with phased restoration to landscaped farmland at a lower level, in accordance with application ref: 3/0770-16, dated 4 March 2016.
35. For the reasons given above, the Secretary of State further agrees with the Inspector's recommendation on the alternative scheme. He hereby declines your client's request to determine the appeal on the basis of an alternative 1.25 Mt scheme.

Right to challenge the decision

36. A separate note is attached setting out the circumstances in which the validity of the Secretary of State's decision may be challenged. This must be done by making an application to the High Court within 6 weeks from the day after the date of this letter for leave to bring a statutory review under section 288 of the Town and Country Planning Act 1990.
37. A copy of this letter has been sent to Hertfordshire County Council and notification has been sent to others who asked to be informed of the decision.

Yours faithfully,

Maria Stasiak

Authorised by the Secretary of State to sign in that behalf

Annex A Schedule of representations

General representations

Party	Date
Mark Prisk MP	28/11/2019
Sir Oliver Heald QC MP	03/01/2019



Report to the Secretary of State for Housing, Communities and Local Government

by John Woolcock BNatRes(Hons) MURP DipLaw MRTPI

an Inspector appointed by the Secretary of State

Date: 3 January 2019

Town and Country Planning Act 1990 Sections 78 and 79

appeal by

RJD Ltd and Gowling WLG Trust Corporation Limited

against the decision of

Hertfordshire County Council

Inquiry held on 1-4, 9-11, 18 May and 23-25 October 2018

Land at Ware Park, Wadesmill Road, Hertford

File Ref: APP/M1900/W/17/3178839

File Ref: APP/M1900/W/17/3178839

Land at Ware Park, Wadesmill Road, Hertford, Hertfordshire

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
- The appeal is made by RJD Ltd and Gowling WLG Trust Corporation Limited against the decision of Hertfordshire County Council (HCC).
- The Application No:3/0770-16, dated 4 March 2016, was refused by notice dated 24 March 2017.
- The development proposed is phased extraction of sand and gravel, mobile dry screening plant, stockpile area, weighbridge, wheel cleaning facilities, ancillary site offices, construction of a new access onto Wadesmill Road with phased restoration to landscaped farmland at a lower level.

Summary of Recommendation: The appeal be dismissed.

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ABBREVIATIONS

AOD	Above Ordnance Datum
AW	Affinity Water
BAE	BAE Hatfield aerodrome site
BMV	Best and most versatile agricultural land
BNAP	Bengeo Neighbourhood Area Plan
CD	Inquiry Core Document
COPD	Chronic obstructive pulmonary disease
Defra	Department for Environment Food and Rural Affairs
EA	Environment Agency
EHDP	East Herts District Plan 2018
EIA	Environmental Impact Assessment
eMLP	Emerging review of the Minerals Local Plan
ES	Environmental Statement dated March 2016
FEI.1	Further Environmental Information dated December 2016
FEI.1a	Further Environmental Information dated January 2017
FEI.2	Further Environmental Information dated February 2018
FEI.3	Further Environmental Information dated 27 April 2018
<i>Framework</i>	<i>Revised National Planning Policy Framework 2018</i>
GLVIA3	<i>Guidelines for Landscape and Visual Impact Assessment, Third Edition</i> Landscape Institute
<i>Guidance</i>	<i>National Planning Practice Guidance</i>
HCC	Hertfordshire County Council
HGV	Vehicle over 7.5 tonnes
HIA	Health impact assessment
HSE	Health and Safety Executive
ID	Inquiry Document – document submitted at Inquiry
IAQM	Institute of Air Quality Management
LAA	Local Aggregates Assessment
LCA	Landscape Character Area
MLP	Hertfordshire Minerals Local Plan Review 2007
Mt	Million tonnes
NPSE	<i>Noise Policy Statement for England</i>
PA2	Preferred Area 2 Rickneys Quarry in MLP
PM	Particulate Matter
PRoW	Public Rights of Way
RCS	Respirable crystalline silica
RQE	Rickneys Quarry Extension
SBQ	Stop Bengeo Quarry Group
section 106	Section 106 of the Town and Country Planning Act 1990
SoC1/SoC2	Statements of Case dated June 2017 and April 2018
SoCG1	Statement of Common Ground 3 October 2018 (ID94)
SoCG2	SoCG re sand and gravel dated 24 April 2018 (ID11)
SoCG3	SoCG re health dated 3 May 2018 (ID20)
SPL	Sound power level
SPZ	Source Protection Zone
VSC	Very special circumstances for Green Belt policy
Wadesmill PS	Wadesmill Road Pumping Station
WHO	World Health Organisation
µg/m ³	Micrograms per cubic metre

Procedural and background matters

1. The application by RJD Ltd and Gowling WLG Trust Corporation Limited (hereinafter the appellants) was accompanied by an Environmental Statement, dated March 2016, (ES) in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2011 (hereinafter the EIA Regulations).¹ This included a non-technical summary, and set out the alternatives considered by the appellants, along with a description of the proposed development and environmental impacts.²
2. The original application was for the extraction of 2.6 million tonnes (Mt) of sand and gravel.³ The proposed restored landform was subsequently changed and this reduced the extraction to 1.75 Mt.⁴ Further Information 1 was submitted in December 2016, with additional reports on Landscape and Visual, Ecology, Highways and Air Quality (FEI.1). Additional technical data was submitted by the appellants in Further Information 1a, dated January 2017 (FEI.1a). It is this scheme for the extraction of 1.75 Mt that was refused by Hertfordshire County Council (HCC) in determining the application, and that is now the appeal scheme.
3. HCC refused the application on six grounds because the proposal; (1) is in the Green Belt where screening bunds, stockpiling areas, plant and activity would not preserve openness, resulting in inappropriate development, where the very special circumstances of benefits of mineral extraction and potential avoidance of sterilisation do not clearly outweigh the harm to the Green Belt and any other harm, including harm to landscape, rights of way, air quality and health, contrary to Policy GBC1 of the East Herts Local Plan 2007 and the NPPF; (2) would have a significant detrimental impact upon landscape, including from Phase 4, stockpiling areas, plant, site access with associated loss of hedgerow, and the restored landform, contrary to MLP Policies 12, 13, 17 and 18; (3) has not demonstrated that it would not have detrimental impact upon air quality, and this has not been assessed via a Health Impact Assessment (HIA) contrary to MLP Policy 18 and the NPPF; (4) would have a negative impact upon existing rights of way contrary to MLP Policies 3 and 18; (5) includes land outside the Preferred Area contrary to MLP Policy 3; (6) has not demonstrated that noise would not have a detrimental impact upon nearby residential property contrary to MLP Policy 18 and national policy/guidance.
4. A second scheme proposed by the appellants would omit Phase 4 and the stockpile area from the 1.75 Mt scheme, and reduce the tonnage of sand and gravel extracted to 1.25 Mt. The Grounds of Appeal in the appellants' original Statement of Case were based upon the 1.25 Mt scheme, with a projected

¹ The transitional provisions in the Environmental Impact Assessment (EIA) Regulations 2017 mean that the 2011 EIA Regulations continue to apply here.

² CD2.

³ The Composite Operations Plan No.1217/CO/1 is at CD2 document 1 and Restored Landform at ID51.

⁴ The revised landform was to reduce the steepness of the western slope and to achieve a gentler gradient. APP10 paragraph 3.2.4.

timescale of 5-7 years (SoC1).⁵ Subsequently, Statement of Case 2 was submitted on 5 April 2018 regarding the case for the 1.75 Mt scheme (SoC2). The appellants would like the appeal to be decided by the Secretary of State on the basis that the 1.75 Mt scheme be considered first, and if found to be unacceptable, that a condition limiting the scheme to 1.25 Mt be imposed. The 1.25 Mt scheme was also the subject of a separate planning application (Ref.3/2352/17), which was refused by HCC at a committee meeting held on 26 April 2018.⁶ All the written representations to HCC about the application for the 1.25 Mt scheme were submitted to the Inquiry.

5. The appellants were required by letter dated 24 November 2017 to submit Further Environmental Information pursuant to Regulation 22 of the EIA Regulations, to include the risk of soil contamination, cumulative impact, and a revised non-technical summary. These were submitted in February 2018 (FEI.2).⁷ The appellants were further required by letter dated 3 April 2018 to submit Further Environmental Information, to include a revised description consistent with the proposal for extraction of 1.75 Mt, along with likely significant effects. This was submitted on 27 April 2018 (FEI.3).⁸
6. On 23 February 2018 the appeal was recovered for decision by the Secretary of State by a direction made under section 79 of the 1990 Act. The reason for the direction was that the appeal involves proposals for significant development in the Green Belt, and major proposals involving the winning and working of minerals.
7. A Pre-Inquiry Note was issued on 20 April 2018 to deal with procedural matters.⁹ A Statement of Common Ground (SoCG1) agreed between the appellants and HCC is dated 3 October 2018.¹⁰ I requested an up-to-date agreed written statement by HCC and the appellants about the supply of, and demand for, sand and gravel in the locality (SoCG2).¹¹ A Statement of Common Ground – Health, by the appellants and HCC, is dated 3 May 2018 (SoCG3).¹²
8. On application, both the Stop Bengoe Quarry Group (abbreviated to SBQ in this report) and Cllr Andrew Stevenson, were granted Rule 6(6) status pursuant to The Town and Country Planning (Inquiries Procedure) (England) Rules 2000. Both participated fully in the Inquiry, opposing the proposed development. SBQ's intervention in the appeal was initially limited to the risk of water pollution posed to the underlying chalk aquifer, or groundwater source, which supplies the Wadesmill Road Pumping Station (Wadesmill PS).

⁵ SoC1 paragraph 5.1.3. The amendment was intended to restrict all operations within PA2, and Composite Operations Plan 1217/O/1 v8 was withdrawn, but v8 had been replaced by v9 in FEI.1a (see CD4 paragraph 2.3.1). SoC1 paragraph 5.4.10. Timescale of 5-7 years is at SoC1 paragraph 4.1.3.

⁶ CD19.

⁷ CD16.

⁸ CD40.

⁹ CD39.

¹⁰ ID94.

¹¹ ID11.

¹² ID20.

But this was subsequently extended to include the appellants' HIA and air quality, as set out below.

9. The Inquiry opened on 1 May 2018. An appropriate notification letter about the Inquiry was not sent until 23 April 2018, which was less than two weeks before the Inquiry opened. However, I do not consider that anyone would be prejudiced by this late notification as the Inquiry was not closed until 20 November 2018.
10. The Inquiry overran its scheduled seven days. During an adjournment the parties submitted procedural notes I had requested concerning submissions about considering an amended scheme at the appeal stage.¹³ SBQ's note stated that the appellants' submission of new expert evidence, the HIA, at an unacceptably late stage in these Inquiry proceedings had caused material prejudice to SBQ. I invited the views of the parties about whether the submission of the HIA had been prejudicial to the interests of any party or persons, and if so, whether any measures would now be necessary to remedy that situation. After hearing submissions I adjourned the Inquiry.¹⁴ Amended Statements of Case concerning the HIA were submitted by the parties.¹⁵ Provision was made for written representations about the HIA to be received up until 28 August 2018.¹⁶ The Inquiry resumed on 23 October 2018 and sat for a further three days.
11. The Inquiry sat for a total of 11 days. The proceedings were recorded in accordance with an agreed protocol. An accompanied site visit took place on 4 May 2018. I also visited the site and its locality unaccompanied on 8 May and 22 October. The parties were given time to submit a signed planning agreement and to finalise the wording of suggested planning conditions in the event that planning permission was granted. The Inquiry was subsequently closed in writing on 20 November 2018.
12. In response to the Pre-Inquiry Note the appellants indicated on 17 April 2018 that no legal agreement was proposed, subject to any other comments. No final draft of any obligations was submitted by the opening of the Inquiry. However, draft planning obligations were submitted on day 5 of the Inquiry. These were the subject of revision until a signed planning agreement was submitted dated 15 November 2018.¹⁷ The obligations were discussed at the Inquiry, and parties given the opportunity to comment on the final version. In summary, the section 106 obligations include provisions to;
 - 1) commence the development within three years and to complete restoration within 10 years or such later date as is agreed with HCC,
 - 2) enter into a section 25 agreement in respect of the construction and dedication of a new byway,
 - 3) enter into a highways agreement and carry out highway works.

¹³ ID75, ID76 and ID77.

¹⁴ My ruling is at Annex A of this report.

¹⁵ ID91.1 to ID91.4.

¹⁶ 156 written representations were submitted and are included at ID93 with a list of those who made representations at Annex B of this report.

¹⁷ ID57, ID83 and ID114.

13. The lead up to the Inquiry was not straightforward, and a chronology of events and submission of documents is included in ID80. The Inquiry heard evidence about both the 1.75 Mt and 1.25 Mt schemes, and this is referred to in the first sections of this report. The Conclusions section then first considers the appeal against the refusal of the 1.75 Mt scheme. If the Secretary of State is minded to allow the appeal then it would not be necessary to consider further the submissions about the 1.25 Mt scheme. In the event that the Secretary of State is minded to dismiss the appeal for the 1.75 Mt scheme, the report then goes on to consider the options open to the Secretary of State concerning consideration of the 1.25 Mt scheme.

The proposed development

14. The appeal scheme would extract 1.75 Mt of sand and gravel over a period of up to 10 years in four phases, with phased restoration to agriculture and woodland thickets, and aftercare for five years. The scheme includes an office, messroom and weighbridge, which would be sited within a floodlit area, along with a fuelling area with tank, wheel cleaning facility and water attenuation area. The application form states that the scheme would be operated by six full-time employees.
15. Bunds would be constructed around excavated and operational areas. Some bunds would be temporary and associated with a particular Phase of the operation, but those around the stockpile and attenuation areas could remain for up to 10 years. The Bund Schedule at ID22 indicates that at any one time there would be between about 500 m and 1,000 m of bunds, mostly 2-3 m high, but including 230 m of Bund 1 at 4 m high. In addition, for the duration of the operation there would be a length of 825 m of bunds, 3 m or more in height, screening the stockpile and attenuation areas. This would include some 335 m about 4 m high for the NE Stockpile Area Bund, and 270 m some 4-7 m high for the SW Stockpile Area Bund.
16. A restricted working zone would be created within 70 m of properties at The Orchard, within which operations would not take place when the wind direction was from the north-eastern quadrant.¹⁸ The screener and loading shovel would not be operated within 250 m of any residential premises. Noise limits are proposed for nearby residential properties.
17. The fuelling area would be sited in an area that is shown on the site geology plan to be underlain by clay.¹⁹ Plant would be refuelled only in a bunded fuel storage area. The stockpile area would be sited on a level platform with a base of about 50 m AOD, with the height of stockpiles no higher than 5 m.²⁰
18. Landscaping would include early tree and hedgerow planting in year 1. A 10 m wide undisturbed buffer would be provided between St John's Wood and the proposed northern bund. The restored landform would include agricultural buffer strips, new hedgerow and tree planting, infill planting within existing hedgerows, and wildflower planting around the retained

¹⁸ CD4 paragraph 2.2.3.

¹⁹ Site geology Drawing 1701/HIA/-01/07 CD2 doc2.

²⁰ CD2 paragraph 4.6.2.

attenuation area.²¹ No controlled waste would be imported to the site, so an Extractive Materials Management Statement is not expected to be needed. The only other control may be on the mobile dry screening unit which may fall under Process Guidance Note 3/08(12) – statutory guidance for quarry processes, but this is not normally required for the proposed development.²² Foul sewage waste water would be taken off-site with no requirement for on-site discharge.

19. Access would be via a new junction on Wadesmill Road, which is part of the B158. This would include visibility splays and a segregated right turn lane for HGVs to wait to turn into the site.²³ HGV movements would be limited to 50 in and 50 out in any working day, and required to use an approved wheel wash. Signs would be erected at the site exit requiring all HGVs to turn left onto the B158 towards the recently improved Anchor Lane roundabout on the A602.
20. The proposed depth of excavation is shown in illustrative cross sections.²⁴ The appellants also submitted a plan showing the interpolated elevation of the top, or rockhead, of the underlying chalk.²⁵ These contours were derived from log data from boreholes located within and near to the appeal site. It is proposed that these contours would generate a 3D GPS model that would be used to control the depth of excavation. The undisturbed material that would remain above the chalk, using these contours to determine the position of the chalk rockhead, is shown on Isopachytes Drawings.²⁶
21. A restricted Byway (RB1), which becomes a footpath (FP14), traverses the appeal site. This would be diverted for 2 to 3 years in the 1.75 Mt scheme. Permissive paths would be created during the operation, and the section 106 agreement provides for upgrading the part of FP14 within the site to a restricted Byway, along with a new bridleway linking RB1 to the B158. Existing and proposed Public Rights of Way (PRoW) are shown at Appendix 3 of APP5.
22. The amended scheme would extract 1.25 Mt of sand and gravel over a period of up to 7 years in three phases. The scheme includes a load out area at about 57 m AOD that would contain an office, messroom and weighbridge, security area/vehicle parking and soakaway, along with wheel cleaner and wheel bath, linked to the B158 by an access road with a concrete surface.²⁷ The proposed bund in the south-western part of Phase 1 would be sited more than 100 m from properties at The Orchard. The load out area would be sited in an area that is shown on the site geology plan to be predominantly underlain by sand and gravel. The description of the proposal states that restoration would be to landscaped farmland at a lower level. The submitted drawings include a Landscape Restoration Strategy and the Progressive

²¹ Plan No.1217/R/1.

²² Reply dated 26 April 2018 to Inspector's question.

²³ Access Junction and Right Turn Lane (Vectos) 131124/A/04.1 Rev E.

²⁴ Plan No.1217/CS/1.

²⁵ Plan entitled "Topography of Chalk surface" Hafren Water (Drawing 2482/POE/03).

²⁶ Drawings 1217/1.75/UM/1 and 1217/1.25/UM/1 at ID31.

²⁷ The soakaway is annotated as "(indicative)".

Operations Plan shows the restored site.²⁸ No footpath diversion would be necessary in the 1.25 Mt scheme.

23. A summary of the main differences between the 1.75 Mt and 1.25 Mt schemes, submitted by the appellants, is at ID26. Differences in the size of bunds, and for how long they would exist during the respective phased operations, are set out at ID22. Similar planning conditions and controls have been suggested for the schemes. The 1.75 Mt scheme would affect 0.52 ha of agricultural land classified as the best and most versatile (BMV) agricultural land.²⁹ No BMV land would be affected by the 1.25 Mt scheme.

The site and surroundings

Locality

24. The application site has an area of 36.1 ha, and is situated within the Metropolitan Green Belt. At its nearest point the site is located about 2 km north of Hertford town centre, just beyond the northern edge of the town. The site is in agricultural use as arable land. Adjacent land use includes arable farmland and woodland to the north and east extending to the River Rib, a plant nursery and allotment gardens to the south near to residential properties in Bengoe and a primary school. To the west lies the partially restored Rickneys Quarry.³⁰
25. The distances of dwellings and features in the locality from the nearest proposed bunds and operational part of the quarry are set out in ID95. For the 1.75 Mt scheme the nearest dwelling on Sacombe Road would be 10 m from the toe of the nearest proposed bund, and 28 m from the nearest operational part of the quarry. The corresponding distances for the nearest dwelling at The Orchard are 23 m and 43 m. Waterworks Cottage and Glenholm would be, respectively, about 68 m and 215 m from the operational area. St John's Wood would be 10 m from the proposed bund and 21 m from the operational area. Other features in the locality include; Bengoe Nursery (127m to bund/150m to operational area), the Playing Field (146m/167m), the allotments (256m/281m) and Bengoe Primary School (337m/360m).
26. Hertford Conservation Area is centred about the Hertford Castle grounds, but its northern limit extends along Bengoe Street to just north of the junction with Sacombe Road and Wadesmill Road, incorporating the allotments.

Landscape

27. The site lies within National Landscape Character Area 111: Northern Thames Basin, and falls broadly into the Hertfordshire Plateau and River Valleys sub-character area. This is a diverse landscape formed by a wide plateau dissected by a series of broad river valleys with extensive areas of broadleaved woodlands. The landscape has been extensively modified by current and reclaimed gravel pits, landfill sites, river realignments and canals. The site is near to the adjoining South Suffolk and North Essex Clayland

²⁸ Landscape Restoration Strategy (Liz Lake) 1571 01 H and Progressive Operations Plan 1217/PO/2 v4.

²⁹ ID92.

³⁰ An aerial photograph of the locality is at ID79.

Character Area 86, which is an area described as a broadly flat, chalky, boulder clay plateau dissected by undulating river valley topography.

28. In the regional typology of the landscape of the east of England, the site lies within the Wooded Plateau Farmlands, very close to the Settled Chalk Valleys as identified within the typology. The Wooded Plateau Farmlands is described as a settled, early enclosed landscape with frequent ancient woods, associated with a rolling, in places undulating glacial plateau, dissected by numerous shallow valleys. The Settled Chalk Valleys are described as settled, chalk valley landscapes, distinguished by their soft, rounded and sometimes steeply sloping topography.
29. In the *East Herts District Landscape Character Assessment 2007* the appeal site is located within an interfluvium of the rivers Beane and Rib, landscape character area (LCA) '069 Stoney Hills'. The landscape character is described as gently undulating light arable upland and valley slopes, widening to the north, with generally large irregular fields and woodlands on very light soils, with several blocks of ancient woodland in the south, and very rural, with few settlements but many mineral extraction sites.³¹
30. Key characteristics include active, disused and restored mineral extraction sites, with a mix of field sizes and variety of after uses. Distinctive features include an abrupt transition from urban to rural character on the edge of Bengeo, a conspicuous water tower at Tonwell, along with former mineral workings now developing heathland grass species with butterflies and skylarks. The local topography is described as undulating sloping land rising to a small plateau in the north, with a degree of slope from 1 in 30 to 1 in 50. This area of wooded farmland has experienced a high degree of disturbance from mineral extraction. The evaluation section refers to an open area, rising above the river valleys to either side and with wide views over the surrounding landscape, filtered in places by the woodland blocks, and a tranquil area, very clearly demarcated from the urban area to the south.
31. In terms of visual impact, most of the mineral extraction sites in this area are well screened, but there are some views of huge landfill sites on the skyline and evidence throughout the area of former workings, some of which are now restored for nature conservation interest. Reference is made to the extensive footpaths, and in terms of community views, that the area is not regarded as particularly distinctive.
32. Overall the area is judged to be in a poor condition, with high impact of land-use change, and of moderate strength of character, with the impact of landform and land cover considered to be apparent, the area open and locally visible, and unusual in terms of distinctiveness/rarity. The strategy and guidelines for managing change is to improve and restore, by amongst other things; safeguarding existing hedges and increasing hedged field boundaries; replanting and/or improving hedges along historic field boundaries, within arable areas rather than along roadsides, where open verges would reinforce the distinctiveness of this area; encouraging the creation of permanent grass strips around field margins; establishing new woodlands, especially around existing woodlands where this would create additional habitat and protection;

³¹ HCC3 Appendix 4.

encouraging the reversal of habitat fragmentation and the creation and improvement of habitat links to create eco-corridors; and ensuring that the restoration of exhausted minerals sites is carried out in accordance with agreed restoration plans, amended where necessary to reflect current best practice in maximising nature conservation potential and to ensure that they reflect and enhance local landscape character and distinctiveness.

33. In the *Landscape Character Assessment, Evaluation and Guidelines for Southern Hertfordshire supplementary report on: The suitability of landscape character areas for mineral extraction* 2001 the landscape strategy for this area is 'improve and restore', reflecting the existing impact of mineral extraction. The site profile suggests that mineral extraction might be possible, but that extreme care would be required to ensure that there was no permanent damage to local landscape character, adding that it might be preferable to keep it within the centre of the plateau rather than on the edges, where it would be more visible and closer to settlements. Areas of ancient woodland should not be disturbed, and adequate buffer zones should be provided to ensure that there would be no detrimental effect from localised lowering of the water table. Restoration to grassland or woodland would both be appropriate after-uses, with the potential to contribute significantly to biodiversity over time. The report notes that it is unlikely that low level restoration would be appropriate.³²

Hydrogeology

34. The site lies within the Upper Lee Chalk Groundwater Body. The sand and gravel deposits in the Kesgrave formation are classified as a Secondary A aquifer by the Environment Agency (EA). The sand and gravel overly chalk, which is designated as a Principal Aquifer. The chalk aquifer provides a significant source of water for public water supply abstractions in the area. The aquifer is part of a designated Drinking Water Protected Area. Parts of the site lie within a Source Protection Zone (SPZ). Phase 4, Phase 3 and part of Phase 2 of the proposed development are within the SPZ Inner Zone (SPZ1) for the Wadesmill PS, which is operated by Affinity Water (AW), and part of Phase 1 within the SPZ Outer Zone for the Amwell Hill Pumping Station (SPZ2). Nearly all of Phase 4 of the appeal scheme would lie within 300 m of the Wadesmill PS. The eastern extremity of the estimated limit of the sand and gravel proposed to be extracted in the 1.75 Mt scheme lies about 120 m to the west of the Wadesmill PS.³³ There are also private boreholes in the wider locality.

Rickneys Quarry

35. The location of Rickneys Quarry, operated by Hanson, is shown on the plan attached to ID78, which sets out the planning history of this quarry. An application for an extension along its eastern boundary, Rickneys Quarry Extension (RQE), was permitted in 2009, but was not implemented. Hanson is seeking a redetermination of this 'approval' and an extension of the implementation date to 31 December 2021.³⁴

³² HCC3 Appendix 3.

³³ Drawing 2482/POE/03.

³⁴ ID13.2, ID16.1-16.3 and ID102.

Biodiversity

36. The site does not contain or include any statutorily designated or non-statutorily notified sites of ecological interest. However, the site is located in close proximity to the Waterford Heath Local Nature Reserve and St John's Wood, a Local Wildlife Site.

Planning policy guidance and statutory requirements

Development plan

37. HCC's reasons for refusal refer to the East Herts Local Plan 2007, but East Herts District Plan (EHDP) was adopted in October 2018. The development plan also includes saved policies of the Hertfordshire Minerals Local Plan Review 2007 (MLP).³⁵
38. MLP Policy 1 concerning aggregates supply states that planning permission for the extraction of proven economic mineral reserves will only be granted where it is necessary to ensure that adequate supplies are available to meet the county's agreed apportionment of regional supply. It also provides for the maintenance of an appropriate landbank of sand and gravel reserves. Policy 2 sets out factors to be taken into account in determining proposals for mineral extraction.
39. Specific sites for sand and gravel extraction are included in Policy 3. Land adjoining Rickneys Quarry is Preferred Area 2 (PA2). Mineral working within Preferred Areas will only be permitted when the application satisfactorily fulfils the requirements of the proposals for that area as identified with the inset maps. For PA2 this specifies "Access: Via the existing access from the B158, to/from the north" and "Specific Considerations: Working of this site would be considered as an extension to the existing Rickneys Quarry." It also provides that existing dwellings are in close proximity and that appropriate buffer zones will be required in order to minimise any impact of extraction. The requirements also refer to, amongst other things, additional planting at an early stage to strengthen existing hedgerows to Chapmore End and Rickneys/Rickneys Cottages, safeguarding ancient woodland, and ensuring that the PRoW network is maintained and kept safe at all times. Advice from the EA states that this is a sensitive site in terms of potential pollution of the groundwater resource, that restoration would be to a lower level than existing and that the need for landfill will be resisted.
40. Policy 4 provides that proposals for aggregate extraction outside Preferred Areas would be refused unless; i) the landbank is below the required level and there is a need that cannot be met from the identified areas, and ii) the proposal would not prejudice the timely working of Preferred Areas, or iii) the sterilisation of resources would otherwise occur. Mineral extraction is encouraged by Policy 5 where any significant mineral resource would otherwise be sterilised. Policy 9 concerns the contribution to biodiversity, and seeks long-term overall enhancement to local biodiversity through restoration or by conditions and obligations.

³⁵ Extracts from the MLP are included in HCC2 Appendix 1.

41. Policy 11 presumes against development that would have an unacceptable cumulative impact on the environment in relation to schemes occurring either concurrently or successively. Policy 12 deals with landscape and provides, amongst other things, that planning applications may be refused where there is significant local landscape intrusion and loss of important landscapes or distinctive landscape features. Policies 13 and 14 deal with reclamation and afteruse, respectively. Mineral development will only be permitted when the provisions for vehicle movement are such that traffic generated would not have an unacceptable impact on highway safety, the effective operation of the road network, residential amenity or the local environment (Policy 16). Criteria for the control and operation of mineral development are set out in Policies 17 and 18. Policy 17(iv) provides that development would not be permitted if it would have a negative quantitative and/or qualitative impact on groundwater resources, unless appropriate measures can be imposed to mitigate any harmful effects. Policy 18(ii) requires a satisfactory restoration landform, which has the appearance of one created naturally, set harmoniously within the surrounding landscape, and consistent with the character of the area. Policy 18(viii) concerns noise intrusion, (ix) air and water quality, and (x) PRow.
42. EHDP Policy GBR1 provides that planning applications within the Green Belt would be considered in line with the provisions in the *Framework*. Policy HERT4 of the EHDP allocates land to the south of the appeal site for residential development to accommodate a minimum of 150 homes, with around 50 dwellings provided to the north of Sacombe Road by 2022; and, subject to the satisfactory previous phased extraction of mineral deposits on the neighbouring site, around 100 homes to the west of the B158 Wadesmill Road between 2022 and 2027.³⁶
43. Consultation on a review of the Minerals Local Plan (eMLP) was undertaken by HCC between December 2017 and February 2018.³⁷ This consultation draft did not include the appeal site as a Preferred Area for sand and gravel extraction. HCC has considered the results of site selection work and the potential site options, and it is programmed to submit the plan to the Secretary of State in the winter of 2018/2019 and for it to be examined in the spring of 2019.
44. The designated plan area for the Bengoe Neighbourhood Area Plan (BNAP) was approved by East Herts District Council on 27 June 2017. There has been a questionnaire and public consultation. Bengoe Field is identified in a draft as an area of designated local green space.³⁸

National policy and guidance

45. Aggregates are defined in the Glossary to the revised *National Planning Policy Framework* 2018 (hereinafter the *Framework*) as minerals of local and national importance, which are necessary to meet society's needs.³⁹

³⁶ ID99.

³⁷ CD22.

³⁸ ID71.1, ID96, ID106 and ID107.

³⁹ This revision was published during the adjournment and the parties were given the opportunity to comment.

- Paragraph 203 states that it is essential that there is sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs. The *Framework* states that planning policies should provide for the extraction of mineral resources of local and national importance, along with setting out criteria or requirements to ensure that operations do not have unacceptable adverse impacts on the natural and historic environment or human health, taking into account cumulative effects of multiple impacts from individual sites and/or a number of sites in a locality (paragraph 204).
46. Mineral planning authorities should plan for a steady and adequate supply of aggregates by, amongst other things, preparing an annual Local Aggregates Assessment (LAA) on a rolling average of 10 years' sales data and other relevant local information, and maintaining a landbank of at least 7 years for sand and gravel, whilst ensuring that capacity to supply is not compromised, but noting that longer periods may be appropriate to account for types of aggregate, locations relative to markets, and the productive capacity of permitted sites (paragraph 207).
 47. Paragraph 205 provides that great weight should be given to the benefits of mineral extraction, including to the economy.
 48. Paragraphs 133,134,143,144 and 146 of the *Framework* set out relevant policy for Green Belts, which is considered in more detail later in this report.
 49. Paragraph 170 provides that decisions should contribute to and enhance the natural environment by, amongst other things; 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; recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of BMV agricultural land, and of trees and woodland; minimising impacts on and providing net gains for biodiversity; preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution. Development should wherever possible, help to improve local environmental conditions such as air and water quality. Footnote 53 states that where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality.
 50. The principles for determining applications include refusing permission for development that would result in significant harm to biodiversity that cannot be avoided, adequately mitigated, or, as a last resort compensated for. In addition, paragraph 175 provides that development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland) should be refused, unless there are wholly exceptional reasons.
 51. Paragraph 180 provides that decisions should ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. It adds that potential adverse noise impacts should be mitigated and reduced to a minimum – and should avoid noise giving rise to significant adverse impacts on health and the

quality of life, having regard to the *Noise Policy Statement for England* (NPSE).

52. Planning decisions should, in accordance with paragraph 181, sustain and contribute towards compliance with relevant limit values or national objectives for pollution, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Paragraph 183 provides that the focus of decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes), and that these regimes should be assumed will operate effectively.
53. The *National Planning Practice Guidance* (hereinafter the *Guidance*) sets out guidance on planning for mineral extraction, including assessing environmental impacts, restoration and aftercare. It refers to a noise limit at noise-sensitive properties that does not exceed the background noise level by more than 10 dB(A). Where it would be difficult not to exceed that level without imposing unreasonable burdens on the mineral operator, the limit should be set as near to that level as practicable, and should not exceed 55 dB $L_{Aeq\ 1h}$. It adds that increased temporary daytime noise limits of up to 70 dB $L_{Aeq\ 1h}$ for periods of up to 8 weeks in a year should be considered to facilitate essential site preparation and restoration work and construction of baffle mounds where it is clear that this would bring longer-term environmental benefits.
54. The *Guidance* provides that some areas may have been subjected to successive mineral development (such as aggregate extraction) over a number of years, and the cumulative impact is capable of being a material consideration when determining individual planning applications. It also notes that where working is proposed on BMV agricultural land restoration and aftercare should enable the land to retain its longer term capability.

Other regulations and policy

55. The EA's *Approach to groundwater protection* November 2017 version 1.1 at N8, concerning the physical disturbance of aquifers, states that within SPZ1 the EA will normally object in principle to any planning application for a development that may physically disturb an aquifer.
56. The storage of fuel for mobile plant and machinery is regulated by the Control of Pollution (Oil Storage) (England) Regulations 2001. Fixed tanks and mobile bowsers must include certain design features that are specified in the Regulations.

The case for Hertfordshire County Council (HCC)

The following summary of HCC's case broadly follows HCC's closing submissions to the Inquiry, with additional reference where necessary to the evidence adduced.⁴⁰

*Overview*⁴¹

57. On the appeal scheme (1.75 Mt) the appellants' main witness agrees that it is unacceptable.⁴² His agreement is fatal to the appeal scheme. Given the lack of evidence in support of the appeal from the appellants' main witness, there is no need to assess it further – and it would be wrong in principle for the Secretary of State to consider granting it when its own promoter cannot support it. The appeal scheme was correctly abandoned in SoC1 and was then resurrected in order to allow the 1.25 Mt scheme to piggy back on it.
58. If this central submission is not accepted, the 1.75 Mt scheme is in plain breach of the key requirements of MLP Policy 3 and PA2, which are compliant with the *Framework*. Those breaches cause significant harm to areas specifically excluded from mineral development, and there are no other material considerations to outweigh the total harm, no very special circumstances (VSC) to justify the inappropriate development in the Green Belt, and the 1.75 Mt scheme should be refused. The same applies to the 1.25 Mt scheme.
59. The justification for the breaches of Policy PA2 in both schemes appears to be only that joint working with Hanson to deliver a PA2 compliant development was, and is, not possible in time consistent with delivery of Policy HERT4. But joint working is being pursued and can deliver a PA2 compliant scheme. Furthermore, there is no sterilisation effect and no timing problem.

Green Belt

60. HCC has correctly applied the judgment in *Samuel Smith* about visual impacts, and the judgment in *Europa Oil* about appropriate development. *Europa Oil* does not say that development which can be appropriate in the Green Belt will maintain its openness – nor does the *Framework*. Mineral extraction alone may not be inappropriate development in the Green Belt depending on its detail.
61. The development outside PA2 by virtue of its location on the slopes does not preserve the openness of the Green Belt. The bunds, the roads, the plant areas and associated activity are inappropriate development and impact openness. The bunds are far more intense and prominent in the 1.75 Mt

⁴⁰ ID110 and ID4.

⁴¹ HCC4.

⁴² The Inspector's note of the exchange at the Inquiry referred to here is that Mr Symes was asked in cross-examination whether he was saying that the 1.75 Mt scheme was unacceptable. His reply was that this had been made clear from the start and that the 1.25 Mt scheme was proposed to address areas of concern. In re-examination Mr Symes was asked about the planning merits of the larger scheme. He replied that he would not have put in the application if it was not acceptable. He added that the larger scheme would have a greater impact, but is an acceptable scheme.

scheme than would be so in a PA2 compliant scheme. PA2 was carefully redrawn during the progress of the MLP to meet Green Belt and landscape concerns. Bunds greater than 4 m in height would be required for the stockpile area because of the sensitivity of the eastern slopes and the topography. SoC1 makes HCC's case for it on the 1.75 Mt scheme constituting unacceptable inappropriate development here.

62. The only matter here which could conceivably constitute VSC is need. The other "benefits" claimed by the appellants are required from any scheme and do not justify inappropriate development in breach of policy. There can be no VSC because there is no need, no significant risk of sterilisation, no urgency, and/or a policy compliant route is available.

Landscape ⁴³

63. The landscape harm from the 1.75 Mt scheme is obvious and significantly greater than any PA2 compliant scheme would generate. PA2 was pulled back to within the visually contained plateau.⁴⁴ That area could be acceptable, but the eastern slopes were excluded, primarily because of visual impact.
64. Even on the appellants' analysis there would be a substantial moderate adverse impact during the life of the extraction. Phase 4 and the stockpile area would have a major/moderate adverse impact by themselves. In visual impact terms, all the differences between the 1.25 Mt and 1.75 Mt schemes assessed by the appellants are a function of Phase 4 and the stockpile area, heavily influenced by the vastly increased and more prominent bunding, losing long views with the revised contours.⁴⁵ The bund schedule is stark as to the quantity of additional bund required outside PA2.⁴⁶ This is highly significant, and the fact that it would be temporary does not assist – that will always be the case with mineral extraction.
65. There is the added issue, on restoration, of the permanent unnatural contours – the bowl effect. That has been forced on the appellants by their refusal to amend the red line boundary of the appeal site. When the unnatural contours were highlighted, the appellants proposed smoothing the contours through Phase 4 and further east to "now mimic" the local topography.⁴⁷ This would have required some work outside the red line, but the appellants reverted to the unnatural contours to avoid having to resubmit an amended red line. The very fact it proposed a scheme to mitigate the unnatural contours proves HCC's case. In any event, the contour plans make HCC's case for it. It is not possible to revert to the v9 red line by condition, and there is no section 106 obligation on it. Thus the harm to contours and loss of views from the PRow network is a result of avoiding red line fees.

⁴³ HCC3.

⁴⁴ CD31 paragraph 3.4.99.

⁴⁵ 135 m of extra bunds and 605 m of bunds of 4 metres or more in height.

⁴⁶ ID22.2.

⁴⁷ ID51 and CD3 Plans - Restored Landform No.1217/R/1 V9.

Noise and amenity ⁴⁸

66. The appellants have designed bunds and buffer zones to “just meet” the 10 dB increase limit in the *Guidance*. There is no room for the background noise assessment or noise modelling to be even slightly wrong.
67. For both schemes the baseline assessment at Sacombe Road is flawed because the device was in a hedge in windy conditions, where rustling leaves close to the microphone could have affected the results. This is the only realistic explanation as to why the background level there is higher than at The Orchard.
68. The appellants’ assessment of the sound power levels (SPL) for plant does not confirm with standards regarding representative time periods for measurement, including a sufficient number of operating cycles during normal operations, and is inconsistent with data from the manufacturers of the plant. The height of the noise source is important to the calculations on propagation. But the dropping of sand and gravel from height, into a lorry at height, appears to have been wrongly modelled.
69. PA2 requires that appropriate buffer zones will be required in order to minimise any impact of extraction. The appellants’ evidence is silent on this. The issue in both schemes could be resolved with 100 m buffer zones at Sacombe Road and The Orchard. PA2 already draws a 100 m buffer at The Orchard, but that has not been followed in the 1.75 Mt scheme, and is only 70 m at Sacombe Road.
70. If HCC’s reservations about the SPL calculations and background levels are justified, there would be exceedance of the 10 dB level for a policy compliant increase at The Orchard for the 1.75 Mt scheme; and at Sacombe Road for both the 1.75 Mt and 1.25 Mt schemes. The 1.75 Mt scheme is simply too close to The Orchard, and in breach of the PA2 boundary location. The 1.25 Mt scheme is too close at Sacombe Road. The noise implications would be unacceptable. At the lowest, a condition would be required here.

Public Rights of Way

71. The importance of the existing PRoW network in and around the site has been the subject of consistent and overwhelming evidence from the public. The heavy leisure and sporting use of the site is a function of its physicality and ambience. It is the closest recreational resource to the urban area of Bengoe. The Byway and its links are away from roads, with wide and unimpeded vistas. The 1.75 Mt scheme would require a diversion of the Byway. Informal paths on the appeal site are already well used. These would be unavailable during the quarrying operation, or made more difficult and less attractive.
72. The policy requirement under MLP Policy 18(x) was the basis for the endorsement of PA2.⁴⁹ This requires that public rights of way are not adversely affected or, where this is not possible, that good quality, safe and convenient temporary alternative provision is made, and that proposals should enhance the public rights of way network through the creation of new

⁴⁸ HCC1.

⁴⁹ CD31 paragraphs 3.4.100 to 101.

rights of way. It is to be noted that the enhancement is to the PRoW network, which would not be met by the provision of permissive paths.

73. Securing the alleged “enhancements” is not dependent on accepting the significant harm to the PRoW network by breaching PA2, as it would be equally required under a PA2 compliant scheme.

Need

74. The appellants’ need case amounts to the following: (i) PA2 was allocated to meet a need; (ii) the appellants’ proposals to give effect to that allocation to meet the need are unacceptable; (iii) the appellants have thus failed to play their part in meeting the need here in an appropriate way; (iv) the appellants now rely on the shortfall to which they have contributed and which they can remedy by a PA2 compliant scheme. That approach to need drives a coach and horses through planning policy. Any owner of an allocated site could fail to comply with the terms of the allocation and then argue for a grant of planning permission because it is a needed site. This argument is circular and cannot rationally form the basis for granting planning permission. In any event, the need case is wrong and/or exaggerated.⁵⁰
75. A reliable assessment of the landbank is, and can only be, annual. At the last annual review there was 7.5 years supply on the basis of a apportionment exercise (1.39 Mt pa), and much more on a *Framework/Guidance* compliant (10 years sales) approach. Since then Furze Field has been granted.⁵¹ The claim of there being a problem in terms of the current situation is simply wrong. The apportionment approach is far more generous and creates far more flexibility. Fundamentally, that position has been reached without the two main PA sites allocated in 2007 yet coming forward and contributing to the supply. There is ample potential provision – it is just a case of the owners of those PA sites submitting PA compliant schemes (Ware Park), getting an extension of time (RQE) or completing section 106 agreements (BAE site).⁵²
76. Even on a mathematical exercise there is no shortfall now and until the end of the year. There is no reason to doubt that RQE (1.24 Mt) will not be granted shortly.⁵³ The huge release at BAE (which will take supply to 13 years) will occur.⁵⁴ The issue is simply timing, as the section 106 on extraction is agreed and the only impediment to a grant is an issue not related to mineral extraction concerning a Country Park.⁵⁵

Policy and planning balance

77. There is no case that MLP Policy 3 and PA2 are out of date in *Framework* terms, and they are broadly consistent with the *Framework/Guidance*.⁵⁶ MLP Policy 3 only applies within PA2, not outside its boundaries. PA2 requires applications to satisfactorily fulfil requirements for that preferred area as

⁵⁰ HCC2.

⁵¹ ID100.

⁵² ID18.

⁵³ ID16.3 and ID102.

⁵⁴ ID25.

⁵⁵ ID18 and ID21.

⁵⁶ Except that the approach to 7 year land supply is not consistent with the *Guidance*.

identified with the inset maps. The ES is plainly correct that developing the application site as an extension to Rickneys Quarry has “many advantages in terms of planning and environmental impacts”.⁵⁷ The access and extension points are essential attributes of any acceptable development here – as is compliance with the PA2 boundary. Conversely a failure to work as an extension would bring many dis-benefits, including an access road across the eastern slopes, a need for a new hub area, and development of the whole would not be co-ordinated. Thus the failure goes to the heart of the justification for the allocation in the first place.

78. The 1.75 Mt scheme would extend outside PA2 in four respects; Phase 4, the stockpile area, in the south-western corner of the site, and the road. Each of these elements would have to be justified under MLP Policy 4. The only justification for Phase 4 is that it would be sterilised if not extracted as part of this scheme. That was never claimed when the 1.25 Mt scheme was pursued (and is inconsistent with the 1.25 Mt scheme, which would then be in breach of MLP Policies 4 and 5). For the stockpile area, the highest it is put is that it would provide flexibility, but no details are given as to what that means. Furthermore, the 1.25 Mt scheme is promoted without any suggestion of such a need. The working area could be easily and appropriately accommodated within the phases. There is no reason why the existing access road could not be used. On the south-western corner, this area outside PA2 is not included in the 1.25 Mt scheme, so it is not clear what the need is for this breach.
79. Development outside PA2 cannot be justified under MLP Policy 4. There is no shortfall and/or no significant weight can be attached to any minimal shortfall in the context referred to above. There is no evidence that Phase 4 would be sterilised if this permission was not given now. Even if Policy 4 was met (which cannot be the case here) all the other planning issues would still be relevant.
80. The alleged benefits are nothing of the sort – they are policy requirements, which would have to be provided with any PA2 compliant development. The fact that required enhancements are provided can be no basis for justifying a breach of the specific policy governing applications here.

Justification for a non-compliant scheme

81. From the outset, the appellants have assumed that Hanson would not co-operate, but that assumption is wrong. Hanson and the appellants have made it entirely clear that they have an agreement in principle to co-operate to deliver a joint scheme using the existing access. Hanson “are having and continue to have” discussions with the appellants and the issues are resolvable.⁵⁸ There is now no possible basis to doubt that absent granting permission for the appeal scheme, the parties will endeavour to deliver a PA2 compliant scheme – as they should have done from the outset.
82. The appellants’ new explanation that this is all dependent on the grant of planning permission for RQE is wrong. Since February 2018 there has been nothing to stop the appellants pursuing a joint scheme under the agreement

⁵⁷ CD2 paragraph 3.2.7.

⁵⁸ ID13.2.

in principle to deliver a PA2 compliant development. All parties have a clear incentive to secure a PA2 compliant joint scheme as soon as possible or the opportunity may be lost with progress of the eMLP.

83. The alleged urgent need to extract to allow HERT4 to come forward has been at the heart of the appellants' case since 2012, when there was a hope of a much larger housing allocation. The only possible sterilisation issue now relates just to the potential for conflict between HERT4 and mineral extraction at the southern boundary of Phase 1. The first attempt to demonstrate this possible sterilisation effect was in ID49, which relies on an arbitrary 100 m separation distance from the red line boundary of the appeal site. But the correct measurement is from the closest façade to the edge of the working on the inside of the bund.
84. The appellants' case is that the 1.75 Mt scheme is acceptable in terms of noise/disturbance/air quality with a separation distance of just 43 m from the nearest house at The Orchard.⁵⁹ The residents of HERT4 are not entitled to a greater separation distance than existing residents of The Orchard. On the appellants' own case the correct separation distance can be just 43 m. The 43 m could be achieved just by bunds and the existing masterplan arrangements for the HERT4 site without any sterilisation.⁶⁰ ID49 is wrong and misleading.
85. Even if the 70 m separation distance is used (for e.g. noise issues) there is no calculation of the area sterilised or plan showing the area sterilised. In any event, even if any weight could be placed on ID49, the "sterilisation" would amount to 49,000 tonnes, but the appellants are leaving 0.85 Mt in the ground to achieve the restored landform. Furthermore, there would be significant necessary "sterilisation" under the bunds. There is thus no sterilisation case.
86. Policy HERT4 is subject to "satisfactory previous phased extraction on the neighbouring site" before the 100 houses closest to PA2 could come forward between 2022 and 2027. If there were adequate separation distances then that would be satisfactory for the purposes of this policy. Policy HERT4 does not require the full extraction of PA2 or even just Phase 1. There is no case put by the appellants that a PA2 compliant scheme could not be carried out well within that timescale. If there is a requirement to make the new contours fit with the development at HERT4 that simply requires proper planning and would not be undermined by any timing issue. There is no timing problem.

Conclusions

87. The area of PA2 has been specifically and carefully pulled back to avoid intrusion on to the eastern slopes, and drawn to create an appropriate buffer zone to The Orchard, as well as ensuring that well-used PRoW to the east were not crossed or diverted. In doing so, PA2 has determined where mineral extraction may preserve the openness of the Green Belt, and thus conversely where mineral extraction would not preserve openness. Even within that PA2

⁵⁹ ID95.1.

⁶⁰ APP8 Appendix D.

area, whether mineral extraction should be permitted will depend on the specifics of the application, the impact on openness of the Green Belt and other policy requirements.

88. The 1.75 Mt scheme has the Stockpile, Phase 4, associated bunds and the access road outside the PA2 boundary, with all the consequences for the eastern slopes, the PRow, the landscape, the Green Belt and character of the area. The 1.25 Mt scheme has a wholly unnecessary access road running straight down the eastern slopes in breach of PA2. There would be significant lorry activity in this countryside setting, a new junction and all the associated activity, with unacceptable impact on the landscape and harm to the openness of the Green Belt. It would be there for many years (even if ultimately removed) and is undoubtedly a significantly urbanising feature. It is inappropriate development in the Green Belt. The proposal also would have unacceptable impacts on the PRow network. It is thus respectfully impossible for the Secretary of State to find VSC here, or other material considerations to justify a breach of PA2.

The case for Stop Bengo Quarry Rule 6 party (SBQ)

The following summary of SBQ's case broadly follows SBQ's closing submissions to the Inquiry, with additional reference where necessary to the evidence adduced.⁶¹

Introduction

89. SBQ objects on two grounds. (1) The appellants acknowledge that, without mitigation, both the 1.75 Mt and 1.25 Mt schemes pose an unacceptably high risk of pollution to a vital groundwater source. But the measures proposed by the appellants to mitigate this risk are inadequate to protect the chalk aquifer. (2) The HIA has not demonstrated that the impact on vulnerable groups within the community as a result of exposure to short-term peak concentrations of particulate matter (PM) would be acceptable in the context of the policy framework.

Water pollution

90. Policy 17(iv) of the MLP and the *Framework* both put the burden on the appellants to prove that mineral extraction would not have a negative quantitative and/or qualitative impact on the water environment, including, groundwater resources, unless appropriate measures can be imposed to mitigate any harmful effects. While the eMLP is not yet part of the development plan, it can be given weight as a material consideration. It emphasises the balance between the need for mineral extraction and the potential impact on the local community and environment.
91. The appellants acknowledge a 'medium' risk, with a significance of impact of 'major', to groundwater quality from increased turbidity if workings mobilised and transported fine materials into the aquifer. Contamination of the aquifer as a result of accidental spillage of oil and fuel is acknowledged as a hydrocarbon 'high' risk, with a significance of impact of 'major'. The appellants' proposed mitigation relies on retaining a protective layer of

⁶¹ ID108.

residual materials above the chalk, and a variety of measures to regulate the storage and use of fuel, along with training and protocols for any spillage.

92. Even if a 5 m protective layer of residual material was sufficient to act as a filter in a range up to 300 m from Wadesmill PS (which SBQ does not accept), there is no evidence to support the contention that a lesser layer would be adequate to perform the same function at greater distances. A purely distance based approach is not appropriate. Flow rates depend on the presence and extent of water-bearing fractures and karstic features in the aquifer.
93. Such features could exist across the whole of the appeal site, so the same thickness of overlay should be left across the entire site. If it is decided not to undertake further investigation of the chalk surface, which SBQ considers is necessary, a condition must be imposed to guarantee the highest level of protection possible.
94. The assumption that the residual thickness mitigation measure would be sufficient is based on inadequate data concerning the chalk including: the contours of its rockhead on which the residual layer would rest and from which its thickness would be measured; and, the location and nature of any fractures and karstic features.⁶² The appellants' contours of the rockhead appear to have been created using a smoothing programme to determine its elevation between specific data points. However, due to the way in which the geology of the site was formed, it is unlikely that the rockhead is smooth.
95. Photographs taken in the 1990s during the quarrying at Rickneys show that the chalk had been exposed.⁶³ The most likely explanation is that this occurred because the chalk rockhead was uneven, which is highly likely to be so for the appeal site.
96. But the appeal scheme proposes using these contours to generate a 3D GPS model to guide excavation of the site. Applying the residual layer mitigation measure on the basis of flawed rockhead contours, with the likelihood of significant irregularities (i.e. up to a few metres high) in the depth of the layer of retained gravel, would negate its alleged protective qualities. This is apparent from the appellants' Isopachyte maps.⁶⁴ So this methodology is inappropriate here.
97. Exposure of the chalk would pose a risk of pollution, even if the exposed chalk was not fissured. Furthermore, it would not be sufficient to rely on the operator not wanting to expose the chalk because it would contaminate the aggregate. It is reasonably foreseeable that without further information about the chalk rockhead, accidental and potentially adverse exposure of the chalk would occur if the site was worked.

⁶² SBQ1 Edworthy Report cited in Prof Brassington's suppPoE.

⁶³ ID54.

⁶⁴ ID31.1 and ID31.2. The 1.75 Mt scheme shows the thickness of the retained layer could be anything from 5-4m in places, where at least a 5m protection layer would be required. In the 1.25 Mt scheme the thickness of the retained layer could be anything from 3-2m, in an area of the site which should be leaving at least a 3m protection layer. If there is a peak of up to 2m in the chalk at either of these points, the protective layers would be reduced, and in the 1.25 Mt scheme the protective layer could be rendered non-existent.

98. An appropriate geophysical survey could provide more detailed information concerning the contours and features of the chalk rockhead. But it would be technically difficult to detect and identify the fractures and karstic features within the chalk itself with the accuracy necessary to assess the adequacy or otherwise of the proposed mitigation measures. Due to this difficulty, the precautionary principle should be applied and permission for the development refused.
99. The HIA concludes that accidental spills can be considered to be a reasonably foreseeable consequence of quarrying activity. There is no evidence as to whether, in the event that the chalk aquifer was to be contaminated, AW would be able to source an output equivalent to that of the Wadesmill PS (which produces 60% of the local supply).
100. Various sources of, and pathways for, hydrocarbon and other pollution risks have not been considered. These include the use of a soakaway to an oil interceptor in the load out area in both schemes, where the trapping and temporary storage of oil underground would risk leaks going unnoticed. In the 1.25 Mt scheme, the soakaway would be in an area where the protective layer would be at its thinnest. Furthermore, the use of chemicals in weed control during restoration, boreholes as a potential pathway for pollutants, and the risk from an oil tanker accessing the site on a frequent basis to refill the site's storage tanker, have not been addressed.
101. A major spill would necessitate an immediate response. The standard leaks and spills mitigation measures proposed would be wholly inappropriate in the context of this site. Spill kits, building a bund of sand around a medium spill, or digging a hole in the ground to prevent further spread, would be useless as they would not prevent spilled contaminant from filtering down into the aquifer. The only effective mitigation measure would be immediately excavating the affected sand and gravel and removing it to a containment area from whence it could be securely removed.
102. As it is not possible to assess all development pollution risks at the initial stage, it is prudent to include in conditions a provision regarding hydrogeological impact assessments to be carried out after each phase of the development. This would be necessary to ensure that any new risks arising were assessed and mitigated as soon as possible.
103. Mineral extraction may have taken place at other sites underlain by the chalk aquifer, but no evidence has been provided about the hydrogeological and/or pollution risks assessed for these sites. There is no basis to make any comparison between these and the appeal site. A decision on compliance with MLP Policy 17(iv) must be made on the basis of the specific site and operational programme.
104. Comment by the EA and AW was on the basis of the documents then available about the scheme and its mitigation. The EA commented in November 2017 that it does not have in-house capability and competence to carry out non-intrusive geophysical surveys to estimate the thickness of the top soil layer, relief and heterogeneity of the top of the chalk.⁶⁵ The Inquiry

⁶⁵ CD13 Doc4.

has now heard more evidence about these matters, which provides cogent and compelling reasons to depart from the EA's advice.⁶⁶

105. A precautionary approach should be taken and planning permission should be refused. Where there are no permitting and/or licensing regimes active on a site, all mitigation has to be dealt with and enforceable within the planning system. Permission should not be granted without highly prescriptive mitigation measures. It is important to be able to review and comment on the appropriateness of mitigation measures and possible conditions. Unfortunately, this cannot be done on the basis of the evidence before the Inquiry, resulting in doubt about the adequacy of the mitigation measures proposed to render the development compliant with MLP Policy 17(iv).

*Air quality related health impacts*⁶⁷

106. The MLP is silent on the issue of health impacts, although it does state that the quality of the environment plays a key role in both maintaining and enhancing quality of life. The *Framework* requires that minerals extraction should not have any unacceptable adverse impacts on human health. Planning decisions should sustain and contribute to compliance with pollution limit values and objectives, but should also identify opportunities to improve air quality where possible or at the very least mitigate the impacts on air quality.

107. The HIA's evidence in relation to health impacts in the wider population is not in dispute. However, the HIA recognises that health effects are observed in the wider population when it is exposed to higher concentrations of PM, and it acknowledges that there is no lower threshold concentration of PM which is fully protective of human health. SBQ's concern is the extent to which air quality impacts from the proposed operation would be responsible for health effects on people in the local community, in particular on especially vulnerable groups within the site-specific population.

108. The HIA concludes that there will be an adverse impact on vulnerable groups when exposed to short-term peak concentrations of PM, which it categorises as 'minor' and assesses it as 'not significant'. But the HIA, in its treatment of this risk, has been unable to unequivocally demonstrate that there will be no unacceptable adverse health impacts on the vulnerable members of the site-specific community.

109. Health effects can occur even when a project is in compliance with relevant air quality limit values for pollutants. IAQM 2017 guidance comments that the assessment of health impacts is a matter for an HIA, and not an air quality assessment.⁶⁸ Whilst it is accepted that the likelihood of health impacts reduces in line with exposure to PM, it is not sufficient to rely on compliance with air quality limit values alone as evidence that there will be no adverse health impact. The fact that a site is compliant with air quality limit values is not determinative of the issue of health impacts. The Government's aspiration in the draft *Clean Air Strategy* is to reduce concentrations of PM

⁶⁶ *R.(On the application of Jones) v Mansfield DC* paragraph 54.

⁶⁷ SBQ2.

⁶⁸ CD35.2 paragraph 7.11.

over the next decade, so small contributions should not be treated as insignificant. This is especially the case in areas like Hertford where the PM_{2.5} baseline is already at or above the WHO guideline of 10 µg/m³.

110. The HIA does acknowledge the existence of an especially vulnerable sub-set of the site-specific population, but it does not attempt to quantify that population or give consideration as to its baseline health. The exposed population could run to hundreds or thousands of individuals, including many who would fall into the especially vulnerable category. The 496 children currently attending Bengoe School is an important sub-set of this vulnerable category, and the total 'population' of the primary school over the lifetime of the scheme would be much greater.
111. The HIA does not define 'minor', and the difference between 'minor adverse' and 'adverse' is entirely unclear. This uncertainty is important and suggests caution in making pronouncements as to the acceptability or otherwise of health impacts on small groups. There is statistical information available based on which it is possible to quantify the baseline health of even a small population, for the purposes of assessing likely health impacts. The asthma prevalence in the local population is 5.9%. Applying that percentage to the 'population' of Bengoe School would indicate about 30 asthma sufferers. In reality, there are currently 46 children at the school with the diagnosis, which is closer to 10%. There is, therefore, a basis on which to quantify health problems and therefore impacts on a small-scale population.
112. The HIA does not rule out health consequences for individuals with specific illnesses or conditions, and has done nothing to allay parents' distress and fear for their children's future safety, especially where children might be subject to multiple vulnerabilities. Evidence about individuals cannot be disregarded. If the health impacts mentioned in the HIA cannot be ruled out, this would be an unacceptable adverse impact and should preclude permission being granted.
113. The results of the appellants' air quality assessment are accepted uncritically in the HIA. The emission factor used within the ADMS model is based on the whole operational area of each Phase, rather than a smaller percentage of that area reflective of actual hourly quarry activities (such as 1 ha or 100 m²). This has the effect of 'double-diluting' the pollutant emitted by the quarry. By spreading the PM generated by the site over an unrealistically wide surface area of the quarry, the emission is diluted at source before being diluted further as part of the modelling of the dispersion effects.
114. This inappropriate modification could lead to an underestimation in the figures modelled by at least a factor of 10. This might not be of significance when looking at the annual average concentration, but it could mask any significant short-term peak concentrations. It is these concentrations, rather than the annual average or long-term exposure that pose a risk to health as a result of this development.
115. The emission factors themselves are subject to inherent uncertainty, and the moisture content of the material would be variable, especially in hot weather conditions. It is therefore questionable whether a worst-case scenario has been modelled.

116. The distinction between an annual average and hourly or 24 hours average, in terms of the associated health impacts, is crucial in this context. The health risks identified to especially vulnerable groups arise from the short term averages. However, there is a complete absence of short-term modelling in the appellants' assessment, and no information concerning the very concentration levels on which the HIA confidently concluded a 'minor adverse' and 'not significant' impact.
117. Short-term peak concentrations could be associated with reduced quality of life effects for vulnerable individuals, such as reduced mobility and increased periods of staying indoors due to the need to avoid exposure.⁶⁹ Weather conditions producing these peak concentrations are consistent with hot summer days when people want to be outside. Such limitations on mobility would not be consistent with the high quality of life required to be protected by the MLP. This would also not be an acceptable health impact. Again, although this health impact was referred to obliquely in the HIA, the focus was on the actual exacerbation of symptoms and did not give any obvious consideration to this lower scale, but nonetheless unacceptable health impact. There is a wider range of health effects associated with PM exposure that has not been expressly addressed in the HIA.
118. The IAQM 2016 data set, which is one of the few UK data sets for quarry emissions, indicates an underestimation here of the effects of the quarry within a broad envelope of out to 400 m, which is a distance that would include Bengo School.⁷⁰
119. The appellants' assessment did not quantitatively assess respirable crystalline silica (RCS), nor was it dealt with in the HIA at all, despite the fact that it is agreed between Professor Sokhi and Mr Barrowcliffe that RCS is a hazard to health.
120. No Dust Management Plan was submitted with the applications. It would not be sufficient to produce this later, as it is necessary to determine whether any unacceptable impacts of the development could be rendered acceptable in planning terms by mitigation.
121. The HIA's assessment of significance and Professor Sokhi's conclusion of no material risk are undefined and unquantified, and entirely subjective. Given the lack of a commonly accepted framework, and the consequences of coming to a decision on significance in the planning context, this is not something that should be ascribed by an HIA. An HIA should comment on the magnitude of the risks identified and leave the attribution of significance to the decision maker.

Conditions

122. The absence of the details of specific mitigation relied on by the appellants in assessing risks from the site will be problematic in coming to a decision on the acceptability or otherwise of the proposed development. If permission was granted these details would be required and, given site-specific concerns

⁶⁹ SBQ2 Figure 5.2 showing health pyramid of air quality related health impacts.

⁷⁰ CD35.1 Appendix 2.

here, it is not unreasonable to expect this information to be available so as to inform the decision-maker and to reassure the local community. The appellants need to show that the risks associated with the site have been properly and comprehensively assessed, that they can be mitigated, and that the mitigation can be put in place by way of planning conditions. On the evidence before the Inquiry, the appellants have failed to do so.

123.SBQ has submitted a proposal for water management conditions and regarding air quality monitoring, which in the event that planning permission is granted should be imposed to afford the groundwater resources and the local community the highest level of protection.

Conclusions

124.The development cannot be permitted unless the appellants can demonstrate that appropriate measures can be imposed to mitigate the impact. The mitigation measures proposed are wholly insufficient to mitigate the serious potential impact of pollution on the chalk aquifer. Planning permission for the proposed development, whether the 1.75 Mt or 1.25 Mt schemes, should therefore be refused. The HIA has been unable to demonstrate that the health impact for vulnerable groups of the local community arising from short term peak concentrations of PM would not be unacceptable for the purposes of the policy framework. On this basis, planning permission should also be refused.

The case for Cllr Stevenson Rule 6 Party

The following summary of case broadly follows Cllr Stevenson's closing submissions to the Inquiry, with additional reference where necessary to the evidence adduced.⁷¹

Summary

125.The appeal is unsound primarily for the loss of a landscape of outstanding value to the whole community of Hertford, and the absence of any real need for the sand and gravel. Secondary factors concerning the transport system, the risk to water supply and air quality, along with concern about the availability of financial assets to deal with any unforeseen problems, add up to further reasons why the proposal is unsound. It is unsound to locate any quarry so close to any densely populated area without more site specific and quantitative studies of the real risks.

The effect on housing development

126.The driving force for the timing of the application was to avoid an objection to an application for housing development on the HERT4 site due to sterilisation of minerals. It is claimed that the HERT4 allocation is important to the EHDP. But it would only provide 150 dwellings in the context of the 20,000 or so homes in the plan. The contribution from HERT4 would be insignificant in the context of the County wide obligation for 120,000 homes, and would only amount to about 5% of the obligation for Hertford, where infrastructure limitations restrict the allocation for the town. There are also

⁷¹ ID109 and AS1.

landscape issues with the development of the HERT4 site. EHDP simply recognises that if the land were to be subject to mineral extraction, thereby changing the landscape, then it would be suitable for 100 homes. There is no urgency for mineral development so as to meet housing obligations, as this is driven by the larger schemes in the plan, especially Gilston garden town development and Bishops Stortford North.

Landscape significance

127. The landscape at Bengo Field is of outstanding local significance and a valued resource that is used extensively by Hertford residents, including for health walks. The emerging BNAP recognises the importance of this green space. The appellants' restoration plans have no credibility. The existing gentle hill would become a depression. The open vista from the Byway at its current elevation, which gives the landscape its special appeal, would be permanently destroyed. Turning a convex shape into a concave shape would not restore the land to its previous state.

128. The local community has already lost landscape due to gravel extraction, at what is now Waterford Marsh and at Rickneys. The latter lies abandoned and only partially restored. The cumulative effect on the community over the past 40 years needs to be taken into account. Bengo Field is the last and best of the sites available for landscape and accessibility, and it is an historic link between the settlements of Hertford and Chapmore End. The special significance of the site makes the proposal especially damaging to the community.

Comparison with BAE Hatfield site

129. There is no comparison between the appeal site and the former BAE Hatfield site in terms of their suitability for mineral extraction. Hatfield aerodrome was part of a heavy industrial complex, from which the public was excluded whilst a military site, and which now needs remediation. It is now unsuitable for any other purpose. It is relatively remote from Hatfield and there have been no similar objections from Hatfield residents to those that have been raised at Bengo Fields. Plans for a Country Park have broad local approval, and notwithstanding the temporary delays in signing section 106 agreements, the site looks certain to be developed for sand and gravel extraction in due course.

Effect on Bengo Primary School and neighbouring community playing field

130. The school, along with the nursery, which is used as a drop-off area for the school, and the playing field, are located close to the appeal site. Parents have reported that this long drawn out decision process has already had a negative impact on the school, with a decline in application numbers due to publicity about the threat of the quarry. Parents do not want to put their children at risk.

Impact on local transport

131. There is a recognised need in Hertford for transport schemes to relieve acute traffic congestion. The B158 is heavily congested at peak times, leading to rat-running through residential roads, especially when the A414 is blocked. The 2018 local transport plan includes a major shift towards sustainable

transport.⁷² This will change the way HCC considers new development. Its response to the appeal scheme was based on the former local transport plan, which predates more recent increases in traffic volume.

132. The MLP clearly stipulates, for good reason, that the existing access to Rickneys Quarry should be used. The proposed access is unacceptably close to the Sacombe Road roundabout compared with the existing access to Rickneys Quarry. The appellants have, for many years, had the option of commercial negotiations for use of this access. Their inability to do so should not weigh in favour of allowing the appeal.
133. Mixing HGVs with other vehicles worsens road safety. Line of sight for other road users would be impaired by queuing HGVs. There would be nothing to prevent HGVs in convoy during peak hours, which could block the B158 or the A602. Averaging out HGV movements over the working day ignores the fact that the highway impact of an HGV is much greater than that of a passenger vehicle. HGVs should be disallowed into or out of the site during peak hours, and at other times restricted to no more than one vehicle every 15 minutes. The impact of HGV traffic would be severe and would conflict with the sustainable transport aims of the new local transport policy.
134. The Byway is already a sustainable transport route between Chapmore End and Hertford, and it makes no sense to destroy its acceptability.

Quality of public consultation

135. Public consultation has been a bare minimum, and the appellants have sought to blame the community for a lack of engagement. There has been no engagement by the appellants with the BNAP process.

Risks to water supply

136. There is a clear risk to the water supply that serves local farms and a brewery.⁷³ The perception of the potential risk to the brewery's water quality may affect the continuation of the business. In the longer term there is a risk to the public water supply because of a growing shortage of water in East Anglia, but resultant changes in strategy have yet to be reflected in a new regulatory approach. In the absence of a site specific study the true risks have not been quantified.

Risks to air quality

137. The appellants have followed the industry recommended minimum requirements. But pollutants cause an increase in the rate of loss of lung tissue, which may take years to manifest as a disability. Past experience with other pollutants indicates that it has taken time for legislation to catch up with medical science and to introduce protective measures. Current requirements were designed for smaller quarries in more remote locations, with protection for quarry workers, not neighbouring urban populations.

⁷² ID104.

⁷³ ID85.

138. In the context here, where there are already high levels of pollutants from traffic congestion, it is untenable to claim that the contribution from the quarry would be insignificant. This misunderstands the likely effect on vulnerable groups within a population. SBQ has cited peer reviewed evidence about the medical effects of incremental increases in pollution.

139. No site specific study has been undertaken about the local Kesgrave geological formation, but there is evidence that this formation does produce fine particles when disturbed, which may carry in the air. Wet sand can dry out. There is an unquantified air quality risk to population health, especially within 400 m of the proposed quarry.

Financial bond

140. There is a long track record of HCC being forced to engage in prolonged enforcement battles with quarry operators. The appellants' employees seem to be doing their best to operate responsibly, but the financial resources available as a contingency for restoration have not been clarified. An evasive response to questions about this at the Inquiry adds weight to the likelihood of financial failure, and to the financial risk to the community and HCC. There is very clear evidence that a £2 million bond is justified in this case.

The case for interested persons opposing the scheme

The following persons appeared at the Inquiry objecting to the proposed development, and a summary of their submissions is included below, which in some instances includes extracts from written submissions made in commenting on the HIA. Some of the submissions refer to the health conditions of individuals, but for confidentiality reasons the following summaries omit these particular references, whilst still making the general points about health impacts raised in evidence.

141. Andrew Smith (local resident) ⁷⁴ Some 40 properties in the Dell at Chapmore End are accessed from the B158 by a drive that is located near to the summit of a hill. Visibility from the drive is restricted by the curved road to the south and by the summit of the hill to the north. The B158 is used by commuters to avoid congestion on the A414. It is a fast and dangerous road. Accident statistics show nine collisions over the past five years along this part of the B158, including a fatality involving a vehicle turning into the drive. Drivers will attempt to overtake slow moving HGVs, especially when they are climbing the long gradual hill from the proposed quarry entrance. They would also spill mud and gravel to add to the risk, as occurs on the A602.

142. Residents of the Dell and Crouchfields have no access to public transport, and the walk along the B158 is dangerous and unpleasant. The north-south Byway is the only pedestrian connection with Hertford for some 200 properties. The Byway is currently a wonderful experience, but that would not be so if it was hemmed in by bunds and crossed by lorry traffic. The permissive path offered along the eastern field boundary would not connect to any footpaths to the north, and so is an empty gesture.

⁷⁴ ID61.

143. Aska Pickering (local resident and chairperson of SBQ) ⁷⁵ Many local residents enjoy this beautiful landscape, with its lonely oak tree and views across to Hertford and the Three Lakes. The footpath is recognised as a community asset. A survey of 269 respondents found that 17% use the footpath three or more times a week, and 85% would find it less attractive with a quarry. The results of the survey are included in ID35. The local community has good reasons to be concerned, given the harmful dust pollution, increased heavy traffic and noise, the risk of pollution to the water supply, and irreversible damage to the beautiful landscape. Nearly 1,500 people signed the two HCC electronic petitions against the applications. Over 1,300 letters and emails were sent during the most recent public consultation. SBQ website has on average 600 visits per month and its Facebook page has an audience of around 4,000 subscribers. HCC has recognised the importance of the appeal site and proposes to remove it from the list of preferred areas in the eMLP.
144. Dr David Adam PhD (local resident and parent governor of Bengoe Primary School) ⁷⁶ There is concern about the threat to the health of schoolchildren from dust. The HIA assesses this risk as low, but this is based on an environmental impact assessment which argues that fugitive dust emissions would not be significant. The assessment does the minimum suggested by the IAQM, in modelling theoretical particulate emissions in annual mean exposure beyond the site boundary. The schoolchildren next to the site deserve more than this minimum effort. The IAQM also says that other ways of assessing risk should be considered where there is particular sensitivity on neighbouring land.
145. Children at the school would not be exposed to an annual mean amount of dust. The working hours of the quarry would be similar to the school day. When dust was produced it would be breathed in. On hot and dry days, when more dust would be produced, children are more likely to be outside. The assessments do not mention RCS. Industrial activity grinds silica down small enough to be inhaled. This is why the Health and Safety Executive (HSE) requires quarry workers to be issued with protective equipment. RCS is a carcinogen. By definition, any increase in exposure increases the risk of ill-health. RCS comprises tiny fragments which are easily carried on the wind. An advance paper for *Atmospheric Environment* measured RCS in a rural location downwind of four working sand quarries in the UK and found levels 150 times greater than ambient levels. The HIA does not assess the effects of this on schoolchildren. The HSE study found that 6% of the samples contained fugitive ambient concentrations of 10 µg/m³ of air. The US Environmental Protection Agency calculates that if 500 people were to breathe in 8 µg/m³ for long enough then 12 could develop silicosis. The decision about this quarry is a matter of balancing risk and benefit.
146. Libby Mountford (local resident and school governor for 13 years) ⁷⁷ The school is 350 m from Phase 1, and The Wick is even closer, with some elderly residents living about 100 m away. The quarry would damage the mental

⁷⁵ ID35 includes photographs of the lonely oak tree.

⁷⁶ ID44.

⁷⁷ ID37.

health of local residents, by reason of irritating and intrusive noise, dust and the loss of the beautiful field with its open views and path to the pub at Chapmore End. Silica dust inhalation is of particular concern, especially for children and those with respiratory diseases. A paediatric consultant recently advised that lung damage in childhood was likely to have a lifelong impact. The youngest children at the playgroup spend much of their time playing out-of-doors. Some 43 of the 500 children suffer from asthma and use inhalers. The quarry would put at risk the safety of these children. The appellants' HIA says that there would be minimal risk, but this is not convincing. The risk is unquantified. Worried parents will vote with their feet.

147. The children have learnt a lot about geology, economics, archaeology and wildlife because of the quarry applications. They are also learning about local democracy and the planning process. Schoolchildren attended the planning committee meetings and saw Members reject the application.

148. Julie Starkiss (head teacher Bengo Primary School) ⁷⁸ The school has 61 staff and 496 children. It occupies a large site with three playgrounds and a playing field, and enjoys particular success in outdoor sports. The school is currently oversubscribed.

149. Suzanne Bray (local resident) Expressed concern about the proximity of the school and playing field, allotments and housing. Children would be exposed to dust and pollutants for longer than those operating the quarry. Local residents are scared about the health implications of the proposal. This is open countryside used for recreation and not a site for an urban quarry.

150. Tanya Needham (local resident and governor of Bengo Primary School) There was persistent noise from Rickneys Quarry when it was operating. Dust was also a real and constant problem. That site is now a blighted landscape, notwithstanding the planned progressive restoration. Restoration is a real issue. There is nothing to indicate that the appellants have the funds to make good on their restoration commitments.

151. Thalia Watson (local resident) ⁷⁹ There is local concern about the health effects of the quarry on vulnerable children, the elderly and anyone with a respiratory condition. This includes the ability of children to play outside in the summer. Dust and diesel emissions would mean that they would have to move away from the area, the school, family and support networks, and local businesses. Any increase in air pollution, no matter how small, would be of concern.

152. John Howson (local resident) ⁸⁰ People love this field. It is part of the community. It has a waveform relief with two distinct undulations and a perfect example of rolling Hertfordshire countryside. There is a beautiful vista from the central path across to Ware Park Manor. Views from this central path are not mentioned in any of the landscape documents. A monitoring exercise on 3 December 2017 logged 55 people on a cold and wet day between 1000 and 1500 hours. All the paths are heavily used, many since

⁷⁸ ID45.

⁷⁹ ID90.

⁸⁰ ID34.1.

the 1970s or longer, and so meet the 20 year rule for an application as PRoW. Different groups use the field for walking, cycling and running. ID34 includes a selection of comments from users. This is a landscape worthy of preservation for future generations.

153. The field is home to skylarks. St John's Wood is an important ecological resource. The Woodland Trust says that any quarrying would be likely to alter the hydrology, and introduce dust, changes in land use, along with potentially non-native species. The Trust recommends a 100 m buffer zone.
154. Robert Chandler (local resident) ⁸¹ Chairman of a local bicycle club with 25 members. Cyclists generally ride north of Bengoe, across the appeal site, which provides a calming view before heading off on a 20 mile ride. The view is one of the finest in Bengoe. The proposed quarry with its effects on noise, dust, air quality and views would mean that cyclists would no longer be able to enjoy the safe environment and beauty of this area. The quarry would also be a factor for other cycling clubs considering visiting Hertford.
155. The B158 is a narrow road that would be more hazardous for cyclists with HGVs from the quarry. The increase in traffic on Wadesmill Road would lead to vehicles choosing to take Sacombe Road as an alternative route, so making this a hazardous route for cycling. The accident statistics indicate that most cycling casualties are aged either 0-14 years or between 45-49 years, with most fatalities or serious injuries in the 50-59 age groups.
156. Anu Palmer (local resident) ⁸² Horse riders regularly choose Bengoe field because it is one of the best hacking routes in the area. Cyclists, runners and walkers, with or without dogs, also enjoy the beautiful views all year round. The field has paths that conveniently connect places. An oblique aerial photograph shows the proximity of the school, housing development and the playground in the Wick. The appellants have presented the impacts and risks as minor or insignificant inconveniences with control measures. This ignores the true, detrimental and irreversible impacts of putting a quarry in a wrong place – above a water borehole, next to housing and in the Green Belt.
157. The effects would be immediate. The landscape would become alien. People would not walk through a torn land with dust and noise. Rickneys Quarry is still awaiting restoration after ceasing operation 17 years ago. The attractive entrance to Hertford would become an eyesore. Local residents have concerns about safety from dust and road traffic. The opportunity for schoolchildren to learn and play outdoors would be severely compromised, especially for allergy sufferers. Allowing this development would create stress and worry. The restoration would not leave the area with improved quality as the landscape would be irreversibly changed.
158. Mark Lynch (local resident and chairman of the Bengoe Neighbourhood Area Plan Steering Group) ⁸³ There is local concern about noise and dust, but the true value of the area that would be ruined by this development should be highlighted. Bengoe field is a central feature of the north Hertford landscape.

⁸¹ ID89.

⁸² ID36.

⁸³ ID43.

It is a highly important amenity for many people. The route has been recognised as an Asset of Community Value by the district council. 635 people signed an e-petition asking for protection of rights of way and views. A recent survey for the BNAP rated the importance of protecting Bengoe field from development on a scale of 1-5. The mean response was 4.62 from 735 responses.

159. Should the quarry be permitted the natural rolling landform and openness would be lost forever. While the quarry was operational walkers would have to contend with dust, HGV traffic and industrial noise. The proposed restoration would leave the Byway lined with trees and perched on a rim of a deep, artificial crater with tree covered sides. This would be very different to the open, rolling, natural landscape that local people currently enjoy. The appellants' proposed landscape benefits, in the form of new planting and byways, totally miss the obvious point that the field is open. The hedges would interfere with views.
160. A new western loop byway would run largely behind a screen of trees. The public already use an informal route on this higher ground with some of the best views on the field. A new western route might be beneficial for the less able, but none of the users would experience the openness and views as they are today. Not many people would use the eastern loop running behind a hedge alongside the B158.
161. The HIA recommends the formation of a community liaison group as a means of mitigating the negative health impacts of the community reaction about the quarry, and to reassure the community about phasing and restoration, so as to avoid the scenario of a medium-to-long-term dormant, unrestored quarry, as has happened at both Waterford Heath and Rickneys. Given the history of these two quarries, the community are unlikely to have much faith that any extraction and restoration at Bengoe field would go to plan. It therefore seems reasonable that some additional mechanism of ensuring compliance with conditions was in place, possibly a bond in escrow.
162. Dr Bryan Lovell OBE CGeol (Senior Research Fellow in Earth Sciences University of Cambridge) ⁸⁴ Dr Lovell endorses the findings of Professor Brassington. The pumping station is located on the flank of the valley because that is where the chalk is most fractured and the flow of water is greatest. The enhanced fractures in the chalk mean that any pollution entering the groundwater in Bengoe field would travel rapidly to the boreholes. It is critical for safe quarrying to know the route that the water would follow, but at present there is no information about this.
163. The proposed residual protective layer of sand and gravel is based on the unlikely assumption that the upper surface of the chalk aquifer is smooth. Research in southern England has shown that the top-chalk surface is rough, and Dr Lovell is confident that the same applies at Bengoe. Peaks in the rough surface may result in unplanned exposure of the chalk during quarrying, as occurred at Rickneys Quarry in the early 1990s. There are also hollows, which in some cases will mark the surface expression of fissures penetrating deep into the chalk. Significant pollution would travel so rapidly

⁸⁴ ID32.

into the aquifer through the largest fissures that even the speediest response at the surface of the quarry would be ineffective.

164. The advice given by the EA and AW is geologically inadequate. Top chalk could be mapped to identify low spots that might indicate major fissures, but no survey has been carried out by the appellants. Assessment of the risk of pollution requires details about the size and orientation of fissures and fractures within the chalk aquifer. But there is little information to decide if quarrying here is even feasible. Quantified risks should be covered by explicit guarantees of financial and technical competence from the operator. There are none here.
165. The sand and gravel resources from Bengoe fields would yield, in each year of operations, a mere 0.1% of the UK onshore supply of aggregate. Whereas some 6 m litres per day of good quality water has been flowing from the Wadesmill PS since 1936. Boreholes would not be drilled in chalk at the edge of a working quarry to supply a town with vital water, so a quarry should not be put by Hertford's boreholes.
166. Peter Norman (Hertford Civic Society, which has 330 members) ⁸⁵ Neither of the 1.75 Mt scheme or the 1.25 Mt scheme is acceptable in policy terms. The proposals would not be extensions to Rickneys Quarry and would not be accessed via the existing access. There is insufficient proven need/demand to justify working the area, especially given the approval for the Furze Field site. The cumulative impacts of the appeal scheme together with a permitted RQE would be unacceptable. A new quarry should not be opened up before the adjacent previously worked areas have been fully restored. Quarries are often worked on a stop/start basis reflecting market conditions, leading to extended periods of operation, with operators seeking to modify permissions to prolong operations or restoration, resulting in long-term despoliation of land, which is something the MLP seeks to avoid.
167. The history of mining in the area over the past 50 years is shown on a map included at ID39. Hertford is ringed by past and present workings. Each one of which has changed the natural landscape forever, and when in operation resulted in lorry traffic, mud on roads, dust, and damage to hedges, verges and road surfaces. The Civic Society has argued for years that Hertford has already contributed more than its fair share of the County's supply of gravel. The eMLP no longer includes the appeal site or any other area close to Hertford as a Preferred Area. It can no longer be assumed that the reserves north of Bengoe are bound to be worked at some time in the future. The eMLP is at an early stage, but the evidence base which informed the choice of options is a material consideration.
168. John & Carmen Wiggett (local residents) ⁸⁶ There is concern about the loss of amenity value, especially the footpaths, and the views from the top of the field across to the Three Lakes and Westmill Farm. The footpath across the site is a regular running route. The finished land would be at a lower level and the views would be lost. Rerouting the path around high bunds would mean it was less likely to be used. The potential impact on the health of

⁸⁵ ID39.

⁸⁶ ID33.

children, especially those with asthma, is of concern as the HIA acknowledges that asthma sufferers may experience some exacerbation of their condition.

169. Cllr Steve Cousins (Hertford Town and District Council, Chair of Community Services, which is responsible for allotments) ⁸⁷ The allotments near the site are well used by people of all ages. The long term effects of dust would be catastrophic. The need for extraction sites outside those proposed by HCC is questioned. The scheme would be inappropriate in the Green Belt, and would result in a major and irreversible loss of amenity space. Both applications have been rejected unanimously by HCC.
170. The B158 is heavily used, particularly at rush hour and school times. There is local concern about noise, dust and safety from lorries and mechanical plant associated with extraction. The B158 drops out of Bengoe to an 'S' bend, then winds to a blind bend near to the existing Rickneys Quarry access, and on up to a blind summit at Chapmore End. The increase in traffic would severely compromise road safety.
171. Terry Mansfield (Chapmore End Association) ⁸⁸ Chapmore End comprises about 30 houses, and the local residents have been living with the problem of gravel for the past 30 years, when a mega-pit was proposed. Rickneys Quarry could be heard when it was operational, with the loading of gravel sounding like thunder. Conveyor belts made a continuous sound. The noise was horrific and carried on the wind. Residents were told that in 20 years the Rickneys gravel pit would be so beautiful, but it is now a moonscape. The promises have not been fulfilled. The proposal would put at risk the water supply for the area, when AW has indicated an increase in demand for future housing. The appellants have not talked to the local community.
172. Dr Mike Howarth (local resident) ⁸⁹ A particular concern is the time lag between factual evidence of health issues being acted upon in practice. He referred to asbestos in Rochdale. Silicosis could be the new asbestos dust. The HSE Guidelines say that exposure to RCS over a long period can cause hardening of the lung tissue. Airborne particles are of concern. These are a risk. The very idea of Hertford's urban quarry by a school should be stopped before the silica trouble really starts.
173. The proposed restoration would not be an improvement in landscape and conservation terms. The deep holes left behind would be avoided by wildlife because of easy observation by predators. The holes would be too deep to return to farmland and slopes may be unstable and so retaining topsoil would be difficult. Furthermore, all open views would be destroyed.
174. John Barnes (local resident) ⁹⁰ It is not fair and reasonable to continue opening new pits when so many old pits have not been restored. Promises given when planning permission was granted have not been fulfilled. For example, at Panshanger a country park was proposed 30 years ago, but the first part only appeared 5 years ago, and no new paths have appeared on the

⁸⁷ ID46.

⁸⁸ ID47.

⁸⁹ ID40.

⁹⁰ ID41.

definitive map of PRow. At Tyttenhanger, paths were left obstructed after mineral extraction. This was discussed with the operators in 1993, but no new paths were created. Legal action has also been taken at Ware Park to keep paths open. It seems that when permission is granted there is no compulsion on the operators to restore the area and its rights of way. HCC is overwhelmed by the work to restore the land ruined by gravel pits, and should be given the chance to catch up with the backlog before any new pits are opened.

175. Alan Burgess (local resident) ⁹¹ The noise from heavy machinery at Rickneys Quarry when it was operational was particularly noticeable when the wind was from the north, but it could also be heard on calm days. The machinery was 1.2 miles away and some of it was below ground level. This indicates that noise from the proposed quarry could be a major problem for those nearby, including the school, and a significant nuisance for the wider area.
176. Kelly Martin (local resident) There is concern about the proximity of the school and local housing. The quarry would be a danger for residents 24 hours a day 7 days a week, and for the rest of their lives. Children would not be able play outside or use the playing field. Common sense should see past the financial interests of the appellants.
177. Dan Griffiths (local resident) HCC has not objected on health grounds, but the risk is for the future – there may be none or it may be severe. The risk is unacceptable and avoidable. Local children should not be guinea pigs in a study. The landowners are a trust, it is not known who they are, and their approach to this proposal feels like bullying.
178. Lee Nicholson (local resident) ⁹² The appellants' HIA, which was submitted at a late stage in the appeal process, says that the air quality effects of the proposal would not be significant to public health. But that would not be so for the vulnerable in the community, such as those with COPD. The British Lung Foundation states that lung disease is one of the biggest killers in the UK, with rates the same as those that existed 10 years ago, whereas heart disease has decreased by 15%. Asthma deaths in the UK are the worst in Europe. Lung disease in children is increasing. The knowledge does not yet exist to say that there is no risk. Mr Nicholson would not use the path across the site while excavation was taking place because the risk would be too much.
179. Alexandra Daar (local resident and chair of East Herts Green Party) ⁹³ The whole walk across this field to Chapmore End is full of interest and charm from the rolling hills and lonely oak, to St John's Wood, and creates a lovely sense of space. The Bengo Beavers complete this walk as one of their last events of summer term. All sections of the population need easy ways to exercise. There is no good reason to use this local lung for a quarry when it is so close to children in school and to people's homes. The community needs this space right on their doorstep in all its current loveliness, not a noisy, dusty eyesore.

⁹¹ ID38.

⁹² ID48.

⁹³ ID42.

180. Ben Penrose (Chairman Molewood Residents' Association) ⁹⁴ The association covers some 700 households. There is concern about the impacts to the health and wellbeing of residents by reason of dust, noise, dirt and loss of valuable green space. Parents are already worried about whether Bengoe School will be right for their children. Older residents remember the noise disturbance from Waterford Quarry when it was operational. The proposal is already damaging health and wellbeing, and threatening to cause further impacts on the quality of life of residents. Traffic impacts would put pressure on the road network. There is also concern about the absence of any proactive consultation with an active and visible residents' association during the planning process.
181. Graham Nickson (local resident) Planning permission should not be granted now because; 1. health impact because of RCS and COPD, 2. the precautionary principle should apply regarding possible contamination of the water supply, 3. the effects of HGVs on am and pm peaks in traffic especially in relation to the school, 4. the effects on the Green Belt adjacent to a nature park with trees close by, 5. there is no need given the supply of sand and gravel available at Hatfield.
182. Veronica Fraser (health walks leader) ⁹⁵ The field is used for health walks, sometimes twice per week. The benefits of green spaces are important for the health of the community. People travel to the fields from a wide area, and its importance as a much loved area is clear from the emerging BNAP. The quarry would result in the loss of a favourite walk. There would be no beneficial changes as a result of the quarry. Previous quarrying has left a blot on the landscape.
183. Cllr Margaret Eames-Peterson (Hertfordshire County Council and a consultant in public health intelligence) ⁹⁶ A HIA was requested in 2017, but was not available until Saturday 21 April 2018. There was little time for consideration and consultation prior to HCC's committee meeting on 26 April about the 1.25 Mt scheme application. Air quality issues were raised at the meeting. Air quality could be monitored outside the school, but a desk-based HIA can under-estimate harmful health effects. The HIA states that predicted levels of PM₁₀ and NO₂ would be below WHO thresholds, but not so for PM_{2.5}, which is more dangerous to children's lungs.
184. At paragraph 9.2.10 the HIA states that the 'without project' scenario already exceeds the WHO guide value and that the predicted increase of up to 0.33 µg/m³ suggests that further mitigation is not warranted. But this is not protecting the health of the population. The true effect would depend on wind speed and direction, and so is less predictable, and margins for the peaks of PM_{2.5} and NO₂ should also be estimated. There is an emerging health policy in the eMLP. However, the framework for HIAs for quarries is not yet published. But other hazards to health, including noise, the mental health effects of noise, and the effect of reduced access to green space for physical activity on the mental health of nearby residents should be considered.

⁹⁴ ID58.

⁹⁵ ID59.

⁹⁶ ID60.

185. Cllr Mari Stevenson (East Herts District Council) ⁹⁷ The Council has developed a plan which acknowledges the need for a small housing development in Bengoe. But it also has a commitment to promote health and wellbeing for its residents. Accessible green space is an important part of that remit. Bengoe field is an important green space asset. The quarry should also be rejected because of an unacceptable increase in an already heavy traffic flow on the B158. HERT4 could be seen as a lower priority in relation to the larger proposed developments in Sele and Mead Lane.
186. Steve Halsey (local resident) ⁹⁸ Defra and the EU have set a legally enforceable limit on PM₁₀ of 40 µg/m³ averaged across a full year. But this is of concern because of published articles that state that there is no threshold below which health effects do not occur, that a four-year study found an increase of 4.3% in childhood asthma admissions for every 10 µg/m³ increase in PM₁₀, and another found a 2.5% increase in the level of school absenteeism for every 10 µg/m³ increase in PM₁₀. In addition, a 2013 WHO report stated that all-cause daily mortality is estimated to increase by 0.2%-0.6% per 10 µg/m³ of PM₁₀. A 2014 paper concerning proximity to a cement plant in Italy found epidemiological evidence of the acute health effects of PM₁₀ in areas with annual concentrations that are lower than the legal EU limit of 40 µg/m³, which supported the need to establish more restrictive legislative standards.
187. The appellants modelling predicted 1.25 µg/m³ of PM₁₀ for the closest receptor to the proposed quarry. This figure seems to be based on an average across the 20 months that Phase 1 would be in operation, and not the 12 months used by Defra and the EU. It cannot, therefore, be used for comparison with the EU limit of 40 µg/m³. The graph in the 2016 IAQM guidance shows a large number of quarries result in between 5-10 µg/m³ of PM₁₀ and over a range of 0-300 m. Dust emissions from the proposed quarry may not be entirely safe for those attending the school and living close by.
188. Laura Wyer (local resident) ⁹⁹ The field and footpath are a massively important local amenity. Children walk *en-masse* to school during the Bengoe walk to school week, and on other occasions when the weather is good. The path is an essential link between two communities. The proposal for a path along the B158 is ridiculous, as vehicles sometimes leave the road, and in winter runoff from fields results in ice. A Facebook Opinion Poll started on 5 May found that 96% of the 194 respondents said that they would stop using the footpath. The view is stunning from the existing footpath. The scheme would result in the ugly remains of a quarry as a reminder to residents of the devastation that it brought to Bengoe.
189. Parents now have mixed emotions about accepting a place at the school. The potential for damage to people's health and wellbeing has resulted in over two years of anxiety. The WHO states that health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity. The HIA refers to mitigation measures, monitoring and

⁹⁷ ID62.

⁹⁸ ID63.

⁹⁹ ID64.

procedures. But residents cannot be sure that these would be correctly followed. The author of the HIA is asking the community to put their faith in the appellants, when they have failed to engage with the community over the past two years.

190. Simon Pickering (local resident) ¹⁰⁰ A large part of the past two years has been dominated by the exhausting business of opposing the proposed quarry. The scheme would affect an area of beautiful countryside. Other quarries in Hertfordshire are evident from the tell-tale signs of dust on the road and in the hedgerows, but they are hidden from view, situated away from residences. That would not be so for a quarry at Bengoe field, which is the 'back yard' for this community, and far too close and precious to turn into a gravel pit. The most attractive part of the site is the higher slopes up from the central path towards St John's Wood. It is the part most under threat from the proposal, and the part proposed by HCC to be removed from the preferred areas in the eMLP. Not surprisingly, people do not choose to walk on the lower slopes next to the B158.

191. The Rickneys site is an ugly moonscape, which prior to the Inspector's recent site visit contained decaying and dangerous industrial plant. Local residents are not interested in future benefits and enhancements to the landscape from the proposed excavation at Bengoe because, in the unlikely event that these did materialise, it would be too far into the future to be of any benefit to them. After the experience with Rickneys Quarry local residents do not believe the appellants in this regard.

192. Nadine Cleland (local resident) ¹⁰¹ There has been a lack of good quality public engagement by the appellants. Public participation and consultation are required and good practice. HCC has published its Statement of Community Involvement. Neither of the applications has been accompanied by a dedicated Statement of Community consultation, setting out the public engagement strategy. Reference is made to a drop-in event held on Saturday 28 November 2015 at the Scout Hut. This was advertised in the Parish Magazine, which only prints 350 copies for over 3,000 households in this and the surrounding wards. No further attempt was made to engage with the wider community or SBQ.

193. The HIA refers to environmental change and social change associated with the strong local reaction to the development, e.g. affecting understanding of risks, local pride, community influence and community identity. It adds that both may affect physical health and mental wellbeing, and notes that the extent to which a significant health effect may occur would depend on the future level of information sharing and trust establishment. The HIA also refers to the need for certainty about the timing of Phase 1 and restoration.

194. But the HIA was only submitted a week before the committee date for the 1.25 Mt scheme application, and these recommendations have yet to be taken on board by the appellants. The updated ES September 2017 states that the revised proposals are in accordance with the development plan for

¹⁰⁰ ID65. This includes an oblique aerial photograph showing part of the site in relation to the urban area of Hertford.

¹⁰¹ ID66.

the area, can be carried out without any unacceptable impacts, are in line with Government policy and should be supported.¹⁰² This is simply incorrect when a number of significant risks remain. To claim that none of the local concerns are justified shows very little, if any, consideration for the community. The appellants have so far failed to fully inform the public, have an open and transparent dialogue, and address all relevant concerns, contrary to the *Framework*, which requires that development should ensure that there are no unacceptable adverse impacts on the natural and historic environment, human health, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality.

195. Russell Norris (Chapmore End Association) ¹⁰³ In addition to the technical evidence it is important that sufficient time has been allowed for objectors to formulate their objections without the goal posts being moved during the consultation period. There is a shortage of time for busy people to respond. The appellants have overwhelmed the community by submitting two applications in quick succession, submitting confusing documentation, producing a 90 page HIA three days before the committee meeting, and consultations/meetings have been arranged over three holiday periods. Furthermore, the date for the Public Inquiry has been changed twice.
196. Taken together, these are a strategy to make it as difficult as legally possible for objectors to make a case. This is designed to eclipse the appreciation of the many risks inherent in the proposals. The threats and fears of the community are well founded, because HCC would not have adequate resources to monitor the quarry, the decision would not be taken for the greater good, and this quarry might be one piece in a bigger jigsaw. The community has 30 years of unhappy past experience of the quarry industry.
197. Restoration to farmland would be constrained by the underlying aquifer. Past experience has shown that quarries that cannot be filled with water or turned into nature reserves, are used as refuse tips, or are just neglected.
198. Wheel cleaning plant is never entirely effective and other quarries have resulted in windscreen damage and mud on the road. Lorry movements would be likely to be concentrated at the start of the day rather than averaged over the whole day, and so would conflict with peak traffic flows. Quarry owners are not limited to using their own fleet of lorries and control of free-lance operators could be an issue. Cumulative effects with the re-opening of Rickneys quarry should be considered.
199. Heston Attwell (local resident) ¹⁰⁴ HCC should have objected on road safety grounds. It is dangerous to overtake on the B158 because of its topography and screening. Additional lorry movements, with mud, sand and gravel on the road, would at peak times lead to road accidents. Pedestrian safety at the junction of Byway 13 and Wadesmill Road is of concern. This is already dangerous and turning HGVs would make it worse. The farm track between Byway 1 and Byway 13 completes a circular walk through Bengo field, and

¹⁰² CD15.

¹⁰³ ID67.

¹⁰⁴ ID68.

provides a link to Chapmore End. The proposal would ruin this route and split communities.

200. The appellants refer to the need for the mineral, but their real need is to sell the HERT4 site for housing. The site has been left unquarried for years, when it should have been worked earlier in the plan period.

201. Apart from four hours in the Scout Hut two and a half years ago no one has engaged with SBQ or other parts of the community. This is unacceptable. The scheme is unacceptable because of the continuing damage to the mental and physical health of residents due to noise and RCS. It would risk contamination of local drinking water, have a negative impact on the school, and undermine local democracy. This is a beautiful place and the field would never look the same again. It would not be enhanced, as the restoration would leave a crater surrounded by finger-thick tree planting. The open views either side of the footpath would be lost, and people would stop using it. If the quarry goes ahead children would be taken out of the school and families would move away from the area.

202. Amber Waight (local resident) ¹⁰⁵ Long term exposure to even modest increases in dust and PM₁₀ has been evidenced to have a negative impact on children with breathing difficulties. The IAQM states that dust impacts will occur mainly within 400 m of the operation. There is no safe level for PM_{2.5} silica particles, which are invisible. The potential mental health impact on children is also important. Children are worried about being in a school so close to a risk, and potentially surrounded by dust monitors. Unnecessary stress and anxiety should not be added to children at a vulnerable age. Ecotherapy is being used to treat mental health. This includes taking part in physical activities in green spaces of beauty and woodland. Bengoe School has this on its doorstep. Children should not miss out on this opportunity because of the quarry.

203. Cllr Bob Deering (Hertford County Council, East Herts District Council and Hertford Town Council) There is widespread concern about this proposal across Hertford and outside the town, not just the immediate area. This is apparent from the number, and nature, of representation Cllr Deering has received. Given the use and amenity value of Bengoe fields many are concerned about any disruption. Dust from working the quarry would be coincident with the hours children were at school, therefore calculation of effects based on 24 hour averages are dubious and of great and genuine concern for local residents.

204. Even with professional drivers HGVs on narrow lanes result in damage to kerbs, verges and hedgerows. There is concern that the number of truck movements has been played down by the appellants. There is no overlap of this proposal with residential development of HERT4. They are separate matters and each should be dealt with on its own merits. HERT4 should not predetermine the application for a quarry.

¹⁰⁵ ID69.

205. Nigel Braggins (local resident) ¹⁰⁶ Children using Bengoe field for healthy activities is a priceless benefit. Aside from the health and amenity benefits provided by the rolling open landscape, the site is a water catchment area. Such an essential resource should not be put at risk. Children play football at the After School Club everyday on the school playing field.
206. Rickneys Quarry ceased extraction in 2001. Seventeen years later it is an unrestored, scarred and polluted wasteland. The track record for restoration after quarrying is abysmal. The appellants have not convinced local residents about applying high standards and best practice if permission were to be granted for a quarry at Bengoe fields.
207. There is an objection in principle to the proposal. HCC not only refused the two applications, but was so concerned that it declared its intention to remove this entire area from the Preferred Area for minerals working.
208. The HIA highlights the need for trust, but after two years it is still not known who the applicant is, there is a total lack of transparency, no information sharing and no clear chain of accountability.
209. Dr Laura Horsfall (local resident and Senior Epidemiologist University College London) ¹⁰⁷ During the time children spend at school (from 2 to 11 years) their lungs will double in size. This is a critical window of respiratory development, where even small environmental insults, such as chest infections, can have significant short and long-term impacts on health and wellbeing. Dust and particulate matter, including carcinogenic silica would increase as a result of the quarry and there are no known safe levels of these pollutants. The HIA refers to sufficient evidence to establish the potential for the activities to affect health, but the IAQM states that there is little peer-reviewed published literature on the impacts of dust from UK mineral sites. The HIA includes no studies that can guarantee the safety of mineral extraction on the immature lungs of children or vulnerable people. Almost all the data on silicosis is from young physically fit male workers and cannot be generalised.
210. The appellants' modelling suggests that the quarry would be unlikely to breach UK regulatory levels of pollutants. But these rely on meteorological data and point estimates for pollution. There is nothing to show the predictive accuracy of models using real data, which is common practice in evidence-based medicine. The appellants concede that during hot spells dust levels could contribute to health risks in vulnerable groups. One in six children are diagnosed with asthma, others suffer from recurrent chest infections. It is highly plausible that exposure to small average increases or repeated sudden changes in dust/pollution due to unpredictable meteorological events over the course of eight years would negatively impact these children. The appeal site is just one street from the urban area, whereas the IAQM states that air quality objectives are rarely exceeded close to most mineral sites as they are typically located in rural areas.

¹⁰⁶ ID74. This includes photographs of Rickneys Quarry.

¹⁰⁷ ID70.

211. The HIA notes that PM_{2.5} levels already breach WHO guide levels. Both the WHO and Scotland have recently halved their PM₁₀ target. Scotland has reduced the permitted number of breaches to 7, as opposed to 35 in the rest of the UK. The quarry would not be permitted this close to an urban community in Scotland. As a high-income democratic country with a political emphasis on the big society, we must not prioritise short-term private profit over the risk to the public health of our most vulnerable members of society.
212. Mark Prisk MP Member of Parliament for Hertford and Stortford highlighted matters raised in his written submissions, which are summarised later in this report. He emphasised three points at the Inquiry. The proposal is strongly opposed because of its likely effects on air quality, the local roads and the natural environment. The site is adjacent to Bengoe Primary School and family housing, and so the scheme is a significant threat. The risk to the local water supply cannot be dismissed. Secondly, the footpaths across the open space of Bengoe fields provide a meeting place for local residents on the top of a hill separate from the town. The loss of these assets to an industrial quarry would be contrary to public health policy. Thirdly, there is no need for the sand and gravel. The landbank exceeds the actual need.

The case for the appellants

The following summary of the appellants' case broadly follows their closing submissions to the Inquiry, with additional reference where necessary to the evidence adduced.¹⁰⁸

Introduction

213. Some of the operations previously undertaken by RJD Ltd have been taken on by Ingrebourne Valley Ltd. However, RJD Ltd continues to trade and is not a dormant company. Both the appellants named in the appeal documents have legal capacity to lodge an appeal.¹⁰⁹
214. Groundwater and air quality health considerations are not an issue for HCC.¹¹⁰ However, the Rule 6 parties raise concerns about the implications of the development on the hydrology of the area, and about potential health impacts as a result of changes to air quality. These concerns are not shared by the statutory experts, the EA and the Director of Public Health.
215. Sand and gravel are minerals of local and national importance, necessary to meet society's needs, to support sustainable economic growth and to support our quality of life. Even where there is a 7 year landbank, the winning and working of those minerals attracts great weight.

Landscape ¹¹¹

216. HCC concerns are solely about the landscape impacts of Phase 4 and the stockpiling area during the operational period and the restoration landform. The only GLVIA3-complaint landscape and visual impact assessment before

¹⁰⁸ ID111.

¹⁰⁹ ID77 paragraphs 30 and 31.

¹¹⁰ SoCG3.

¹¹¹ APP8.

the Inquiry is that prepared by the appellants.¹¹² The appeal site is not part of a designated landscape, and the landscape experts concur that it is not a 'valued landscape' within the meaning of paragraph 170 of the *Framework*.

- 217.HCC accepts that mineral extraction would be acceptable not just on the plateau, but also on the undulating sloping valley sides that drop down from the plateau in the central and southern sections of the appeal site (Phase 1 and Phase 2). So the north-eastern part of the site should also be acceptable. The stockpile area would be located in the lowest part of the site, and largely screened by the vegetation along Wadesmill Road. New hedgerow and tree planting along the Byway and Wadesmill Road would further screen the area.
- 218.During operations, the landscape and visual effects would be substantial/moderate adverse, but that would be likely for all mineral sites. Following restoration, the landform proposed in Phase 4 would appear as a gentle undulation in the landscape, not as a contrived "distinct linear mound" along the eastern edge of the Phase 4 area, as claimed by HCC.¹¹³ The appeal site forms part of LCA '69 Stoney Hills', which is characterised by gently undulating land. It is clear from the cross-sections prepared by both HCC and the appellants that it would not read as an alien feature in the landscape, but would sit comfortably within it.¹¹⁴
- 219.HCC has failed to have regard to the significant landscape benefits that would be secured through the proposed restoration scheme. The quality of the landscape in the Stoney Hills LCA is poor, and the strategy is to "improve and restore". The restoration proposals deliver almost all of the measures identified in the LCA. There is no evidence to indicate that those benefits would be secured absent the proposed mineral development. The long-term landscape benefits should be accorded significant weight in the planning balance. They include: The restoration of historic hedgerows, native woodland edge planting with rides and glades, species-rich agricultural buffer strips along field margins, and new wetland areas.
- 220.New planting would be phased, with much of it implemented at an early stage of the operational period. The landscape management plan would set out an initial 3 to 5 year establishment period for new planting, with a medium-term strategy of mitigation, monitoring and longer-term management. As the proposal is to return the majority of the land to agriculture the need for a detailed agricultural classification was scoped out.¹¹⁵

¹¹² APP8. [Inspector's note: GLVIA3 at paragraph 5.51 on duration states that medium term is 5 to 10 years and long term 10 to 25 years, but adds that there is no fixed rule.]

¹¹³ HCC3 paragraph 5.29.

¹¹⁴ ID29.

¹¹⁵ Reply dated 26 April 2018 to Inspector's question.

*Green Belt*¹¹⁶

221. There is a “threshold question” to determine whether development is appropriate or inappropriate in the Green Belt.¹¹⁷ Given that mineral extraction is capable of being appropriate, the decision-maker must start from the premise that there is nothing inherent in that type of development that would necessarily compromise the openness or purposes of the Green Belt. Were it otherwise, the proviso in paragraph 146 of the *Framework* would always negate the potential appropriateness of mineral extraction.¹¹⁸
222. The court found in *Europa Oil* that “structures, engineering works, and associated buildings...generally encountered in mineral extraction” or “the common structural paraphernalia for mineral extractions cannot cause the development to be inappropriate”. The elements of development to which HCC objects here are all features that are generally encountered in mineral extraction. They are no more than is necessary to facilitate the extraction of minerals from the site. Furthermore, they are all temporary in duration and the openness of the Green Belt would be restored following the operation, up to 10 years in the 1.75 Mt scheme and up to 8 years in the 1.25 Mt scheme. The temporary nature of development and the restoration of a site to beneficial Green Belt use may well be important to the judgement of whether the development was appropriate or otherwise.
223. Green Belt policy is essentially a long-term policy. A key feature of the Green Belt is its permanence. In fracking cases it has been accepted that with mineral exploration, some degree of operational development has to be expected. Where all of the proposed elements of development would be normal, appropriate to the type of operation and reversible, there will be no harm to openness and the development will be appropriate.¹¹⁹ The Secretary of State is required to have regard to his own decisions.¹²⁰ Consistency is a general axiom of rational behaviour.¹²¹ It would be quite wrong and set a dangerous precedent if the Secretary of State took a different approach in this case from that which he has consistently taken where the mineral under consideration is shale gas.
224. In this case there would be no permanent harm as a result of the proposed development – the long-term openness of the Green Belt would be maintained. Given that the works and structures are no more than those generally associated with mineral development; are proportionate in size and temporary in duration, even those parts outside of PA2 would not constitute inappropriate development in the Green Belt.

¹¹⁶ APP10.

¹¹⁷ *R (Lee Valley Regional Park Authority) v Epping Forest DC* [2016] EWCA Civ 404 per Lindblom LJ at [26].

¹¹⁸ *Europa Oil and Gas Ltd v SSCLG* [2013] EWHC 2643 (Admin) per Ouseley J at [64], as endorsed by the Court of Appeal in [2014] EWCA Civ 825 at [41]

¹¹⁹ See, for example, appeal decision APP/U1050/W/17/3190830 for a temporary permission for 5 years for a wellhead assembly; comprising access tracks, bunds and fences, site cabins of 5.5m high and a drill rig of 60m high near the top of a ridge of sloping ground that would be visible from some 10 km from the site.

¹²⁰ *DLA Delivery Ltd v Baroness Cumberledge of Newick* [2018] EWCA Civ 1305.

¹²¹ *Matadeen v Pointu* [1999] 1 AC 98.

225. Even if they did, any harm to openness or to Green Belt purposes is justified by VSC sufficient to outweigh any temporary harm to the Green Belt and any other harm. These include; the benefit of mineral extraction; the temporary nature of the works; the long-term landscape and ecological benefits; permanent enhancements to the PROW network; and the benefits of extracting the minerals to allow the delivery of houses on the northern part of the HERT4 site.
226. The 1.25 Mt scheme falls, with the exception of its temporary access road, entirely within PA2. If the temporary access road was removed following the extraction of minerals, there can be no landscape or visual reason for refusal. The openness of the Green Belt would be restored after 7 years. The access road would be flush to the ground; would occupy a limited spatial area and would be only likely to be visible from the Byway and in fleeting views from vehicles on Wadesmill Road where there is no pavement or provision for pedestrians. The temporary access road would not result in landscape harm sufficient to merit refusing permission, and would not render the scheme inappropriate in the Green Belt. Even if it did, the importance of extracting sand and gravel, and the need to win and work minerals where they lie, would comfortably satisfy the VSC test for inappropriate development in the Green Belt.

Noise ¹²²

227. Some noisy short-term activities, which may otherwise be regarded as unacceptable, are unavoidable to facilitate mineral extraction. Noise levels below the *Guidance* limits should not be treated as unacceptable or as weighing against a proposed mineral development.
228. The upper working limit of 55 dB(A) would not be exceeded, excepting for work on bunds, at any noise sensitive location at any time during operations, even if the appeal site was worked simultaneously with Rickneys Quarry. However, the noise experts disagree about possible exceedances of the normal working noise limit level of 10 dB above background.
229. The normal working limit at The Orchard should be 48 dB(A). HCC considers that this level would be exceeded by just 1.7 dB(A) under the 1.75 Mt scheme but would not be exceeded at all in the 1.25 Mt scheme. The appellants are satisfied that the noise produced by the operation of the site would not exceed that level in either scheme and is content to accept a noise limit of 48 dB(A) at this location.
230. At Sacombe Road the parties disagree as to the background noise level and therefore the appropriate normal working limit. HCC considers the limit should be set at 48 dB(A); the appellants consider that it should be set at 52 dB(A). If the appeal site and Rickneys Quarry operated simultaneously, the combined noise levels at Sacombe Road could reach 50 dB(A). Notwithstanding its proposed normal working limit of 52 dB(A), the appellants are confident that the site could be operated without exceeding 50 dB(A) and are content to accept a condition to that effect. It would place an unreasonable burden on the operator not to be able to extract minerals in the

¹²² APP2.

event that permission is granted for Rickneys Quarry and it is worked for minerals.

231. With a limit on noise of 48 dB(A) at The Orchard and 50 dB(A) at Sacombe Road, there can be no reason to refuse the application on noise grounds. Any breach of the conditions would be picked up in regular monitoring and subject to enforcement. Noise conditions are not impossible to enforce, if that were so there would be no point in ever imposing them. In reality they are imposed on every mineral operator and are recognised by the Secretary of State as serving a worthwhile purpose.

232. The Secretary of State can be satisfied that it is possible for those limits to be met, based on numerous noise levels measured for the type of plant proposed for this site, operating in comparable sand and gravel quarries. Reliance on manufacturer's specifications, which set out the maximum permitted SPLs from static tests on full power under EC Directive 2000/14/EC, is not appropriate. The plant would not operate to its maximum potential with its engine revving at full capacity on site, and so BS 5228 explains that obtaining actual noise measurements of the proposed plant is likely to provide the most accurate prediction of noise levels.

Public Rights of Way

233. In the 1.75 Mt scheme the Byway would be crossed by the access road for a temporary period of 10 years, and for a period of 2 to 3 years temporarily diverted around Phase 4. This would increase walking time by some 2.5 to 3 minutes across the site. The Byway would be crossed by the access road for a temporary period of 7 years in the 1.25 Mt scheme. But the crossings could be made safe.

234. HCC did not recognise any benefits to the PRow network as a result of the proposed development. The creation of a new, permanent bridleway joining Byway 1 to Byway 13 would be an enhancement to the PRow network and would facilitate a circular route. The creation of a lawful PRow to replace an unlawfully used route would be beneficial. So too, would be the creation of two permissive footpaths for the duration of the works, adjacent to Wadesmill Road and Sacombe Road. Upgrading footpath 14 to a bridleway would be an enhancement of the network.

*Hydrology*¹²³

235. An Environmental Permit is not believed to be necessary as the site would be excavated dry without need to dewater or discharge water, and water for wheel washing etc. would be from a private borehole extracting less than 20 m³ per day, which would be allowed without the need for a permit.¹²⁴ The EA is the statutory consultee with responsibility for the protection of groundwater, and does not object subject to the imposition of a number of stringent conditions. The EA was aware of Dr Lovell's concerns as to the roughness of the surface of the chalk aquifer. The view of statutory consultees should be given "great" or "considerable" weight in planning

¹²³ APP1 and APP4.

¹²⁴ Reply dated 26 April 2018 to Inspector's question.

decisions: a departure from those views requires “cogent and compelling reasons”, which are absent in this case.¹²⁵

236. The aquifer is vulnerable to contamination due to the presence of the fracture network, which permits very rapid flows. Once contamination enters the chalk matrix it is difficult to remove.¹²⁶ However, the risk of hydrocarbon pollution can effectively be addressed through the imposition of prescriptive mitigation measures to deal with any spillage on site, requiring the affected sand and gravel to be excavated following a spill; stored in a safe location and then removed from the site. The risk of turbidity is of less concern. Both could be satisfactorily addressed, such that even on a precautionary basis, the development can safely be allowed to proceed. As the level of standing groundwater is below the base of the sand and gravel, the trees in St John’s Wood and on-site are dependent on rainwater, and no adverse impact is indicated by the proposed mineral extraction.¹²⁷

237. AW is the operator of the Wadesmill PS and the body with most to lose from any pollution of the aquifer. It has past experience of a pollution event from a chemical site, and so is likely to be particularly wary of pollution risk, but does not object to the proposed development. It considers the appellants’ proposal to leave up to 5 m, 3 m and 1 m of undisturbed material on top of the chalk to be more-than-adequate protection, and accepted much less at Rickneys Quarry, which is also in a SPZ1.

238. There is no evidence of a mineral site ever having polluted a groundwater source. Rickneys Quarry operated without incident and there is no reason to believe that mineral extraction in the appeal site, subject to the EA’s conditions, would pose any unacceptable risk to groundwater.

Air quality and health ¹²⁸

239. The Director of Public Health agrees that the findings of the HIA are reasonable and that the development would not give rise to any unacceptable health impacts.

240. The HIA proposed, after its conclusions as to likely effects, some recommendations to enhance the position further. But those matters do not affect the conclusions and are not necessary to render the development acceptable. SoCG3 makes it clear that the difference between the proposed separation distances in the two schemes would have no bearing on the likely health impacts of the development.

241. Limit values for PM₁₀ are set in international and national law at an annual average of 40 µg/m³. The *Framework* requires planning decisions to sustain and contribute towards compliance with relevant limit values. There is no risk that those limits would be exceeded as a result of this development. At the worst affected receptor, concentrations of PM₁₀ would be below 19 µg/m³: less than half of the limit values. The vast majority of that PM₁₀ is already present

¹²⁵ *Shadwell Estates Ltd v Breckland DC* [2013] Env.L.R D2 at [72].

¹²⁶ APP1 paragraph 3.13.

¹²⁷ APP9 paragraph 3.2.3.

¹²⁸ APP3, APP6 and APP11.

in background levels. At the worst affected receptor, the quarry activities would contribute just 2.20 µg/m³ of PM₁₀ to the annual mean. Changes of this magnitude are 'negligible'.¹²⁹ For the 1.75 Mt scheme all air quality impacts at sensitive receptors would be negligible, with the exception of one slight impact.¹³⁰ For the 1.25 Mt scheme all impacts would be negligible.

242. Air quality impact will often be used as a proxy for assessing effects on health.¹³¹ While it is never possible to demonstrate unequivocally that a development would give rise to no adverse health effects, a negligible air quality impact is likely to equate to a negligible health effect. The HIA concludes that the health impacts on the population in the vicinity of the site would be negligible. During certain weather conditions very short-term elevated air pollution concentrations may pose an increased health risk for particularly vulnerable groups, but given the very minor increase in PM as a result of the development, this would not have a significant effect.

243. The HIA is informed by the findings of the Redmore air quality assessment, which relies on the well-recognised ADMS model. The emission factors selected are taken from the EMEP/EEA air pollutant emission inventory guidebook, which is technical guidance used to prepare national emission inventories. If anything, they are likely to overestimate impacts because they include dust emissions from a variety of mineral sources which generate more dust than the moister sand and gravel that would be excavated from the appeal site.¹³² Any change in PM_{2.5} and PM₁₀ concentrations would be expected to be exceedingly small and would only be experienced by a relatively small number of people. As such the health risk would be negligible.¹³³

244. There are no material risks associated with RCS as a result of this development. RCS is a component of PM₁₀. Increases in PM₁₀ concentrations would be exceedingly small and increases of RCS would be even smaller. The Stacey et al paper relied upon by SBQ reveals that for sand extraction sites RCS comprises some 2.6% of PM₁₀ concentrations. That means that at worst this development would contribute 0.06 µg/m³ of RCS and that together with background levels, there would be a maximum RCS concentration of 0.49 µg/m³. The US Environmental Protection Agency uses a benchmark of 3 µg/m³ of RCS as a level at which there is little or no risk to the wider populous. The level around the appeal site would be less than 20% of that threshold. In those circumstances there is no unacceptable risk posed by RCS as a result of the proposed development.

¹²⁹ CD35.2 at p.25, table 6.3.

¹³⁰ Redmore Air Quality Assessment, April 2018, table 53 (p78-80) and table 55 (p84-86).

¹³¹ CD35.2 para 7.10 page 30.

¹³² CD35.1 Table A2-6 on page 36, which reveals that many of the minerals sites emit greater PM₁₀ levels than sand and gravel sites, which are shown in the table as producing close to zero emissions of PM₁₀.

¹³³ HCC5 Appendix 3.

Highway safety ¹³⁴

245. The Highway Authority does not object to either scheme on highway safety or capacity grounds. There is no reason for refusal relating to highway safety. The Transport Assessment submitted with the planning applications includes detailed analysis of road safety and it did not reveal any cause for concern.

Biodiversity ¹³⁵

246. There are no objections from statutory authorities or consultees on ecological grounds. The proposal would result in some minor temporary impacts on the foraging activity of badgers, but any temporary harm would be more than compensated for by the proposed ecological enhancements resulting in a net biodiversity gain.

247. Ecological benefits would include; new and reinforced hedgerows and woodland habitats, hibernacula features and log/brush piles, bat and owl boxes in retained trees, new wetland areas, and small-scale fields bounded by new hedgerows with species-rich buffer strips and woodland planting. The new habitats would be subject to an intensive three year period of establishment maintenance, followed by a regime of routine habitat maintenance for 3 to 10 years, and then longer-term conservation maintenance secured by way of a landscape and nature conservation management plan.

248. There is no reason to believe that these ecological benefits would be delivered by some other means, without the prior extraction of the minerals. This scheme provides an opportunity to secure long-term ecological benefits which accord with the published strategy for the LCA. This is a consideration that weighs in favour of the proposal in the planning balance.

Need ¹³⁶

249. If the Government's growth agenda is to be met and the housing crisis is to be resolved, a steady and adequate supply of aggregates is essential. At December 2017 the aggregate landbank in Hertfordshire was 7.5 years. Since that date, one new planning permission has been granted at Furze Field, which equates to just 3.88 months of additional supply. The fact that the LAA shows 7.5 years of supply does not mean that the actual landbank position can be ignored for the rest of the year.

250. With an annual apportionment of 1.39 Mt per year used to calculate the landbank throughout the year the landbank in May 2018 was 7.1 years. At the end of October 2018 the landbank sits at 7.1 years. Absent any further grants of permission, by the time the next LAA is prepared in December 2018 the landbank will be below 6.85 years. If landbanks fall below 7 years at any time, there will be an urgent need for aggregates which cannot be ignored if Government policy is to be given effect.

¹³⁴ APP5.

¹³⁵ APP9.

¹³⁶ APP10.

251. The *Framework* only requires the update of LAAs annually, but the obligation to plan for a steady and adequate supply of aggregates does not end with the preparation of a LAA. In order to maintain a steady and adequate supply of aggregates, landbanks should maintain at least 7 years for sand and gravel or longer, having regard to the productive capacity of permitted sites. In Hertfordshire productive capacity is dwindling as a number of quarries close.¹³⁷

252. HCC claims that the landbank is likely to increase with the grant of permission for the BAE Aerodrome site, but there can be no guarantee. The BAE site is in the Green Belt, would adversely affect PRoW, would result in landscape and visual harm over a 30 year period, and falls to some degree outside the Preferred Area.

253. The appeal proposal provides a concrete opportunity to increase Hertfordshire's perilously low mineral supply and provide the aggregates that are urgently needed. That is a benefit to which very great weight should be given.

Alternatives

254. HCC's case focused not on the alleged harm caused by the scheme, but on comparing the appeal proposal with a theoretical scheme involving the joint working of Rickneys Quarry and the appeal site. That scheme is not before the Secretary of State: indeed it does not exist as a credible alternative and it is not a matter that should carry any weight against the appeal scheme.

255. It is only in exceptional circumstances that an alternative proposal will be relevant. The court has held that consideration of alternative sites would only be relevant to a planning application in exceptional circumstances and that generally; "such circumstances will particularly arise where the proposed development, though desirable in itself, involves on the site proposed such conspicuous adverse effects that the possibility of an alternative site lacking such drawbacks necessarily itself becomes...a relevant planning consideration upon the application in question."¹³⁸ For such an alternative to be a candidate for consideration there must at least be a likelihood or real possibility of them eventuating in the foreseeable future.¹³⁹

256. HCC relies on a potential joint working between the Rickneys Site owned by Hanson and the appeal site, as a potential alternative. The only harm of which HCC complains that would be avoided by such working is the temporary access road. There has been no objection to any of the other infrastructure within the PA2 area. The access road would be temporary and it would not be enough to justify a refusal of planning permission. It would not affect the permanence of the Green Belt or indeed its openness because it is a necessary and proportionate element of the mineral extraction. Those are

¹³⁷ Excavation ceased in December 2017 at Westmill quarry; at Panshanger around December 2017; at Water Hall Quarry around Autumn 2017; and Pynesfield is shortly to cease.

¹³⁸ In *R (oao J (A.Child) v North Warwickshire BC* [2001] PLCR 31, Laws LJ, having reviewed the authorities including *Trusthouse Forte*, said at paragraph [30].

¹³⁹ *Mount Cook v Westminster City Council* [2003] EWCA Civ 1346 at [35].

not conspicuously adverse effects. This is not one of the exceptional cases where an alternative scheme is relevant.

257. Hanson and the appellants are working together to promote the allocation of their respective sites in the eMLP, but that does not mean that there is any prospect of them promoting a joint scheme at the present time. Currently neither site is proposed for allocation.

258. Unless Hanson secures planning permission for their Rickneys site, they have no interest in reaching an agreement with the appellants that would allow the use of their access.¹⁴⁰ But it is wholly uncertain whether planning permission will be granted, and without it a PA2 compliant scheme is not possible. There can be no confidence that the working of the appeal site as an extension to Rickneys is a realistic prospect in the foreseeable future. Vague alternative schemes should be given little or no weight, and do not constitute a valid reason for refusing the proposals.

Development plan ¹⁴¹

259. For the 1.75 Mt scheme Phase 4, the stockpiling area and the temporary access road, a total of about 8 hectares of land, would be outside of PA2. But the vast majority of the site lies within PA2, where MLP Policy 3 provides that permission would be granted if the development contributes to maintaining the county's appropriate contribution to mineral needs, and where the site specific requirements are met.

260. PA2 explains that the access is via the existing access from the B158. However, it is not possible for the appellants to use that access as it falls outside of its ownership and its attempts to reach agreement with Hanson (who themselves are not the landowner but have an exclusive option over the access) had not proved to be fruitful.

261. For the BAE site HCC officers were satisfied that the proposal was 'largely compliant' with MLP Policy 3, notwithstanding the fact that 7.5 ha of land fell outside the PA1 boundary.¹⁴² HCC is required to apply its development plan policies consistently.

262. MLP Policy 4 applies to proposals outside the Preferred Areas, which will only be allowed where the landbank is below the required level and there is a need for the proposal to maintain the county's contribution to need, and it can be demonstrated that the proposals would not prejudice the timely working of the Preferred Areas. There is no suggestion that this scheme would prejudice the timely working of other PAs.

263. Absent any other grants of permission, the landbank will be below 7 years by the next LAA in December 2018 and aggregates extracted from this site would plainly assist the county in making an appropriate contribution to local, regional and national need. Therefore, the appeal proposals comply with Policy 4. Even if they do not, they should be allowed as an exception to that

¹⁴⁰ ID102. Until Hanson has secured planning permission for Rickneys, they are "dead in the water".

¹⁴¹ APP10.

¹⁴² HCC2 Appendix 5, page 49, paras 10.51 – 10.52.

policy, as were the BAE and Furze Field sites, when the landbank stood in excess of nine years.

264. Given the landscape, ecological and PRow benefits and the absence of any unacceptable traffic impacts the appeal scheme complies with MLP Policy 9 (biodiversity); Policy 12 (landscape); Policy 13 (reclamation scheme); Policy 14 (afteruse); Policy 16 (transport) and Policy 18 (operational criteria).
265. EHDP Policy HERT4 makes the provision of 100 houses contingent upon the removal of minerals from the appeal site. Without the removal of the minerals, the delivery of the housing is in jeopardy. The potential allocation of HERT4 provided an impetus to extract the adjoining minerals quickly so as to enable that housing development to come forward without interference from quarrying activity. This influenced the timing of the application, but that is not the sole or even the principal justification for the proposed mineral development.¹⁴³
266. Even if there is some limited conflict with MLP Policies 3 and 4, development plan policies often pull in different directions, and given the compliance with a raft of other policies in the MLP, and with Policy HERT4 of the EHDP, the proposal accords with the development plan read as a whole. The *Framework* makes it clear that great weight should be given to the benefits of mineral extraction, including to the economy, and that sustainable development should be allowed. The principle of mineral extraction on the land within PA2 is accepted on the basis that it constitutes sustainable development and HCC does not object to those elements of the scheme within the PA2 area, either on landscape or Green Belt grounds.
267. The 1.25 Mt scheme would have lesser impacts and the appellants would be content to proceed with that scheme. But the evidence about temporary harm to landscape, noise, air quality, water and planning must be weighed against the additional benefits compared to the smaller scheme of extracting more mineral, and would not justify a refusal. The purpose of the Inquiry was not to trick or badger a witness into concessions by repeatedly asking them the same question until they give a different answer. Unfortunately, Mr Symes was subjected to just that.
268. In both schemes noise impacts would be limited in geographical extent, degree and duration and would be well within the *Guidance's* upper limits for mineral working. Air quality impacts would be slight – negligible and would not give rise to any significant health effects, and the chalk aquifer would be adequately protected through the stringent conditions required by the EA. Some temporary harm to PRow would be inevitable if the PA2 area is to be worked and those harms would be more than compensated for by the long-term benefits to the network. All of the potential harms raised by the parties would be temporary and reversible. The scheme would provide considerable long-term benefits to the PRow, the local landscape and ecology of the site, and would provide minerals that are so needed to deliver the infrastructure that the country needs.

¹⁴³ APP7.

269. The benefits of both schemes, but particularly the 1.25 Mt scheme, clearly outweigh the temporary harms and the planning balance falls decisively in favour of the allowing the development.

Written representations

Pre-application community consultation

270. An insert about the proposal was included in the Parish Magazine in October 2015, and an exhibition held in November at the Bengo Scout Group HQ. This was attended by about 80 people. A leaflet was provided summarising the scheme. Only a limited number of comment forms were completed. The principal matters raised are summarised in paragraph 7.4 of the ES.¹⁴⁴

Application stage

271. A petition, dated 25 April 2016, with 806 signatures was submitted to HCC objecting on the grounds that the proposed gravel, sand and mineral extractions would have a profound negative impact on the local community, environment and wildlife. The signatories were concerned about the possible direct health effects of extraction works, and believed that the noise, dust and air pollution would be a nuisance, and almost certainly unavoidable. They strongly rejected any suggestion that there has been any consideration for the impact that lorry movements would have on local roads and infrastructure. Extracting 2.6 Mt of sand and gravel so close to the Wadesmill borehole would have a negative impact on the aquifer and HCC was urged to carry out an independent environmental assessment and hydrogeology study.

272. HCC received over 1,300 written responses objecting to the application for the 1.75 Mt scheme. The main objections are summarised as follows:¹⁴⁵

- Impact on air quality/dust
- Impact on health
- Impact on highways affecting pedestrian/cycle use of Wadesmill Road
- Adverse impact on landscape and the Green Belt
- Impact on Byway No.1 and loss of recreational area used by the public
- Impact on ecology
- Noise.

273. HCC received over 1,000 written responses objecting to the application for the 1.25 Mt scheme. The main objections are summarised as follows:¹⁴⁶

- Proximity to existing dwellings and a primary school
- Impact on air quality/dust
- Impact on health
- Impact on highways affecting pedestrian/cycle use of Wadesmill Road/road safety
- Impact on visual amenity/landscape and the Green Belt
- Impact on Byway No.1 footpaths and loss of recreational area used by the public

¹⁴⁴ CD2 document 1.

¹⁴⁵ CD5 paragraph 8.5.

¹⁴⁶ CD18 paragraph 8.2 and 8.7.

- Impact on ecology/habitat destruction
- Noise impact on occupiers of nearest residential properties
- New Minerals Plan does not include the site
- No urgent need to quarry
- Loss of historic value/impact on archaeology
- Concern regarding risk to groundwater and water supply.

274. Two e-petitions were received entitled "Hertford is worth more than gravel – petition against a new quarry in Bengoe Field" and "Protect our public rights of way and views from quarrying on Bengoe Field (Land at Ware Park)".

Written representations submitted prior to the opening of the Inquiry

PINS received five other written representations in the lead up to the Inquiry.¹⁴⁷ The views expressed are summarised as follows.

275. Mark Prisk MP Member of Parliament for Hertford and Stortford supports HCC's refusal of the application. The proposal is opposed by the vast majority of local residents. The scale and location is inappropriate. The impact on the environment and potential risk to the health of local school children is unacceptable. An extra 100 HGV movements a day would have a considerable impact on already congested local roads and road safety at the school, especially if concentrated around working day peak hours. There has been no independent environmental assessment of the impact on local wildlife and ecology. Dust will impact up to 400 m from the site and the *Framework* states that there should be no unacceptable adverse impacts on human health. There is a potential risk to the local water supply and no independent assessment of local geology has been undertaken. There is no need for the gravel as HCC has a current landbank of suitable sites which will provide at least 15 years supply. Upholding this appeal would be irresponsible given the risk to the health of thousands of local people.

276. Rt Hon Sir Oliver Heald QC MP Member of Parliament for North East Hertfordshire fully supports the campaign group, Cllr Stevenson, Cllr Crofton and Cllr McMullen in their objection to this proposed quarry, and would be grateful for these concerns to be taken into account.

277. Watermill Estate Residents' Association restated its opposition to sand and gravel extraction. The association does not believe that the extra information provided by the appellants is sufficient to justify quarrying in this area for the reasons put forward by SBQ. Of utmost importance is the fact that HCC is not recommending this to be a Preferred Area in the eMLP.

278. Roger Bardle (local resident) strongly objects to the appellants' second application. Nothing has changed regarding its total unsuitability as a quarry site due to its proximity to a primary school and housing developments, along with the many other environmental concerns regarding increased lorry traffic on a pleasant rural road, increased all day noise and its proximity to water supplies.

279. Laura Wyer (local resident) by email dated 19 March 2018 sought clarification about which scheme was being considered. She considered the

¹⁴⁷ Appeal file.

matter to be very confusing, especially as it had been re-confirmed that the appeal would be against the original 1.75 Mt scheme. Members of the public will have responded to an appeal against the 1.75 Mt scheme and have not had the chance to respond regarding the amended 1.25 Mt scheme.

Inquiry stage

280. The Planning Inspectorate received more than 500 written representations at the appeal stage objecting to the proposal.¹⁴⁸ In some cases the submissions made it clear whether the objection was to the 1.75 Mt scheme or to the 1.25 Mt scheme, but this was not evident in many cases. Some commented on whether the 1.25 Mt scheme would address the objections to the 1.75 Mt scheme. The views of all those who made submissions are summarised below.

281. The effects on air quality and health were raised by about 90% of the objectors. Many consider that the scheme would have a detrimental impact on air quality and would pose health issues for local residents, especially for children at Bengoe School and using the playing fields. The proposed quarry site is 350 metres away, opposite the primary school with a large staff supporting more than 500 three to eleven year olds. Dust from the quarry would contain tiny crystal particles. Research based on the monitoring of workers in a quarry digging up the same sand and gravel has found it to contain carcinogens. There is an undoubted risk of exposure to fine particles of silica dust. This is a fact that is acknowledged by numerous bodies and is indeed referenced in the consultation document for the eMLP. Inhalation of silica dust is known (UK HSE) to cause health issues, including lung disease, silicosis, chronic obstructive pulmonary disease (COPD) and lung cancer.

282. Damp material will quickly dry out as Hertfordshire is one of the driest parts of the country. Mobile dry-screening at the point of extraction would bring additional risk of airborne dust. Stockpiled supplies would dry out and generate dust on loading. During dry weather the mobile plant, both on-site and leaving the site, would generate dust as it moved around and was loaded. The hazards of quarry dust include respiratory silicosis, COPD, lung cancer, chronic bronchitis and emphysema. While admittedly those at greatest risk would be quarry staff, there is sound risk that vulnerable residents with respiratory issues and children with developing lungs would be affected through airborne disbursement; airborne dust would also have impact on eyes and skin. The precautionary principle should be adopted concerning the effects of PM_{2.5}. The appellants have used meteorological data from Luton airport, which does not provide for a local microclimate. Some expressed concerns about the ability of HCC to enforce controls, where the risk zone for dust is 1,000 m according to Technical Guidance.

283. Concern that the main aquifer supplying water to Hertford would be affected was raised by 80% of the objectors. It was considered that the aquifer would be placed at high risk of irreversible contamination should quarrying be permitted at the proposed site. Fractures in the subterranean materials would allow pollution to reach Wadesmill PS swiftly. There is a need to survey the size and orientation of fractures within the chalk. This is not a

¹⁴⁸ Two blue folders.

case for monitoring but for prevention. The risk of damaging a water supply seems too great for a county abundant in sand and gravel.

284. Some 70% of objectors commented on the likely effects of the additional quarry traffic for highway safety. The B158 is a country road that is already congested at peak times by people accessing or leaving Bengoe. There have been deaths and serious accidents on the B158 and queueing lorries, as well as lorries coming and going, would have a serious impact on road safety and the ability of residents to come and go. It would simply be too dangerous to use the B158, and local residents would have no alternative but to drive the opposite way into Hertford, to leave the area, adding to an already congested route at peak times. The right hand turn into the site would be dangerous.
285. About 65% of the representations raised concerns about the loss of amenity and recreation value. Many noted that the Byway that runs through the middle of the proposed quarry is registered as an Asset of Community Value. Local residents want to continue using Bengoe field as a local amenity for families, ramblers, runners and cyclists. Many commented on the walk, or walking their dog, from Bengoe over to Chapmore End/Tonwell through the beautiful countryside. Others recorded that the continuation of Herts health walks is an important consideration for the whole community in Bengoe and Hertford, adding that the scheme would impact on their ability to walk and unwind with family and friends in the area. The loss of this amenity would be further impacted due to the plant operation being adjacent to the footpath. Lorries would have to cross the footpath for site access/egress onto the B158. Quarrying the land in this area would have severe and detrimental effects to residents' health and a notable loss of community, since children would be less likely to ride their bikes, play in the park and spend time outdoors with family and friends, due to the noise, increase in traffic and air pollution.
286. About 60% of objectors referred to the effects of noise from the operation in a quiet local area. Some described this as a semi-rural area and valued its tranquillity. Others added that quarry noise is one of the major complaints in nuisance cases against existing quarries. Investigations for health and safety reasons show that plant work (e.g. gravel) was the second noisiest industry for workers to be involved in. The houses sited within a few metres of the quarry and the school within 500 m would both be seriously affected. It was noted that there is now a newly proposed mobile dry-screening process to add to the original noise damage.
287. Some 50% of objectors raised concerns about the effects of the proposal on the local landscape. Many considered it to be a beautiful and valued landscape, with unique views across the River Rib to Ware Park and to Three Lakes, with views back to the site from the Three Lakes Restaurant. It is the entrance to the historic county town. The quarry would spoil the rural landscape, and it would not be possible to screen the development in any meaningful way because of the contours. The bunds would be ugly, especially if not effectively managed. The bank near to the edge of St John's Wood would affect a local beauty spot and the local hydrology. Many commented on the proposed restored landform, noting the drop in the level of the field. Some considered that it would leave a gigantic hole in the countryside. The landform of the proposed site would be irreversibly

degraded, leaving a landscape irreparably damaged. The site is surrounded by gravel pits that have left a long term scar on the landscape.

288. The eMLP was cited by 40% of the objectors. Some considered the proposal to be premature. The eMLP has already been approved by the HCC Environment Panel and this goes against any quarrying in Bengoe Fields. It recommends that Bengoe Field should not be a Preferred Area for quarrying. This is expected to be approved in 2018.

289. Harm to the Green Belt was cited by about 40% of objectors. Some commented that the buildings, bunds and equipment would impact adversely on the openness of the Green Belt. Others considered that the quarry would destroy a valuable piece of Green Belt land.

290. Some 25% of objectors pointed out that the appellants are proposing to work outside the current Minerals Preferred Area (Phase 4 and stock piling, along with the site area adjoining Sacombe Road, the Wick and The Orchard). This MLP area was agreed as a Preferred Area only as an extension to Rickney's quarry. The appeal is not, therefore, compliant with the current MLP.

291. Others commented on the effect on the Green Belt and impact on the landscape, both of which were considered to be vital to health and wellbeing in modern-day life. Reference was also made to this area enduring years of gravel extraction at Waterford, Stapleford, Rickneys Quarry, Westmill and Panshanger Park, which have all left scars behind. None of this land would be returned to the original farmland for growing food crops. With Brexit agricultural land will be more important to the long term economy.

Written representations about the HIA submitted during the adjournment

The views expressed about the HIA in the 156 written submissions received are summarised as follows.¹⁴⁹

292. Many considered that the HIA is flawed and discredited because it is based on assumptions, average data or research that is out of date. The desk-based HIA is selective in the examples used in drawing its conclusions and lacks empirical data, especially about the site and its locality. The HIA is based on uncritical acceptance of the ES and the appellants' evidence, and so its impartiality and objectivity are questionable, with some describing it as subjective speculation. By ignoring the evidence from other stakeholders the HIA has ensured that every contributor to it has a commercial interest. There should be reference to the research that underpins the HIA's conclusions. Furthermore, there is ambiguity about whether the HIA is referring to the 1.75 Mt scheme or the 1.25 Mt scheme, particularly with regard to the ES.

293. The HIA was not done at the outset of the project and so was not done as an informative tool, but as a tick-box exercise. It did not invite participation from the people most affected or give weight to local knowledge. Some questioned whether the HIA should be accepted because it was produced for Ingrebourne Valley Ltd and not the appellants. The HIA's conclusion that the quarry "is unlikely to have significant adverse effects on population health" is not reassuring given that 'unlikely' and 'significant' are undefined and the

¹⁴⁹ ID93. Annex B to this report includes a list of those who made the written submissions.

community is concerned not only about population health, but also about sensitive and vulnerable individuals.

294. The air quality model used should not be relied upon because the emission rate is not identified and emission rates were modelled as a point estimate, without any sensitivity analysis to investigate best and worst-case scenarios. The IAQM recommends against quantitative modelling due to a high level of uncertainty over emission rates. Air quality observations should have been taken at similar quarries in the area.
295. The WHO guidelines must be taken into account in dealing with the UK's poor air quality. The HIA acknowledges that local levels already exceed WHO guideline levels, but bafflingly goes on to state that air quality in Bengoe is "generally good". Defra's *Clean Air Strategy* consultation 2018 refers to cutting public exposure to PM levels above WHO guideline levels ($10 \mu\text{g}/\text{m}^3$). Recent studies have associated a loss of brain ability with air pollution. The HIA's assumption that the higher potential for dust in dry conditions is balanced by the supposition that wind speeds are lower in warmer months is ludicrous. Stockpiles would dry out and generate dust on loading, as would mobile plant. The HIA is based on 2017 data, but this is insufficient given the long dry spell of the summer in 2018, where an increase in levels of ground dust was evident.
296. Dust and particulates from diesel vehicles can exacerbate and trigger symptoms for asthmatics. Given the proximity of the school and houses it would be inevitable that there would be cases of respiratory illness attributable to the quarry workings. The 2015 consultation document for the eMLP states that sensitive sites can be affected by dust up to 1 km from the source. The 2005 MPS2 states that PM_{10} may travel 1,000 m or more and is widely recognised as being associated with effects on human health.
297. The WHO Health Effects of Particulate Matter 2013 set out the health effects of inhalable PM due to exposure over both the short term (hours, days) and long term (months, years), including aggravation of asthma, respiratory symptoms and an increase in hospital admissions. It states that exposure to PM affects lung development in children, and added that "There is no evidence of a safe level of exposure or a threshold below which no adverse health effects occur." There is a clear risk to the health of residents and school children from quarry dust, especially those with pre-existing conditions.
298. Vulnerable children would be restricted to their home with all windows closed and not able to enjoy much valuable time outdoors, either in gardens or using local amenities. There is evidence that air pollution results in higher blood pressure, and research at Queen Mary University of London found that even 'safe' levels of air pollution are linked to heart abnormalities similar to those seen in the early stages of heart failure. There is evidence that outdoor particulates may have been shown to infiltrate indoor school environments. It might take years to find out the actual impact on health from irreversible damage, such as silicosis and lung cancer.
299. The HIA applies the UK/EU $\text{PM}_{2.5}$ threshold of $25 \mu\text{g}/\text{m}^3$ which is higher than more recent thresholds established by WHO ($10 \mu\text{g}/\text{m}^3$, 2014) and in other countries. The appellants' modelling shows that sites surrounding the appeal

site exceed $10 \mu\text{g}/\text{m}^3$ without a quarry. Any increase cannot be justified. Furthermore, there is uncertainty about the projected base line figures derived from Defra's model, and it seems appropriate that actual baselines are determined by monitoring at sensitive sites to inform a more accurate risk assessment. Annual PM figures cannot be used to assess health risks for children attending Bengoe School. This approach hides daily fluctuations in particulate levels, particularly as quarry working hours would mirror times of school attendance. In addition, children are more likely to be outdoors in dry weather when dust risk is higher. The risk assessment should account for the 24 hour variation. The HIA averages emissions across all phases of the project, which would take many years to complete. However, different results would be obtained by calculating the average across the year in which activities would be closest to the nearest receptors.

300. The modelling used in the HIA is not sufficient to give an accurate idea of dust emission rates over time, and key information about how bad dust would be when work is happening close to receptors is missing.¹⁵⁰ Based on 1 in 11 of the UK population having asthma, an estimated 43 children at the school have a diagnosis of asthma. There is evidence that the health of this group would be likely to be compromised by even a small increase in PM.¹⁵¹ A study has found that for every $10 \mu\text{g}/\text{m}^3$ increase in PM_{10} the number of asthma cases increased by around 4%. Another study about school absenteeism found that for every such increase there was an increase in absences of 2.5%.

301. IAQM data indicates that properties within 300 m of the quarry could be exposed to between $5\text{--}10 \mu\text{g}/\text{m}^3$ extra PM_{10} .¹⁵² The WHO report confirms that this would have a measurable effect on mortality. The evidence on the health impact of poor air quality is rapidly advancing and even small increases in PM of around $1 \mu\text{g}/\text{m}^3$ in the long-term average can have a significant health effect. Recent research shows that small short-term increases in $\text{PM}_{2.5}$ of around $6 \mu\text{g}/\text{m}^3$ averaged over three days also has statistically significant and clinically meaningful impact on the health of vulnerable groups. The elderly and children are, depending on the pollutant and health outcome, more susceptible to changes in air quality.¹⁵³ Both these groups are over-represented in the population around the appeal site. Despite this the HIA does not attempt to quantify the health risks in relation to the predicted decline in air quality for the general population or vulnerable groups. The WHO has an online tool to perform this calculation (AirQ+). The quarry would further burden the NHS in the long term.

302. There is no reliable evidence on how much silica dust would pollute the air around the quarry. On average it forms 15% of PM_{10} dust for a lot of quarries. Details about the size-distribution and composition of the material in the Kesgrave formation would be needed to do so, but is absent. The HIA should be based on relevant observational science not models and

¹⁵⁰ ID93 (130) provides more details about the modelling method.

¹⁵¹ ID93 (21) cites 8 peer reviewed studies and (130) includes extracts from WHO and research in New Zealand.

¹⁵² CD35.1 page 35.

¹⁵³ ID93 (132) states 3-48 times more sensitive compared to adults.

regulations. Carcinogenic RCS dust is a hazard, but the HIA relies on dust not being generated, which has not been the experience at other sites. Personnel working at the quarry under HSE regulations would need to wear protective clothing, but such stringent rules would not apply to the general public in the locality. It only takes a very small amount of airborne RCS dust to create a health hazard. Some US states have set stringent silica exposure guidelines, which would be exceeded if the proposed quarry resulted in 1.5 µg/m³ of silica per 10 µg/m³ increase in PM₁₀. The residents of Bengoe should not be exposed to this obvious risk. Site specific observations should have been taken to exclude the risk of exposure to this highly toxic and carcinogenic material. Defra limits do not give a level at which there can be confidence that no health effects would result.

303. The HIA takes no account of previous sand and gravel extraction in the wider area, with its resultant environmental disruption, degradation and breaches of undertakings. The legacy of mistrust remains and the community has no confidence about the undertakings on which the findings of the HIA rely. The late submission of the HIA has not fostered a trusting relationship with the community. Given past experience with the tobacco industry, asbestos, inflammable cladding, illegal engine emissions, and accelerated climate change, the community is unconvinced about reliance on regulations and controls. There are also concerns about the enforcement of dust control measures, such as securing loads and wheel washing. Local people have no confidence that essential and appropriate care would be taken to mitigate the risks. The loss of trust has a significant negative effect on the health and well-being of the community. The local community's legitimate fears are based on knowledge.

304. The long-term risk to Hertford's water supply in the HIA ignores the expert evidence adduced at the Inquiry, and no ground survey has been carried out to assess the roughness of the underlying chalk surface. Without the latter the use of excavators with GPS could not be implemented with any confidence. Removal and disturbance of the existing protective layer would permanently increase the vulnerability of the underlying chalk aquifer. Mapping top chalk techniques have yet to be established with confidence, and so the precautionary principle should apply. Promises cannot prevent equipment failure or human error.

305. Spill kits and notifying relevant authorities would not prevent transmission of pollutants through the highly permeable residual Kesgrave formation. Spraying water to dampen dust would permeate the chalk beneath causing permanent damage to the aquifer. Pollution of the low-permeability chalk lying between the fractures and fissures would be long lasting and very difficult to remove. The HIA contains no long term analysis of the consequences of water pollution during or following the proposed quarrying. The possible serious and irreversible health consequences of pollution of the aquifer and a loss of water supply have not been assessed.

306. There is no reference in the HIA to the Acoustics Associates Noise Assessment.¹⁵⁴ The noise levels at the nearest properties would breach policy

¹⁵⁴ HCC1.

guidelines. Starting at 0700 hours and working on Saturday would cause unacceptable additional noise. The distressing noise level would adversely affect human health.

307. The HIA is misleading about the effects of the proposal on the use of local footpaths. The quarry would not create health benefits for the community as it would have a negative effect on physical activity participation rates. Health walks would not be organised next to a working quarry. The quarry would be a danger for horses and equestrians riding nearby. The proposed permissive paths are already well used by the public because it is a very pleasant open landscape with views across the Rib Valley. The value of new footpaths would be much diminished in a landscape that was no longer as beautiful and safe as it currently is.
308. The proposed eastern footpath loop close to the B158 would not be well used and so would be unlikely to be a significant health benefit. Dust and noise pollution from the quarry could deter use of the allotments and so reduce the health benefits of this recreational activity. The role of countryside, trees and open spaces is becoming recognised to have positive effects on people's health, state of mind and productivity. Overall, the scheme would result in less recreational use of the area, and so would have a negative effect on health and well-being.
309. Some respondents have no faith that the quarry would be put back to agricultural use or renovated at all. There is also concern that it might become a refuse waste site. The HIA recommends that certainty should be provided on the duration of Phase 1. However, extraction would depend upon demand unless a maximum duration was certain and could be enforced with some penalty.
310. The proposal over the last three years has already resulted in stress and anxiety for the local community. The time, resources and mental anguish expended on opposing the quarry has also had an adverse economic impact on the local community. The assertion in the HIA that the project has contributed to community empowerment and self-efficacy with potentially beneficial effects on population health is risible. Not enough weight has been given to the mental impact that a quarry nearby would have on all generations.
311. The HIA recommends a minimum stand-off for dwellings at The Orchard, but ignores the presence of other closer properties.¹⁵⁵ There is no equivalent stand-off recommended for the properties in Sacombe Road, which would be closer to Phase 2 than would The Orchard to Phase 1, or for properties on Wadesmill Road. The HIA focuses on populations, but loses sight of the individual and the fact that some lives might be devastated, especially those living so close that they would be directly affected.
312. The effects of queuing HGVs during the rush hour, and lorry collision data has not been analysed. The baseline for traffic may be too low because of

¹⁵⁵ In paragraph 11.2.3 of the HIA the recommendation for air quality is that the Phase 1 boundary should be revised to ensure a 100 m buffer between the closest residential property and the earth bund.

consented quarries in the locality which are not currently operating. The HIA recommendation that no traffic would enter or leave the site during school opening and closing times is meaningless as it is not part of the proposal. Increased road traffic and noise would take a toll on the health of the community, including deterring cycling, with associated adverse health effects. There are no street lights along this part of the road. Pedestrians using the local footpath already find it difficult to cross the B158 near to the entrance to the proposed quarry access, and additional HGVs would make this worse. Those using the proposed footpath parallel to the B158 would have to cross the quarry access, and those using the Byway would need to cross the haul road, which would be hazardous. Mud and gravel from quarry vehicles on wet roads is a safety hazard. Wheel washing is proposed, but the HIA states that there is no water available for licensing.

313. Many commented that for the reasons set out above, the HIA does not represent a true and complete picture of the likely health impacts of the quarry, and that the scheme is not worth the risk to public health. There is little in the HIA that reassures the residents, other than monitoring, which would be too late. The proposal should only be supported if there was no risk to health. This has not been categorically and clearly demonstrated. The HIA does not meet these requirements.

Written representations from other consultees

The following sets out the views of other consultees, where these are not summarised elsewhere in this report.

314. East Herts District Council raised no objection in principle, but noted that the landscape in part comprised elevated open land, which was publicly accessible in the immediate surroundings of Hertford. The council cited the concerns of local residents and recommended an independent noise assessment. Concern was also expressed about additional HGVs on Wadesmill Road, and that highway safety improvements should be considered.
315. The proposed bunds were considered by the Council to be alien elements in the landscape that should not be permanent features. The impact on the landscape in the longer term was highlighted because the sloping land on the eastern side of the site is the most visually sensitive. Byway 1 offers attractive high-level views eastward over the River Rib valley. The Council suggested possible opportunities to improve the PROW network in the longer term as part of the restoration.
316. Hertford Town Council objected to the application and considers that the location is completely inappropriate because of concerns about noise, traffic, visual impact and dust. Should the proposal go ahead strict controls would be necessary on hours of working (with no weekend working), vehicle movements (including prevention of vehicle access into Bengoe), monitoring noise, maintenance of road surfaces and drains.
317. Public Health England noted that it is clear that air pollution, from a range of sources, not solely from the proposed quarry, is a potential threat to the health of the wider community. It acknowledged that those with pre-existing respiratory conditions, such as cystic fibrosis and asthma, are considered a sensitive population if exposed to airborne pollutants, such as particulate

matter. Reference was made to the provisions of the *Framework* concerning unacceptable adverse impacts, and that the developer of the quarry would be required to satisfy relevant authorities and the community that its operation would not result in additional emissions which could adversely affect the local community.

318. The Environment Agency (EA) has commented on the 2.6 Mt, 1.75 Mt and 1.25 Mt schemes.¹⁵⁶ In April 2016 the EA stated that the site lies in a highly sensitive groundwater area within a SPZ1. It noted that the proposal would be located very close to a public water supply abstraction, and that it is essential that there is no harm to the water environment as a result of the development. The EA considered that planning permission could be granted subject to the imposition of five planning conditions. These concerned; 1. long-term ground water monitoring in respect of contamination and turbidity, and any necessary contingency action, 2. no importation of waste, 3. a remediation strategy for any contamination, 4. controls on the infiltration of surface water drainage, and 5. a scheme be approved for the disposal of foul water. The EA advised that the effluent discharge rates expected from the development and its location within an SPZ1 means that a non-mains foul drainage solution would require an Environmental Permit.
319. In the same consultation response the EA recommended that conditions be imposed, wherever possible, that would make the development air quality neutral. It added that the site is located in an area of significant concern regarding air quality and that there are already high levels of PM₁₀ and NO₂. Robust conditions were recommended to address mineral screening, road sweeping, road surfaces, wheel washing, vehicle and plant emissions, reducing vehicle idling, construction logistic plans, diesel or petrol generators, chutes/conveyors and skips, covering vehicles, along with advice on using dust suppressants.
320. In January 2017 the EA advised that as the amended plans did not alter the groundwater protection measures the EA had no additional comments to make. Following discussion with AW the EA in March 2017 requested an additional condition to repair borehole OBH 1A.
321. The EA in April 2018 reiterated the above response when consulted about the 1.25 Mt scheme, but revised the wording of the condition about boreholes to include approval of a scheme for future maintenance, schedule of repairs and a contingency action plan, along with how redundant boreholes would be decommissioned and those retained secured, protected and inspected. The condition concerning foul drainage was amended to include approval of a scheme to dispose of foul and surface water, and to agree pollution prevention measures for the storage of pollutants in SPZ1.
322. The Lead Local Flood Authority accepted the approach and detail set out in the appellants' Flood Risk Assessment. It has no objection in principle, subject to pre-commencement conditions on drainage details.
323. Hertfordshire Ecology noted that although the site is arable farmland it adjoins Waterford Heath Local Nature reserve and St John's Wood, Rickneys

¹⁵⁶ CD13.

Quarry and Waterford Heath (North and South) Local Wildlife Sites. Adverse effects on these protected areas cannot be ruled out. There is uncertainty about the impact of the depression on surface and sub-surface flows of water. Prevailing winds may increase the threat to the ancient woodland from dust. There is also uncertainty about whether a 20 m buffer would prevent harm to protected sites. The proposals for a calcareous grassland area around the balancing pond are not compelling. The proposed aftercare period would be inadequate to establish semi-natural habitats. An alternative and more appropriate mitigation strategy could provide real and sustainable gains in biodiversity.

324. Herts and Middlesex Wildlife Trust endorsed the comments by Hertfordshire Ecology and the need for more information to demonstrate that the proposal would comply with the aims of the *Framework*.
325. Bengeo Rural Parish Council objected to the proposal raising concerns about highway safety given that the B158 is a fast and dangerous road on which there have been fatalities. Any conditions imposed should be at least in line with, or more stringent than, those imposed for Rickneys Quarry.
326. Affinity Water (AW) stated that after a site visit with the appellants it was agreed that the following would be implemented; "300 m zone of unworked basal layers from the Wadesmill PS of 5 m thickness; 500 m zone of unworked basal layers from the Wadesmill PS of 3 m thickness; rest of site unworked basal layer 1 m thickness". AW proposed that the above be made conditions to ensure that the Wadesmill PS was protected from any potential pollution that could be initiated from the proposal. It was also agreed that borehole 1A should be repaired. AW noted that the construction works may exacerbate any existing pollution and that if pollution was found then appropriate monitoring and remediation works would need to be undertaken.¹⁵⁷
327. The Woodland Trust objected on the basis of likely damage to St John's Wood because of an inadequate buffer. It is concerned about the cumulative impact of fragmentation as a result of the separation of semi-natural habitats, the proposed development being a source of non-native plants, noise and light pollution, and changes to hydrology. An undisturbed buffer of at least 100 m would be necessary, allowing for a total distance to the ancient woodland edge of 30 m. The ancient woodland is sensitive to dust, particularly epiphytic lichens. Noise would potentially have an adverse effect on woodland species.
328. The Council for the Protection of Rural England (CPRE) objected to the scheme on the grounds that it would not comply with the specific considerations of the adopted plan concerning working of this site as an extension to the existing Rickneys Quarry. Land south of Rickneys cannot be independently worked without major disruption to the use of Byway 1 and that the land to the east of the Byway would be in a much more exposed landscape. The proposed stockpiling, plant storage, and other operational areas of the site heavily used by mobile plant and haulage vehicles, is within the area considered to be vulnerable to potential pollution of a major water

¹⁵⁷ ID103.

supply aquifer. Phase 4 would be within 100 m of the Wadesmill PS. CPRE commented, regarding the emerging plan for housing to the south of the site, that either all the sand and gravel resource identified in the adopted minerals plan should be extracted in accordance with the provisions of the statutory plan or the proposed quarry should not be granted planning permission.

Conditions and obligations

Conditions

- 329.HCC and the appellants largely agree about the imposition of planning conditions in the event that planning permission was granted for either the 1.75 Mt scheme or the 1.25 Mt scheme, but two issues remain in dispute.¹⁵⁸ These concern; (1) whether permissive rights of way should be available for cyclists and horse riders in addition to walkers, and (2) restrictions on the number of certain plant on-site at any one time, and specifying a maximum SPL for plant. SBQ suggested additional conditions about air quality and hydrology.
- 330.SBQ suggested that Condition 9 should include an approved routeing plan and/or management scheme to include a booking system for HGVs. SBQ also suggested that Condition 16 should require a stretch of level ground of at least 5 m from the edge of the right of way, and that any steep banks should be fenced. A more detailed condition was advocated by SBQ to deal with the maintenance of boreholes. Concern was expressed by SBQ and others about the proposed hours of operation.
- 331.SBQ agrees with the need for a comprehensive dust management plan (Condition 34), but considers that the minimum requirements would be inadequate to address SBQ's concerns regarding air quality related health impacts. Measurements of hourly average concentrations of PM₁₀, as opposed to the daily average limit value for PM₁₀, should be the basis for further mitigation and/or cessation of operations in SBQ's submission.
- 332.SBQ agrees with the need for a comprehensive air quality monitoring scheme (Condition 35), but considers that one monitor would be insufficient. SBQ added that the data should be made available to the public in 'real time', so that vulnerable members of the public in particular could use it to manage their exposure to any heightened short-term concentrations that may arise.
- 333.Reference to SBQ's involvement in the Community Liaison Group was requested.
- 334.Condition 41 is agreed in principle by SBQ, but the time period for noise monitoring at three monthly intervals should be extended to cover at least Phases 1 and 2 of the extraction process. Afterwards, there should be a maximum interval of 6 months between each monitoring exercise for the remainder of the development.
- 335.Cllr Stevenson considers that the true traffic morning peak time in this location is 7.30 am to 9.30 am, and that the restriction on HGV movements to 8 vehicles should apply throughout this time.

¹⁵⁸ ID97.

336. The suggested planning conditions were considered at a without-prejudice discussion about possible planning conditions, which took place towards the end of the Inquiry. In addition, the parties made written representations about revisions to the suggested conditions prior to the close of the Inquiry.¹⁵⁹ The written list of suggested conditions endorsed by the appellants includes pre-commencement conditions.

Obligations

337. The section 106 obligation includes a clause that if the Secretary of State concludes that any of the obligations are not compatible with any of the tests set out in Regulation 122 of the Community Infrastructure Regulations 2010 (CIL Regs) and attaches no weight to that obligation then that obligation shall cease to have any effect and there shall be no obligation to comply with it.

Consideration of an amended scheme at the appeal stage

Interested persons

338. In commenting on the HIA two respondents objected to being denied the opportunity to object to an appeal against the refusal of the 1.25 Mt scheme at a formal inquiry. If the current appeal was to be determined on the basis of the 1.25 Mt scheme this would neutralise and confuse any opportunity for comment or objection to an appeal against the refusal of that scheme, effectively inhibiting objections to any such appeal.¹⁶⁰

Stop Bengeo Quarry

339. SBQ considered that it is for the appellants to satisfy the Secretary of State that a condition could lawfully be imposed to effect the change from the original to the amended scheme. The 1.75 Mt and 1.25 Mt schemes differ in multiple significant planning aspects beyond the comparative volumes of aggregate proposed to be extracted. For example, the proposed relocation of the load out area would heighten the risk of groundwater pollution. The appellants failed to properly clarify which evidence and which plans/drawings were submitted in respect of each scheme. The appellants' case for consideration of the amended scheme is weak and is not assisted by the lack of clarity in the appellants' conduct of the Inquiry proceedings.¹⁶¹

Hertfordshire County Council

340. The legal test here appears to be; (a) is the development in substance that applied for, or instead "substantially or significantly different" or a "fundamental alteration", and whether the procedural requirements have been complied with, without "sidestepping" the rights of others which must be fully protected. This includes principles of procedural fairness.¹⁶² The combination of the fact that the schemes are different, along with the procedural unfairness, which has arisen from the way the appeal has been

¹⁵⁹ ID97, ID98, ID112 and ID113.

¹⁶⁰ ID93.

¹⁶¹ ID75. This is dated 16 May 2018. SBQ's closing submissions made no reference to this issue.

¹⁶² *Holborn Studios v Hackney LBC*.

dealt with, mean that the Secretary of State should not consider the 1.25 Mt scheme via a substitution by condition.¹⁶³

341. There are no severable or divisible parts of the 1.75 Mt scheme. It is not just a case of omitting the stockpile and Phase 4, because the 1.25 Mt scheme has all different plans for operational phases and restoration, a different ES and supporting reports, different location of plant, different noise impacts, different bunds, along with different buffer zones.
342. The chronology here is confusing because the procedure adopted by the appellants is so out of kilter with any accepted or statutory practice. The 1.75 Mt scheme was refused and appealed before the 1.25 Mt scheme had been submitted to HCC. But SoC1 pursued only the 1.25 Mt scheme, for which at that stage there was no ES. When asked to clarify this the appellants confirmed on 7 March 2018 that permission was sought for the 1.25 Mt scheme, and that all the representations on the 1.75 Mt scheme could be taken into account in considering the 1.25 Mt scheme. But that is no substitution for the ability to make representations to the Secretary of State on the 1.25 Mt scheme in the appeal. There are two stages for public comment and the second stage has been bypassed. The adjournment of the Inquiry to October to enable comment on the HIA has not cured any unfairness, as HCC presented its evidence in May and the resumed Inquiry was not an opportunity to go over that ground.
343. The 1.75 Mt scheme was abandoned in SoC1, but was resurrected in order to allow the 1.25 Mt scheme to piggy back on it, causing a procedural morass. This is unacceptable in principle and the Secretary of State should not countenance or endorse this approach, which would be contrary to the Planning Inspectorate's guidance.¹⁶⁴ This guidance provides that the appeal process should not be used to evolve a scheme, and that what is considered should essentially be what was considered by the local planning authority, on which interested people's views were sought. It adds that where exceptionally amendments are proposed they would have to comply with the *Wheatcroft* principles. The 1.25 Mt scheme should not be substituted. The appellants should be required to go through the normal appeal process for the 1.25 Mt scheme.¹⁶⁵

Appellants

344. The Planning Inspectorate's Procedural Guidance refers to the *Wheatcroft* principles. The power to amend a scheme in this way is subject to two constraints: one substantive and one procedural. Neither applies here. Permission should not be granted for a development that would be substantially different (when viewed in context) from that which the application envisaged. It is in the public interest to adopt a liberal approach to this consideration as it may enable permission to be granted without the need for a further application, delay and additional cost to those involved.¹⁶⁶

¹⁶³ ID76.

¹⁶⁴ *Planning appeals: procedural guide*, Annexe M, last updated 26 September 2018, Planning Inspectorate.

¹⁶⁵ ID72, ID76, ID4 paragraphs 28, 34 and 40; and ID110 paragraph 2b.

¹⁶⁶ *Holborn Studios v Hackney LBC*.

In the context here, the 1.25 Mt scheme is not substantially different to the 1.75 Mt scheme. HCC did not consider the 1.75 Mt scheme to be substantially different from the original 2.6 Mt scheme. The differences set out in ID26 relate to the removal of Phase 4 and the stockpiling area, along with a revised landform following restoration. There are no procedural constraints to granting permission for the 1.25 Mt scheme as it has been subject to consultation by HCC and all the representations are before the Inquiry. Both schemes have been subject to EIA.¹⁶⁷

345. No real prejudice has been identified. No new issues arise in the 1.25 Mt scheme. None of the witnesses to the Inquiry identified any matter upon which they would have given evidence had they been allowed more time, or suggested that there was uncertainty arising from the changes. It is entirely unsurprising that the amended scheme relied on different supporting documents. No fee was payable for the planning application for the 1.25 Mt scheme, so HCC must have concluded that the 'character and description' of the amended scheme was the same. Unfairness under the *Holborn Studios* procedural test cannot possibly have arisen because the 1.25 Mt scheme was subject to consultation by HCC, and a substantial proportion of Inquiry time was given to hearing evidence from the public.¹⁶⁸

¹⁶⁷ ID77.

¹⁶⁸ ID88.

Conclusions

Preliminary matters

346. The following conclusions are based on the written submissions, the evidence given by those who appeared at the Inquiry, and inspections of the site and its surroundings. In this section the figures in parenthesis [] at the end of paragraphs indicate source paragraphs from this report. [11]
347. The application was for the extraction of 2.6 Mt of sand and gravel, but Hertfordshire County Council (HCC) considered a revised scheme for the extraction of 1.75 Mt. This is the appeal scheme. HCC refused the application on six grounds. Reason (3) concerning impact upon air quality, and the absence of a Health Impact Assessment (HIA), was subsequently the subject of a statement of common ground, and these matters were not pursued by HCC at the Inquiry. [2,3,7,147]
348. The appeal scheme would extract 1.75 Mt of sand and gravel over a period of up to 10 years in four phases, with phased restoration to agriculture and woodland thickets, and aftercare for five years. It includes an office, messroom and weighbridge, along with a fuelling area with tank, wheel cleaning facility and water attenuation area. Bunds would be constructed around excavated and operational areas. Access would be via a new junction on Wadesmill Road (B158), with visibility splays and a segregated right turn lane, which would replace an existing field entrance. HGV movements would be limited to 50 in and 50 out in any working day. A restricted Byway that traverses the appeal site would be diverted for 2 to 3 years, and other provisions made for local footpaths. The application form states that the scheme would be operated by six full-time employees. [14-21]
349. The appellants proposed a second scheme, which would omit Phase 4 and the stockpile area from the 1.75 Mt scheme, and reduce the tonnage of sand and gravel extracted to 1.25 Mt over a period of up to 7 years. The scheme includes a load out area containing an office, messroom and weighbridge, security area/vehicle parking and soakaway, along with wheel cleaner and wheel bath, linked to the B158 by an access road with a concrete surface. The proposed bund in the south-western part of Phase 1 would be sited more than 100 m from properties at The Orchard. No footpath diversion would be necessary in the 1.25 Mt scheme. ID26 is a summary of the main differences between the 1.75 Mt and 1.25 Mt schemes. The 1.25 Mt scheme was the subject of a separate planning application, which was refused by HCC at a committee meeting held in April 2018. [4,22-23]
350. The appellants would like the appeal to be decided on the basis that the 1.75 Mt scheme be considered first, and if found to be unacceptable, that a condition limiting the scheme to 1.25 Mt be imposed. [4]
351. There is some criticism about the way the appellants dealt with EIA for the 1.25 Mt scheme. The approach here may have been confusing to some. However, at the end of the Inquiry process, I am satisfied that the ES and FEI submitted for the 1.75 Mt and 1.25 Mt schemes, which were available for comment during the appeal proceedings, reasonably comply with the requirements of the EIA Regulations. In considering the appeal, and in making my recommendation, I have taken into account the Environmental

Information, which includes all the evidence adduced at the Inquiry. In doing so I have come to a different view about the significance of, and weight to be given to, some environmental effects from that set out in the ES and FEI. [1,2,5]

352. Some of the operations previously undertaken by RJD Ltd have been taken on by Ingrebourne Valley Ltd, but both the appellants named in the appeal documents have legal capacity to lodge an appeal. The appeal should therefore continue in the name of the applicants. [213,293]
353. There is local concern about the identity of the appellants, but this should not be an influential factor in determining the appeal. It was made explicit throughout the Inquiry that any planning permission granted would not be a personal permission, and so would run with the land. [177,208]
354. Some objectors commented on what they considered to be inadequate consultation about the proposal, and a lack of engagement by the appellants. But even if this was a relevant consideration it is not a matter that should be given much weight in determining the appeal on its planning merits. [135,180,189,192-194,201,270,271,274]
355. The Inquiry was advised, and proceeded on the basis, that the proposed development would not require any permit or licensing under the pollution control regime, and so all necessary controls would need to be imposed via the planning system. [18,105,235,318]
356. HCC's case draws comparisons between the appeal scheme and a "PA2 compliant development", which would need to be worked up jointly with the operators of Rickneys Quarry. However, there is no indication what an acceptable PA2 compliant scheme might look like, especially concerning the requirement for appropriate buffer zones in order to minimise any impact of extraction on the existing dwellings in close proximity. Furthermore, there is insufficient evidence to show that if such a scheme did exist that there is a real possibility of it coming to fruition in the foreseeable future. This is not a case where consideration of a less harmful alternative development becomes a material planning consideration. I do not consider that comparing the appeal scheme to a notional PA2 compliant scheme is very helpful in determining this appeal on its planning merits. [39,59,81,82,254-258,260]
357. Exchanges at the Inquiry resulted in a submission by the appellants about tricking or badgering a witness into concessions. However, Mr Symes is an experienced mineral planning consultant, and I do not consider that HCC's line of questioning was unreasonable given the appellants' case as set out in SoC1. Irrespective of any concessions which may, or may not, have been made at the Inquiry, the appeal should be determined on its planning merits having regard to all the relevant evidence adduced. [4,57,240,267]

Main considerations

358. The Secretary of State's reasons for recovering the appeal state that it involves proposals for significant development in the Green Belt, and major proposals involving the winning and working of minerals. However, the direction did not include details about any matters about which the Secretary of State particularly wishes to be informed for the purposes of considering this appeal. The evidence indicates that the main considerations here are as follows. [6]

- (1) The effects of the proposed development on the openness of the Green Belt and upon the purposes of including land within it, and whether the development conflicts with policy to protect the Green Belt.
- (2) The effects of the proposed development on the character and appearance of the area, including cumulative effects.
- (3) The effects of the proposed development on the local amenity of the area and the living conditions of nearby residents, with particular reference to noise, dust, air quality and health.
- (4) The effects of the proposed development on Public Rights of Way.
- (5) The effects of the proposed development on hydrogeology.
- (6) The effects of the proposed development on highway safety.
- (7) The effects of the proposed development on biodiversity.
- (8) The effects of the proposed development on agricultural land.
- (9) The effects of the proposed development on employment and the economy.
- (10) The effects of the proposed development on the supply of housing in East Herts District Council.
- (11) The need for sand and gravel, having regard to likely future demand for, and supply of, these minerals.
- (12) The planning balance.
- (13) The extent to which the proposed development would be in accordance with the development plan for the area.
- (14) The extent to which the proposed development would be in accordance with the revised National Planning Policy Framework (the *Framework*) and the National Planning Practice Guidance (the *Guidance*).
- (15) Whether any permission should be subject to any planning conditions or obligations and, if so, the form that these should take.

359. The remainder of this report addresses the matters outlined above, using the following approach. For each of the main considerations 1-11 above the report considers the likely effects of the proposed development. Impacts are described and significance assessed, taking into account the nature and duration of operations, along with restoration and aftercare. This analysis takes into account, where appropriate, necessary planning conditions and obligations.

360. The significance of effects is a matter of judgement, and for consistency a rating scale is used for negative and positive effects (harm and benefits), increasing from negligible, minor, moderate, substantial and finally major significance. In considering the relative weight to be given to various considerations a scale is used increasing from negligible (little or no weight),

slight, moderate, substantial, and finally great weight. However, there is scope within these bands for varying degrees of fit, and reference to these categories implies no mathematical or objective basis for analysis across the range of considerations involved in this case.

361. My recommendation is based on these findings.

(1) *Green Belt*

362. The appeal site lies within the Green Belt as defined in the development plan for the area. The *Framework* states that the Government attaches great importance to Green Belts. It adds that the essential characteristics of Green Belts are their openness and their permanence. Paragraph 141 provides that in planning positively to enhance the beneficial use of the Green Belt authorities should look for opportunities to provide access and sport/recreation, and to retain and enhance landscapes, visual amenity and biodiversity. [48]

363. When located in the Green Belt inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances (VSC). The *Framework* provides that substantial weight should be given to any harm to the Green Belt, and that VSC will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations. Paragraph 146 provides that mineral extraction and engineering operations are not inappropriate development in the Green Belt provided that they preserve its openness and do not conflict with the purposes of including land within it. These purposes include; to assist in safeguarding the countryside from encroachment, and to preserve the setting and special character of historic towns.

364. The proposal for the site; including the facilities, plant, access and bunds, are part and parcel of the proposed mineral extraction here for the purposes of applying Green Belt policy. If there is any doubt about the bunds, these would be engineered structures, and their construction would be an engineering operation in applying Paragraph 146 of the *Framework*. This paragraph must mean that some level of operational development for mineral extraction in the Green Belt would preserve its openness and would not conflict with its purposes, and that beyond that level the development would become inappropriate in the Green Belt, and so the exception would no longer apply. Determining the tipping point would depend upon the particular circumstances, as a matter of fact and degree, but relevant considerations could include the siting, nature and scale of the operational development in its local context, along with its visual effects, duration and the reversibility of any adverse impact upon the openness and purposes of the Green Belt. This approach would accord with the judgments in *Europa Oil* and *Samuel Smith*. [60,221,222]

365. In terms of openness the appeal site comprises open agricultural fields, which offer expansive views from elevated vantage points over the River Rib valley. Openness as a feature of this part of the Green Belt is apparent from the local description of the one tree located towards the centre of the site as "the lonely oak". Within the site there are only three other trees, which are located near to its western boundary. The openness of the area was cited in

many representations to the Inquiry, as an important element of this part of the Green Belt, and a factor that contributed significantly to the appreciation and enjoyment of the area.

[127,143,146,149,159,160,173,179,185,201,205,272,273,289,314]

366. Plant, equipment, access and activity associated with mineral extraction here would, to some extent, impair the openness of the area. But not enough in my view to exceed the threshold or tipping point for the purposes of applying paragraph 146. However, the proposed bunds would have a greater adverse impact on the openness of the Green Belt. The scheme would include substantial lengths of bunds up to 3 m high to screen views of the operational phases of mineral extraction. These would be constructed and removed as required for each phase, but at times the engineered structures would truncate open views from PRoW within this part of the Green Belt. [61]
367. The bunding around the stockpile and attenuation area would have a greater impact on openness because it would be between 4 m to 7 m high, and could exist for up to 10 years. This is a significant period, which for GLVIA3 in landscape terms, marks a boundary between medium term and long term effects. The bunds would surround a stockpile area that could provide for up to 50,000 m³ of sand and gravel stored up to 5 m high. These bunds and stockpiles would be located on the eastern slopes of the valley facing towards a busy road. The bunds would be prominent structures in close up views from the B158, especially where roadside vegetation was removed to provide the visibility splays for the access junction. Replacement planting would take time to provide some screening, and views would remain through the widened access. [14,15,61,216,272,273,289]
368. The adverse effects of the bunds on openness would be fully reversible in time. Nevertheless, the harm for up to 10 years could be considered as a long term effect. In my judgement, bunds of the length, height and duration proposed in such an open area would have a substantial adverse effect on the openness of the Green Belt.
369. Furthermore, screen planting as it matured would foreshorten views across the site, and so would diminish the openness of this part of the Green Belt. Additional planting is proposed on restoration of the site. Overall, the planting would have a long-term effect by closing off views of the wider open countryside, creating enclosure that would harm the openness of the Green Belt. In those circumstances the tree in the centre of site could no longer be described as "the lonely oak". [159,169,173,181,222,224]
370. Taking into account the temporary effect of the bunds, along with the long-term impact of tree planting, I consider that the proposed development would exceed the paragraph 146 threshold for mineral extraction/engineering operations concerning the preservation of the openness of the Green Belt.
371. Turning next to the purposes of the Green Belt, the proposed development would not be of a type and scale that would conflict with the Green Belt's purpose to assist in safeguarding the countryside from encroachment. However, the southern and eastern parts of the site are near to the northern boundary of Hertford Conservation Area. The local topography provides for views from this area towards historic parts of Hertford. The proposed high bunds and tree planting would adversely affect this relationship from some

vantage points. The bunds would be temporary, but the proposed tree planting would be more enduring. Even allowing for the intervening development at the nursery, along with the proposed housing on the HERT4 site, the proposed mineral extraction would, to some extent, harm the setting of historic Hertford. The proposal would, therefore, conflict with one of the purposes of the Green Belt. [26,157,221,287]

372. The appeal decision cited by the appellants for a well site is not directly comparable to this scheme for the extraction of sand and gravel. In particular, the wellhead assembly was permitted for a temporary period of five years, which is half the duration of the proposed 1.75 Mt scheme. [223]
373. For these reasons, the appeal scheme would not preserve the openness of the Green Belt. It would also conflict with one of the purposes of including land within the Green Belt. So the exception for mineral extraction would not apply. Therefore, the proposal would be inappropriate development in the Green Belt, which is by definition harmful to the Green Belt. The following sections of this report consider whether the proposal would result in any other harm, and then has regard to other considerations, so that the Secretary of State can undertake a balancing exercise to determine whether VSC exist.
374. However, if the Secretary of State were to find that the proposed mineral extraction was not inappropriate development in the Green Belt, then the proposal would not result in harm to the Green Belt, and there would be no conflict with local or national Green Belt policy. In this scenario, the planning balancing exercise would be a straightforward weighing of the benefits and the harm, having regard to relevant policy considerations. This is considered in more detail in section (12) of these conclusions.

(2) Character and appearance

375. The 36.1 ha appeal site is located just beyond the northern edge of Hertford. It is arable land. Adjacent land use includes farmland and woodland to the north and east extending to the River Rib, a plant nursery and allotment gardens to the south near to residential properties in Bengoe and a primary school. To the west lies the partially restored Rickneys Quarry. The site lies within National Landscape Character Area 111: Northern Thames Basin, and falls broadly into the Hertfordshire Plateau and River Valleys sub-character area. This is a diverse landscape formed by a wide plateau dissected by a series of broad river valleys with extensive areas of broadleaved woodlands. [24,27,28]
376. In the *East Herts District Landscape Character Assessment 2007* the appeal site is located within an interfluvium of the rivers Beane and Rib, area '069 Stoney Hills'. The landscape character is described as gently undulating light arable upland and valley slopes, with key characteristics including active, disused and restored mineral extraction sites, with a mix of field sizes and variety of after uses, along with an abrupt transition from urban to rural character on the edge of Bengoe. Overall the area is judged to be in a poor condition, with high impact of land-use change, and of moderate strength of character, with the impact of landform and land cover considered to be apparent, the area open and locally visible, and unusual in terms of distinctiveness/rarity. [29-32]

377. In the *Landscape Character Assessment, Evaluation and Guidelines for Southern Hertfordshire supplementary report on: The suitability of landscape character areas for mineral extraction* 2001 the landscape strategy for this area is 'improve and restore', reflecting the existing impact of mineral extraction. The site profile suggests that mineral extraction might be possible, but that extreme care would be required to ensure that there was no permanent damage to local landscape character, adding that it might be preferable to keep it within the centre of the plateau rather than on the edges, where it would be more visible and closer to settlements. The report notes that it is unlikely that low level restoration would be appropriate. [33,219]
378. The appeal site is not the subject of any of the designations given to landscapes whose character and appearance justifies either a statutory status or recognition of their quality in the development plan. But neither is a large part of the English countryside, which is nonetheless much appreciated for its open views and the sense of space it provides. These landscapes are especially important as a foil to urban settlements. There is considerable anecdotal evidence about the role the appeal site plays in this regard, which is borne out by the evidence about the actual use of the formal and informal footpath network. I consider that the appeal site is a landscape resource and visual amenity of considerable importance because of its proximity to the urban area. [127,146,152,154,156-159,168,179,180,185,188,190,205,216,272,273,285,287]
379. Previous mineral extraction, including the partially restored Rickneys Quarry, which adjoins the appeal site, is a strong influence on the overall character and appearance of the area. But the fact that the appeal site retains its natural landform makes it important in its local context. It is more difficult here to sustain an argument that the altered configuration of the landscape in the wider area is a factor that presumes in favour of more extraction and restored landform. On the contrary, the local context bolsters the case in favour of retaining what is becoming something of a scarce resource around Hertford. [35,128]
380. On this basis, I consider that during the operation the proposed development would have a harmful effect on the landscape character of the area. But during this time its visual impact would be more significant. The bunds would, to some extent, screen views into the working area of the quarry, but it is unlikely that they would obscure all activity within the operational area because of the site contours. However, they would themselves be intrusive features in this attractive open countryside. The bunds would be prominent features from public vantage points because of their siting, length and height. [15,64,287,315,316]
381. The stockpile area would be sited on a level platform with a base of about 50 m AOD, with stockpiles up to 5 m high, behind bunds some 4 m to 7 m high. The access would be located at a low point along Wadesmill Road, at below 48 m AOD. So the stockpile area and surrounding bunds would be prominent in views from the road, whether from passing vehicles or those emerging from the public footpath opposite to the proposed junction. This would be especially so where roadside vegetation was removed to provide visibility splays, and before screen planting matured. The bunds and

stockpile area would be incongruous features within these eastern slopes down from the plateau. [17,63,217,315,328]

382. During the operation of the site, for up to 10 years, I consider that the proposed development would have an adverse effect on the visual amenity of the area of major significance.

383. The proposal to restore the site to primarily agricultural land would not be out of keeping with the character of its surrounds. However, the restored landform and tree planting would have important consequences for the visual amenity of the area.

384. The Restored Landform (Plan No.1217/R/1) indicates that in the northern part of the appeal site the restored ground level would in places be a considerable distance below the existing level. The way in which the excavated land would join up with the existing contours along the eastern side of Phase 4 would create a long shallow ridge line cutting across the natural fall of the land down to the road. Such a feature would sit uncomfortably with the existing slopes down this side of the valley. I consider that the restored landform would give the landscape an artificial crumpled appearance. This is apparent from the submitted cross-sections, and would appear as a jarring feature in the rounded hill sides on the edge of this valley. The proposed low-level restoration would not be appropriate in the landscape context which applies here.
[33,65,127,159,168,173,188,191,201,218,287,309,315]

385. The proposed tree planting for screening and restoration, would gain some support from the 'improve and restore' strategy and guidelines for managing change in the *East Herts District Landscape Character Assessment 2007*. The measures specified might generally be appropriate for the '069 Stoney Hills' area. But these are guidelines, which should be applied having regard to the particular site circumstances. I consider that the appellants' hedgerow and tree planting would be the wrong landscape strategy for the appeal site. There is considerable evidence that the site is appreciated for its open views over the Rib Valley. An appropriate restoration strategy should aim to maximise this as a feature in the restored landscape. Not only would the proposed restored landform conflict with this aim, but planting trees and vegetation would also screen out distant views.
[32,127,143,152,168,197,201,217,219]

386. Given the local topography and separation distances, I concur with the appellants' assessment that the appeal scheme would be unlikely to have any significant adverse cumulative landscape effects with other quarries operating in the area at the same time. However, the sand and gravel formations around Hertford have been quarried extensively over many years. The *Guidance* provides that in areas subjected to successive aggregate extraction over a number of years the cumulative impact is capable of being a material consideration when determining individual planning applications. [54]

387. The appellants' landscape assessment does not give this adequate consideration. It seems to me that repeated extraction/restoration on different sites around Hertford over time has a temporal cumulative adverse impact on the local landscape. Any proposed scheme should be assessed in that context, and not just on the harm attributable to each incremental

addition to the process of landscape change over time. I find that the cumulative impact of the appeal scheme, over time, should be taken into account, and adds to the overall harm to the landscape resource. [128,166,167,174,191,196,206,287,291]

388. The operational development to extract, screen, stockpile and transport sand and gravel would have an adverse effect on the character and appearance of the area of major significance, albeit for a limited duration. On restoration, I consider that the scheme, by reason of the restored landform and tree planting, would have an adverse effect of moderate significance. It would not accord with the 2001 guidelines for *The suitability of landscape character areas for mineral extraction* because large bunds would be sited on the edge of the plateau, and the proposed low level restoration would not be appropriate here. Given the history of mineral extraction in the area, cumulative landscape harm over time is also a relevant consideration. Overall, I find that the appeal scheme would have an adverse effect on the character and appearance of the area of substantial significance.

(3) Local amenity and living conditions

389. There is considerable local concern about noise, dust, air quality, and the associated effects on the health of those living in the area, attending the school, and using the allotments or local footpaths. The nearest dwelling on Sacombe Road would be 10 m from the toe of the nearest proposed bund, and 28 m from the nearest operational part of the quarry. The corresponding distances for the nearest dwelling at The Orchard are 23 m and 43 m. Waterworks Cottage and Glenholm would be, respectively, about 68 m and 215 m from the operational area. Bengoe Nursery would be 150 m from the operational area, the playing field 167 m, the allotments 281 m and Bengoe Primary School 360 m. [8,25,143,146,148,150,151,154,169,171,175-177,179-185,272,273,275,276,281,282,286,313,314,316]
390. The submission of the HIA enabled HCC in SoCG3 to agree with the appellants that the potential for a significant adverse population health effect would be unlikely provided that the mitigation, monitoring and response mechanisms described in the appellants' revised air quality assessment were secured by conditions and adhered to, including an appropriate dust management plan. However, HCC disputes the appellants' noise assessment. [7,240]
391. A restricted working zone would be created within 70 m of properties at The Orchard, within which operations would not take place when the wind direction was from the north-eastern quadrant. The screener and loading shovel would not be operated within 250 m of any residential premises. Noise limits are proposed for nearby residential properties, but not agreed by the parties. The upper working limit in the *Guidance* of 55 dB(A) would not be exceeded, excepting for work on bunds, at any noise sensitive location at any time during operations, even if the appeal site was worked simultaneously with Rickneys Quarry. However, the noise experts disagree about possible exceedances of the normal working noise limit level of 10 dB above the background level. Nevertheless, the appellants are satisfied that the noise produced by the operation of the site would not exceed 48 dB(A) at The Orchard, and are content to accept this as a noise limit. [16,227-229]

392. HCC considers the limit at Sacombe Road should be set at 48 dB(A); the appellants consider that it should be 52 dB(A), but are confident that the site could be operated without exceeding 50 dB(A), and are content to accept a condition to that effect. The disagreement arises from differences in recorded background levels from which the limit is derived. I share HCC's concern about the appellants' L_{A90} measurements. Background levels are not affected by raised sound levels for short durations. So it is difficult to explain the difference between the appellants' L_{A90} measurements for The Orchard and Sacombe Road, unless it was affected by the positioning of the microphone close to a hedge with rustling leaves. I concur with HCC that any noise condition imposed should specify a limit of 48 dB(A) at Sacombe Road. This could be exceeded if the appeal site was worked at the same time as Rickneys Quarry. [67,230,311]
393. The noise experts also disagree about the assessment of the sound power levels for plant likely to be used in the minerals operation. But irrespective of whose analysis is preferred, the evidence indicates that at times the operation would be likely to generate noise levels close to the acceptable limits set out in the *Guidance*. In certain weather conditions noise could exceed acceptable limits for short periods. In addition, the character of noise emitted by operational development would be distinctive. If this resulted in complaints, these could take time to monitor, and to devise and implement mitigation measures. During such times noise could be intrusive for local residents, especially given the proximity of dwellings at Sacombe Road. [66,231,232]
394. I am not convinced, given the separation distances between the proposed excavation and nearby dwellings that there would be sufficient headroom here, between likely noise levels from the operation and acceptable noise limits, to be confident that the proposed development would not, at times, result in an adverse noise impact that would harm the living conditions of nearby occupiers and the amenity of the area. On the available evidence, I am unable to find that the proposal would accord with MLP Policy 18(viii) or with the aim of the NPSE to avoid significant adverse impacts on the quality of life. I find in these circumstances that noise is a consideration which weighs against granting planning permission. [68-70,231,306]
395. Air quality and health is not an issue for HCC, but is a major concern for residents and for parents of children attending the school, and particularly so for vulnerable members of the local community. This was an issue raised by objectors with HCC during consultation on the application, and in many written and oral submissions to the Inquiry. The findings of the HIA were accepted by HCC, but vigorously contested in the 156 written submissions received during the adjournment, and by expert evidence adduced at the Inquiry. SBQ's concern is the extent to which air quality impacts from the proposed operation would be responsible for health effects on people in the local community, in particular on especially vulnerable groups within the site-specific population. [10,107-112,138,168,178,190,194,203,209-212,239]
396. Local fear and anxiety about air quality and health effects is not irrational. The concerns of residents and parents is understandable given that the EA, when consulted about the 2.6 Mt scheme in April 2016, recommended that conditions be imposed, wherever possible, that would make the development air quality neutral. The EA added that the site is located in an area of

significant concern regarding air quality and that there are already high levels of PM₁₀ and NO₂. Robust conditions were recommended to address mineral screening, road sweeping, road surfaces, wheel washing, vehicle and plant emissions, reducing vehicle idling, construction logistic plans, diesel or petrol generators, chutes/conveyors and skips, covering vehicles, along with advice on using dust suppressants. In addition, Public Health England advised that air pollution, from a range of sources, not solely from the proposed quarry, is a potential threat to the health of the wider community, and acknowledged that those with pre-existing respiratory conditions, such as cystic fibrosis and asthma, are considered a sensitive population if exposed to airborne pollutants, such as particulate matter (PM). Published articles also state that there is no threshold below which health effects do not occur. [137,144,145,149,177,186,189,201,292,297,298,310,317,319]

397. Visible dust and the heavier airborne emissions from the operation would settle out quickly, and so would largely be contained within the site or by the vegetated bunds around the excavated area. Measures that could be included in an approved dust management plan were discussed at the Inquiry. Properly implemented, these would ensure that dust leaving the site would not put existing development at an unacceptable risk from the larger airborne emissions from the minerals operation. This is a matter that could be adequately addressed by the imposition of a planning condition.¹⁶⁹ [120]
398. Smaller particulate matter, PM₁₀ and PM_{2.5}, would be more widely dispersed. These would include particulate emissions from diesel vehicles and plant operating on the site. IAQM data indicates that properties within 300 m of quarries could be exposed to between 5-10 µg/m³ extra PM₁₀. However, this was for all the mineral types surveyed, and the limited data available for sand and gravel quarries does not indicate significant additional PM₁₀ at any of the distances surveyed. [118,139,202,296,299,301]
399. The appellants' air quality assessment follows accepted practice. But as with all modelling, the outcome must necessarily reflect its underlying assumptions and limitations, some of which were challenged by SBQ. Nevertheless, the modelling provides some confidence about likely compliance with national air quality objectives/limit values for suspended PM, with respect to 24 hour and annual averaging periods. However, it is not able to allay the fears of local residents about the likely occurrence of short-term peak concentrations of air pollution, and the resultant impact on vulnerable receptors. Epidemiological studies focus on health effects for populations, and so it is often difficult to draw meaningful conclusions about the likely effects on vulnerable people, such as the young, old, those with asthma, COPD or other respiratory conditions. Concern for particular individuals and vulnerable groups within the local population, in these circumstances, is not unreasonable. [113-117,121,137,151,183,184,186,187,209-211,241-243,293-296, 299,300,310,311,313]
400. The HIA applies the UK/EU PM_{2.5} threshold of 25 µg/m³ which is higher than more recent thresholds established by WHO (10 µg/m³, 2014) and

¹⁶⁹ Suggested Condition 34.

applied in other countries. Objectors argue that the appellants' modelling shows that in areas surrounding the appeal site PM_{2.5} exceeds 10 µg/m³ without a quarry, and so any increase cannot be justified. This should not be a decisive consideration because it has not been demonstrated here that any increase in PM_{2.5}, irrespective of its size, would result in an unacceptable level of air pollution. Nevertheless, the WHO threshold adds to local consternation about the health implications of the appeal scheme. [109,202,299]

401. A proportion of PM₁₀ emitted from the proposed development could comprise respirable crystalline silica (RCS), which is a known carcinogen. There is no evidence about what proportion this might be, or how likely working the Kesgrave formation would be to generate RCS emissions. There is evidence that RCS risk is increased where a source material is crushed, whereas the appeal scheme only proposes screening. However, RCS is a recognised hazard for personnel working at quarries, and an emotive issue for worried parents of children who live in the area or attend the local school. The lack of reliable data here about RCS fuels the local community's legitimate fears about adverse health outcomes in the long term. [119,130,139,151,172,202,244,298,302,303]

402. I consider that dust could be controlled by condition, but noise would be likely to be intrusive at times because of the proximity of dwellings. In addition, there is considerable local fear and anxiety about air pollution and health risks from PM and RSC, which is sufficient here to be a material planning consideration in its own right. Taking all the above into account, I consider that the appeal scheme would have an adverse effect on the living conditions of residents and on the amenity of the area of moderate significance.

(4) Public Rights of Way

403. The route across the site has been recognised as an Asset of Community Value, which is used for health walks. The proposed temporary diversion of the PRoW around Phase 4 and the provision of permissive paths would be necessary mitigation during the operation. Even so, the scheme would render the local PRoW network less attractive whilst the site was being worked. I consider that for the duration of the operation the proposed development would have an adverse effect on the PRoW network of minor significance. [21,71,142,143,156,158,160,168,178,182,188,233,273,285,]

404. Proposed additions to the PRoW network following restoration would be beneficial in terms of providing some more routes for users. However, the restored landscape would not be as open as it currently is, and so it might not be used in the same way as it is today. The advantage of additional routes in those circumstances may not result in more people using and benefitting from the local footpath network. This would be especially so for those seeking open countryside outside the urban area. [134,152,158,188,201,234,307,308]

405. Nevertheless, the additions to the PRoW network would be permanent, and so of some advantage in the long term. Overall, I find that the scheme would, in terms of PRoW, offer a benefit of minor significance, which should be given some slight weight in the planning balance. In this regard the proposal would gain some support from MLP Policy 18(x). [72,73,234,315]

(5) Hydrogeology

406. The risk of groundwater pollution was not cited by HCC as a reason for refusal, but potential harm to the aquifer and to the public water supply is of great concern to local residents, and was an issue taken up by the Rule 6 parties at the Inquiry. [89,136,143,162,171,181,201,205,212,214,273,275,276,278,283,304,328]
407. The sand and gravel overlies chalk, designated as a principal aquifer, which provides a significant source of water for public supply abstractions in the area. Phase 4, Phase 3 and part of Phase 2 of the proposed development are within the Inner Source Protection Zone (SPZ1) for the Wadesmill Road Pumping Station (PS), which is operated by Affinity Water (AW). [34,99]
408. If the proposed operation mobilised and transported fine materials to the aquifer there would be a risk to groundwater quality from increased turbidity. Accidental spillage of oil and fuel would result in a higher risk to water quality. Hydrocarbon pollution of the aquifer would result in an adverse impact of major significance. The proposed mitigation relies on retaining a protective layer of residual materials above the chalk, measures to regulate the storage and use of fuel, along with training and protocols for any spillage. The fuelling area would be sited in an area that is shown on the site geology plan to be underlain by clay. Plant would be refuelled only in a bunded fuel storage area, and there are regulations which control fuel storage. These are relevant factors in assessing the likely risk of groundwater pollution. [17,56,92,236]
409. In accordance with its adopted policy, the EA would normally object in principle to any planning application for a development that may physically disturb an aquifer. The EA notes that the appeal site lies in a highly sensitive groundwater area, very close to an abstraction for a public water supply, and that it is essential that there is no harm to the water environment as a result of the development. The EA was aware of local concerns about the roughness of the chalk surface, but concluded that planning permission could be granted subject to the imposition of planning conditions. These included groundwater monitoring in respect of contamination and turbidity, along with any necessary contingency action. [55,104,235,318,320,321]
410. This condition would detect pollution after it had occurred, and provide for some remediation. But neither this condition, nor any of the others suggested by the EA, would provide an appropriate safeguard for the aquifer by preventing or minimising the likelihood of groundwater contamination before it occurred. This is particularly important here where it is accepted that the aquifer is vulnerable to contamination due to the presence of the fracture network, which permits very rapid flows, and that if contamination entered the chalk matrix it would be difficult to remove. [55,91,97,136,235,236,318,320]
411. To ensure that the Wadesmill PS was protected from any potential pollution that could be initiated from the appeal scheme, AW proposed a condition requiring; "300 m zone of unworked basal layers from the Wadesmill PS of 5 m thickness; 500 m zone of unworked basal layers from the Wadesmill PS of 3 m thickness; rest of site unworked basal layer 1 m thickness". Nearly all of Phase 4 of the appeal scheme would lie within 300 m

of the Wadesmill PS. Reliance on a distance based approach was challenged by SBQ on the grounds that flow rates and routes within the chalk aquifer should also be taken into consideration. These would depend upon the presence and extent of water-bearing fractures and karstic features in the aquifer. [34,92,93,162,237,326]

412. The effectiveness and enforceability of the condition suggested by AW would require a method for determining the thickness of the unworked basal layer. The thickness of the basal layer would depend upon the height of the underlying chalk. This would need to be known with some accuracy so as to be able to determine whether the condition had been breached or not. If the methodology was not reliable, this would call into question whether the condition complied with the legal and policy tests for planning conditions.
413. In this matter the appellants rely on the plan entitled "Topography of Chalk surface" Hafren Water (Drawing 2482/POE/03) showing the interpolated elevation of the top of the chalk from borehole data from bores located within and near to the appeal site. These contours would be used to generate a 3D GPS model that would control the depth of excavation. The undisturbed material that would remain above the chalk, using these contours to determine the position of the chalk rockhead, is shown on Isopachytes Drawings. [20,96]
414. However, for large parts of the site this interpolation is from boreholes that are widely separated, with considerable height differences reported in the elevations of the top of the chalk. The contours are derived on the assumption of a smooth gradation of this elevational difference between the boreholes. But there is no convincing evidence that this assumption is correct. The EA is not able to provide any assistance in this regard as it does not have the in-house capability and competence to carry out non-intrusive geophysical surveys to estimate the thickness of the top soil layer, relief and heterogeneity of the top of the chalk. [94,104,164,]
415. Research in other parts of southern England has shown that the top-chalk surface is rough. The photographic evidence of exposed chalk in Rickneys Quarry in the 1990s is not conclusive, but raises the possibility that peaks in the chalk rockhead might exist in the appeal site. Given uncertainty about the rockhead surface, it would not be reasonable to rely on the interpolated elevation of the top of the chalk shown on Drawing 2482/POE/03 as the basis for assessing compliance with AW's suggested condition. [95,163]
416. Furthermore, this is not a case where it would be reasonable to rely on standard leaks and spills mitigation measures. These would not prevent spilled contaminant from filtering down into the aquifer. Significant pollution could travel so rapidly through fissures that even a speedy response to a pollution incident at the surface would be ineffective. The only effective mitigation measure would be to immediately excavate the affected sand and gravel and to securely transport it to a containment area so that it could be safely removed from the site. Whether this would be practical in all potential pollution scenarios is doubtful. [101,163,236,305]
417. I have considered whether the potential contamination of the aquifer is a matter that could be dealt with by the imposition of the conditions suggested

by the parties.¹⁷⁰ In the absence of more details about what methodology would provide a reliable safeguard, it seems to me that the condition suggested by HCC and the appellants might unreasonably impact on the deliverability of the development. Especially so for parts of Phase 3 and Phase 4, where the available Isopachyte data indicates that the protective basal layer would be likely to be at its thinnest. SBQ's suggested condition would provide a greater safety margin. But it would be considerably more onerous, and would suffer from the same defect as the condition suggested by HCC/appellants. If SBQ's suggested Hydrogeological Impact Assessment precluded safe mineral extraction that would be an indication that planning permission should have been refused. The suggested conditions would just defer consideration of this issue to a later application for approval to discharge the condition. I consider that safeguarding the aquifer is an important matter that would need to be satisfactorily dealt with in deciding whether planning permission should be granted. [96,98,102]

418. Conditions in a similar form to that suggested by AW have been applied in other consented sand and gravel mineral sites located in SPZs, and no evidence was adduced at the Inquiry that these have proved to be inadequate safeguards. However, it is not clear what the evidential basis was for the imposition of these conditions, or whether the circumstances that applied in those cases were directly comparable to those that apply here, in terms of the local geology, the proximity of abstraction bores, and the overall risk to groundwater supplies in both the short and long term. [103,238]
419. I do not consider that it would be possible on the information currently available to devise a condition that would appropriately address this matter. Taking into account the intended pollution control measures dealing with fuel storage and refuelling plant in a contained area, I consider that the risk of contaminating groundwater would give rise to an adverse effect of moderate significance, which should be given substantial weight because of the implications for a public water supply. [17,56,99,100,136]
420. In the absence of an appropriate mechanism and planning condition to safeguard the aquifer, I find that the proposed development would pose an unacceptable risk to groundwater pollution, and so would conflict with MLP Policy 17(iv) and Policy 18(ix), and would have an unacceptable adverse impact on the natural environment for the purposes of applying paragraph 205 b) of the *Framework*.

(6) Highway safety

421. There is local concern about the effects of additional HGVs using the road network, but no objection from the highway authority. The scheme could add up to 50 HGV movements in, and 50 out, in any working day. A suggested planning condition would specify no more than 8 HGV lorry movements (4 in / 4 out) entering/leaving the access/egress onto Wadesmill Road during the peak hours.¹⁷¹ Signs would be erected at the site exit requiring all HGVs to turn left onto the B158 towards the recently improved Anchor Lane roundabout on the A602. Notwithstanding its vertical and horizontal

¹⁷⁰ These are included as Condition 42 in the Schedule of Conditions.

¹⁷¹ Suggested Condition 9.

alignment, the accident record does not indicate any significant underlying safety problem along this part of the B158. With appropriate visibility splays and a segregated right turn lane for HGVs to wait to turn into the site, I am satisfied that the scheme would provide safe and suitable access. Other objections to the scheme on safety grounds, about footpaths crossing the access or haul roads, and ensuring that the highway was kept clean of tracked out mud and gravel, are matters that could be addressed by enforceable planning conditions.

[19,131-133,141-143,155,170,181,185,198,199,204,233,245,272,273,275, 276,278,284,312,314,325]

422. Additional HGVs on the B158 and using the Anchor roundabout would have some effect on other road users, especially vulnerable cyclists and pedestrians. But given the number of vehicles involved and the proposed conditions/obligations, I do not consider that any adverse effect would be of more than negligible significance. Residual cumulative impacts on the road network would not be severe, and any increased risk to highway safety would fall far short of an unacceptable impact that would, in accordance with the *Framework*, justify preventing the development on highway grounds. Local apprehension about additional HGV movements is understandable, but I do not consider that any resultant harm to highway safety should weigh significantly against the proposal. I find no conflict with MLP Policy 16.

(7) Biodiversity

423. The appeal site is not subject to any wildlife designations, but adjoins St John's Wood local wildlife site. There are no objections from statutory authorities on ecological grounds, but this was a concern raised by some objectors. [36,246,272,273,275]
424. Local wildlife groups expressed concern about a threat to St John's Wood from the impact of the depression on surface and sub-surface flows of water, and prevailing winds increasing dust. But there is no evidence to dispute that the trees in St John's Wood are dependent on rainwater, rather than standing groundwater, and so a significant adverse impact from the proposed mineral extraction would be unlikely. The Woodland Trust recommends a 100 m buffer for St John's Wood, noting that ancient woodland is particularly sensitive to dust. However, measures required by an approved dust management plan would reasonably safeguard nearby woodland from dust emissions from the appeal scheme. [33,153,236,287,323,324,327]
425. The appeal site is arable land, but used by some wildlife, including brown hare, skylarks and foraging badgers. During the 10 years of the operation some wildlife would be displaced or disrupted, but on restoration the planting and management proposed would be advantageous for biodiversity. However, there is no guarantee that these beneficial features would be retained beyond the after-care period. Local wildlife groups consider that the proposed after-care period would be inadequate to establish semi-natural habitats, and that an alternative and more appropriate mitigation strategy could provide real and sustainable gains in biodiversity. The likelihood of any long-term ecological benefits might only be sufficient to compensate for the harm to biodiversity during the extraction operation. For these reasons, I find

that the proposal would, overall, have a neutral effect on biodiversity.
[173,247,248,323]

(8) Agricultural land

426. The scheme proposes restoring most of the site back to agricultural use. However, some BMV agricultural land would be permanently lost for the proposed water attenuation area. Furthermore, it could take many years for the restored agricultural land to return to its current productive capacity. The proposal would not, therefore, accord with the provisions in the *Framework* concerning the protection of soils. There would be some harm to agricultural land, which I consider would be an adverse effect of minor significance, but nonetheless should be given some slight weight in the planning balance.
[23,49,220,291]

(9) Employment and the economy

427. The addition of six full-time employees to the workforce for up to 10 years would make a modest contribution to the local economy. The enterprise would have some secondary or multiplier economic effects, which again would be modest, but nonetheless beneficial. Given the nature and scale of the proposed operation, I consider that the likely effect on the economy would be a benefit of minor significance. This is a consideration which should, in accordance with the *Framework*, be combined with the need for minerals from the appeal site, and the resultant benefits of their extraction, to give a single weighting in the planning balance. [14,47]

(10) Supply of housing

428. Policy HERT4 of the EHDP allocates land to the south of the appeal site for residential development to accommodate a minimum of 150 homes, with around 50 dwellings provided to the north of Sacombe Road by 2022; and, subject to the satisfactory previous phased extraction of mineral deposits on the neighbouring site, around 100 homes to the west of the B158 Wadesmill Road between 2022 and 2027. Compliance with this policy could be achieved by planning controls on the phasing of mineral extraction and housing development over the period up to 2027. There is considerable time to devise and implement a programme that would achieve a satisfactory planning outcome. There is no convincing evidence that implementation of the appeal scheme is necessary to enable future housing development to comply with Policy HERT4. I find that dismissing this appeal would not be likely to have any material effect on the future supply of housing in East Herts. [42,59,83-86,126,185,200,204,265]

(11) Demand for and supply of sand and gravel

429. At the last annual review there was 7.5 years supply of sand and gravel on the basis of an apportionment exercise with a requirement of 1.39 Mt pa. Since then planning permission has been granted for 0.45 Mt at Furze Field. The release of additional land at the BAE Aerodrome site would significantly increase the supply. The BAE site benefits from a resolution to grant planning permission subject to finalising legal agreements. This resolution took into account the matters raised by the appellants concerning the BAE site's Green Belt location, and the fact that it falls partially outside the designated

Preferred Area. The Inquiry was advised that the only outstanding matter delaying the grant of planning permission concerns legal provision for a Country Park. No evidence was submitted to dispute this. The available evidence indicates the likelihood that the BAE site will make a substantial contribution to the landbank in the near future.

[46,75,76,129,181,212,215,249,250,252]

430. The evidence does not indicate any compelling local need for sand and gravel from the appeal site. In coming to this finding I have had regard to the criteria set out in the *Guidance* for the grant of permission even if it is considered that the landbank is adequate. There is no convincing evidence of significant future increases in demand that can be forecast with reasonable certainty, or that the location of consented reserves is inappropriate. Furthermore, there is nothing to indicate that the output from consented reserves would be limited by constraints. Given my findings about the relationship between the appeal scheme and housing development of the HERT4 site, the likelihood of sterilisation of resources is not a consideration which weighs in favour of allowing the appeal.

431. Nevertheless, there is evidence that Hertfordshire's productive capacity is dwindling with a number of quarries closing, and in providing a steady and adequate supply of aggregates there would be advantage in having productive sites available in a variety of locations so as to minimise transport impact. In the circumstances that apply here, I find that the contribution that the appeal scheme would make to the supply of sand and gravel is a consideration of moderate significance in favour of the proposal.

[74,165,251,253,275]

(12) Planning balance

432. If the Secretary of State finds that the proposed development is inappropriate in the Green Belt, the planning balance is whether the harm by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations, so as to amount to the VSC necessary to justify the development.

433. The harm I have identified to the Green Belt should, by definition, be given substantial weight. In addition, I have found that the proposal would have an adverse effect on the character and appearance of the area, which should be given substantial weight. The harm to the amenity of the area should attract moderate weight. In the absence of an effective mechanism and planning condition to safeguard the aquifer, I consider that the risk of water pollution should be given substantial weight. Some slight weight should be given to the loss of agricultural land. Any increased risk to highway safety would be negligible, and so should not weigh in the planning balance. For the reasons set out above, the appeal scheme would have a neutral effect on biodiversity.

434. Other considerations cited by the appellants to weigh in the VSC balance include; the benefits of mineral extraction; the temporary nature of the works; the long-term landscape and ecological benefits; permanent enhancements to the PRoW network; and the benefits of extracting the minerals to allow the delivery of houses on the northern part of the HERT4 site. HCC argues that the only matter here which could conceivably constitute VSC is need. [62,225]

435. Given the landbank and measures HCC are taking to increase the supply of sand and gravel, I have found that the contribution of minerals from the appeal site would be a benefit of moderate significance. The six full time jobs and other operational aspects of the development would make a modest contribution to economy. These benefits should be awarded great weight, as required by the *Framework*.
436. The temporary nature of the works should not be given much weight as that is the nature of mineral extraction. It is a consideration in determining the quantum of any harm, but cannot also be used as a factor to weigh in favour of a proposal in assessing whether VSC exist. I have found that the proposal would result in long-term landscape harm, and that the likelihood of any long-term ecological benefits might only be sufficient to compensate for the harm to biodiversity during the extraction operation. Neither of these weighs significantly in favour of the proposal.
437. The scheme would result in permanent enhancements to the PRoW network, which is a benefit that should be given some slight weight. The delivery of houses on the northern part of the HERT4 site is not dependent upon the implementation of the appeal scheme. Contrary to the appellants' submission, this is a consideration that should attract little or no weight.
438. In this inappropriate development scenario, I consider that the other considerations, comprising the benefits of the proposed sand and gravel extraction and the contribution the scheme would make to the economy, which attract great weight, and the benefits to the PRoW network, would not outweigh the harm to the Green Belt along with the harm to the character, appearance and amenity of the area. The increased risks to the aquifer in the absence of an appropriate safeguarding mechanism and condition, along with the loss of agricultural land, would tip the balance even further against the proposal. In my judgement, the harm by reason of inappropriateness, and any other harm, is not clearly outweighed by other considerations, and the VSC necessary to justify the development do not exist. In this scenario, the proposed development would conflict with EHDP Policy GBR1, and would be contrary to national policy concerning the Green Belt. [88,268,269]
439. If the Secretary of State finds that the proposed mineral extraction is not inappropriate development in the Green Belt, then the planning balancing exercise should weigh the benefits against the harm, giving great weight to the benefits of mineral extraction, including to the economy. In this scenario, I consider that the overall harm identified to the character, appearance and amenity of the area, would outweigh the benefits of the proposed sand and gravel extraction and the contribution the scheme would make to the economy and to the PRoW network. The increased risks to the aquifer in the absence of an appropriate safeguarding mechanism and condition, along with the loss of agricultural land, would tip the balance even further against the proposal.

(13) Development Plan

440. The Secretary of State is required to decide this appeal having regard to the development plan, and to make the determination in accordance with it, unless material considerations indicate otherwise. HCC's reasons for refusal refer to the East Herts Local Plan 2007, but East Herts District Plan (EHDP) was adopted in October 2018. The development plan also includes saved policies of the Hertfordshire Minerals Local Plan Review 2007 (MLP). [37-42]
441. Significant areas of the appeal scheme would be located outside the boundaries specified in PA2. The proposal would not be an extension to Rickneys Quarry, nor would it use its existing access from the B158. Furthermore, given my findings about the effects of the proposal on the living conditions of residents and the amenity of the area, I am not satisfied that the scheme would provide appropriate buffer zones. For all these reasons, the proposed development would not accord with MLP Policy 3. [58,77,78,80,87,88,259,261,290]
442. Working outside the Preferred Area is not justified on the grounds of the current landbank, prejudice to the timely working of preferred areas, or the likely sterilisation of resources. So the appeal scheme would not gain material support from MLP Policies 4 and 5. With an overall neutral effect on biodiversity the proposal would not gain support from MLP Policy 9. The restored landform and tree planting would result in a loss of openness, which is a distinctive landscape feature of the appeal site, and so the proposal would not accord with MLP Policies 12 and 18(ii). Considered successively with past mineral extraction in the wider area, the scheme would be at odds with the underlying objectives of MLP Policy 11. On the available evidence, I am unable to find that the proposal would accord with MLP Policy 18(viii) concerning noise. In the absence of an appropriate mechanism and condition to safeguard the aquifer which feeds an important public water supply, I am unable to find that the scheme would comply with MLP Policies 17(iv) and 18(ix). However, it would gain some support from MLP Policy 18(x) concerning PRow. [79,90,106,260,262-264,266]
443. If the Secretary of State finds that the development would be inappropriate in the Green Belt and concurs that VSC do not exist, then the proposed development would conflict with EHDP Policy GBR1.
444. Taking all the above into account, I find that the proposal would conflict with the development plan when taken as a whole.
445. HCC is in the process of reviewing the Minerals Local Plan, and a Consultation Draft (eMLP) has been the subject of public consultation. The eMLP was cited by many objectors because it recommends that Bengoe Field should not be a "preferred area" for quarrying. Some considered the proposal to be premature because the eMLP has already been approved by the HCC Environment Panel. However, objections to the plan have yet to be heard at examination. Given the stage the eMLP has reached it cannot be given much weight in determining this appeal. [43,90,167,207,277,288]
446. The appeal site lies within the area designated for the Bengoe Neighbourhood Area Plan (BNAP), but this plan is at an early stage of preparation and its draft provisions can be given little weight at this stage. [44,182]

(14) Framework and Guidance

447. In terms of compliance with the *Framework* the scheme would gain support from the great weight to be given to the benefits of mineral extraction, including to the economy. However, it would be at odds with policy about enhancing the natural and local environment and recognising the intrinsic character and beauty of the countryside, and the economic and other benefits of BMV agricultural land. On the available evidence, I am unable to find that the proposal would accord with the aim of the NPSE to avoid significant adverse impacts on quality of life. Where all necessary controls would need to be imposed by the planning system, I am unable to conclude in the absence of an appropriate mechanism and conditions to safeguard groundwater that the appeal scheme would not result in an unacceptable risk of water pollution. [45,47,49,50,51,52,106]
448. If the Secretary of State finds that the development would be inappropriate in the Green Belt and concurs that VSC do not exist, then the proposed development would conflict with national policy concerning the Green Belt. But irrespective of whether the proposal is inappropriate or 'appropriate' development in the Green Belt, I consider for the reasons set out above, that the scheme would be at odds with the policy in the *Framework* when considered as a whole.
449. Relevant provisions of the *Guidance* have been taken into account in assessing the appeal scheme. [53,54]

(15) Planning conditions and obligations

Conditions

450. Suggested conditions, in the event that planning permission was granted, were the subject of a round-table without-prejudice discussion at the Inquiry. The written list of conditions submitted by the appellants includes pre-commencement conditions. In the following paragraphs the Condition numbers are as they appear in the Schedule of Conditions attached to this report. [122-124,329,336]
451. A commencement period of three years would be appropriate here, and to effectively enforce conditions, notification of the dates of commencement of mineral extraction, and completion of site restoration, would be necessary (Conditions 1, 2 and 3). Otherwise than as set out in the decision and conditions, it would be necessary that the development was carried out in accordance with the approved plans, to ensure that it was in accordance with the scheme considered at the Inquiry (Condition 4). Given the level of detail contained in the submitted documents, subsequent approval would be required for the matters set out in Condition 5 concerning plant, structures and buildings.
452. Details for each Phase would be required to ensure that the development was carried out in an orderly manner, and restored without unnecessary delay (Conditions 6 and 7). Conditions 8-11 and 17 concerning access, number of HGVs, crossing for the haul road, and off-site highway works would be necessary in the interests of safety. There is no evidence to indicate that the true morning peak time in this location is 7.30 am to 9.30 am, and suggested

Condition 9(b) accords with the peak hours specified by the Highway Authority. A condition could not require a routeing plan where vehicles were using the public highway. There would be no need to specify a particular distance of level ground where footpaths were near to roads as such details would be matters for approval in discharging the conditions suggested by HCC and the appellants. [330,335]

453. Wheel cleaning facilities would be required to control the track-out of material onto the highway for pollution reasons (Conditions 12 and 13). Details would need to be approved of the stockpile and fuel storage areas (Conditions 14 and 15) for similar reasons. It would be necessary to limit the height of stockpiles to 5 m so as to minimise the visual impact of the development and to accord with the information in the ES.
454. There may be advantage in permissive rights of way being available for walkers, cyclists and horse riders, but it does not seem to me that this would be a reasonable requirement necessary to mitigate harm to those who currently use the area. I concur with the appellants that the condition should refer only to walkers (Condition 16). [329]
455. An archaeological scheme and recording would be necessary in the interests of local heritage (Condition 18).
456. No waste should be imported, surface and ground water drainage controlled, boreholes maintained, groundwater monitored and measures required to deal with any land contamination, so as to safeguard groundwater (Conditions 19-24). However, it would not be necessary to specify works for borehole OBH 1A as this has been repaired. SBQ's detailed suggestion for boreholes might preclude more appropriate measures. This is a matter of detail that could be better dealt with by the approval of details in discharging conditions. [330,322]
457. Landscaping for the site access and haul road, along with advance planting, would need to be approved in the interests of the appearance of the area (Conditions 25-27). Lighting and boundary treatment would need to be controlled for similar reasons (Conditions 28 and 29). Soil handling would need to accord with Defra guidance to provide for successful restoration (Condition 30).
458. The appellants' closing submissions refer to proposed ecological enhancements and maintenance for 10 years with longer-term conservation maintenance secured by way of a "landscape and nature conservation management plan" (ID111). But the reference to ecology in earlier versions of the suggested conditions (ID82.1) was omitted in subsequent versions. Ecological considerations are part of the appellants' case and so should be included in the details to be approved. This could be added to suggested Condition 31 for a landscape and ecological restoration scheme for each Phase. Details would need to be approved for a landscape and ecological restoration scheme in the interests of the appearance of the area and biodiversity (Condition 31).
459. A condition regarding completion and aftercare would be necessary to ensure compliance with Schedule 5 of the 1990 Act concerning the required standard of restoration (Condition 32).

460. The hours of working would need to be controlled in the interests of the amenity of the area (Condition 33). Some objectors considered that starting at 0700 hours and working on Saturday would cause unacceptable additional noise. However, the hours suggested by HCC/appellants are those normally accepted for working quarries. With other conditions to control adverse impact there are no good grounds for imposing more restrictive working hours. [306,316,330]
461. Dust control would be needed for health and amenity reasons (Condition 34). It would be reasonable in doing so to follow IAQM guidance. A scheme for air quality monitoring would need to be approved for health reasons (Condition 35). SBQ's air quality monitoring condition should be preferred because it would record hourly average concentration of PM₁₀ which could draw attention to any short term peaks exceeding 100 µg/m³, so providing a trigger for further investigation. This would be necessary to inform the local community about potential health risks, especially for vulnerable members of the community. Three monitoring sites would be necessary to determine, in varying weather conditions, whether the quarry was responsible for any changes in air quality. [331,332]
462. A condition concerning a community liaison group would be necessary to establish an effective complaints procedure regarding the operation of the quarry, but would not need to specify who should participate (Condition 36). [333]
463. Controls on noise emissions would be required in the interest of the amenity of nearby residents (Conditions 37,39-41). However, it would not be necessary to restrict the number of specific plant on site, or to specify their sound power levels, as this would impair operational flexibility, and in any event other noise controls would apply. If more frequent monitoring was considered necessary this could be required under Condition 41(d). [334]
464. A condition would be necessary to safeguard groundwater from pollution (Condition 42). The suggested condition by HCC and the appellants, along with the alternative suggestion by SBQ, are set out in the Schedule of Conditions. However, for the reasons given above in section (5) of this report, neither is recommended. If the Secretary of State is minded to allow the appeal and to grant planning permission then it would be necessary to go back to the parties to devise the terms of a condition that would achieve the required safeguarding of the aquifer by means of a planning condition that passed the relevant tests.
465. A condition would be necessary to give effect to the intention to restrict working within 70 m of properties at The Orchard, so that operations would not take place when the wind direction was from the north-eastern quadrant (Condition 44). [16]
466. It would not be necessary to impose any other conditions. Some minor changes to the wording of conditions suggested by the parties are necessary so as to ensure that a permitted scheme would accord with the details of the proposal that was considered at the Inquiry, and to ensure that conditions were precise and enforceable.

Obligations

467. If section 106 obligations are not material considerations, or for other reasons would not satisfy the requirements of CIL Regulation 122, they would be matters on which it would be unlawful for the Secretary of State to place any weight in granting planning permission. However, if an obligation was material and complied with CIL Regulation 122 because it was required mitigation that would not necessarily preclude it from also being considered a benefit in the overall planning balance. Whether it would do so, and what weight it should attract, would depend upon the particular circumstances.
468. Provisions in the section 106 agreement for the timing of the commencement and completion of the development would be necessary to ensure that the operation was in accord with the duration of impacts assessed at the Inquiry. The new byways would be required to mitigate the harm to the PRow network during the operation and after restoration. Off-site highway works would be necessary for highway safety reasons during the operation, but on completion of the scheme, would need to be removed, and the accessway restored, in the interests of the long term character and appearance of the area. These obligations would be necessary to make the development acceptable in planning terms, are directly related to the proposed development, and would fairly and reasonably relate to it in scale and kind. The new byways would be permanent additions to the PRow network and so would be beneficial. [12,337]
469. However, I have reservations about the provisions in the agreement for highway restoration, which I queried when the draft was discussed at the Inquiry. The signed version of the agreement defines "Highway Restoration", but does not thereafter use the term.¹⁷² The intent appears to be that the removal of the highway works and restoration of the accessway would be provisions in the Highways Agreement. However, there is nothing in the obligation to require such a provision in the Highways Agreement. In addition, Clause 4.1 of Schedule 1 requires the highway works to be completed prior to the commencement of extraction. That would not make provision for any removal of the highway works and restoration of the accessway after the completion of extraction. The accessway might be dealt with in the restoration scheme for the site, but that would not deal with off-site highway works. It is not certain that the suggested conditions or the obligations would achieve the appellants' intent about removing the junction and accessway on restoration. If the Secretary of State is minded to allow the appeal then this is a matter that would have to be referred back to the parties.
470. In the section 106 agreement "Restoration of the Development" is defined as "the restoration of the Application Site in accordance with the Progressive Operations Plan annexed at Schedule 5 and the Landscape Restoration Plan and the Restoration Scheme and the Planning Permission." However, the plan at Schedule 5, Plan No.1217/PO/2, relates to the 1.25 Mt scheme, and so would not be appropriate for the 1.75 Mt scheme. Again, if the Secretary

¹⁷² ""Highway Restoration" means the removal of the Highway Works in accordance with the Highways Agreement together with the restoration of the Accessway to the condition required by the County Council as the highway authority for Hertfordshire."

of State is minded to allow the appeal then the obligation would need to be amended.

Financial Bond

471. There is local concern about the restoration of the site. It is understandable that some of this arises from past experience with quarrying in the locality, especially how the situation has unfolded at Rickneys Quarry. However, progressive reclamation would be a practicable option for the appeal scheme, and no novel approach or technique is proposed to be used. Furthermore, there is no reliable evidence of the likelihood of either financial or technical failure. I am therefore satisfied that concerns about the funding of site restoration could be reasonably addressed here through appropriately worded planning conditions. This is not an exceptional case that would justify a financial guarantee or bond to cover restoration and aftercare costs. [140,150,161]

Overall conclusions for 1.75 Mt scheme

472. The proposed development would harm the character and appearance of the area. It would be too close to nearby residential properties, resulting in harm to living conditions and the amenity of the area. In the absence of an appropriate mechanism and planning condition to safeguard the aquifer, the appeal scheme would pose an unacceptable risk to an important public water supply. On these grounds, it would conflict with relevant development plan policies and would not accord with national policy. If the Secretary of State finds that the scheme is inappropriate development in the Green Belt and that VSC do not exist, then it would also conflict with local and national policy concerning the Green Belt. I find no other material considerations to indicate that the determination should be made other than in accordance with the development plan. For the reasons given above and having regard to all other matters raised in evidence, I conclude that the appeal should be dismissed. [87,88,124,125,213-215,268,269]

Consideration of the 1.25 Mt scheme

473. If the Secretary of State is minded to agree with my recommendation for the 1.75 Mt scheme, then consideration should also be given to the appellants' submissions about substituting the 1.25 Mt scheme, along with the representations about this by other parties and interested persons. [4,13,226,338-345]

474. In this event, the appellants requested that a condition limiting the scheme to 1.25 Mt be imposed. However, the description of the proposal, as set out in the application and appeal forms, includes a "stockpile area". A condition that precluded development of a stockpile area would, in effect, contradict part of the permission, and so would be unreasonable. Substituting the 1.25 Mt scheme in determining this appeal could not, therefore, be achieved just by the imposition of conditions. The description of the development would, as acknowledged by the appellants, also need to be amended.¹⁷³

¹⁷³ APP10 paragraph 3.3.6.

475. Consideration should, therefore, be given to whether the appeal could be properly determined on the basis of an amended scheme, which included deletion of the reference to the “stockpile area” from the description. To do so the Secretary of State would need to find that the *Wheatcroft* principles are satisfied.¹⁷⁴ The *Wheatcroft* judgment referred to whether the development is so changed that to grant it would be to deprive those who should have been consulted on the changed development of the opportunity of consultation. Consideration therefore needs to be given to whether the scheme would be a substantially different scheme from that which was before HCC when it determined the application, and whether anyone would be likely to be prejudiced by dealing with the amended scheme at the appeal stage.

476. There are some significant differences between the 1.75 Mt and 1.25 Mt schemes. These are intended by the appellants to address some of the concerns about the proposal raised by HCC and objectors. However, they include alterations that could result in different outcomes, about which other parties or interested persons might wish to comment. These differences include the following:

- (1) Siting of the ‘load out area’ further within the site on higher ground and closer to residential properties on Sacombe Road, with different bunds and road layout, and with the loading and refuelling area sited over more vulnerable geology in terms of the risk of water pollution and contamination of the underlying aquifer, albeit slightly further away from the Wadesmill Road PS.
- (2) Siting of the access road and haul roads within the site, with different arrangements for screening bunds.
- (3) Removal of Bund 3 and the Subsoil store from Phase 1.
- (4) Restoration details, including additional woodland thicket planting and tree & hedgerow planting near the southern boundary of Phase 1, different siting and size for the proposed attenuation area, additional tree & hedgerow planting across the Phase 3 part of site, along with different contours for finished ground levels, especially in the northern part of the site.

477. I consider that these are significant differences, notwithstanding the fact that HCC found the schemes were of the same character in applying the Fees Regulations. The description of the scheme was not the same because it deleted reference to the “stockpile area”. HCC’s decision about fees should not be determinative for the purposes of considering whether the *Wheatcroft* principles apply here. HCC did not consider the 1.75 Mt scheme to be substantially different from the original 2.6 Mt scheme. But the revision primarily concerned the restored landform, with most other features of the 1.75 Mt proposal substantially unchanged from the 2.6 Mt scheme. [4]

478. I turn next to procedural fairness, having regard to the *Holborn Studios* judgment. A separate application for the 1.25 Mt scheme has been the subject of public consultation, and there has been considerable involvement by interested persons in the Inquiry, at which evidence was presented about the 1.25 Mt scheme. Many people took these opportunities to make representations about the 1.25 Mt scheme. But this does not rule out the

¹⁷⁴ *Bernard Wheatcroft Ltd v SoSE*.

possibility here of someone being prejudiced because they were deprived of such an opportunity. Many local residents commented on the confusion about the process and relevant documents. This is understandable given the chronology of events in this case. It is not possible to say that the manner in which the applications and the appeal progressed did not, for some people, result in misunderstandings about how and when to comment on the 1.25 Mt scheme, at both the application and appeal stages. [13,195,196,279,280,292]

479. Some objectors thought that dealing with the 1.25 Mt scheme as part of this appeal would neutralise and confuse any opportunity for comment or objection to any appeal against the refusal of that scheme. HCC also objects to consideration of the amended scheme because a step in the appeal process would be bypassed. There is statutory provision for two opportunities to make representations, for which there are specific public notice provisions at the application and appeal stages. The original public notice about the Inquiry, and the subsequent notice about its resumption, both correctly quoted the description of the proposed development from the application form, which included the "stockpile area", and so some readers might have reasonably assumed that the Inquiry was dealing solely with the 1.75 Mt scheme.

480. The adjournment of the Inquiry would not have remedied any procedural fairness defect regarding consideration of the 1.25 Mt scheme, as the adjournment was required to provide an opportunity for public comment on the HIA. In my judgement, the 1.25 Mt scheme is substantially different from the 1.75 Mt scheme, and for the reasons set out above, I do not believe that the likelihood of prejudice arising here is low enough to feel confident about dealing properly with the appeal on the basis of the 1.25 Mt scheme. I find that the *Wheatcroft* principles are not satisfied here, and I consider that the Secretary of State should decline the request to determine the appeal on the basis of the 1.25 Mt scheme.

481. However, in the event that the Secretary of State disagrees with this recommendation, and concurs with the appellants' view that the *Wheatcroft* principles would be met, evidence was presented to the Inquiry about both schemes, and so an addendum report about the 1.25 Mt scheme could be submitted. If the Secretary of State gives written notice that he is both minded to refuse the appeal for the 1.75 Mt scheme, and considers that it would be appropriate in the circumstances that apply here to determine the appeal on the basis of the amended scheme for the extraction of 1.25 Mt of sand and gravel, then a separate addendum report will be submitted setting out the planning merits of the 1.25 Mt scheme. This would include a recommendation as to whether the amended scheme should, or should not, be granted planning permission, along with any planning conditions considered to be necessary were the appeal to succeed on that basis.

Recommendations

482. I recommend that the appeal for the 1.75 Mt scheme should be dismissed for the reasons set out above. However, if the Secretary of State is minded to disagree with my recommendation, and to allow the appeal and to grant planning permission, then the conditions considered necessary to be imposed are set out in the Schedule of Conditions attached to this report. A revised section 106 agreement would also be necessary to ensure that an appropriate mechanism existed for highway restoration.
483. For the reasons set out above, I recommend that the Secretary of State declines the request to determine the appeal on the basis of the 1.25 Mt scheme.

John Woolcock
Inspector

APPEARANCES

FOR HERTFORDSHIRE COUNTY COUNCIL:

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Instructed by the County Solicitor

He called

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MIDiagE

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Hafren Water Ltd

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MIOA

LF Acoustics Ltd

Jethro Redmore BEng
MSc CEnv MIAQM
MIEnvSc PIEMA

Redmore Environmental

James Sutton BSc Tech
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FOR RULE 6(6) PARTY: STOP BENGEO QUARRY (SBQ)

Katharine Elliot
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Instructed by Attwaters Jameson Hill and SBQ

She called

Professor Brassington BSc(Hons) MSc FGS MICE FCIWEM
Roger Barrowcliffe BSc(Hons) IAQM CSci CMet Director Clear Air Thinking
Ltd

FOR RULE 6(6) PARTY: Dr Andrew Stevenson BSc(Hons) MSc PhD
County Councillor for Hertford All Saints
Vice Chairman Environment Planning and Transport Hertfordshire

INTERESTED PERSONS:

Andrew Smith	Local resident
Aska Pickering	Local resident and Chairperson of SBQ
Dr David Adam PhD Env Sci	Local resident and Parent Governor of Bengoe Primary School
Libby Mountford	Local resident
Julie Starkiss	Head teacher Bengoe Primary School
Suzanne Bray	Local resident
Tanya Needham	Local resident and Governor of Bengoe Primary School
Thalia Watson	Local resident
John Howson	Local resident
Robert Chandler	Local resident
Anu Palmer	Local resident
Mark Lynch	Local resident and Chairman of the Bengoe Neighbourhood Plan Steering Group
Dr Bryan Lovell OBE CGeol	Senior Research Fellow in Earth Sciences University of Cambridge
Peter Norman	Hertford Civic Society
John Wiggett	Local resident
Cllr Steve Cousins	Hertford Town and District Council
Terry Mansfield	Chapmore End Association
Dr Mike Howarth	Local resident
John Barnes	Local resident
Alan Burgess	Local resident
Kelly Martin	Local resident
Dan Griffiths	Local resident
Lee Nicholson	Local resident
Alexandra Daar	Local resident
Ben Penrose	Chairman Molewood Residents' Association
Graham Nickson	Local resident
Veronica Fraser	Health Walks Leader

Cllr Margaret Eames-Peterson
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Cllr Mari Stevenson
Steve Halsey
Laura Wyer
Simon Pickering
Nadine Cleland
Russell Norris
Heston Attwell
Amber Waight
Cllr Bob Deering

Nigel Braggins
Dr Laura Horsfall
Mark Prisk MP

Hertfordshire County Council

East Herts District Council

Local resident

Local resident

Local resident

Local resident

Chapmore End Association

Local resident

Local resident

Hertford County Council East Herts District
Council and Hertford Town Council

Local resident

Senior Epidemiologist University College London

Member of Parliament for Hertford and Stortford

PROOFS OF EVIDENCE and WRITTEN REPRESENTATIONS

Appellants

APP1	Christopher Leake Proof of Evidence, Appendices A1-A6.
APP2	Les Jephson Proof of Evidence, Appendices A and B.
APP3	Jethro Redmore Proof of Evidence, Appendices 1-5.
APP4	James Sutton Proof of Evidence, Appendices 1-5.
APP5	Ian Dix Proof of Evidence, Appendices 1-3.
APP6	Ben Cave Health Impact Assessment.
APP7	Robert Sellwood Proof of Evidence, Appendices 1-9.
APP8	Mark Flatman Proof of Evidence, Appendices A-D, Rebuttal ID2.
APP9	Susan Deakin Proof of Evidence, Appendices A and B.
APP10	Douglas Symes Proof of Evidence, Appendices 1-11.
APP11	Professor Ranjeet S Sokhi Proof of Evidence September 2018.

Hertfordshire County Council

HCC1	Stephen Marshall Proof of Evidence, Noise Assessment March 2018, Review March 2017, Rebuttal ID7.
HCC2	Julie Greaves Proof of Evidence, Appendices 1-15, Rebuttal ID8.
HCC3	Jennifer Clarke Proof of Evidence, Appendices 1-4.
HCC4	Felicity Hart Proof of Evidence, Appendices 1-3.
HCC5	Professor Jim McManus Written Representation, Appendices 1-3.

Stop Bengeo Quarry Rule 6 Party

SBQ1	Professor Brassington Proof of Evidence, Appendices 1 and 2, Supplementary Proof April 2018.
SBQ2	Roger Barrowcliffe Proof of Evidence, Appendices A and B.

Cllr Andrew Stevenson Rule 6 Party

AS1	Statement and Attachments
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SCHEDULE OF PLANS AND DRAWINGS FOR 1.75 Mt SCHEME

Plans and drawings upon which any determination for the 1.75 Mt scheme should be made i.e. excluding drawings or figures submitted within the planning application for illustrative or information purposes, are set out in ID97 and listed as follows:

Location Plan 1217/L v4 dated 25/09/2015
Application Plan 1217/A/1 v7 dated 06/09/2017
Site Context 1217/SC/2 v2 dated 24/11/2015
Composite Operations Plan 1217/CO/1 v9 dated 19/12/2016
Progressive Operations Plan 1217/PO/1 v9 dated 19/12/2016
Stockpile Area 1217/SP/1/ v3 dated 01/02/2016
Restored Landform 1217/R/1 v10 dated 16/01/2017
Drilling Survey for Sand and Gravel 1217/DS/1 v2 dated 20/05/2013

SCHEDULE OF PLANS AND DRAWINGS FOR 1.25 Mt SCHEME

Plans and drawings upon which any determination for the 1.25 Mt scheme should be made i.e. excluding drawings or figures submitted within the planning application for illustrative or information purposes, are set out in ID97 and listed as follows:

Location Plan 1217/L v4
Application Plan 1217/A/1 v7
Site Context 1217/SC/2 v2
Drilling Survey for Sand and Gravel 1217/DS/1 v2
Operations Plan – Phase 1 1217/O/1 v4
Operations Plan – Phase 2 1217/O/2 v4
Operations Plan – Phase 3 1217/O/3 v4
Progressive Operations Plan 1217/PO/2 v4
Landscape Restoration Strategy (Liz Lake) 1571 01 H
Access Junction and Right Turn Lane (Vectos) 131124/A/04.1 Rev E

ANNEX A – RULING RE ADJOURNMENT

“I have considered the written notes and submissions this morning about the HIA. I do not consider that the appellants’ Statement of Case, either SoC1 or SoC2, made it sufficiently clear what was the appellants ‘full particulars of case’¹⁷⁵ insofar as the HIA was concerned, particularly as reference to an HIA was included in HCC’s reasons for refusal. If the appellants intended to refer to an HIA it would have been better to have said so in the SoC, especially given the date SoC2 was submitted. It seems to me that the appellants are, in effect, adding to their SoC by now relying on an HIA. I will allow this, but in accordance with Inquiry Rule 15(10) shall give those appearing at the Inquiry an adequate opportunity of considering the document.

SBQ considers that proceeding without that opportunity would be prejudicial to their case. I make no ruling about this. But I cannot be certain that there are not interested persons, members of the public, who, had the HIA been cited in a SoC or made available for consultation earlier, would have wanted to give evidence about it, and so would be prejudiced by the way the matter has been dealt with so far.

My ruling is that I propose to give time for those who wish to do so to consider the HIA and to make submissions to the Inquiry about it. This will require an adjournment. I will ask the parties to consider, in a break, how long they consider will be necessary.”

John Woolcock
Inspector
18 May 2018

¹⁷⁵ 2000 Inquiry Rules Interpretation states that ‘statement of case’ means, and is comprised of, a written statement which contains full particulars of the case which a person proposes to put forward at an inquiry and a list of any documents which that person intends to refer to or put in evidence.

ANNEX B Written representations about HIA submitted during adjournment

<p> Natalie Adam (115) Fay Adams (82) John and Penny Andrew (63) Mr and Mrs BJ Archer (79) Neil and Pauline Atkins (42) Heston Attwell (139) Victoria Attwell (135) Miss KJ Ayres (78) Roger and Patricia Bardle (120) Frank and Mary Baynes (140) Jo Beatty (16) Anthony Beck (6) Clare Blackman (150) Nigel Braggins (95) Matt Bray (133) Suzanne Bray (153) Alan Cain (32) Nicola Camp (148) Andrew Cannon (116) Emma Chiew (50) Laura Church (17) Sandra Church (18) Peter Collins (54) Hannah Cope (123) Geoffrey Cordingley (152) Paul Cox (104) Rebecca Cox (12) David Cramphorn (137) Mr TE Creasey (76) Robert and Janet Cunneen (81) Denise Culverhouse and John Morgan (145) Alex Daar [East Herts Green Party] (86) Diana Davies (5) MH Davis (113) Sue Dear (70) Desiree de Silva-Power (127) Graham Dial (4) Chris Dixon (11) Thomas Dunklin (84) Nick Egginton (30) Paul Eldred (29) Elaine Elliot (106) CA and AA Etheridge (3) Mike and Brenda Excell (90) Mrs Foot (146) Mr RJ Fradley (138) </p>	<p> Carole Luck (22) Gillian Lynch (143) Mark Lynch (8) Ian Lyon [Chapmore End Association] (73) Alison Madge (28) Eliza Mary Mann (92) Kathy Mann PhD FRCPATH (21) Mr and Mrs Martin (144) Diane and Allan Mattick (23) Lynda McKenzie (124) Catherine McMenamin (24) Nikki McMurray (154) Steve McMurray (19) Denise Mitchell (111) Peter Moore (77) Sam Mountford (2) Iris Needham (43) T Needham (41) Dr M Newman MB BS (51) Mr M Newman (52) Graham Nickson (34) RF Norris (117) Colin Nunn (64) Pamela D'Ampney Nunn (80) Wendy Oakins BHSAI (33) Anu Palmer (134) Terry and Sally Paque (56) Ben Penrose [Molewood Residents' Association] (129) Aska Pickering (102) Simon Pickering (55) James Power (126) Jane A Rainbow (89) Anne Ramsden (47) Carolyn Redfern (114) Marilyn Reynolds (59) Katharine Richardson (151) Alan Scarisbrook (121) Karen Seaborne-Lasmi (122) Alison Sheldrick (99) Robert Sheldrick (100) Marcus Silversides (105) Jo Spiers (72) Elizabeth Staley (74) Anna Stanton (27) Paul Stanton (44) Stop Bengo Quarry (132) </p>
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<p> Veronica Fraser (46) Edward Fuller (36) Gunilla Fuller (37) Peter Fuller (83) Nancy Gensini (147) Janet Guilbride (96) Michael Guilbride (97) Brian G Guildea (14) Paul and Lyn Groves (53) Ken and Yvonne Hall (85) Stephen Halsey (130) Gemma Harris (15) Clare and Richard Haworth (61) Mr and Mrs Heard (20) Louise Henderson-Lea (26) Brenda Heninghem (48) Jenny Herbert (58) Christine Holyfield (156) Dr Laura J Horsfall (119) Dr Mike Howarth (109) Ann Hutton (62) Frank Iddiols (93) Paula Iddiols (38) Duncan Jauncey (9) Victoria Jauncey (10) Veronica Jesson (103) Ross Jones (155) Barbara Kiln (60) Peter and Nicola King (57) Beatrice Leigh (68) Samantha and Victoria Levy (107) Paul Lloyd (118) Dr Bryan Lovell CGeol (75) </p>	<p> Deborah and Barry Sumby [Watermill Estate Residents' Association] (91) A J E and M Taylor (69) Robin and Celia Tesselment (45) Llinos Thomas (136) Miss CA Thompson (125) Dorothy MF Toyn (35) Amber Waight (13) Elizabeth Walden (88) Fran Wallis (142) Brian Warrington (67) Bridget Webb (65) Pete Webb (66) Thalia Weston (101) Juliet Whitehead (110) Richard Whiting (131) Linda Whiting (128) John and Carmen Wiggett (71) R M C A and B Wiles (7) Rachel Williams (149) Frances Wilson (25) Susan Wilson (87) Kathy Winsor (49) James Wiseman (31) Dr Katy Wright (39) Timothy Wright (40) Pasco and Dellen Wright (94) Laura Wyer (1) Greg Yeoman (112) Vicky Yeoman (141) Anthony Yoxall (98) Sue Yoxall (108) </p>
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SCHEDULE OF PLANNING CONDITIONS for 1.75 Mt scheme (Conditions 1-43)

If planning permission is granted for phased extraction of sand and gravel, mobile dry screening plant, stockpile area, weighbridge, wheel cleaning facilities, ancillary site offices, construction of a new access onto Wadesmill Road with phased restoration to landscaped farmland at a lower level at Land at Ware Park, Wadesmill Road, Hertford, Hertfordshire in accordance with the terms of the application No:3/0770-16, dated 4 March 2016, as amended, it is recommended that the permission be subject to the following conditions:

- 1) The development hereby permitted shall begin not later than three years from the date of this decision.
- 2) The Mineral Operator shall give not less than 21 days written notice to the Mineral Planning Authority in advance of commencement of the development and shall confirm in writing to the Mineral Planning Authority the actual date of commencement within seven days of the event occurring. The Mineral Operator shall give written notice to the Mineral Planning Authority of the date of commencement of mineral extraction within seven days of the event occurring.
- 3) (a) All mineral extraction shall be completed, in accordance with the approved plans, not later than 10 years from the date that mineral extraction commenced.

(b) The Mineral Operator shall give not less than 21 days written notice to the Mineral Planning Authority prior to the completion of extraction of each Phase. The Mineral Operator shall give written notice to the Mineral Planning Authority of the actual date of completion of extraction of each Phase within seven days of the event occurring.

(c) If operations are terminated or suspended part way through extraction of any Phase then the Operator shall inform the Mineral Planning authority in writing within 21 days of the termination/suspension occurring.
- 4) The development hereby permitted shall be carried out in accordance with the following approved plans and drawings.

Location Plan 1217/L v4 dated 25/09/2015
Application Plan 1217/A/1 v7 dated 06/09/2017
Site Context 1217/SC/2 v2 dated 24/11/2015
Composite Operations Plan 1217/CO/1 v9 dated 19/12/2016
Progressive Operations Plan 1217/PO/1 v9 dated 19/12/2016
Stockpile Area 1217/SP/1/ v3 dated 01/02/2016
Restored Landform 1217/R/1 v10 dated 16/01/2017
Drilling Survey for Sand and Gravel 1217/DS/1 v2 dated 20/05/2013
- 5) Prior to commencement of development, full details of all plant, structures and buildings to be placed on site, shall be submitted to the Mineral Planning Authority for approval. No development shall take place until the written approval of the Mineral Planning Authority has been obtained. All plant, structures and buildings shall be in accordance with the approved details and shall thereafter be retained until the last Phase has been restored unless the Mineral Planning Authority gives prior approval in writing.

- 6) Prior to the commencement of development in each Phase, a detailed Working Plan/Scheme shall be submitted to the Mineral Planning Authority to show:
- (a) The precise extent of the extraction area.
 - (b) The precise location and height of screen bunds.
 - (c) All working including soil stripping, overburdens stripping, mineral extraction and restoration.
 - (d) The location of any stockpiles/storage area together with a methodology for handling soils.

No development shall take place until the details referred to above have been approved in writing by the Mineral Planning Authority. All working of the site (to include extraction and restoration) shall take place in accordance with the approved detailed Working Plan/Scheme. The detailed restoration works shall be commenced within three months of the completion date of gravel extraction in each Phase in accordance with the approved Working Plan/Scheme.

- 7) In the event that operations are terminated or suspended for a period in excess of 12 months, in any Phase, the excavated area and all other disturbed land shall be restored in accordance with the restoration elements of the Working Plan/Scheme approved in writing by the Mineral Planning Authority. In these circumstances, restoration shall be completed within 12 months of the date on which the Mineral Planning Authority notified the operator in writing that operations are considered to have been terminated or suspended for 12 months.
- 8) Prior to commencement of development, full details of the proposed access off the B158 Wadesmill Road, as shown in principle on Drawing No.131124/A/04.1E, shall be submitted to the Mineral Planning Authority for approval in writing. The access and associated road improvements shall be constructed in accordance with the approved details prior to the commencement of work on the first Phase of extraction. No other vehicular access shall be made available to the site.
- 9) (a) There shall be no more than 100 lorry (HGV vehicles over 7.5 tonnes) movements (50 in, 50 out) entering/leaving the access/egress onto the Wadesmill Road in any one working day. Written records of all HGVs entering and leaving the site shall be kept by the Mineral Operator and made available for inspection by the Mineral Planning Authority upon request.
- (b) There shall be no more than 8 HGV lorry movements (4 in / 4 out) entering/leaving the access/egress onto Wadesmill Road during the hours of 08.00-09.00 (AM peak) and 16.00-17.00 (PM peak) in any one working day.
- 10) No HGVs shall turn right when exiting the site unless instructed to do so by the Police. Prior to the commencement of development details of signage requiring all HGVs to turn left onto the B158 Wadesmill Road, along with the siting of the signage close to the site exit, and a programme for its installation, shall be submitted to and approved in writing by the Mineral Planning Authority. The signage shall be erected

in accordance with the approved details and thereafter shall be retained until the last Phase has been restored.

- 11) Prior to the commencement of development, full details of any fencing, gates or barriers proposed to be erected at the entrance to the site in connection with the formation of the new haul road, shall be submitted to the Mineral Planning Authority for approval in writing. Any gates, fencing or barriers shall be erected in accordance with the approved details and thereafter shall be retained until the last Phase has been restored.
- 12) Prior to commencement of development, full details of the wheel wash, together with water supply, water storage, recycling and disposal shall be submitted to the Mineral Planning Authority for approval in writing. The wheel wash shall be implemented and operated in accordance with the approved details.
- 13) No vehicles shall enter the public highway from the site unless their wheels and chassis have been cleaned in the wheel wash to prevent material being deposited on the highway.
- 14) Prior to commencement of development, full details of the construction of the stockpile area to include cross sections, finished levels, surfacing, drainage and pollution measures shall be submitted to the Mineral Planning Authority for approval in writing. Construction shall take place in accordance with the approved details before the first use of the stockpile area, which shall thereafter be retained in accordance with the approved details. The height of stockpiles within this area shall not exceed 5 m above its finished ground level.
- 15) Full details of the proposed bunded fuel storage area shall be submitted to the Mineral Planning Authority for approval in writing. The bunded fuel storage area shall be constructed and used in accordance with the approved details. Plant shall only be refuelled in the bunded fuel storage area.
- 16) Prior to the commencement of development details of all proposed temporary permissive paths shown on Composite Operations Plan 1217/CO/1 v9 dated 19/12/2016, including the standard of construction and width of paths, shall be submitted to the Mineral Planning Authority for approval in writing. The permissive paths shall be created in accordance with the approved details and made available for public use by walkers prior to the commencement of mineral extraction, and thereafter shall be retained until the Certificate of Completion under the Section 25 Agreement has been issued and the Definitive Map routes have been dedicated.
- 17) Prior to commencement of development, a detailed scheme for the safe crossing by the public over the haul road of any rights of way, shall be submitted to the Mineral Planning Authority for approval in writing. The crossings shall be implemented in accordance with the approved details and made available prior to the first use of the haul road by any HGVs, and thereafter shall be retained until the last Phase has been restored.
- 18) (a) The development hereby permitted shall not commence until an Archaeological Written Scheme of Investigation has been submitted to

and approved in writing by the Mineral Planning Authority. The scheme shall include the following: (1) A programme and methodology of site investigation and recording. (2) A programme for post-investigation assessment. (3) Provision to be made for analysis of the site investigation and recording. (4) Provision to be made for publication and dissemination of the analysis and records of the site investigation. (5) Provision to be made for archive deposition of the analysis and records of the site investigation. (6) Nomination of a competent person or persons/organisation to undertake the works set out within the Archaeological Written Scheme of Investigation.

(b) The development hereby permitted shall be carried out in accordance with the approved programme of archaeological works set out in the Written Scheme of Investigation.

(c) The site investigation and post-investigation assessment shall be completed in accordance with the programme set out in the approved Written Scheme of Investigation, and the provision made for analysis and publication where appropriate.

- 19) The development hereby permitted shall not be commenced until such time as a scheme for Groundwater Monitoring has been submitted to, and approved in writing by, the Mineral Planning Authority. The scheme shall include the following: (1) A groundwater monitoring programme to cover the whole time period of mineral extraction at the site (including a maintenance plan for the groundwater boreholes) in respect of contamination and turbidity, including a timetable for monitoring and the submission of reports to the Mineral Planning Authority. (2) Provision for monitoring reports, which should include details of any necessary contingency action arising from the monitoring, to be submitted to the Mineral Planning Authority for approval in writing. Any necessary contingency measures required shall be carried out in accordance with the approved timetable as set out in the approved reports. The Groundwater Monitoring scheme shall be implemented as approved.
- 20) No Controlled Waste defined by *The Controlled Waste Regulations 2012* or Mining Waste defined by *The Environmental Permitting Regulations 2016* (as amended) shall be imported to the site for reuse, processing, recovery or disposal or for any other purpose.
- 21) If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise approved in writing by the Mineral Planning Authority) shall be carried out until the developer has submitted a remediation strategy to the Mineral Planning Authority detailing how this unsuspected contamination shall be dealt with and obtained written approval from the Mineral Planning Authority. The remediation strategy shall be implemented as approved.
- 22) There shall be no drainage from the site by means of infiltration unless a detailed scheme has been submitted to and approved in writing by the Mineral Planning Authority setting out all pollution control measures and details for management and monitoring. The scheme shall be implemented in accordance with an approved timetable.

- 23) The development hereby permitted shall not commence until such time as a scheme for drainage and pollution control has been submitted to and approved in writing by the Mineral Planning Authority. The scheme shall include all measures for the disposal of foul and storage water, along with pollution prevention measures for the storage and handling of pollutants on the site.
- 24) The development hereby permitted shall not commence until such time as a scheme for managing any borehole installed for the investigation (including monitoring) of soils, or for groundwater or geotechnical purposes has been submitted to and approved in writing by the Mineral Planning Authority. The scheme shall, where necessary, be supported by detailed calculations and include a programme for future maintenance, schedule for repairs and a contingency action plan. The scheme shall be fully implemented and subsequently maintained, in accordance with the timing / phasing arrangements embodied within the scheme, or any details as may subsequently be approved, in writing, by the Mineral Planning Authority. The scheme shall provide details of how redundant boreholes are to be decommissioned and how any boreholes which need to be retained, post-development, for monitoring purposes will be secured, protected and inspected.
- 25) Prior to the commencement of development, full details of the new access and haul road off Wadesmill Road shall be submitted to the Mineral Planning Authority for approval in writing, to include the following: (1) Details of the location of existing vegetation to be removed. (2) Location and detailed design/specifications of new native tree and hedgerow planting along the haul road together with a timetable for planting. (3) Location and detailed design/specifications of the concrete surfacing and kerb/edge treatments. (4) Location and detailed design/specifications of proposed fencing, gates and signs. (5) Details of the haul road.

The new access and haul road shall be constructed in accordance with the approved details and shall be used as the sole access for HGVs in connection with the proposed mineral extraction. Any hedge/plant which has been planted and subsequently dies or is removed within five years of the date of first planting shall be replaced with an equivalent specimen in accordance with the approved details.

- 26) Prior to the commencement of the development, a tree survey and protection plan shall be submitted, in line with BS5837:2012 *Trees in relation to design, demolition and construction – recommendations*, to the Mineral Planning Authority for approval in writing. The plan shall include details regarding the layout and depth of construction exclusion zones and ecological buffers, and detailed design/specifications of bunds and any fencing, to protect the following features from the adverse effects of operational and restoration activities: (1) St John's Wood. (2) Existing vegetation and proposed advanced planting along the site boundaries, the restricted byway, and the haul road. (3) The three existing individual field trees to be retained adjacent to Sacombe Road. (4) The one existing field tree to be retained along the restricted byway.

The tree protection measures shall be implemented in accordance with the approved details, and where relevant be removed on completion of the operational works and implementation of the restoration scheme.

- 27) Prior to the commencement of the development, a detailed advanced planting scheme covering each Phase and any other areas of development shall be submitted to the Mineral Planning Authority for approval in writing. The scheme shall include the location and detailed design/specifications of advanced native hedgerow and tree planting along the site boundaries, the restricted byway, the haul road, and Wadesmill Road. The approved planting scheme shall be carried out in the first available planting season after completion of extraction of each Phase. Any plants which die or are removed shall be replaced within the first five years.
- 28) No lights or flood lights shall be erected or used on site until their location, orientation and luminosity and hours of use have been submitted to the Mineral Planning Authority for approval in writing. Any lights used on the site shall only be used in accordance with the approved details.
- 29) Prior to commencement of development, details of any fencing and gates required in connection with this development (other than those submitted under other Conditions of this permission) shall be submitted to the Mineral Planning Authority for approval in writing. All approved fences and gates shall be erected in accordance with the approved details, and thereafter shall be retained until the last Phase has been restored.
- 30) Soil handling and placement shall take place in accordance with the *Good Practice Guide for Soil Handling* produced by Defra and only when the soils are dry and friable and in dry ground conditions. The soil bunds within the site boundary shall be used for the final restoration. No soils shall be imported to the site for any purpose.
- 31) Within 12 months of the date of this permission a detailed landscape and ecological restoration scheme covering the working Phases shall be submitted to the Mineral Planning Authority for approval in writing. This shall include details of the location, size, species and density of new native planting, along with the following: (1) Woodland thicket planting. (2) Woodland edge rides and glades. (3) Trees. (4) Hedgerows. (5) Species rich grassland buffer strips. (6) Wildflower planting. (7) Other ecological measures including habitat maintenance for 3-10 years and longer-term conservation maintenance. (8) Arable crop areas.

The scheme shall also include details of the proposed species rich grassland and wildflower seed mix, planting specifications and protection measures for all new planting, along with a programme for the implementation of the proposed planting, and a five year programme of management of planting, maintenance and replanting of any trees or shrubs which die, become diseased or are damaged.

The haul road shall be removed and a scheme for the restoration of that land shall also be submitted to the Mineral Planning Authority for written approval within 12 months of the date of this permission and the scheme shall be implemented as approved.

The approved landscape and ecological restoration scheme shall be implemented for each working Phase in accordance with the approved phased restoration programme, and in the first available planting season on completion of mineral extraction.

- 32) A scheme of agricultural aftercare shall be submitted for the written approval of the Mineral Planning Authority at least 12 months prior to the anticipated completion date for each Phase identified in Condition 3. The approved scheme shall specify the steps required to achieve and maintain a good quality standard of land for agricultural use and shall include the following matters: (1) Remedial treatments. (2) Weed control. (3) Provision for site meetings on at least an annual basis with officers of the Mineral Planning Authority and any relevant consultee in order to assess the progress to date, any remedial action required, and the management of the restored areas for the following year. The approved scheme shall be carried out during the period of five years following the first cultivation of each Phase of the restoration.
- 33) No operational activity shall take place on the site outside of the following hours: 07:00 – 18:00 hours Mondays to Fridays; and 07:00 – 13:00 hours Saturdays. There shall be no working on Sundays or Bank Holidays.
- 34) A Dust Management Plan (DMP) shall be submitted prior to the commencement of development. The DMP shall: (1) Follow the recommendations in Appendix 6 of the Institute of IAQM *Guidance on the Assessment of Mineral Dust Impacts for Planning* (2016). (2) Set out and require compliance with the good practice mitigation measures set out in Tables 4 and 5 of the IAQM *Guidance* for both site design and planning and operational control. (3) Be reviewed every six months and updated accordingly in light of good practice and developing evidence. (4) Provide mitigation measures for exceedance of PM₁₀ 24 hour mean average and implement these mitigation measures in the event of an exceedance. In the event of daily exceedance of limit values for PM₁₀, and that these are attributable to activity at the site, and the mitigation measures are not having the effect of removing the exceedance, site operations shall cease until acceptable conditions are restored. In the event of annual PM_{2.5} limit values being exceeded, and these being attributable to activity at the site, the Mineral Operator shall be required to review mitigation measures in line with current best practice and evidence and implement them accordingly. The approved DMP shall be carried out in full until the last Phase has been restored.
- 35) *HCC and appellants' suggested Condition 35*

Prior to the commencement of development details of a scheme for the monitoring of air quality shall be submitted to the Mineral Planning Authority for approval in writing. The scheme shall provide that monitoring commences at least three months prior to commencement of the development to allow as much of a baseline as possible to be developed. The Mineral Operator shall be responsible for equipment maintenance and securing monitoring equipment to avoid tampering and/or wilful destruction. Monitoring shall be continuous until the last Phase has been restored and data shall be made available online. The details of how the data will be made publicly available in an accessible

format (spreadsheet or similar) shall be approved in writing by the Mineral Planning Authority. The data for PM₁₀ shall be provided with averaging periods and including EU PM₁₀ limit values of 50 µg/m³ in a 24 hour period. The data for PM_{2.5} shall be provided with averaging periods and including EU PM_{2.5} annual limit values of 25 µg/m³. One monitor shall be appropriately located on the southern point boundary closest to sensitive receptors and the position shall be indicated on a plan approved in writing by the Mineral Planning Authority. Monitoring shall take place before commencement of development as provided above and the approved air quality monitoring scheme, including measures for publicity, shall be implemented until the last Phase has been restored.

SBQ's suggested Condition 35

(1) The proposed development shall not take place until a scheme for the design and operation of a monitoring network of instruments capable of measuring concentrations of airborne particulate matter (PM) has been submitted to and approved in writing by the Mineral Planning Authority. (2) This network shall be funded by the Mineral Operator and implemented by a third party contractor, selected and approved in writing by the Mineral Planning Authority. This third party contractor shall be responsible for the maintenance and calibration of the monitoring network and shall rectify any faults or instrument breakdowns immediately. (3) The network shall be in place and fully operational for the entire period of quarrying operations, or until from an earlier date approved in writing by the Mineral Planning Authority. (4) The network shall consist of a minimum of three sites around the quarry where public exposure might occur, at locations to be approved in writing by the Mineral Planning Authority. (5) The monitoring instruments shall be capable of measuring, as a minimum, concentrations of PM₁₀ and shall record these concentrations continuously, so that a record is made of these concentrations at all times and such that the results can be expressed as 15 minute or hourly average concentrations. The instruments shall be certified according to the Environment Agency's MCERTS scheme. Continuous measurements shall also be made of wind speed and direction. (6) The monitoring network shall be designed and operated so that measurements are available in 'real time' through the use of software and telecommunications, or, as a minimum, made available with a time lag of no more than one week. (7) In the event that an hourly average concentration of PM₁₀ exceeds 100 µg/m³, the Mineral Operator shall investigate the circumstances prevailing at the time of this event, including the wind direction and the readings from all three instruments. (8) Should the frequency of events where the hourly averaged concentration of PM₁₀ exceeds 100 µg/m³ (and the wind direction is consistent with the quarry being the cause of this elevated concentration) be greater than six events in six months, then the quarrying operations shall cease until improved mitigation measures are implemented, having been submitted in writing to and approved in writing by the Mineral Planning Authority. The approved air quality

monitoring scheme, including measures for publicity, shall be implemented until the last Phase has been restored.

Inspector's note – SBQ's suggestions should be preferred

- 36) Prior to commencement of the development the Mineral Operator shall contact the Mineral Planning Authority to set up a Community Liaison Group which will run until the last Phase has been restored. The Community Liaison Group's purpose is to communicate matters regarding quarrying activities to the public and to establish a community complaints procedure that would be advertised widely with clear timescales within which response and resolution methods would be understood. The display of emissions on a website would be discussed at the meetings.
- 37) In terms of operational mechanical equipment, the screener and loading shovel shall never be operated within 250 m of any residential premises.
- 38) [not used]
- 39) All plant on site shall be maintained with particular attention given to any defect that generates any tonal or impulsive noise emissions.
- 40) Non-tonal reversing signals, which are background noise tracking, shall be installed on all mobile plant.
- 41) (a) Noise monitoring shall take place at three monthly intervals for the first 12 months of excavation operations at the following assessment locations; Sacombe Road, The Orchard / The Wick, Glenholm and Waterworks Cottage. The precise siting of monitoring equipment at these locations shall be approved in advance by the Mineral Planning Authority in writing. A minimum of two 15-minute noise measurements shall be taken at these locations during periods when the site is fully operational and the screener and loading shovel are being used, and when Rickneys Quarry is operating normally if both sites are operational. A Class 1 or 2 sound level meter and calibrator shall be used to carry out the monitoring. After the first 12 months the Mineral Planning Authority may decide to alter the frequency of testing and the Mineral Operator shall be informed in writing of the new frequency.

(b) The results of the monitoring exercise shall be compared to the following operating limits: Sacombe Road 48 dB LAeq, 1 hour; The Orchard / The Wick 48 dB LAeq, 1 hour; Glenholm 53 dB LAeq, 1 hour; Waterworks Cottage 55 dB LAeq, 1 hour. The results of the noise monitoring must be submitted to the Mineral Planning Authority within two weeks of the measurements being taken. If the above limits are exceeded, then immediate action must be taken to reduce noise levels to below the permitted limits.

(c) Additional noise monitoring shall take place during the construction of the proposed perimeter bunding when at its closest to residential properties on Sacombe Road and The Orchard / The Wick to ensure that a temporary working limit of 70 dB LAeq, 1 hour is not exceeded. Affected residents should be notified in writing by the Mineral Operator about the location and duration of these operations.

(d) If, following a complaint, the Mineral Planning Authority decides that further noise monitoring is required, written notice shall be given to the Mineral Operator specifying the required monitoring. The further monitoring shall be undertaken by the Mineral Operator and the results submitted in writing to the Mineral Planning Authority within four weeks of the request.

42) *HCC and appellants' suggested Condition 42*

The development hereby permitted shall not be commenced until a methodology for retaining; (1) 5 m of in-situ mineral or equivalent protection over the chalk surface within 300 m of the Wadesmill Road Pumping Station, (2) 3 m of in-situ mineral or equivalent protection over the chalk surface within 500 m of the Wadesmill Road Pumping Station, (3) 1 m of in-situ mineral or equivalent material over the chalk surface on the rest of the site, has been submitted to and approved in writing by the Mineral Planning Authority. The methodology shall specify how notification of any breach of the above requirements would be detected and notified to the Mineral Planning Authority. The site shall be worked in accordance with the approved methodology.

SBQ's suggested Condition 42

(a) The development hereby permitted shall not be commenced until such time as geophysical mapping of the Chalk has been undertaken, using both seismic refraction and resistivity tomography or other appropriate techniques approved in writing by the Mineral Planning Authority that will provide sufficient information on the fractures, fissures and karst features such as swallow holes and on the main inflow paths to the boreholes which supply the Wadesmill Road pumping station. (1) A Hydrogeological Impact Assessment (HydroIA) is to be carried out to assess the results of the geophysical mapping and to expressly consider whether or not, on the basis of those results, the geology of the site precludes safe minerals extraction, and whether, if the geology of the site can be shown not to preclude safe minerals extraction, a further scheme of mitigation measures is required to address potential contamination from operations on the site. (2) For the purposes of (a), safe minerals extraction refers to development which has no negative quantitative and/or qualitative impact on groundwater resources. (3) The HydroIA is to be submitted in writing to the Mineral Planning Authority, together with any proposed scheme of further mitigation measures, to be approved in writing by the Mineral Planning Authority. The approved scheme shall be implemented in full.

(b) Mineral extraction shall not take place below a residual layer of sand and gravel which is to be not less than 5 m above the surface of the Chalk as defined by the geophysical mapping in (a).

(c) Prior to the commencement of the development, plans shall be provided to the Mineral Planning Authority showing the contours of the surface of the Chalk underlying the sand and gravel (in metres Above Ordnance Datum (mAOD), as mapped under (a), and the contours of the upper surface of the in-situ layer of sand and gravel (in mAOD) that

is to be retained in the base of the quarry excavation. The plans will show that 5 m of in-situ sand and gravel is retained in the base of the excavation. Where the in-situ layer of sand is naturally less than 5 m in thickness no quarrying shall take place although the thickness shall be increased to 5 m by placing materials derived from within the planning application site only over this part of the site.

(d) Prior to the start of restoration infilling in each Phase, a survey shall be provided to the Mineral Planning Authority confirming that the contours of the sand and gravel (in mAOD) retained at the base of the quarry excavation is the same as the pre-commencement plan for that Phase provided under (c).

(e) The development hereby permitted shall not be commenced until such time as a scheme to dispose of foul and surface water has been submitted to and approved in writing by the Mineral Planning Authority. The scheme shall be implemented in full as approved. (1) Provision shall be made for the collection, treatment and disposal of all water entering or arising on the site to ensure that there shall be no discharge of contaminated or polluted drainage to groundwaters or surface waters. This condition shall also apply to the runoff from the hard standing and bunded areas where hydrocarbon materials are stored and refuelling takes place. (2) All foul drainage shall be discharged to a sealed tank and the contents of the tank shall be removed from the site completely.

(f) There shall be no discharge of foul or contaminated drainage from the site into either groundwater or surface water, whether direct or via soakaways. This condition shall also apply to the runoff from the hard standing and bunded areas where hydrocarbon materials are stored and refuelling takes place.

(g) Fuels shall only be stored within the bunded fuel store in the location shown in principle on Drawing No.1217/SP/1. For the avoidance of doubt any facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The size of the bunded compound shall be at least equivalent to the capacity of the tank plus 10% or, if there is more than one container within the system, of not less than 110% of the largest container's storage capacity or 25% of their aggregate storage capacity, whichever is the greater. All filling points, vents, and sight glasses must be located within the bund. There must be no drain through the bund floor or walls.

(h) Repair, maintenance and fuelling of plant and machinery shall only take place on an impervious surface drained to a sealed interceptor and the contents of the interceptor shall be removed from the site.

(i) No Controlled Waste, as defined by *The Controlled Waste Regulations 2012*, or Extractive Waste, as defined by *The Environmental Permitting Regulations 2016 (as amended)* shall be imported to the site for reuse, processing, recover, or disposal.

(j) Prior to the start of quarrying in each phase, an HydroIA is to be carried out expressly considering whether a further scheme of mitigation measures is necessary to address operational changes arising since the grant of planning permission. The HydroIA, and any further mitigation scheme, is to be provided in writing to and approved in writing by the Mineral Planning Authority. The proposed scheme shall be implemented in full as approved.

(k) The development hereby permitted shall not be commenced until such time as a scheme for the storage and transport of potential contaminants and for the mitigation measures to be implemented in the event of any spillage of the same has been submitted to and approved in writing by the Mineral Planning Authority. The approved scheme shall be implemented in full as approved. (1) In addition to the mitigation measures identified in these conditions, the scheme is to include as a minimum the mitigation measures identified in the *Hafren Water Hydrogeological Impact Assessment in support of gravel extraction at Ware Park, Hertford, Hertfordshire* July 2014, the *Addendum to Hydrogeological Impact Assessment Ware Park, Hertford* July 2017, and the Proof of Evidence of Christopher Leake April 2018. (2) The scheme shall also include the following mitigation measure: in the event of any spillage of a potential contaminant anywhere on the site of the development hereby permitted, the affected sand and gravel shall immediately be extracted by authorised persons and removed for secure disposal off-site. This condition shall also apply to spillages that may occur during the delivery of fuel, oils and other hydrocarbons to the site or during the emptying of the storage tank or tanks of contaminated water.

(l) Should any spillage of potential pollutants in excess of 50 litres occur at the site all works at the development hereby permitted are to cease immediately and shall not resume until a scheme of mitigation and/or any remedial works required are submitted in writing to and approved in writing by the Mineral Planning Authority. The proposed scheme shall be implemented in full as approved.

(m) The development hereby permitted shall not be commenced until such time as a scheme for the following in each of the phases of the development (including an implementation timetable), has been submitted in writing to and approved in writing by the Mineral Planning Authority. The proposed scheme shall be implemented in full as approved. (1) A long-term groundwater monitoring scheme (including a maintenance plan for the groundwater boreholes) in respect of contamination and turbidity, and any potential sources of the same, including a timetable of monitoring and submission of reports to the Mineral Planning Authority. (2) The scheme shall include identification of trigger levels for monitoring sites where contingency measures would be required should those trigger levels be reached. The scheme shall also include identification of the contingency measures needed should the trigger levels be reached. (3) No development shall take place until any water monitoring devices relied upon by the approved scheme are

provided in their entirety and are operational. (4) Groundwater monitoring reports as specified in the approved scheme shall be submitted no less than annually. (5) Should results of the groundwater monitoring scheme prove a negative impact on any groundwater or surface water sources, all works at the development hereby permitted are to cease immediately and should not resume until mitigation and/or any remedial works required are submitted in writing to and approved in writing by the Mineral Planning Authority and are implemented in full as approved.

(n) The Mineral Planning Authority shall be advised in writing of any changes to the operational plan of the site which have the potential to affect groundwater quality or quantity. (1) Following the proposal of such a change, an HydroIA is to be carried out, expressly considering whether a further scheme of mitigation measures is necessary to address the change. (2) The HydroIA, and any further mitigation scheme, is to be provided in writing to and approved in writing by the Mineral Planning Authority. The proposed scheme shall be implemented in full.

(o) The development hereby permitted may not commence until such time as a scheme for managing any borehole installed for the investigation (including monitoring) of soils, groundwater or geotechnical purposes has been submitted to and approved in writing by the Mineral Planning Authority. (1) The scheme shall be supported by detailed calculations and include a programme for future maintenance, schedule for repairs and a contingency action plan. (2) The scheme shall be fully implemented and subsequently maintained, in accordance with the timing/phasing arrangements embodied within the scheme, or any details as may subsequently be approved in writing by the Mineral Planning Authority. (3) The scheme shall provide details of how redundant boreholes are to be decommissioned and how any boreholes which need to be retained, post-development, for monitoring purposes will be secured, protected and inspected. The scheme shall include the provision that all redundant boreholes are to be backfilled with a bentonite-cement grout that is mixed using 1 kg of bentonite per 25 kg bag of ordinary Portland cement with the bentonite added after the cement has been mixed with water. The volume of water should be limited to 15.5 litres per bag of cement. (4) The development hereby permitted may not commence until such time as a scheme for the repair of borehole OBH 1A has been submitted to and approved in writing by the Mineral Planning Authority.

(p) If, during development, contamination not previously identified is found to be present at the site then no further development shall be carried out until the developer has submitted in writing a remediation strategy to the Mineral Planning Authority detailing how this unsuspected contamination shall be dealt with and obtained written approval from the Mineral Planning Authority. The remediation strategy shall be implemented in full as approved.

(q) Upon completion of the proposed development, a final report demonstrating that any unacceptable impacts to the aquifer have been mitigated, and documenting the decision to cease monitoring, shall be submitted in writing to and approved in writing by the Mineral Planning Authority.

Inspector's note – Neither of the above conditions is recommended. If the Secretary of State is minded to allow the appeal and to grant planning permission then it would be necessary to go back to the parties to devise the terms of a planning condition that would achieve the required safeguarding of the aquifer by means of planning conditions that passed the relevant tests.

- 43) A restricted working zone shall be created within 70 m of properties at The Orchard within which operations shall not take place when the wind direction is from the north-eastern quadrant.

DOCUMENTS SUBMITTED AT THE INQUIRY (ID)

ID1	Joint noise statement by Les Jephson and Stephen Marshall
ID2	Rebuttal by Mark Flatman
ID3	Opening statement on behalf of the appellants
ID4	Opening comments for Hertfordshire County Council
ID5	Opening submissions on behalf of Stop Bengoe Quarry
ID6	Opening summary by Cllr Stevenson
ID7	Rebuttal by Stephen Marshall
ID8	Rebuttal by Julie Greaves
ID9	Letter dated 30 April 2018 from Mark Prisk FRICS MP
ID10	Note on EHDC involvement regarding the appeal site submitted by Cllr Stevenson
ID11	Agreed Statement of Common Ground between HCC and DK Symes: Position on Existing and Future Supply of Sand and Gravel dated 24 April 2018 [requested by Inspector]
ID12	Email dated 26 April 2018 from Les Jephson to Stephen Marshall concerning monitoring Volvo EC380 excavator Volvo L350 loading shovel and CAT 730C ADT
ID13.1	Email dated 20 March 2018 from HCC to Hanson concerning Rickneys Quarry
ID13.2	Emails between HCC and Hanson dated 20 March 2018 and 23 August 2018 concerning Rickneys Quarry
ID14	Stanstead and Luton Airports Weather data 17,18,19 and 21 October 2013
ID15	Extracts from BS4142 [requested by Inspector]
ID16.1	Minutes Development Control Committee 29 May 2007 re Rickneys Quarry extension
ID16.2	Decision Notice 23 December 2009 re Rickneys Quarry extension
ID16.3	Minutes Development Control Committee 27 February 2014 re Rickneys Quarry extension
ID17	Minutes Development Control Committee 22 March 2017 re appeal scheme
ID18	Minutes Development Control Committee 25 January 2017 re former Hatfield aerodrome (BAE site)
ID19	[number not used]
ID20	Statement of Common Ground – Health dated 3 May 2018
ID21	HCC note re progress towards issuing planning permission for; Land at Furze Field (Hatfield Quarry) and Land at former Hatfield Aerodrome
ID22.1	Bund Schedule 1.25 Mt scheme [requested by Inspector]
ID22.2	Bund Schedule 1.75 Mt scheme [requested by Inspector]
ID23	<i>East Herts Green Belt Review</i> , Peter Brett Associates 2015
ID24	<i>The Battle for Breath – the impact of lung disease in the UK</i> British Lung Foundation
ID25	Application Site Layout plan for Hatfield Aerodrome site
ID26	Differences between 1.75 Mt and 1.25 Mt schemes [requested by Inspector]
ID27.1	HCC suggested planning conditions for 1.75 Mt scheme

ID27.2	HCC suggested planning conditions for 1.25 Mt scheme
ID28.1	Consultation responses from County Landscape Officer dated 27 February 2017
ID28.2	Consultation responses from County Landscape Officer dated 21 June 2016
ID29	Cross sections [requested by Inspector]
ID30.1	Schedule of relevant plans and documents 1.75 Mt scheme
ID30.2	Schedule of relevant plans and documents 1.25 Mt scheme
ID31.1	Drawing 1217/1.75/UM/1 Isopachytes 1.75 Mt scheme (undisturbed material above chalk)
ID31.2	Drawing 1217/1.25/UM/1 Isopachytes 1.25 Mt scheme (undisturbed material above chalk)
ID31.3	Drawing 1217/1.75 and 1.25/EM/1 Isopachytes (existing ground level above chalk) [requested by Inspector]
ID32	Statement and attachments by Dr Bryan Lovell
ID33	Statement by John Wiggett
ID34.1	Statement by John Howson
ID34.2	Response to Framework on behalf of Bengoe Neighbourhood Plan dated 8 October 2018
ID35	Statement by Aska Pickering
ID36	Statement by Anu Palmer
ID37	Statement by Libby Mountford
ID38	Statement by Alan Burgess
ID39	Statement by Peter Norman
ID40	Statement by Dr Mike Howarth
ID41	Statement by John Barnes
ID42	Statement by Alexandra Daar
ID43	Statement by Mark Lynch
ID44	Statement by Dr David Adam
ID45	Statement by Julie Starkiss
ID46	Statement by Cllr Cousins
ID47	Statement by Terry Mansfield
ID48	Statement by Lee Nicholson
ID49	HERT4 Sterilisation Note
ID50.1	Weather History February and March 2018
ID50.2	Plant noise monitored by L Jephson
ID51	Plan No.1217/R/1 Restored Landform (for 2.6 Mt scheme)
ID52	Beaufort Scale for Land Areas
ID53.1	Draft conditions produced by SBQ
ID53.2	Draft conditions v2 produced by SBQ
ID53.3	SBQ comments on conditions suggested by HCC
ID54	Correspondence concerning photograph of Rickneys Quarry
ID55	Bundle of documents submitted by Cllr Stevenson
ID56	Dimensions of Volvo L350
ID57.1	Draft unilateral undertaking
ID57.2	Revised draft unilateral undertaking
ID58	Statement by Ben Penrose
ID59	Attachment to Statement by Veronica Fraser
ID60	Statement by Cllr Margaret Eames-Petersen
ID61	Statement by Andrew Smith
ID62	Statement by Cllr Mari Stevenson

ID63	Statement by Steve Halsey
ID64	Statement by Laura Wyer
ID65	Statement by Simon Pickering
ID66	Statement by Nadine Cleland
ID67	Statement by Russell Norris
ID68	Statement by Heston Attwell
ID69	Statement by Amber Waight
ID70	Statement by Dr Laura Horsfall
ID71.1	Note concerning Bengoe Neighbourhood Plan and EHDC committee report dated 27 June 2017 [requested by Inspector]
ID71.2	Planning trajectory for HERT4 submitted by Cllr Stevenson
ID71.3	Assets of Community Value Register
ID72	HCC bundle of emails relating to Chronology
ID73	Note from appellants concerning procedure at the Inquiry
ID74	Statement and photographs by Nigel Braggins
ID75	Note re consideration of amended scheme by SBQ
ID76	Note re consideration of amended scheme by HCC
ID77	Note re consideration of amended scheme by appellants
ID78	Note re planning status of Rickneys Quarry with Site Context Plan [requested by Inspector]
ID79	Plan showing photo location numbers and LVIA viewpoints [requested by Inspector]
ID80	Chronology
ID81	HCC RoW Good Practice Guide
ID82.1	Draft conditions by appellants
ID82.2	Summary of Generic Conditions based on appellants numbers
ID82.3	Draft conditions by appellants for 1.75 Mt scheme
ID82.4	Draft conditions by appellants for 1.25 Mt scheme
ID82.5	Comment on Conditions by SBQ and appellants
ID82.6	Comment on Generic Conditions by appellants
ID83.1	Draft section 25 agreement including Plan 1 and Plan2
ID83.2	Draft obligation by way of unilateral undertaking
ID84	Bundle of emails to councillors from local residents
ID85	Extract from local newspaper concerning brewery
ID86	Note and photo concerning Pynes Field Quarry
ID87	Emails concerning mud on road at HS2 site/Pynes Field Quarry
ID88	Appellants' response to ID75 and ID76
ID89	Statement by Robert Chandler including Hertfordshire Road Casualty Facts 2017
ID90	Statement by Thalia Weston
ID91	Amended Statements of Case re HIA
91.1	Cllr Stevenson dated 25 July 2018
91.2	Stop Bengoe Quarry dated 23 July 2018
91.3	Hertfordshire County Council dated 24 July 2018
91.4	Appellants dated 20 July 2018
ID92	Agreed position concerning BMV agricultural land email dated 12 June 2018

ID93	Written representations about HIA submitted during adjournment (in blue folder with list of those who submitted comments at Annex B of this report)
ID94	Statement of Common Ground by HCC and appellants dated 3 October 2018
ID95.1	Plan and schedule of distances to properties/features for 1.75 Mt scheme by HCC and appellants [requested by Inspector]
ID95.2	Plan and schedule of distances to properties/features for 1.25 Mt scheme by HCC and appellants [requested by Inspector]
ID96	Update on Bengeo Neighbourhood Area Plan (BNAP) by Cllr Stevenson dated 3 October 2018
ID97	Updated suggested planning conditions indicating matters agreed and those remaining in dispute between HCC and appellants – including revisions submitted on 5 and 8 November 2018
ID98.1	Comments on updated conditions on behalf of SBQ with 12 November 2018 update
ID98.2	Suggested water management conditions by SBQ with 12 November 2018 update
ID99	Extract from East Herts District Plan adopted 23 October 2018 Policy HERT4
ID100	Decision Notice Furze Field dated 19 October 2018
ID101	Hertfordshire Minerals Local Plan – Comparative Evaluation of Sites Final Site Summary AFS 11
ID102	Correspondence between Hanson UK and Ingrebourne Valley Limited dated 14 July 2015 13 July 2016 15 August 2017 and 29 August 2017
ID103	Letter to HCC from Affinity Water dated 2 November 2017
ID104	Hertfordshire's Local Transport Plan May 2018
ID105	Note by Cllr Stevenson – Summary of health impact 24 October 2018
ID106	Extract draft BNAP Natural Environment and Green Spaces
ID107	Bengeo Neighbourhood Area Plan chronology
ID108	Closing submissions on behalf of SBQ
ID109	Closing submissions by Cllr Stevenson
ID110	Closing speech on behalf of HCC
ID111	Closing submissions on behalf of the appellants
ID112.1	Email from Cllr Stevenson regarding AM peak time condition for HGV movements dated 6 November 2018
ID112.2	Response by appellants dated 9 November 2018
ID113	HCC comments dated 15 November 2018 on SBQ updated note about conditions
ID114	Section 106 deed of agreement dated 15 November 2018

CORE DOCUMENTS

CD1	CD1 – Doc 1 Proposed Strategy (Dec 2012)
CD2	CD2 – Doc 1 Planning Application 1 – 2.6 Million tonnes (Mar 2016) CD2 – Doc 2 Volume 1 CD2 – Doc 3 Volume 2 CD2 – Doc 4 NTS
CD3	Further Information 1 (Dec 2016)
CD4	Further Information 1a (Jan 2017)
CD5	Committee Report (Revised) (Mar 2017)
CD6	Refusal Notice (Mar 2017)
CD7	CD7 – Doc 1 Statement of Case 1 – Appellant CD7 – Doc 2 Statement of Case 2 – Appellant
CD8	Statement of Case – Herts CC
CD9 CD9a	Rule 6 – Bengoe Statement of Case (excluding Academic Papers) Rule 6 – Bengoe Statement of Case Academic Papers (on cd only)
CD10	Rule 6 – Stevenson Statement of Case
CD11	Professor Rick Brassington – PoE and Supplementary etc.
CD12 CD12a	Mark Prisk MP – Correspondence Rt Hon Sir Oliver Heald QC MP - Correspondence
CD13	EA Correspondence – Doc 1, Doc 2, Doc 3, Doc 4, Doc 5, Doc 6
CD14	Herts CC Director of Public Health letter (Mar 2017)
CD15	CD15 – Doc 1 Planning Application 2 – 1.25 Million tonnes (Sept 2017) Volume 1 CD15 – Doc 2a Volume 2 - (First ring binder) 1. Landscape and Visual 2. Ecology 3. Hydrogeology 4. Flood Risk CD15 – Doc 2b Volume 2 – (Second ring binder) 5. Transport 6. Archaeology 7. Noise 8. Air Quality CD15 – Doc 3 NTS
CD16	Further Information 2 and Updated NTS Addendum 1 (Feb 2018) CD16 – Doc 1 Further Information 2 CD16 – Doc 2 Updated NTS Addendum 1
CD17	Consultee Replies (1.25 Mt scheme)

CD18 CD18a	Committee Report - (April 2018) Committee Report Plan
CD19	CD19 – Doc 1 Decision - Refusal Notice April 2018 [1.25 Mt scheme] CD19 – Doc 2 Addendum Report to DCC April 2018
CD20	Minerals Local Plan Review 2002 – 2016 – Adopted March 2007
CD21	Herts CC Cabinet Panel – Item 7 Sites to be identified in the Draft MLP (Sept 2017)
CD22	Minerals Local Plan Consultation draft - December 2017
CD23	East Herts Local Plan Second Review – Adopted April 2007 <i>No longer a Core Document</i>
CD24	East Herts District Plan – Pre-Submission Consultation (Nov 2016) (Extract of Chapters 4 & 7)
CD25	East Herts District Plan Main Mods Consultation Feb 15 – March 29 2018
CD26	Guidance for Landscape and Visual Impact Assessment Third Edition
CD27	East of England Landscape Framework
CD28	Extract of the MLPCS003 Site Selection Report - Ware Park (Nov 2017)
CD29	Extracts of the 111: Northern Thames Basin Landscape Character Assessments
CD30	East Herts District LCA
CD31	Inspectors Report for Herts CC MLP Review 2005 (Extract of Inspectors Report for Preferred Area 2)
CD32	Noise Metres Calibration Certificates and LAB 23
CD33	BS5228 Code of Practice for noise & vibration control on construction & open sites
CD34	Control of Dust & Emissions During Construction & Demolition - SPG Mayor of London
CD35.1	Guidance on the Assessment of Mineral Dust Impacts for Planning - IAQM
CD35.2	Land-Use Planning & Development Control: Planning for Air Quality - IAQM
CD36	The Environment Agency's Approach to Groundwater Protection
CD37	Landscape Partnership Report Suitability of Landscape Character Areas for Mineral Extraction 2001 <i>No longer a Core Document</i>
CD38	East Herts Landscape Character Assessment – SPD Adopted Sept 2007
CD39	Pre Inquiry Note dated 20.4.18
CD40	Response to Request for Further Information - from PINS dated 03 April 2018
CD41	Plan showing residential development in locality
CD42	Agricultural Land Classification May 1997

JUDGMENTS

Bernard Wheatcroft Ltd v SoSE (1982) 43 P.&C.R. 233
Blewett v Derbyshire CC [2003] EWHC 2775 (Admin)
DLA Delivery Ltd and Baroness Cumberlege of Newick [2018] EWCA Civ 1305
Europa Oil and Gas Ltd v SSCLG [2013] EWHC 2643 (Admin)
Europa Oil and Gas Ltd v SSCLG [2014] EWCA Civ 825
Gladman Developments Ltd v SoS CLG [2017] EWHC 2768 (Admin)
Holborn Studios Ltd and LB Hackney [2017] EWHC 2823 (Admin)
J v North Warwickshire BC [2001] EWCA CIV 315
Linda Davies v SoSCLG [2008] EWHC 2223 (Admin)
Mount Cook Ltd v Westminster CC [2003] EWCA Civ 1346
R (On the application of Jones) v Mansfield DC [2003] EWCA Civ 1408
Samuel Smith Old Brewery and North Yorkshire CC [2018] EWCA Civ 489
Shadwell Estates Ltd and Breckland District Council [2013] EWHC 12 (Admin)

APPEAL DECISION

Land adjacent to Bramley Moor Lane Appeal Ref:APP/U1050/W/17/3190838 dated 16 August 2018



RIGHT TO CHALLENGE THE DECISION IN THE HIGH COURT

These notes are provided for guidance only and apply only to challenges under the legislation specified. If you require further advice on making any High Court challenge, or making an application for Judicial Review, you should consult a solicitor or other advisor or contact the Crown Office at the Royal Courts of Justice, Queens Bench Division, Strand, London, WC2 2LL (0207 947 6000).

The attached decision is final unless it is successfully challenged in the Courts. The Secretary of State cannot amend or interpret the decision. It may be redetermined by the Secretary of State only if the decision is quashed by the Courts. However, if it is redetermined, it does not necessarily follow that the original decision will be reversed.

SECTION 1: PLANNING APPEALS AND CALLED-IN PLANNING APPLICATIONS

The decision may be challenged by making an application for permission to the High Court under section 288 of the Town and Country Planning Act 1990 (the TCP Act).

Challenges under Section 288 of the TCP Act

With the permission of the High Court under section 288 of the TCP Act, decisions on called-in applications under section 77 of the TCP Act (planning), appeals under section 78 (planning) may be challenged. Any person aggrieved by the decision may question the validity of the decision on the grounds that it is not within the powers of the Act or that any of the relevant requirements have not been complied with in relation to the decision. An application for leave under this section must be made within six weeks from the day after the date of the decision.

SECTION 2: ENFORCEMENT APPEALS

Challenges under Section 289 of the TCP Act

Decisions on recovered enforcement appeals under all grounds can be challenged under section 289 of the TCP Act. To challenge the enforcement decision, permission must first be obtained from the Court. If the Court does not consider that there is an arguable case, it may refuse permission. Application for leave to make a challenge must be received by the Administrative Court within 28 days of the decision, unless the Court extends this period.

SECTION 3: AWARDS OF COSTS

A challenge to the decision on an application for an award of costs which is connected with a decision under section 77 or 78 of the TCP Act can be made under section 288 of the TCP Act if permission of the High Court is granted.

SECTION 4: INSPECTION OF DOCUMENTS

Where an inquiry or hearing has been held any person who is entitled to be notified of the decision has a statutory right to view the documents, photographs and plans listed in the appendix to the Inspector's report of the inquiry or hearing within 6 weeks of the day after the date of the decision. If you are such a person and you wish to view the documents you should get in touch with the office at the address from which the decision was issued, as shown on the letterhead on the decision letter, quoting the reference number and stating the day and time you wish to visit. At least 3 days notice should be given, if possible.

