

Strategic Local Plan Technical Report

Development Site and Strategy Options Evaluation

October 2014

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Note:

This report was originally published for consideration by the Council's Planning Policy Committee in July 2014. This final version of the report includes minor amendments and updates as discussed by the Committee. The main changes are inclusion of a new Appendix (7) and associated amendments. Other substantive changes are indicated in the text with the annotation 'October 2014'.

SECTION 1

BACKGROUND

1.1 Purpose of Report

- 1.1.1 This Technical Report sets out the development site and strategy options considered by the Council in preparation of the Strategic Local Plan (Preferred Options) Consultation Draft 2014 (SLP - 2014 Draft) and evaluates them against a series of clearly identified sustainability factors. These factors are derived from overall Plan objectives.
- 1.1.2 The evaluation work provides a basis for, and explains in detail, the Council's reasoning in selecting the preferred sites and development strategy presented in the Consultation Draft Plan.

1.2 Terminology

- 1.2.1 At various stages of the SLP process the terms "spatial strategy" and "development strategy" have been used. These terms are related in that they refer to the strategy for locating future development (mainly housing development) across the District. However, spatial strategy is a general concept dealing with the future socio – economic role of the various settlements in the District, whilst development strategy refers more specifically to the location of the major developments planned for.
- 1.2.2 In this report the term "development strategy" is used throughout. This is because it conveys the necessary emphasis (arising from the post 2011 National Planning Policy Framework - NPPF) on choices about accommodating significant levels of new development.
- 1.2.3 The term "site(s)" is used to describe the specific locations considered for major development. The sites that are included in the Council's preferred strategy are the SLP -2014 Draft "broad locations" for major development.

1.3 Basis of Evaluation

- 1.3.1 Evaluation of the development site and strategy options is undertaken on the basis that the two underlying plan objectives are:
- to meet development needs;
 - (but only) in so as far as is consistent with maintaining effective Green Belt policy
- (Green Belt is an urban containment policy. The Metropolitan Green Belt limits urban expansion around London and, through this, contributes to some environmental protection objectives).
- 1.3.2 These underlying objectives are further detailed in the SLP "Core Strategic Objectives".
- 1.3.3 Development need is assumed to provide the 'exceptional circumstances' justification required for Green Belt boundary changes.
- 1.3.4 However minimising loss of Green Belt land to development is the underlying objective that has determined the definition of options for evaluation. This point is fundamental to overall understanding of the evaluation process and outcomes.

- 1.3.5 Evaluation is then undertaken within the overall Sustainability Appraisal (SA) framework for the Plan. The SA framework identifies a set of factors related to general sustainability objectives rooted in the NPPF. The site and strategy options are tested against these factors. This is explained in more detail below.

1.4 National Planning Policy Framework (NPPF) / (National) Planning Practice Guidance (PPG) Background

NPPF on Plan making and the role of Sustainability Appraisal (SA)

“Local Planning Authorities (LPAs) should seek opportunities to achieve each of the economic, social and environmental dimensions of sustainable development (SD) and net gains across all three. Significant adverse impacts on any of these dimensions should be avoided and, where ever possible, alternative options which reduce or eliminate such impacts should be pursued” (Para.152)

“A sustainability appraisal that meets the requirements of the European Directive on strategic environmental assessment should be an integral part of the plan preparation process, and should consider all the likely significant effects on the environment, economic and social factors” (Para.165)

“Assessment should be proportionate, and should not repeat policy assessment that has already been undertaken. Wherever possible the LPA should consider how the preparation of any assessment will contribute to the Plan’s evidence base. The process should be started early in the plan making process and key stakeholders should be consulted in identifying the issues that the assessment must cover (Para.167)

NPPF on Green Belt policy and (boundary) reviews

“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 permanence” (Para 79)

“Local planning Authorities with Green Belts in their area should establish Green Belt boundaries in their Local Plans which set the framework for Green Belt and settlement policy. Once established, Green Belt boundaries should only be altered in exceptional circumstances, through the preparation or review of the Local Plan.....” (Para 83)

PPG on SA

“Every Local Plan must be informed and accompanied by a Sustainability Appraisal. This allows the potential environmental, economic and social impacts of the proposals to be systematically taken into account, and should play a key role throughout the plan-making process. The Sustainability Appraisal plays an important part in demonstrating that the Local Plan reflects sustainability objectives and has considered reasonable alternatives. The Sustainability Appraisal should incorporate a Strategic Environmental Assessment to meet the statutory requirement for certain plans and programmes to be subject to a process of ‘environmental assessment’ (Reference ID: 12-016-20140306)

“Sustainability Appraisal is integral to the preparation and development of a Local Plan to identify how sustainable development is being addressed, so work should start at the same time that work starts on developing the plan. The relationship between the Sustainability Appraisal and Local Plan preparation processes is shown

(below). The sustainability appraisal process should be taken into account when the local planning authority develops its timetable for the preparation of the Local Plan as outlined in the Local Development Scheme.” (Reference ID: 11-006-20140306)

Figure 1 Sustainability Appraisal and Local Plan
Process

Sustainability appraisal process

Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope

1. Identify other relevant policies, plans and programmes, and sustainability objectives
2. Collect baseline information
3. Identify sustainability issues and problems
4. Develop the sustainability appraisal framework
5. Consult the consultation bodies on the scope of the sustainability appraisal report

Stage B: Developing and refining alternatives and assessing effects

1. Test the Local Plan objectives against the sustainability appraisal framework
2. Develop the Local Plan options including reasonable alternatives
3. Evaluate the likely effects of the Local Plan and alternatives
4. Consider ways of mitigating adverse effects and maximising beneficial effects
5. Propose measures to monitor the significant effects of implementing the Local Plan

Stage C: Prepare the sustainability appraisal report

Stage D: Seek representations on the sustainability appraisal report from consultation bodies and the public

Stage E: Post adoption reporting and monitoring

1. Prepare and publish post-adoption statement
2. Monitor significant effects of implementing the Local Plan
3. Respond to adverse effects

Local Plan preparation

Evidence gathering and engagement

Consult on Local Plan in preparation (regulation 18 of the Town and Country Planning (Local Planning) (England) Regulations 2012).

Consultation may be undertaken more than once if the Local Planning Authority considers necessary.

Stage C: Prepare the publication version of the Local Plan

Seek representations on the publication Local Plan (regulation 19) from consultation bodies and the public

Submit draft Local Plan and supporting documents for independent examination

Outcome of examination

Consider implications for SA/SEA compliance

Local Plan Adopted

Monitoring

Monitor and report on the implementation of the Local Plan

1.4.1 Development sites and strategy options evaluation fits into the overall SA process at Stage B (diagram above). It is a central part of points 2 and 3 (develop the Local Plan options including reasonable alternatives and evaluate the likely effects of the local plan and alternatives).

1.5 Relationship between Development Sites and Strategy Evaluation and Sustainability Appraisal (SA) / Strategic Environmental Appraisal (SEA) of the SLP

1.5.1 Evaluation can only take place against agreed aims and objectives.

1.5.2 As noted above, planning legislation and national policy requires a formal process of evaluation in the form of Sustainability Appraisal (SA). SA incorporates European law requirements for Strategic Environmental Assessment (SEA) of plans and programmes.

1.5.3 The Council undertook considerable work, including extensive consultation, on the SLP over the period 2005 – 12. This included establishing Plan aims and objectives in general terms and creating an associated SA Framework. The SA Framework is effectively a set of integrated aims, objectives and related specific evaluation criteria for appraisal of the Plan. The Framework has been used as a consistent basis for all Plan evaluation work.

1.5.4 SA work undertaken prior to work on the SLP 2014 Draft is summarised and referenced at Appendix 1.

1.5.5 It is important to note that, in its initial SA work, the need for evolution in the SA Framework and its application was noted:

“...work on developing the objectives, criteria and indicators is ongoing and will not be finalised until submission of the final (SLP) (Section 4.1 SA Scoping report 2006)”

1.5.6 Development of the SA Framework has been particularly important following changes to the planning system through the Localism Act 2011 and publication of the NPPF. The new system requires local assessment and, as a start point, accommodation of, development needs, rather than reliance on targets derived from Regional Spatial strategies (RSS). This change necessitated a reconsideration of the approach to the Plan and commensurate adjustments to objectives and evaluation methodology.

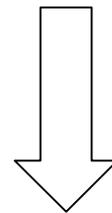
1.5.7 The evaluation and SA process must now start from the two core objectives noted at Para 1.3.1 above.

1.5.8 The overall evaluation process for the SLP – 2014 Draft is summarised at Figure 2 below.

Figure 2 Summary of SLP (2014 Draft) Evaluation Process

EVIDENCE BASED “OBJECTIVE” ASSESSMENT OF DEVELOPMENT NEEDS

What view should the Council take on evidence of future development (particularly housing development) needs?

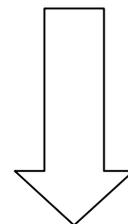


ALTERNATIVE APPROACHES TO ADDRESS DEVELOPMENT NEED

- EVALUATION AGAINST SUSTAINABLE DEVELOPMENT OBJECTIVES

Sustainability Appraisal First Level - ***Whole Plan***

SET PLAN REQUIREMENT / TARGETS



HOW TO MEET THE PLAN REQUIREMENT / TARGET

Sustainability Appraisal Second Level - ***Development site options***

What are the Areas of Green Belt that could be developed with least damage to the overall objectives of Green Belt policy?

Sustainability Appraisal - Third Level - ***Development strategy options***

1.5.9 Figure 2 shows that evaluation is now required at three levels:

- **First level - NPPF influences and “Whole Plan” choices**

This includes consideration of alternative levels of development need that could be planned for and the sustainability choices and choices involved.

At the early stages of work on the SLP, levels of development were largely determined outside of the Local Plan process, by the RSS. Overall development impacts were evaluated, but this was done largely in respect of choices about utilisation of urban capacity. The possibility of some green field development was considered along with ways of mitigating adverse environmental impacts, but the scale was limited by an assumption of a continuation of historic levels of development. This work is explained in “Core Strategy: Spatial Strategy Options – SA working Note September 2010”. This work stands as a sound basis for continuing SA and is relevant to the SLP – 2014 Draft in the new context of the NPPF, but it does need update to take account of the requirement for local assessment of development need and the Green Belt Review process that now drives the Plan. This will be done in separate SA technical work / reports for the SLP – 2014 Draft.

- **Second Level - Development Site options and selection**

- **Third Level - Development Strategy options and selection**

1.5.10 Effectively this is an evaluation hierarchy linked to the main decisions required to prepare the Plan.

1.5.11 Of course the levels are related. Assessment at each level is iterative and incorporates feedback between levels. For example the overall level of development judged acceptable is influenced by detailed evaluation of sites and impact of their development.

1.5.12 This report details evaluation at the second and third levels; site and strategy choices.

1.6 Reasonable Alternatives

1.6.1 The requirement of SA/SEA is that the decision taker considers “reasonable alternatives” and explains decisions in that context.

1.6.2 The reasonable alternative sites are generated using the Green Belt Review (see above).

1.6.3 It would be possible to generate a very large number of alternative development strategies by varying the development concepts and the packages of sites incorporated in each strategy. The strategies evaluated should therefore be viewed as a series of illustrative alternatives. They are sufficient to allow evaluation and decision around the realistic choices available to the Council. The exercise must be manageable and practical. It is not, and cannot, be comprehensive.

1.6.4 It is therefore possible that the selected strategy, including the final sites package and the development capacity arising from it, could, in the final Plan, be different in detail from the illustration used for evaluation. The differences in detail will not undermine the general conclusions of the evaluation.

1.7 Assumptions about Levels of Development Need

1.7.1 Deciding on the level of development (particularly housing) need that is to be met in the Plan (referred to hereafter as the “Plan requirement /target”) is a fundamental initial consideration in Plan making.

1.7.2 As noted above, this is a matter dealt with in detail in separate evidence and Technical / SA reports.

1.7.3 To generate and define development strategy options it is necessary to make basic assumptions about the level of development need the Plan will address.

1.7.4 The NPPF states:

“To boost significantly the supply of housing, LPAs should use their evidence base to ensure that their Local plan meets the full objectively assessed needs for market and affordable housing in the market area as far as is consistent with the policies set out in this Framework, including identifying key sites which are critical to the delivery of the housing strategy over the plan period (para. 47)”

1.7.5 For the purposes of development strategy generation and evaluation it is assumed that any one of the options considered would be capable of meeting the full range of Plan requirements / targets that might be sensibly considered by the Council. This is because all options embody a degree of flexibility in terms of possible variations in the scale of development finally planned for.

1.7.6 This flexibility is achieved through:

- the ability to extend the list of preferred development sites included in the preferred development strategy, depending on the Plan requirement / target (site selection would follow the rank order set in the site evaluation stage);
- a degree of flexibility in site development capacities arising from cautious land budget assumptions within the areas identified for development; and
- further site capacity flexibility arising from relatively cautious assumptions for residential development densities.

1.7.7 Development site and strategy options are defined on the basis that the Plan will not allocate land for employment or other non residential uses, other than through any potential that arises from major development at east Hemel Hempstead or ancillary to residential development elsewhere. This assumption is made on the basis of the Plan’s primary Green Belt maintenance objective and because the local economy is closely related to a travel to work area that includes strong connections to the London and Herts / Beds sub region. Opportunities for work and employment land provision can be met in the wider area and there is no necessity to allocate more land in the District.

1.8 Evaluation Methodology

1.8.1 The detailed evaluation framework for site and development strategy option assessment, including the criteria and weighted scoring system, was agreed by the Council's Planning Policy Committee (PPC) at its meeting on 4 March 2014. This evaluation methodology respects, and draws on, the initial SA work for the Plan described above and the general SA Framework. However, it is a specific evaluation method designed to examine geographical options in more detail than would be possible using the general SA Framework. It therefore represents a part of the evolution of the SA always envisaged.

1.8.2 The evaluation methodology involves:

1. Detailed definition of Options for evaluation (as explained above)
2. Application of the SA Framework objectives to provide detailed evaluation criteria
3. Definition of a weighted scoring system taking account of the SA Framework objectives
4. Creation of an evaluation criteria matrix and an assessment form, with a series of standard questions
5. Assessment research recorded in the assessment form
6. Outline scoring of options against evaluation criteria
7. Brief written explanation of reasons for scoring decisions
8. Rechecking of scoring following 6/7. above; including moderation to judge consistency of application of factors and identification of any issues not fully covered in the SA Framework (this includes consideration by the Council's Planning Policy Committee and advice to officers on issues of judgement)
9. Final written / scored assessment for each option and moderation for any additional considerations not fully reflected in the scoring system (recorded in this Technical Report)

1.8.3 It is important to note some important caveats about this methodology:

- The SA Framework and resultant evaluation criteria are derived from the concept of "sustainable development" (and its three dimensions; economic, social and environmental) that underpins national planning policy and the SLP – 2014 Draft Objectives (see above);
- Any scoring system relies on judgement in attributing scores. The system cannot be totally objective or scientific. The purpose of scoring is to provide a quick reference guide to, or short hand for, the judgements made. The written explanation of scoring is important as it helps make the judgements involved explicit. This in turn facilitates essential political choices;
- One particular aspect of judgement embodied in the scoring is the weighting of some of the factors. The Council's view is that this weighting reflects the higher level of importance that should be accorded to some evaluation factors. In most cases the weighting reflects the emphasis of National planning policy (NPPF);

- It is acknowledged that alternative judgements may be made. If such judgements are advanced from any quarter they can be considered specifically and consistently in the context of the evaluation system and the Council's decisions about the content of the SLP – 2014 Draft;
- Evaluation is heavily dependent on the amount of information available at the time of assessment. In some cases information gaps, (particularly on the detail of environmental impacts and infrastructure requirements) may be evident. The Council's view is that sufficient information is available to make the broad assessments needed for strategic level decisions on the SLP - 2014 Draft. Clearly this can be tested through consultation on the Draft Plan.
- An important aspect of plan making is ability to implement. This is relevant both at site and development strategy level. Constraints in the form of land ownership, or market viability and acceptability, are difficult to assess and are not fully reflected in the evaluation system, particularly at site level. This issue is dealt with separately, as far as possible in the strategy evaluation and also in the general analysis in this technical report. This approach serves to highlight it as an important separate factor in final decision making.
- Evaluation takes full account of, and builds on, the evaluation work conducted as a part of the Council's Green Belt Review (GBR see below). The GBR covered a restricted field of evaluation – primarily assessing impact of development on Green Belt purposes and then looking at landscape issues for the sites identified. However the judgements made in this wider evaluation are generally consistent with the GBR.

1.9 Identification of Site Options and Green Belt Review Background

- 1.9.1 The selection of potential development sites (titled "Strategic Sub Areas") is explained in detail in the GBR Part 1 Purposes Assessment (SKM Enviro November 2013).
- 1.9.2 This report should be read in conjunction with the Council's Green Belt Review Part 2 Sites and Boundaries Assessment (SKM Enviro February 2014). That document provides maps of sites referred to and the site references used are from that report. A summary list of sites and references is at Appendix 2.
- 1.9.3 A limited evaluation of individual sites, focused on Green Belt and landscape impacts, was included in the GBR Part 2 Sites and Boundaries Assessment (See Appendix 2 to this report for more detail on this). This work is built on in this Technical Report.

1.10 Evaluation of development sites

- 1.10.1 The evaluation seeks to provide a detailed assessment of each of the sites (Strategic Sub Areas) identified in the GBR.
- 1.10.2 Full details of the evaluation assessments are at Section 3 of the Report.
- 1.10.3 The GBR sites list has been used to define the detail of the development strategy options. Where a selection of sites is required the highest ranked sites would be included in the development strategies first.

1.11 Generation of Development Strategy Options and Green Belt Review Background

- 1.11.1 Theoretically there are many objectives from which development specific strategy options for the Plan might be generated (for example, available and developable land, regeneration priorities, landscape impacts, transport potential, or even a wide ranging sieve of all development constraints). The generation of options ultimately depends on the choice of, and priority accorded to, policy objectives for the Plan.
- 1.11.2 If a guiding policy approach is not applied first the options available are potentially numerous and the Plan process will lack clarity of direction.
- 1.11.3 For the SLP – 2014 Draft preparation, it is important to understand that the generation of development strategy options for evaluation relies on:
- the fundamental decision to undertake a comprehensive Green Belt Review (GBR) as a central source of evidence for the Plan
 - a detailed evaluation of potential development sites identified through the GBR (see above)
 - definition of illustrative packages of sites arising from GBR that take account of the findings of the site by site evaluation
- 1.11.4 This approach clearly gives priority to Green Belt policy as a central objective in the Plan. The Plan sets out to meet development needs in a way that is least damaging to Green Belt objectives. Green Belt policy, and specifically an analysis of contribution of parcels of Green Belt land to Green Belt purposes, was used as the primary method of identifying a long list of potential development sites. The sites were identified without reference to other important planning issues such as environmental constraints, land availability or overall deliverability of development.
- 1.11.5 Green Belt is a planning policy that prioritises urban containment. The NPPF attaches considerable importance to this objective. The whole District, apart from excluded existing urban areas, is designated as Metropolitan Green Belt. This justifies its use as the primary method of identifying a range of sites that could be included in a development strategy.

1.12 Detailed Definition of Development Strategy Options

- 1.12.1 The Development Strategy Options are defined in detail at Appendix 3.
- 1.12.2 The Tables present four illustrative development strategy options that might be proposed to fill the Plan requirement / target 'gap'. Variations on the options are included showing how different levels of development could be achieved and the sensitivity implications of different housing density assumptions. Generally a 40 dwellings per hectare density assumption is favoured.
- 1.12.3 These Options were first considered by the Council's Planning Policy Committee at its meeting on 31 January 2014 and accepted as a reasonable basis for further exploration of Plan options.
- 1.12.4 In summary they can be described as follows:

Option 1 a) Mixed Location / Scale Development: This is a combination of limited releases from the SKM recommendations list to meet shorter term needs and development of east Hemel Hempstead in the medium and long term. This option offers reasonable prospects of delivery and also allows for some site choices from within the SKM recommendations. As east Hemel Hempstead is included, it offers a prospect of addressing sub-regional housing 'need' and sub-regional employment 'need'/ambition over the long term and the safeguarding of land beyond the Plan period. Duty to Co-operate issues identified by Dacorum's Plan Inspector would also be able to be addressed.

Option 1 b) Mixed Location / Scale Development With Smaller, But More, Sites: A variant of the above that relies on using more strategic sites, but including some at a smaller scale than their total areas identified in the SKM studies. This would necessitate more work on detailed Green Belt Boundaries to see what might be appropriate as smaller scale alternatives in some of the selected locations.

Option 2 Dispersed Development: This approach relies on using all of the recommended SKM Green Belt release areas except east Hemel Hempstead. This offers reasonable prospects of delivery, but does not address sub-regional housing or economic development 'need'/ambition. There would also be no likelihood of safeguarded land beyond the Plan period. Duty to Co-operate issues identified by Dacorum's Plan Inspector would not be able to be addressed. Higher densities than the 40 dph assumed elsewhere would need to be considered.

Option 3 Concentrated Development: This approach relies very largely on expansion of east Hemel Hempstead as the main method of meeting housing need, with only limited development elsewhere in the District. There is some uncertainty about the capacity of east Hemel Hempstead to actually deliver dwellings at the required rate within the Plan period. It will also rely very heavily on Duty to Co-operate joint planning with Dacorum Borough Council. As in Option 1 (a) and (b) as east Hemel Hempstead is included, it offers a prospect of addressing sub-regional housing 'need' and sub-regional employment 'need'/ambition over the long term and the safeguarding of land beyond the Plan period. Duty to Co-operate issues identified by Dacorum's Plan Inspector would also be able to be addressed.

- 1.12.5 At the evaluation stage defined strategies are notional. This is because further definition depends on the final evaluation and choices in respect of individual sites. Thus the sites included in the strategies may be subject to change as this level of evaluation is refined.
- 1.12.6 The exception to this is in the treatment of East Hemel Hempstead in the concentrated and mixed strategy options. The Council's view is that the evidence is that in Green Belt purpose terms there is no reasonable alternative for development at that scale. As a result it is taken as a fixed component of these strategies.
- 1.12.7 The emphasis of evaluation is clearly on how the development strategy performs overall. However it is fair to say that this is, in part, be influenced by the specifics of the sites included in the strategy. This is most evident in respect of the options that rely on the East Hemel Hempstead sites, in that they contribute a unique scale of development with some resultant, quite specific, influences in the assessment. This is particularly clear in respect of opportunities for economic benefit.
- 1.12.8 For the other smaller sites the impact of specific site choices on the strategy level evaluation can be reasonably assumed to be neutral.

- 1.12.9 All sites considered are assumed to be available in terms of the existence of willing land owners / developers. This assumption is considered further in drawing conclusions (below).
- 1.12.10 All sites considered are assumed to be viable. Economic conditions in the housing market area are strong and expected to remain so. Viability is also demonstrated in other SLP evidence on affordable housing and Community Infrastructure Levy. This evidence provides sufficient assurance that any of the development strategies considered will provide overall Plan viability taking account of the NPPF and informal sector guidance.
- 1.12.11 All sites considered are assumed to be deliverable within an acceptable timescale. Potential lead times for development have been considered separately as part of drawing conclusions (below). Starts can, in all cases, be achieved within the Plan period. It is reasonable to expect that necessary work to masterplan the developments and to provide essential infrastructure can be undertaken to support this. Detailed assumptions in this respect will be finally confirmed through further liaison with land owners and infrastructure providers. The SLP draft Infrastructure Delivery Plan (IDP) (Reference) will be updated and developed from this work, taking account of the specific strategy and site choices. However it is considered unlikely that insurmountable obstacles to delivery will be discovered.
- 1.12.12 As a caveat to the general assumptions above it is recognised that the nature and scale of development at East Hemel Hempstead necessitates a longer period of planning and infrastructure development before housing is delivered. This will mean that if a decision is made to include the East hemel Hempstead sites in the development strategy, the Plan will depend on realistic, but ambitious, assumptions about the start dates for development of these sites and the expected rate of housing delivery. This issue is considered further as part of overall conclusions on the sites and strategy evaluations (below).

SECTION 2

OVERALL EVALUATION RESULTS

2.1 Site Evaluation Results

- 2.1.1 The evaluation framework includes a wide range of factors that effectively represent the concept of sustainable development as defined in the NPPF. The conclusions drawn from the evaluation are thus very different to those from the initial evaluation undertaken as part of the Green Belt Review.
- 2.1.2 The Green Belt Review ranking (see Appendix 2) prioritised physical Green Belt and landscape impact factors and also gave some initial consideration to ease in delivery of development (likely planning and infrastructure lead times). The site preferences arising from this ranking reflect an overriding consideration of ‘least impact’ on Green Belt purposes and ease of assimilation of development into the landscape. Inevitably smaller sites, such as that at Chiswell Green (S8), attain a higher ranking than the larger Green Belt releases, such as at East Hemel Hempstead (S1/2).
- 2.1.3 Decisions on the components of the Plan development strategy could legitimately be taken on this basis alone. However the SLP objectives and SA framework demand a full consideration of the socio – economic aspects of sustainable development. This approach is also preferable given the similar emphasis in the NPPF. This wider evaluation is the subject of this report, as set out above.
- 2.1.4 The result is a very different ranking. The larger east Hemel Hempstead sites (S1/2) and sites in the District’s two main settlements perform best because they offer some unique socio - economic benefits due to scale and location, and / or allow residents to benefit from the infrastructure and services available in larger settlements. Transport accessibility to those services and facilities and proximity of residents to higher quality public transport are also influential factors.
- 2.1.5 Full details of the site evaluation results are at Section 3 of this report.
- 2.1.6 The scored results are summarised below to give the overall weighted scores and the rank order of the site based on the scoring:

<u>Strategic Sub Areas</u>	<u>Total / Rank (Maximum Potential Score 90)</u>
SA-S1 – Land enclosed by east Hemel Hempstead and M1 (North)	68 (Rank2)
SA-S2 – Land enclosed by east Hemel Hempstead and M1 (South)	70 (Rank 1)
SA-S3 – Area enclosed by residential development at east St Albans along Sandpit Lane	64 (Rank 3)
SA-S4 – Enclosed land at north St Albans along Sandridgebury Lane	47 (Rank 5)
SA-S5 – Enclosed land at north west Harpenden in vicinity of Luton Road, Cooters End Lane and Ambrose Lane	55 (Rank4)

SA-S6 – Enclosed land at northeast Harpenden along Lower Luton Road and extending to the vicinity of Whitings Close	45 (Rank 6)
SA-S7 – Land south and south west of London Colney	39 (Rank8)
SA-S8 – Enclosed land at Chiswell Green Lane at Chiswell Green	44 (Rank 7)

2.1.7 The headlines behind these results are as follows:

<p><u>SA-S1 – Land enclosed by east Hemel Hempstead and M1 (North)</u></p> <p>The site is located in a main settlement, offering the benefit of existing infrastructure and good access to services and facilities including rail (via public transport). It offers unique potential for mixed use because the suggested Green Belt boundary changes create substantial new development area that can only be used for employment and other service uses – because proximity to the Buncefield Oil depot / M1 Motorway rules out use for housing. The location is identified as a Local Enterprise Partnership focus for economic development (Hemel Hempstead Maylands area regeneration and employment growth and large scale housing development serving the sub region as a whole). The scale of development possible on this site could deliver strategic infrastructure enhancements. In particular there is potential for public transport service improvement. There is a significant challenge in the need to create new well designed and integrated neighbourhoods for Hemel Hempstead. They need good new services and facilities, including for education. There is a high degree of landscape impact and Green Belt change. This arises partly from the sheer scale of development, partly from the configuration of the sites and their relationship to strategic roads and viewpoints taken by large numbers of people.</p> <p>Residential development planning in the area needs to be carefully integrated with, and to follow on from, the adjoining, already committed, Spencers Park development, which should be completed in the first part of the Plan period.</p>
<p><u>SA-S2 – Land enclosed by east Hemel Hempstead and M1 (South)</u></p> <p>As above, but the southern area has no particular potential for employment uses. There are also greater opportunities for gradual integration with the existing neighbourhood of Leverstock Green with its established community and facilities.</p>
<p><u>SA-S3 – Area enclosed by residential development at east St Albans along Sandpit Lane</u></p> <p>The site benefits from a main settlement location with ready access to existing infrastructure, services and facilities. There is good public transport and cycle access to city centre and rail. The area fits relatively well with the configuration of the existing settlement edge, thus minimising Green Belt and landscape impacts. Some considerable on and off site transport infrastructure investment will be needed. There is a special strategic opportunity to improve education and related infrastructure through the public ownership and physical planning link of this land to Oaklands College and nearby secondary schools. This gives some potential for mixed use, particularly in community joint use of open space and education buildings and through the community</p>

role of the College.

SA-S4 – Enclosed land at north St Albans along Sandridgebury Lane

The site benefits from a main settlement location with good access to existing infrastructure, services and facilities. There is good public transport and cycle access to city centre and rail. The area fits relatively well with the configuration of the existing settlement edge, thus minimising Green Belt and landscape impacts. There are some difficult localised access design and traffic management issues. Significant off site transport investment will be needed. The limited scale of development and the lack of any special factors or opportunities with this site mean it not likely to deliver other forms of strategic infrastructure. There may be some potential to exploit links with adjoining leisure and education uses to create community facilities and improved open space.

SA-S5 – Enclosed land at north west Harpenden in vicinity of Luton Road, Cooters End Lane and Ambrose Lane

The site benefits from a main settlement location with good access to existing infrastructure, services and facilities, including rail. There is good public transport and walk / cycle access to town centre and rail. The area fits relatively well with the configuration of the existing settlement edge, thus minimising Green Belt and landscape impacts. However development of the part of the site beyond Cooters End Lane is more intrusive into countryside. It may be appropriate to consider a reduced area for development, so as to further limit impact. The limited scale of development and the lack of any special factors or opportunities with this site mean it is not likely to deliver strategic infrastructure. Road access requires new junction investment on the strategic road network (A1081).

SA-S6 – Enclosed land at northeast Harpenden along Lower Luton Road and extending to the vicinity of Whitings Close

The site benefits from a main settlement location with good access to existing infrastructure, services and facilities including rail (via public transport). There are however some topography and distance disadvantages for walking and cycling access to rail and the town centre. This issue is made more important by the limitations of public transport in a smaller town. The area fits relatively well with the configuration of the existing settlement edge, thus minimising Green Belt and landscape impacts. However there are localised landscape impact for sloping parts of the site and the affected country lanes. There are localised access design issues given the nature of the existing roads and the need to improve junctions with the Lower Luton Road (B653). The limited scale of development and the lack of any special factors or opportunities with this site mean it is not likely to deliver strategic infrastructure.

SA-S7 – Land south and south west of London Colney

The site would expand a settlement with relatively limited local services and facilities. However, this needs to be considered in the context of the SLP Draft 2012 aspiration to classify London Colney as a Town and the potential contribution of new development to supporting local services. Rail access is poor. The scale of development is insufficient to deliver strategic infrastructure improvement. However public ownership of the site (Hertfordshire County Council) may offer some specific infrastructure improvement opportunities (education and transport). The area fits relatively well with the configuration of the existing settlement edge, thus minimising Green Belt and landscape impacts. However the landscape setting of Napsbury Conservation Area (former psychiatric hospital residential redevelopment and parkland grounds) would be detrimentally affected.

SA-S8 – Enclosed land at Chiswell Green Lane at Chiswell Green

The site would expand a settlement with relatively limited local services and facilities. Rail access is poor. The scale of development is insufficient to deliver strategic infrastructure improvement. The area fits well with the configuration of the existing settlement edge, thus minimising Green Belt and landscape impacts. The urban design and access relationship with adjoining leisure uses would need to be carefully planned.

2.2 Strategy Evaluation Results

- 2.2.1 The overall conclusion to be drawn from the strategy evaluation is that that Options 1a and 3, those that include major development at East Hemel Hempstead, clearly perform best.
- 2.2.2 This is because they score well on major social and economic benefits. Other strategies, that rely more on relatively small scale development, cannot deliver such benefits.
- 2.2.3 The scale of development involved at east Hemel Hempstead is such that the development strategy can be founded on a plan for two new Hemel Hempstead residential neighbourhoods. Each would be able to provide its own local facilities and services. Development would extend well beyond the Plan period. It would be possible to make major improvements to transport infrastructure and to provide new schools. Also the land involved can provide for longer term employment development needs (for SW Hertfordshire as a whole) and create some opportunities to meet other non residential land use needs (such as retail and leisure). Major development of this kind will also provide a catalyst for regeneration of the existing Maylands employment area. Large scale strategic open space could be included and this would provide opportunities for wildlife habitat improvements.
- 2.2.4 All these opportunities have sub regional social-economic benefits. Development strategies that include east Hemel Hempstead would follow conclusions of the Dacorum Local Plan (2014) in respect of the need to consider eastern expansion of Hemel Hempstead as an option for long term growth. This is also supported in initial aspirations of the Local Enterprise Partnership (LEP)'s emerging Strategic Economic Plan (SEP 2014). Details are at Appendices 5 and 6 respectively.
- 2.2.5 The evaluation framework and weighting places the mixed and concentrated options fairly close, but this should be seen in context of deliverability issues not included in the evaluation (see below).
- 2.2.6 For Options 1b and 2 dispersed development performs less well because reliance on the whole range of sites identified in the Green Belt Review, other than east Hemel Hempstead, inevitably means some development is necessary in locations that are less well placed for access to existing services and facilities.
- 2.2.7 Full details of the strategy evaluation results are at Section 4 of this report.
- 2.2.8 The scored results are summarised below:

<u>Development Strategy Options</u>	<u>Total / Rank (Maximum Potential Score 90)</u>
<u>Option 1 a) Mixed Location / Scale Development;</u>	62 (Rank1)
<u>Option 1 b) Mixed Location / Scale Development With Smaller, But More, Sites;</u>	49 (Rank 3)
<u>Option 2 Dispersed Development;</u>	38 (Rank 4)
<u>Option 3 Concentrated Development;</u>	58 (Rank 2)

2.3 Additional considerations

Deliverability and viability of development strategy

- 2.3.1 This is an important issue in plan making that needs to be assessed separately from evaluation against sustainability factors.
- 2.3.2 The NPPF (Para 173) says: "Pursuing sustainable development requires careful attention to viability and costs in plan-making and decision-taking. Plans should be deliverable. Therefore, the sites and the scale of development identified in the plan should not be subject to such a scale of obligations and policy burdens that their ability to be developed viably is threatened. To ensure viability, the costs of any requirements likely to be applied to development, such as requirements for affordable housing, standards, infrastructure contributions or other requirements should, when taking account of the normal cost of development and mitigation, provide competitive returns to a willing land owner and willing developer to enable the development to be deliverable'.
- 2.3.3 Evidence in the form of Strategic Housing Land Availability Assessment (SHLAA) research and submissions from landowner / developer interests, confirms that all the sites evaluated are available and deliverable.
- 2.3.4 Viability of development is assumed not to be problem given conditions of high demand in the local housing market and SLP research into Community Infrastructure Levy rates and related issues. It is however acknowledged that market conditions and the financial implications of planning requirements as at a particular time can influence the start time and pace of development.
- 2.3.5 Nevertheless, it is clear that the strategy options considered do exhibit some distinct advantages and disadvantages in respect of the prospects for ease and speed of deliverability of development. Important short / long term delivery and viability considerations arise in terms of ensuring the best chance for market conditions to support initiation of major development.

- 2.3.6 Option 3; Concentrated Development offers considerable advantages in terms of a complete focus on a major development that can effectively meet many of the sub region's future development needs and regenerate an existing urban area.
- 2.3.7 Set against this is the reality that master planning and decision making for a development on this scale will mean that it is not likely to deliver the first new housing completions until the latter part of the Plan period (2021 onwards). However once the initial investment in master planning and infrastructure investment is complete or committed, there is every prospect of a regular flow of housing delivery for many years; indeed well beyond the Plan period. Another related consideration is that, to best achieve the best housing market conditions to sustain start up investment, it will be important that competition from easier to develop sites is not so intense as to suppress demand and price incentives.
- 2.3.8 To rely entirely on this concentrated longer term development strategy would mean accepting an inevitable time lag on the start of development. This might well be justified in a Green Belt area where policy constraints have been severe for the last 30 years and there is a need to establish a completely new basis for planning. This is also a powerful argument if, as the evaluation suggests, the site performs uniquely well in terms of sustainable development.
- 2.3.9 However there is a counter argument that suggests there are also significant advantages from development on some of the smaller sites evaluated. If they are included in the development strategy a wider spread and type of local housing opportunity results.
- 2.3.10 Additional considerations that support the case for inclusion of smaller sites in a development strategy are:
- a greater geographical spread of development
 - some development is achieved in the core areas of the district
 - shorter lead times for development starts allow a more even rate of housing supply to be sustained
- 2.3.11 The mixed development strategy can therefore be seen as performing much better if these considerations are emphasised and added to the pure sustainable development based evaluation. A mixed strategy clearly has the potential to deliver new housing much more quickly and evenly over the Plan period. This is most clearly indicated by the mixed strategy with a limited number of high performing sites (1a)) as the alternative involving a wider range of sites (1b)) tends to offer the "worst of both worlds" by combining the higher Green Belt and landscape impacts at east Hemel Hempstead with inclusion of a number of the least well performing smaller sites.

Weighting of environmental and Green Belt impact

2.3.12 It is important to view the conclusions of this sustainable development based evaluation of development strategy options in the context of the conclusions from earlier SA work on the Plan (see Appendix 1) and the site evaluation conclusions in the Green Belt Review. As explained above and detailed in Sections 3 and 4 of the report, these sources placed greater emphasis on environmental constraints, green field / Green Belt and landscape impacts. The conclusions tend to suggest less support for major development at east Hemel Hempstead. This is because the scale and concentration of development involved and the large element of land release that can only function as employment land, inevitably has a large impact on open countryside. It clearly intrudes more obviously into local landscapes. In this respect it is recognised in the Green Belt Review that arguments for the suitability of the site for development rest heavily on the level of existing landscape intrusion arising from the recently widened M1 Motorway.

2.4 Overall Conclusions

- 2.4.1 The evaluation process results in a clear conclusion that the mixed (1(a)) or concentrated (3) development strategies perform best.
- 2.4.2 When the additional consideration of deliverability is overlaid on the evaluation assessment there are further advantages to the mixed strategy option because this allows early housing delivery through inclusion of some more straightforward sites in key locations around the District. This buys time for effective planning and infrastructure pump priming to allow longer term delivery at east Hemel Hempstead. By limiting the number of smaller sites included in the mixed strategy the market risks of achieving major development are minimised.
- 2.4.3 Combining site and strategy evaluation conclusions results in definition of a mixed development strategy based on the two east Hemel Hempstead sites (S1/2) and the two next best performing sites; east St Albans (S3) and north west Harpenden (S5). This preferred development strategy and sites package is set out in detail below:

2.5 Summary of preferred development strategy / sites package

Option 1 (a) Mixed Location / Scale Development with sites package added / detailed

Source Location /	Site (suggested order for phasing of release indicated for each location) Phase 1 before 2021 Phase 2 after 2021 Long term safeguarded – after 2031 as required	Dwelling Estimate at 40 dph	Notes
St Albans urban extension Green Belt release	Phase 1 S3 East St Albans	1000	SKM defined site
Harpenden urban extension Green Belt release	Phase 1 S5 NW Harpenden	500	SKM site but reduced in scale with north eastern boundary on Cooters End Lane.
Hemel Hempstead urban extension Green Belt release	Phase 2 S1 East of Hemel Hempstead (North)	1,500 Part of above long term safeguarded - subject to early Plan review (2021 base date)	SKM defined site with possible further extension and densities maximised Development to be co-ordinated with, and to follow on from completion of the already committed Spencers Park development to the west of this site Plan monitor and manage approach to be applied. Release of long term safeguarded land to be decided on the basis of pace of development in this location and availability of further urban capacity
Hemel Hempstead urban extension Green Belt	Phase 2 S2 East of Hemel Hempstead (South)	1,000 Part of above long term safeguarded -	SKM defined site with possible further extension and densities maximised Plan monitor and manage

release		subject to early Plan review (2021 base date)	approach to be applied. Release of long term safeguarded land to be decided on the basis of pace of development in this location and availability of further urban capacity
TOTAL		4,000	

SECTION 3

SITE EVALUATION DETAILED RESULTS

Notes:

- Entries in the assessment sheets below are shown with grey background to ease reading and distinguish evaluation text from standard headings used throughout
- Under the scoring system options that perform well score high.
- All distance measurements used are approximate. It is noted that measurements can differ depending on whether, vehicular, walk or cycle routes are used and also on location of the start point within the identified sites. Generally walking routes and a central start point within the sites are used. For the purposes of the evaluation conclusions this overall approach allows sensible conclusions to be drawn.

Following questions raised by members of the public about the basis for, and consistency of, measurements used in the original version of this Report (considered by the Council's Planning Policy Committee in July 2014), key distances have been re-measured and recorded with a full, mapped explanation of the assumptions used. This information is included in a new Appendix to this Report (Appendix 7) (October 2014)

- Abbreviation GBR is used throughout to indicate the Independent Green Belt Review – SKM Enviro Consultancy Study (available as several separate documents)
- Abbreviation FE is used throughout to describe school 'forms of entry'

S1: Land Enclosed by East Hemel Hempstead and M1 (North)

Assessment Matrix – Summary of Evaluation Results

THEME	ECONOMIC				SOCIAL				ENVIRONMENTAL															
	1 - Sustainable Location		2 - Settlement hierarchy		3 - Mixed-use development		4 - Other Matters		5 - Strategic infrastructure provision		6 - Vehicular access and traffic impact		7 - Public transport		8 - Urban Design		9 - Environmental constraints		10 - Landscape quality / surrounding area		11 - Heritage / archaeology potential		12 - Opportunities for sustainable energy production	
S1	7		10		5		4		10		5		5		3		6		4		4		5	

Total score: **68**

(Rank: **2**)

Note: Independent Green Belt Review Site Ranking **7=**

Assessment of sustainable development principles

NOTES:

1. Except where denoted by a * All Distances measured from Cherry Tree Farm, Cherry Tree Lane (Western Edge of the Sub Area)
2. Where possible facilities and services have been identified in both Dacorum and St Albans District.

(1) Sustainable location

Main factors to consider:

Would the site be well related to existing settlements or an isolated form of development?

- The sub-area is bordered by the urban area of Hemel Hempstead to the north east, open countryside/arable farmland/undeveloped land to the north and immediately east. Open countryside/arable farmland/undeveloped land and an employment park are immediately to the south whilst the M1 Motorway runs north/south along the western edge. Land to the west of the site, Spencer's Park, is committed for approximately 1,000 dwellings in the Dacorum Core Strategy which will deliver a new residential neighbourhood with its own services and facilities.
- To the east of the sub-area beyond the M1, approximately 3km to the north east, is the settlement of Redbourn.
- The sub-area is currently relatively isolated from the main residential neighbourhoods and services and facilities of Hemel Hempstead. However the development of the Spencer's Park area and the potential scale of development in the sub area give would create a new neighbourhood with its own services, facilities and infrastructure. In this context development would relate to the existing settlement of Hemel Hempstead and would form an urban extension which would integrate with the urban area to the west and employment area to the south.
- Proximity to existing employment opportunities or potential to provide such opportunities
- The sub-area lies adjacent to Maylands Business Park / Hemel Hempstead Industrial Estate. The Employment Area forms the main employment areas in Hemel Hempstead and it also has a wider sub regional role. It was historically developed around manufacturing and general industry, but is now being promoted for regeneration for commercial accommodation, shops and other amenities. This presents an important opportunity to link a significant employment area to new residential development and other services. The main locations for employment development are:
 - SADC EMP 7 – North of Buncefield – B8 use – immediately to the south of the sub-area
 - SADC Local Plan Policy No.26 – Land reserved for Employment development at East Hemel Hempstead – within the sub area. No

development interest for this site for employment development. Land will form part of residential development linked to Spencer's Park development completed in Hemel Hempstead.

- Maylands Business Park – Focus for employment growth in the Dacorum Core Strategy. Maylands master plan estimates that there is potential to deliver around 130,000 sq m of gross external office space, the equivalent of 5,700 jobs. Immediately to the east of the sub-area.
- Buncefield Oil Depot – Immediately to the south east of the sub-area.

Proximity to existing schools, consideration of capacity and potential to meet increased demand and consideration of capacity

Analysis is based on HCC "Meeting the Rising Demand for School Places" (2012/2013), HCC consultation response to SACDC Core Strategy 2010, HCC consultation response to DBC Pre-submission Core Strategy 2011 and HCC Service Position Update June 2014.

HCC indicate a 0-5% surplus of primary School places within St Albans and a deficit of primary school places in the area of S1. Within Dacorum in the area adjacent to S1 there is a deficit of primary school places.

HCC have identified that there is a deficit of secondary school places within St Albans in the area where S1 is located. Within Dacorum there is over 5% surplus of secondary school places.

All information will be subject to further assessment and review. This is particularly important with an urban expansion of this scale.

There are many existing schools in the vicinity of the sub area:

- Brockswood Primary School (Dacorum) – *500m to the north west (potential for 1FE expansion)
- Holtsmere Junior School (Dacorum)– *800m to the west
- Holtsmere End Infant and Nursery School (Dacorum) – 991m to the west
- Astley Cooper Secondary School (Dacorum) – *1.2km to the west
- Maple Grove Primary School (Dacorum)- 1 .5km to the west (potential for 1FE expansion but would require relocation of special school)
- Haywood Grove School (Dacorum) – 1.52km to the west
- Hammond primary School (Dacorum) – 1.91km to the west (granted permission for 1FE expansion)
- Hobletts Manor Infants and Nursery School (Dacorum) – 2km to the south west
- Hobletts Manor Junior School (Dacorum) – 2.18km to the south west

- Aycliffe Drive Primary School (Dacorum) – 2.1km to the west (potential for 0.5FE expansion, considered to be very difficult to develop where development may not be cost effective)
- Dacorum Education Support Centre (Dacorum) – 2.33km to the south west
- Yewtree Primary School (Dacorum) – 2.41km to the south west
- Leverstock Green Church of England Primary School (Dacorum) – 2.52km to the south (expansion likely to be required if development at east hemel Hempstead comes forward, potential for 1FE expansion)
- Adyfield school (Dacorum) – 2.60km to the south west
- Broadfield Primary School (Dacorum) – 2.92km to the south west
- St Lukes School (Redbourn) – 3.82km to the north east
- Redbourn JMI School (Redbourn) – 3.55km to the north east
- Redbourn Infant and Nursery School ~ (Redbourn) – 3.49km to the north east (Redbourn infant and junior school is a 2FE school which was indicated to have some capacity from 2011 onwards for some years)
- Batford Nursery School (St Albans/Harpenden) – 8.66km to the north east
- Busy Bees (St Albans/Harpenden) Various locations – 6.11km to the south east, and 4.2miles to the north east, 3.7 miles to the north east, 5.95 km to the east, 10.94 km to the east
- Crabtree Infants' School primary (St Albans/Harpenden) – 7.75km to north east (current capacity 2Fe, no identified potential to expand)
- Crabtree Junior School (St Albans/Harpenden) – 7.75km to the north east (see above)
- High Beeches Primary School (St Albans/Harpenden) – 7.80km to the north east (current capacity 1Fe, potential to expand by a further 1FE)
- Manland Primary School (St Albans/Harpenden) – 7.92km to the north east (current capacity 1Fe, no identified potential to expand)
- Roundwood Park Secondary School (St Albans/Harpenden) – 6.50km to the north east
- Roundwood Primary School (St Albans/Harpenden) – 6.51km to the north east (current capacity 1.5Fe, no identified potential to expand)
- Sauncey Wood Primary School (St Albans/Harpenden) – 8.75km to the north east (current capacity 1Fe, potential to expand by a further 1FE)
- Sir John Lawes School (St Albans/Harpenden) – 7.93km to the north east
- St Dominic Roman Catholic Primary School (St Albans/Harpenden) – 6.87km to the north east (current capacity 1Fe, potential to expand by a further 1FE)
- St George's School (St Albans/Harpenden) – 7.48km to the north east
- St Hilda's School (St Albans/Harpenden) – 6.75km to the north east
- St Nicholas C of E VA primary school (St Albans/Harpenden) – 6.83km to the north east (current capacity 0.8Fe, no identified potential to

expand)

- The Grove Infant And Nursery School (St Albans/Harpenden) – 7.43km to the north east (current capacity 2.5FE, potential to expand by a further 0.5FE)
- The Grove Junior School (St Albans/Harpenden) – 7.43km to the north east (see above)
- The King's School (St Albans/Harpenden) – 7.72km to the north east
- The Lea Primary School (St Albans/Harpenden) – 8.13km to the north east (current capacity 1FE, no identified potential to expand)
- United Reformed church Pre-school (St Albans/Harpenden) – 6.92km to the north east
- Wood End Primary School (St Albans/Harpenden) – 6.78km to the north east (current capacity 2FE, potential to expand by a further 1FE)
- Townsend C of E VA Secondary School – 5.90km to the east
- Margaret Wix Primary School – 5.97km to the east (current capacity 1FE, potential to expand by further 1FE)
- Batchwood Special School – 6.18km to the east
- Garden Fields JMI Primary School – 6.35km to the east (current capacity 2FE, potential to expand by further 1FE)
- Aboyne Lodge Primary School – 6.50km to the east (current capacity 1FE, no identified capacity for potential expansion)
- Muriel Green Nursery School – 6.16km to the east
- St Micheals C of E VA primary School – 5.47km to the south east
- The Abbey C of E VA Primary School – 6.51km to the south east (current capacity 1Fe, no identified potential to expand)
- Prae Wood Primary School – 5.67km to the south east (current capacity 1FE, potential to expand capacity by further 1FE)
- Marlborough Secondary School – 6.63km to the south east
- Killigrew Primary and nursery school – 6.92km to the south east (current capacity 2FE, potential to expand capacity by further 1FE)
- Watling View special school – 7.31km to the south east
- St Adrians RC primary school and nursery – 7.02km to the south east (current capacity 1FE, no identified potential to expand)
- Mandeville Primary school – 7.28km to the south east (current capacity 2FE, potential to expand by further 1FE)
- St Peters Primary school – 7.09km to the south east (current capacity 1FE, no identified potential to expand)
- Maple primary school – 6.91km to the south east (current capacity 1FE, no identified potential to expand)
- Loreto College Secondary school -7.18km to the south east
- Bernards Heath Infant Primary School – 7.14km to the south east
- Heathlands special school – 6.72km to the south east

- Bernards Heath Junior Primary School – 6.98km to the south east
 - St Albans Girls secondary school Business and Enterprise college – 6.66km to the east
- (key distances from Appendix 7; nearest primary 1.7km / nearest secondary 2.4km - October 2014)*

The scale of development at the sub-area along with committed residential development would result in a requirement for on site delivery of further educational facilities. It is considered that there would be capacity within the sub-area to make provision for some additional educational facilities; however the nature of this provision would need to be determined through discussions with Hertfordshire County Council taking into consideration existing capacity of nearby educational facilities.

It is likely that the scale of development involved will require a new primary school. If development of the whole East Hemel Hempstead area proceeds new secondary provision is also likely to be required. HCC have identified a need for an additional 2fE primary school to serve the Hemel Hempstead East Primary Planning Area (at a location east of Hemel within Dacorum's administrative area). The need exists without taking into account any additional housing in St Albans.

Whilst from a theoretical town planning perspective there is 9.5FE spare capacity within St Albans City Primary School Planning Area to accommodate additional growth, HCC indicated that only 3FE of deliverable capacity was available – this available capacity is not located close to S1 but elsewhere in the District.

There is a deficit in Hemel Hempstead primary planning area. A 2FE primary school is required as a result of the Spencer's Park development committed to in the DBC Core Strategy. Any development at East Hemel Hempstead within St Albans would generate additional school place requirements. HCC consider further 2FE school is required but further work and discussions would be required to bottom out the child yield arising out of any significant residential development at East Hemel Hempstead.

Development of S1 would necessitate provision of a single 2 FE primary school site (2.5 ha) at the lower end of development size, and 2 number 2FE primary school sites, (5 ha), at the higher density of development. In addition it would be appropriate for the site to provide a reserve secondary allocation for need arising from the site itself and as a contingent source of secondary education land supply to the east of Hemel Hempstead. HCC identifies a land use budget required to meet the secondary need, and identifies that a 12 ha site would be required to deliver an 8 FE secondary school.

The table below set out HCC's indicative school requirements for S1 based on the GBR dwelling range:

Site S1	Low 30 dph	High 50 dph	Land use budget
Dwelling range (no of dwellings)	1026	1710	14.5 to 17 ha
Child yield (fe) (1 fe per 850/ 1 fe per 500)	1.2/2.05	2.01/3.42	1 no. secondary site + between 1 no. 2fe primary school and 2 no. 2fe primary school sites

The table below set out HCC's indicative school requirements for S1 and S2 combined based on the GBR dwelling range.

Site S1 and S2	Low 30 dph	High 50 dph	Land use budget
Dwelling range (no of dwellings)	1710	2850	14.5 ha to 19 ha
Child yield (fe) (1 fe per 850/ 1 fe per 500)	2.0/3.42	3.35/5.7	1 no. secondary site + 1 no.2 fe to 3 no. 2fe primary school sites.

HCC consider that development of both S1 and S2 would be better balanced in terms of creating a critical mass of need which would come closest to enabling the creation of a new viable secondary school.

Proximity to existing public open space and allotments

- There are two public open spaces within 800m of the sub area, Cupid Green (Dacorum) and High Wood (Dacorum) to the west. Beyond Hemel Hempstead Industrial Estate lies Widmore Wood, Maylands wood, High Street Green Playing Field, Yew Tree Wood, Coppingsfield Sports Ground.
- Redbourn Recreation centre and 5 play areas (East Common, Flamsteadbury lane, Long Cutt, Brooke End and Silk Mill Road) are within 3.5km to the north east in Redbourn
- Grovehill Woodhall Farm Play Ground – 1.28km to the west
- Policy 93 Public Open Space – OS.2A, Hillbury Farm, Dunstable Road, Redbourn – 4.20 hectares for sport and informal recreation.
- Redbourn Common, East Common, South Common, North Common, The Common are all within 3.5km to the north east in the

settlement of Redbourn

- The Nickey Line Cycle Path passes through the north of the sub area providing links to Hemel Hempstead, Redbourn and Harpenden.
- St Albans District Council has identified a number of natural play areas. The closest are Verulamium Park, St Stephens Hill Open Space, Greenwood Park and How Wood. These are however some distance away beyond the strategic road network.

There are a number of additional play areas between 4 to 5km located within St Albans District. These are:

- Verulamium Play area
- Play area off Batchwood Drive on the edge of St Albans
- Playground off King Harry lane, St Stephens

The nearest allotments are located to the south west of the sub area. There is also an allotment located north east of the sub area in Harpenden.

- High Street Green (Dacorum) – 1.6 km to the south west
- Adeyfield Road (Dacorum) – 3.2km to the south west
- Grove Hill (Dacorum) – 4.5km to the south west
- Chaulden (Dacorum) – 5.3km to the south west
- Coldharbour Lane (St Albans) – 8.4km to the north east
- Greyhound Meadow (Redbourn) – 3.37km to the north east
- Tassell Hall (Redbourn) - 3.37km to the north east
- Long Cutt (Redbourn) - 3.37km to the north east

- It is clear that in terms of proximity of existing provision and the potential scale of development substantial new strategic provision of public open space and allotments will be required to serve any development. It is considered that there would be capacity within the sub-area to deliver additional open space.

Proximity to existing neighbourhood/local centres as defined in the Local Plan Review 1994 (in this case the position in Dacorum District is most relevant)

- Hemel Hempstead town centre is located approximately 3.6km to the south west.
- Woodhall Farm local centre (Dacorum) – within 500m to the north west

- The Heights (Dacorum) - 1.7km to the south west
- New local centre being established in the heart of Maylands (Dacorum) – 2km to the south west.
- NC.2 Redbourn Neighbourhood Centre – 3.71km to the north east
- The sub-area relates well to the existing neighbourhood and local centres within Dacorum; however it is indicated in the Dacorum Core Strategy that the development at Spencer's Park and East Hemel Hempstead would deliver its own neighbourhood centre to serve local needs.

(key distances from Appendix 7; town centre 3.7km / nearest local centre 1.7km - October 2014)

Proximity to existing large supermarkets or superstores or potential to provide

- Sainsbury's Supermarket – 1km to the north west
- Tesco Express – 1.9km to the west
- Asda – 3.7km to the south west
- Tesco Extra – 3.3km to the south west
- Aldi – 1km to the north west
- There are also a range of small stores such as Cooperative and Nisa between 0.1km and 2.5km to the west and south west of the sub area.
- Whilst there are a number of large scale supermarket facilities relatively close to the sub area, given the scale of the sub area there could be potential to provide such additional facilities in the future. The provision of such facilities will be a judgement to be made as part of any master planning work.

Proximity to existing medical facilities or potential to provide

- Coleridge House Medical Centre (Dacorum) – 0.96km to the north west
- Woodhall Farm Medical Centre (Dacorum) – 1.12km NW
- Everest House Surgery (Dacorum) – 2.4km SW
- Sherring-Lucas Dental Laboratory (Dacorum) – 1.6kmm to the south west
- Highfield Surgery (Dacorum) – 2.09km to the south west
- Woodhall Farm Dental Practice (Dacorum) – 1.28km to the north west
- Grovehill Medical Centre (Dacorum) – 1.93km to the west

- Dr Kedia Surgery (Dacorum) – 0.96km to the north west
- Redbourn Dental Practice (St Albans) – 3.54km to the north east
- Hemel Hempstead General Hospital (Dacorum) – 3.54km to the south west
- Breakspear Hospital (Dacorum) – 3.86km to the south west
- West Hertfordshire Cardiology (Dacorum) – 3.54km to the south west
- St Albans city hospital (St Albans) – 6.11km to the east
- A wide range of facilities are available in reasonable proximity, but it is also considered that there would be a need to provide additional local medical facilities as part of a comprehensive development package at this sub-area.

Proximity to existing leisure facilities or potential to provide

- Virgin Active Gym (Dacorum) – 1.93km to the south west
- The Snow Centre (Dacorum) – 3.7km to the west
- Quasar (Dacorum) – 4.02km to the south west
- Sportspace (Dacorum) – 4.66km to the south west
- Batchwood Golf and Tennis Club (St Albans) – 5.14km to the east
- Redbourn Recreation Centre (St Albans) – 4.02km to the north east
- Westminster Lodge Leisure Centre (St Albans) – 6.43km to the south east
- Harpenden Sports Centre (St Albans) – 6.8km to the east
- Butterfly World (St Albans) – 6.75km to the south east
- Empire Cinemas (Dacorum) – 3.37km to the south west
- Cinema facilities are also being developed in St Albans, London Road.

Ability for proposed development to link in with existing footpath and cycleway network

- The Nickey line is a walking and cycling route. The route forms part of route 57 of the national cycle network and forms a green corridor with a rural aspect along much of its length. Level access points exist at Adeyfield Road, Eastman Way and Redbourn Road in Hemel Hempstead; at Gaddesden Lane, Chequers Lane, High Street and Redbourn Lane in Redbourn and at Townsend Lane, Park Hill, Moreton End Lane in Harpenden. The route passes through Yew Tree Wood, open countryside, past Hornbeam and Hazel coppice and through land used for agricultural crop research. The wood and grassland habitats are home to a wide diversity of animals, including butterflies, shrews, foxes and birds. Beyond Harpenden, route 57 continues through to Wheathampstead and Welwyn Garden City. From

Harpenden, there are connections to Route 6 which goes south to St Albans and Watford and north to Luton and Milton Keynes.

- The Nickey Line provides an important focus for foot / cyclepath connections in the area and will also provide a pleasant environmental feature. Development in the sub-area provides opportunities to create new cycle and footpath networks and links around this focus with connections to central Hemel Hempstead, Maylands Business Park and possibly to open countryside beyond the M1 for recreational purposes.

Potential to promote equity and added social inclusion

- The scale of housing development possible in this location should allow a wide variety of accommodation needs to be met. Potential for delivering substantial affordable housing in a sustainable and well connected location, with good access to local shopping facilities, schools and transport network.
- Providing much needed housing in an area that will offer socio-economic benefits, with the potential for new jobs through the development of shopping facilities and school expansions.
- Given its location adjacent to Maylands Business Park development in this location would support economic development/growth and provide access to employment for the population in the area.
- The sub-area has potential to provide for the special accommodation needs of gypsy and travellers
- The sub area has the potential to provide self build opportunities

Contribution of development to economic growth potential of the settlement / area

- The sub-area is in a well connected location, with good access to road transport network and nearby schools. The sub-area is suitably sited to offer access to a number of allocated employment areas, as set out in 1. above: (Sustainable Location).
- Development at the sub-area will support the economic aspirations for growth at Maylands Business Park and support the economic development of Hemel Hempstead and the wider sub region.
- The Strategic Economic Plan (SEP) prepared by the Local Enterprise Partnership (LEP) recognises and supports the role that east Hemel Hempstead has in providing economic opportunities and growth. Growth in this area is identified as a Hertfordshire priority. The SEP supports the proposal indicating its ability to support other development in the M1/M25 growth area. The SEP is likely to provide investment for projects in the area.

Ability of development to draw on the economic value of built or natural environment features

- The area offers an attractive rural setting with close proximity to and easy access via the M1 – a key national transport corridor. These existing features could add value to a well planned development.

Comments / Overall Conclusions:

The sub-area relates very well to the services and facilities provided by the town of Hemel Hempstead (and town centre). It would form an urban extension which would integrate well with the proposed Spencer's Park development, Maylands Business Park and Woodhall Farm neighbourhood.

The sub-area would support the economic growth of Hemel Hempstead and employment growth aspirations for Maylands Business Park. Employment growth in this location would provide wider employment opportunities for residents within Dacorum and St Albans. The economic aspirations to develop Maylands is recognised and supported in the LEP's Strategic Economic Plan.

It is clear that there are a range of services and facilities within easy access to the sub-area. These include a variety of existing schools, medical facilities, open spaces, recreational and leisure facilities. Development in the sub-area would likely be at scale where additional services would be provided on site. This would avoid putting additional pressure on existing services and facilities. New facilities would serve both the existing and new population in the area.

The scale of development at the sub-area would allow the delivery of new neighbourhood and local centres which would serve the local and wider population.

The sub-area has potential to provide a considerable variety of housing types and tenures to cater for different needs, including the provision of affordable housing. Because of their size the Hemel Hempstead sub areas are likely to be the only locations for development that has potential to provide self build opportunities and new gypsy and traveller accommodation.

Overall it is considered that the sub-area attracts a high evaluation score. The overall scoring does however reflect an assumption of delivery of new services and facilities within the development. Because of the relationship of the potential development areas to the structure of the existing town it is only through such provision that these areas can function as new neighbourhoods.

7

Score: /10

(2) Settlement hierarchy

Main factors to consider:

Main urban settlements (excluded from the Green Belt): St Albans, Harpenden, London Colney

Other settlements excluded from Green Belt: Bricket Wood, Chiswell Green, How Wood, Park Street, Frogmore, Redbourn, Wheathampstead
 Green Belt settlements: Colney Heath, Folly Fields, Gustard Wood, Kinsbourne Green, Lea Valley Estate, Sandridge, Sleafshyde, Smallford
 Rest of Green Belt: Everywhere else

Comments / Overall Conclusions:

The Sub Area is located adjacent to and relates well to Hemel Hempstead urban area. Hemel Hempstead is classed as a 'Town' in the Dacorum Borough Local Plan. Hemel Hempstead has been identified as the Main Centre for Development and Change in the borough as recognised in the Dacorum Core Strategy 2013. It will be the focus for new homes, jobs and infrastructure, including new leisure and cultural facilities and improved public transport links. The town has a population of almost 90,000.

Whilst the sub-area is quite extensive it would not over dominate the town or the nearest urban areas or significantly alter the settlement hierarchy of Dacorum and St Albans. Therefore in relation to settlement hierarchy the sub area has a high evaluation score.

10

Score: /10

(3) Mixed-use development

Main factors to consider:

Employment

- The residential development of the sub-area will facilitate and support growth and development of Maylands Business Park. This will not only provide employment opportunities for new residents but also for existing residents in Dacorum and St Albans. The Local Enterprise Partnership's SEP identifies Maylands as a priority area to deliver wider sub regional economic development aims.
- There is potential for the development of some small-scale shopping facilities as part of a new neighbourhood centre which would create additional employment opportunities within the sub-area.
- Employment opportunities will also be created through the provision of additional the educational facilities

Social infrastructure (including schools and community facilities)

- There is potential for the provision of additional school and community facilities to serve the new and nearby existing population.

Public open space / sport and recreation

- Opportunity exists for additional provision as part of a comprehensive scheme.

Retail

- The area is considered to be well served by range of large supermarkets and is within easy travel distance to the Hemel town centre.
- There are opportunities to deliver additional local retail facilities as part of a new neighbourhood centre.

Will the benefits of development be accessible to existing communities?

- The sub-area is well related to the existing urban area. There are opportunities to create new pedestrian access into the sub-area linking to proposed and existing nearby residential areas, as well as opportunities to create further access to the existing cycle networks.
- The benefits of development would be accessible to existing communities nearby the sub area; in particular the economic and employment benefits would be accessible to residents both in Dacorum and St Albans.

Comments / Overall Conclusions:

The potential scale of development in this location and in adjoining areas means that development at East Hemel Hempstead is capable of delivering significant mixed use development in a planned new neighbourhood for Hemel Hempstead. The uses likely to be included in this specific sub area could potentially include small scale employment, schools and community facilities, public open space, recreation space and neighbourhood centre.

The opportunity for mixed use arising from the scale of development indicates a high evaluation score on this factor.

5

Score: /5

(4) Other matters

Main factors to consider:

Economic contribution of development

- Development in this location is aligned with and supports wider, sub regional economic development priorities as set out in the Local Enterprise Partnership's SEP.

Economic value of environmental and heritage features

- The Gorhambury Estate includes well managed and productive farms utilising high quality agricultural land. Development will damage this economic value of this asset.

Ability to improve quality of local environment through development – regeneration

- Potential for significant improvement by support for regeneration of Maylands business area of Hemel Hempstead and creating critical mass for additional services and facilities for use by existing and new population. In particular there is an opportunity to improve the overall urban environment and urban edge at east Hemel Hempstead
- Potential to provide landscaping, reinstate tree and hedgerow belts in the surrounding landscape, particularly to the northern part of the sub-area and the western edge close to the M1 motorway.

Physical constraints such as:

Overhead power lines: There is a 400kV overhead electricity transmission line running across the site, north-west to south-east. Development would either be designed around this line (national grid have developed a design guide to assist developers with designing around power lines) or it would have to be diverted / undergrounded.

Oil/Fuel pipelines: An oil pipeline and a gas pipeline are located within the site. Development would either have to be designed around these (most likely), or they would have to be diverted (unlikely to be justified / affordable). This issue will need further investigation and could affect the final layout and configuration of the site.

Buncefield HSE consultation zone: HSE consultation zone of 400m relates to the Buncefield Oil Depot. The HSE consultation Zone extends into the southern extent of the site. The consultation zone will need to be drawn around the new tanks which were permitted at Punchbowl Park (see application 5/2009/0906). This may further limit the area of land available for residential development.

Sterilisation of mineral reserves: There is chalk across the north of the site and along the southern boundary. However according to Hertfordshire County Council's Minerals Consultation Areas Supplementary Planning Document, there are no Mineral Consultation Areas within the sub-area.

Contaminated land: There are no known problems of contamination.

'Un-neighbourly development': The constraint of proximity to the Buncefield depot limits scope for residential development, careful consideration of how the development interfaces with Punchbowl Park needs to be taken. The M1 Motorway also generates significant noise and pollution and limits scope for residential development in close proximity.

Topography/steep slopes: The land has a gently undulating topography.

Agricultural land value grade: The Natural England ACL008 map indicates that the site is predominantly grade 2 and 3. However a note accompanying the map states *"This map forms part of a series at 1:250 000 scale derived from the Provisional 1" to one mile ALC maps and is intended for strategic uses. These maps are not sufficiently accurate for use in assessment of individual fields or sites and any enlargement could be misleading. The maps show Grades 1-5, but Grade 3 is not subdivided"*. Magic Map provides a more detailed breakdown of agricultural grades. According to Magic Map interactive resource the land is predominantly Agricultural Land Classification (ALC) Grade 3a and 3b. There is also an area of ALC Grade 2 land adjacent to the Nickey Line footpath and cycleway.

Comments / Overall Conclusions:

The overhead power lines and the Motorway are constraints that need to be taken into account in planning development.

The oil / fuel pipelines could restrict the amount of land available for residential use, therefore a wider site area than that indicated in the GBR report may need to be considered.

The HSE consultation zone for the Buncefield Oil Depot only extends marginally into the south of the sub-area. It does not present a significant constraint on development in this sub-area.

There is a significant loss of best and most versatile agricultural land.

Development in this sub area could deliver considerable economic contributions to the local and wider economy and improve the quality of local environment through assisting with regeneration of Hemel Hempstead, in particular: Maylands and the town centre.

The unique economic development opportunities arising from urban expansion in this area suggest a high evaluation score.

4

Score: /5

(5) Strategic infrastructure provision

Main factors to consider:

What opportunities are there to improve strategic infrastructure for the wider benefit of the District?

- The development area is of a scale that can deliver strategic infrastructure improvements. The longstanding issues of poor distribution road access to parts of the Maylands area can be addressed and this will have wider benefits for Hemel Hempstead.

Comments / Overall Conclusions:

Development of this sub-area would provide a critical mass sufficient to require / deliver new physical and social infrastructure and this indicates a high evaluation score. The type of infrastructure that could be delivered includes (not exhaustive):

- General road network improvements, including delivery of east Hemel Hempstead relief road
- Educational facilities (primary school on site or increasing local capacity, new secondary school on site)
- New neighbourhood centre
- Additional footpath and cycle network links
- Possible additional public transport links
- Additional public open space and recreational space
- Further Education capacity (through provision of new facility and additional capacity at existing schools, the exact additional capacity required will be established through detailed discussions with HCC if this site forms part of the SLP development package)

10

Score: /10

(6) Vehicular access and traffic impact

Main factors to consider:

Can suitable access to the site be achieved?

- The sub-area benefits from being located close the motorway network, (M1/M25) with direct links to the midlands, the north and the wider south east and its airports.
- Green Lane via Breakspear Way provides the only connection from the M1 to the Sub-area and there is a need for new road links to open up this area for development and also improve distributor road access around the eastern side of the town.
- A longstanding proposal for a North East Hemel Hempstead Relief is included in the St Albans District Local Plan and in the Dacorum Core Strategy. This would increase traffic capacity on punchbowl lane and assist in relieving existing traffic pressures in Maylands. In the

case of major development in the sub area it would need consideration in wider context.

- Direct access to the site can be achieved from B487, Hemel Hempstead Road, Cherry Tree Lane (which runs through part of the site), Punchbowl lane. Access could also be achieved from Hogg End lane by extension of existing road which runs along the eastern edge of Punchbowl Park. Substantial road network upgrades would need to be investigated.
- Access to the site can also be achieved through the committed Spencer's Park development in Dacorum.

Degree of impact upon road network and potential for measures to mitigate the impact

- Generally there is poor existing internal road network within the sub-area but as indicated above there are a number of good potential access points to the sub area.
- It is likely that increased traffic flows can be accommodated on the basis of new connections to the strategic road network.
- Key upgrades will very likely include the upgrading of country roads/lanes.

Comments / Overall Conclusions:

A large scale development of this kind will inevitably concentrate traffic impacts in a particular location and create some stress on the existing road network, necessitating investment in improvements.

The sub area is located exceptionally well in terms of proximity to the motorway / strategic road network. New network connections need to be planned, but this is achievable and could deliver general improvements to the Hemel Hempstead road system.

This suggests a medium level evaluation score.

5

Score: /10

(7) Public transport

Main factors to consider:

Distance to train station including assessment of frequency of service

- Hemel Hempstead Railway station is located 5.31km to the south west and Apsley Railway Station 4.98 km to the south west.
- Hemel Hempstead Railway station provides a regular service to London (London Euston within 330/35 minutes at peak times).

Of less relevance but also accessible via the strategic road network and bus links are the St Albans stations:

- St Albans Abbey Railway is located approximately 6.59km to the south east of the sub area, St Albans City Railway Station is 7.4 km to the south east and Harpenden Station is 6.92km to the north east.

- St Albans City Station provides regular services along the First Capital Connect line to London (St Pancras International within 20 minutes at peak times), and between Luton and Bedford to Brighton. This is on the same line as Harpenden Station.
- St Albans Abbey train station provides a London Midland service to Watford Junction every 45 minutes. Watford Junction provides regular London Midland and Virgin train services to London Euston and the north. Stops on route to Watford Junction include Park Street, How Wood, Bricket Wood, Garston and Watford North.

(key distances from Appendix 7; railway station 6.4 km - October 2014)

Distance to a bus route including assessment of frequency of service

- There are two frequent bus services which run near to the sub-area, immediately to the west. These are the Bus route 2, 759 and ML1/ML12 which provide services to the central Hemel Hempstead and Hemel Hempstead Rail station and beyond to Aylesbury. From the Hemel Hempstead Rail station, the 300/301 a regular service provides a connection to St Albans.

Potential for new or improved bus services

- Additional, frequent bus networks are essential to connect a new community to the main facilities of hemel Hemp[stead and to St Albans district. There is potential to extend some of the existing services through the sub area. Bus networks to settlements beyond Hemel Hempstead (towards St Albans) are considered to be limited although the 300/301 provides a regular service. The scale of development involved will justify re assessment and improvement of services; with the potential for bus services to better connect to rail services in St Albans.

Comments / Overall Conclusions:

Access to railway stations and connecting public transport is good as a result of the town location. Large scale development in the form of a new neighbourhood allows for effective and economically viable bus service improvements. A high evaluation score results.

5	Score: /5
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(8) Urban Design

Main factors to consider:

Can connections be made with any existing development so that ease of movement is good and social cohesion between new and existing development is facilitated?

- The sub-area can be connected with the existing urban area at Woodhall Estate and Maylands.
- Opportunity also exists to connect to the any proposed development at Spencer's Park. A comprehensive proposal could achieve a seamless urban extension outwards from existing urban area of Hemel Hempstead.
- The scale of development and the relationship of the sub area to the existing urban form of Hemel Hempstead necessitates careful master planning. There are always urban design challenges in achieving a successful new neighbourhood (physical design and social cohesion).
- The physical constraints of pylon and pipelines, plus proximity to the motorway and employment uses adds to the urban design challenge

Can a positive interface between fronts and backs of existing development be achieved?

- Yes, with careful whole neighbourhood and strategic infrastructure master planning, but comments above are relevant. The relationship to the large buildings in the Punchbowl Park warehousing area will be particularly challenging on this point.

Can development of the site have a positive relationship with existing adjacent land uses?

- The existing adjacent land uses to the north, and Spencer's Park allocation to the west, are residential and therefore would be compatible.
- The employment area to the south provides both physical design / layout relationship challenges and opportunities for reducing travel movement by providing links between living and working environments.

Comments / Overall Conclusions:

Overall, if comprehensively master planned, the sub area would integrate well and be compatible with surrounding land uses.

However high quality urban design provides a greater challenge in large scale development and much will be dependent on successful and careful detailed planning. This will require significant lead times and investment in physical and social infrastructure. The degree of challenge indicates a medium evaluation score.

3	Score: /5
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(9) Environmental constraints

Main factors to consider:

Environment Agency Flood Zones 2 and 3 and Strategic Flood Risk Assessment (SFRA) results

- The land sub area has not been identified as being at risk of flooding.

Proximity to Sites of Special Scientific Interest (SSSI)

- The sub-area is not in close proximity to any SSSIs. The closest SSSI is Roughdown Common, which is approximately 5.1km south west of the site at the closest point, on the opposite side of Hemel Hempstead

Proximity to Local Nature Reserve or Local Wildlife Site

- The Nickey Line which runs along the north of the sub area is a non statutory locally designated wildlife site.
- Impact on the Nickey Line green corridor/ wildlife site could result from increased usage, this would need to be managed.

Proximity to Ancient Semi-Natural Woodland

- There are three areas of Semi-Natural Ancient Woodland located between 700-900m to the north west of the sub area, separated by built development within Hemel Hempstead. It is unlikely that these will be affected by development. No other areas of Ancient Woodland have been identified within 1km of the site.

Would development harm any trees protected by Tree Preservation Orders or other important trees?

- A single Oak Tree is listed – TPO1512 (T1) on the 30/11/2010 to the south west of the area. Any affected trees can be protected and incorporated in the open space areas.

Will there be an adverse impact on a protected habitat or species?

- Unknown at this stage
- Mitigation measures are likely to be needed

Comments / Overall Conclusions:

On specific points above impact on key environmental factors is minimal. However this is a large green field development that will change the local environment and semi natural wildlife habitats dramatically. This scale of development is inherently difficult to integrate into the existing environment.

Environmental mitigation and compensation measures will need to be provided in the form of strategic open space and new habitat creation.

The overall scale and concentration of development in the East Hemel Hempstead may raise some strategic environmental assessment issues in terms of traffic growth and pollution impacts on protected woodland habitat areas in the Chilterns. This will need to be addressed in mitigation measures, particularly permitted land uses and availability of public transport and walking / cycling opportunities for commuting.

This indicates a medium to low evaluation score.

6

Score: /10

(10) Landscape quality / surrounding area characteristics

Main factors to consider:

Landscape Character Assessment (LCA) condition and sensitivity

- The sub-area lies within the Upper Ver Valley and Buncefield Plateau landscape character areas (Hertfordshire Landscape Character Assessment, Hertfordshire County Council, 2000-2005).
- The Upper Ver Valley comprises a broad open valley (in relation to the sub-area a dry valley) with gentle slopes and extensive views. Large arable fields on the valley slopes are characteristic, with some small areas of pasture. Field boundaries have frequently been removed or are fragmented giving rise to a more open landscape. The existing transport pattern follows the alignment of the valley, including the B487 and a disused railway line. There are small areas of woodland and shelterbelts within this part of the character area. Settlement pattern is limited, being greatest near the B487, but elsewhere it comprises individual farmsteads and houses. Development on the edge of Hemel Hempstead influences the western part of the character area, adding urban influences. The condition of the landscape and strength of character are described as “good” and “moderate” respectively. The overall objective for this landscape character area is to “conserve and strengthen”.
- The Buncefield Plateau is an undulating plateau extending to the east of Hemel Hempstead. The undulating landform is a consequence of several dry valleys that cross it. Arable farmland in a large, regular field pattern is the key land use. The M1 motorway is a dominant feature, which interrupts landscape pattern. The industrial/commercial structures on the edge of Hemel Hempstead are conspicuous elements that add urban/urban fringe characteristics. The condition of the landscape and strength of character are described as “poor” and “strong” respectively. The overall objective for this landscape character area is to “restore condition to maintain character”

Historic Landscape Characterisation information in relation to site

- The area generally retains the historical landscape character referred to above, but there are no special historic factors to take into account.

Landscape Institute Guidelines for Landscape and Visual Impact Analysis

- Principles applied to analysis above

Comments / Overall Conclusions:

Development of the sub area would result in large scale landscape change and this will result in a clear perception of significant visual intrusion into the countryside.

The specific impact on the countryside gap between Hemel Hempstead and Redbourn and the relationship of the development to the Redbourn Road frontage and the existing urban influences of the Motorway and pylon lines, are important considerations. They would be influential in the visual impact of development and in the general perception of scale of change in the landscape. These factors would be crucial in decisions on the appropriate extent of development.

There is some potential for landscape improvement around the motorway and urban fringe visual impact.

These points suggest a relatively low evaluation score.

4

Score: /10

(11) Heritage / archaeology potential

Main factors to consider:

Proximity to Conservation Area and impact upon setting

- There are no Conservation Areas in the proximity of the site and therefore no impact. The closest conservation area is within Redbourn and the integrity of Redbourn as a village set in open countryside in relation to the expansion of Hemel Hempstead is important (see 10 above)

Proximity to Listed Buildings and impact upon setting

- There are three listed buildings within the north-west of the site, consisting of a farmhouse, a barn and cottages. These would need to be retained in any development masterplan.

Proximity to Scheduled Ancient Monuments and impact upon setting

- There is one Scheduled Ancient Monument to the north east of the sub area. It is bound by Gaddesden Lane to the north, the M1 motorway to the east and Hemel Hempstead Road (B487) to the south. This area of land is recognised as a primary constraint and should be should be protected within any masterplan.. The Aubreys Camp is located approximately 450m to the north east.

Proximity to Historic Parks & Gardens and impact upon setting

- The closest Historic Park and Garden is located approximately 1.25km to the south east and separated from the site by the M1 corridor Therefore it is unlikely there will be an impact upon its setting.

Presence of archaeological sites for local preservation (Local Plan Review 1994 Policy 110)

- The sub-area is not located in a nationally or locally designated archaeological area.

Comments / Overall Conclusions:

The lack of known heritage constraints suggests a relatively high evaluation score. Careful master plan can address relatively minor issues.

4

Score /5

(12) Opportunities for sustainable energy production

Main factors to consider:

Site location in relation to District Heating Opportunity Areas

- The Dacorum energy opportunities map indicates that there is a district heating opportunity area south west of the sub area. The opportunity comes form energy demand from Maylands business park therefore there is opportunity to deliver district heating for the new development linked to existing and proposed regeneration at Maylands.
- The sub area is of a scale that it could deliver district heating network to serve new development.

Site location in relation to Wind Turbine Opportunity Areas

- The sub area is located within a wind opportunity area, however potential to deliver wind turbines will be limited given proximity to roads, potential new development and land availability.

Other sustainable energy production opportunities identified

- Potential to incorporate small scale renewable through design of development, e.g. solar, biomass heating, ground source heat pumps.

Comments / Overall Conclusions:

The scale of development possible in this sub area creates an opportunity to deliver renewable energy production and some energy supply efficiency / resilience that will not be available on smaller scale development areas. This justifies a high evaluation score.

5

Score: /5

S2: East of Hemel Hempstead and M1 (South)

Assessment Matrix – Summary of Evaluation Results

THEME	ECONOMIC				SOCIAL				ENVIRONMENTAL														
	1 - Sustainable Location		2 - Settlement hierarchy		3 - Mixed-use development		4 - Other Matters		5 - Strategic infrastructure provision		6 - Vehicular access and traffic impact		7 - Public transport		8 - Urban Design		9 - Environmental constraints		10 - Landscape quality / surrounding area		11 - Heritage / archaeology potential		12 - Opportunities for sustainable energy production
S2	8		10		5		4		10		5		5		3		6		5		4		5

Total score: **70**

(Rank: **1**)

Note: Independent Green Belt Review Site Ranking **7=**

Assessment of sustainable development principles

NOTES:

1. Except where denoted by a * All Distances measured from Motorway Maintenance Depot, Breakspear Way, Hemel Hempstead HP2 4TZ (central eastern point of the Sub Area)
2. Where possible facilities and services have been identified in both Dacorum and St Albans District.
3. In the Green Belt Review the sub area is divided into two areas, 2a to the north of Breakspear Way and 2b to the south of Breakspear Way. For the purpose of this assessment, the sub-area has been assessed as a whole unless otherwise indicated in each evaluation section.

(1) Sustainable location

Main factors to consider:

Would the site be well related to existing settlements or an isolated form of development?

- The sub-area comprises land enclosed by the east Hemel Hempstead urban area and the M1 Motorway. The sub area is subdivided into two parts; sub area 2a to the north and sub-area 2b to the south. 2a would primarily be an employment area given the constraint of proximity to the Buncefield Oil Depot (HSE consultation Zone) and Motorway and 2b a residential area.
- 2a is bordered by the urban area of Hemel Hempstead to the west (Maylands and Buncefield Oil Depot), open countryside/arable farmland/undeveloped land to the north beyond Punch Bowl Lane (sub-area1), The M1 motorway to the east and open countryside/arable farmland/undeveloped land to the south beyond Breakspear Way (sub-area 2b).
- 2b is bordered by the urban area of Hemel Hempstead (Maylands and residential area of Leverstock Green) and open countryside/arable farmland/undeveloped land to the west. To the north beyond Breakspear way is sub-area 2a, to the east is the M1 motorway and to the south open countryside/arable farmland/undeveloped land.
- The sub-area would relate well to the existing settlement of Hemel Hempstead and would form an urban extension which would integrate with the residential and employment urban areas to the west.
- There is potential for the residential area to form an extension of the Leverstock Green neighbourhood and draw on some of its existing facilities and services.
- However extension of residential development into the furthest, most southern, extent/tip of the sub area would be more isolated and less well integrated into the existing urban area.

Proximity to existing employment opportunities or potential to provide such opportunities

- The sub-area lies adjacent to Maylands Business Park / Hemel Hempstead Industrial Estate. The Employment Area forms the main employment areas in Hemel Hempstead and it also has a wider sub regional role. It was historically developed around manufacturing and general industry, but is now being promoted for regeneration for commercial accommodation, shops and other amenities. This presents an important opportunity to link a significant employment area to new residential development and other services. The main locations for employment development are:

- SADC EMP 7 – North of Buncefield – B8 use – immediately to the south of the sub-area

- SADC Local Plan Policy No.26 – Land reserved for Employment development at east Hemel Hempstead – within the sub area. No development interest for this site for employment development. Land will form part of residential development linked to Spencer’s Park development completed in Hemel Hempstead.

- Maylands Business Park – Focus for employment growth in the Dacorum Core Strategy. Maylands master plan estimates that there is potential to deliver around 130,000 sq m of gross external office space, the equivalent of 5,700 jobs. Immediately to the east of the sub-area.

- Buncefield Oil Depot – Immediately to the south east of the sub-area.

- Due to HSE consultation zone restrictions on appropriate development, 2a is only appropriate for additional employment generating development.

Proximity to existing schools, consideration of capacity and potential to meet increased demand and consideration of capacity

Analysis is based on HCC “Meeting the Rising Demand for School Places” (2012/2013), HCC consultation response to SACDC Core Strategy 2010, HCC consultation response to DBC Pre-submission Core Strategy 2011 and HCC Service Position Update June 2014.

HCC indicate a deficit of primary School places within both St Albans and Dacorum in the area of S2.

HCC have identified that there is a 0-5% surplus of secondary school places within St Albans in the area where S2 is located. Within Dacorum there is over 5% surplus of secondary school places.

All information will be subject to further assessment and review. This is particularly important with an urban expansion of this scale.

- Brockswood Primary School (Dacorum) – *2.74km to the north west (potential for 1FE expansion)
- Holtsmere Junior School (Dacorum)– 2.72km to the north west
- Holtsmere End Infant and Nursery School (Dacorum) – 2.66km to the west

- Astley Cooper Secondary School (Dacorum) – 2.86km to the north west
- Maple Grove Primary School (Dacorum)- 2.91km to the north west (potential for 1FE expansion but would require relocation of special school)
- Haywood Grove School (Dacorum) – 2.97km to the north west
- Hammond primary School (Dacorum) – 2.84km to the north west (permission granted for 1FE expansion in 2011)
- Hobletts Manor Infants and Nursery School (Dacorum) – 2.03km to the south west
- Hobletts Manor Junior School (Dacorum) – 2.14km to the west
- Aycliffe Drive Primary School (Dacorum) – 3.17km to the north west (potential for 0.5FE expansion, considered to be very difficult to develop where development may not be cost effective)
- Dacorum Education Support Centre (Dacorum) – 1.83km to the south west
- Yewtree Primary School (Dacorum) – 2.96km to the west
- Leverstock Green Church of England Primary School (Dacorum) – 1.04km to the south west (expansion likely to be required if development at East Hemel Hempstead comes forward, potential for 1FE expansion)
- Adyfield school (Dacorum) – 2.12km to the west
- Broadfield Primary School (Dacorum) – 2.69km to the south west
- The Reddings Primary and nursery school (Dacorum) – 2.62km to the south west
- St Albans the great catholic school (Dacorum) – 2.18km to the south west
- Woodfield School – 1.75km to the south west
- Hobbs Hill Wood Primary School (Dacorum) – 2.24km to the west (potential for 1FE expansion but considered to be very difficult to develop where development may not be cost effective)
- Longdean School (Dacorum) – 2.37km to the west
- Chambersbury Primay School. (Dacorum) – 2.25 km to the south west (potential for 0.5FE expansion)
- Limewalk primary school (Dacorum) – 2.88km to the west
- Redbourn Infant and Nursery School (Redbourn) – 4.92km to the north east (Redbourn infant and junior school is a 2FE school which was indicated to have some capacity from 2011 onwards for some years)
- Redbourn JMI (redbourn) – 4.96km to the north east
- St Lukes Special School (Redbourn) – 5.29 km to the north east
- Batford Nursery School (St Albans/Harpenden) – 9.55km to the north east
- Busy Bees (St Albans/Harpenden) Various locations - 4.82km to the east, and 7.56km to the north east, 6.75km to the north east, 5.31km

km to the east, 11.58km to the south east

- Crabtree Infants' School primary (St Albans/Harpenden)– 8.43km to north east (current capacity 2FE, no identified potential to expand)
- Crabtree Junior School (St Albans/Harpenden)– 8.51km to the north east (see above)
- High Beeches Primary School (St Albans/Harpenden)– 8.47km to the north east (current capacity 1FE, potential to expand by further 1FE)
- Manland Primary School (St Albans/Harpenden)– 8.88km to the north east (current capacity 1FE, no identified potential to expand)
- Roundwood Park Secondary School (St Albans/Harpenden)– 7.68km to the north east
- Roundwood Primary School (St Albans/Harpenden)– 7.68km to the north east (current capacity 1.5FE, no identified potential to expand)
- Sauncey Wood Primary School (St Albans/Harpenden)– 9.65km to the north east (current capacity 1FE, potential to expand by a further 1FE)
- Sir John Lawes School (St Albans/Harpenden)– 8.85km to the north east
- St Dominic Roman Catholic Primary School (St Albans/Harpenden)– 7.67km to the north east (current capacity 1FE, potential to expand by a further 1FE)
- St George's School (St Albans/Harpenden)– 8.46km to the north east
- St Hilda's School (St Albans/Harpenden)– 7.88km to the north east
- St Nicholas C of E VA primary school (St Albans/Harpenden) – 7.79km to the north east(current capacity 0.8FE, no identified potential to expand)
- The Grove Infant And Nursery School (St Albans/Harpenden)– 8.01km to the north east (current capacity 2.5FE, potential to expand by a further 0.5FE)
- The Grove Junior School (St Albans/Harpenden)– 7.99km to the north east (see above)
- The King's School (St Albans/Harpenden)– 8.85km to the north east
- The Lea Primary School (St Albans/Harpenden)– 9.22km to the north east (current capacity 1FE, no identified potential to expand)
- United Reformed church Pre-school (St Albans/Harpenden)– 7.88km to the north east
- Wood End Primary School (St Albans/Harpenden) – 8.13km to the north east (current capacity 2FE, potential to expand by a further 1FE)
- Townsend C of E VA Secondary School – 5.57km to the east
- Margaret Wix Primary School – 5.53km to the east (current capacity 1FE, potential to expand by further 1FE)
- Batchwood Special School – 5.47km to the east
- Garden Fields JMI Primary School – 5.68km to the east (current capacity 2FE, potential to expand by further 1FE)
- Aboyne Lodge Primary School – 5.55km to the east (current capacity 1FE, no identified potential to expand)
- Muriel Green Nursery School – 5.18km to the east

- St Micheals C of E VA primary School – 4.38km to the east
- The Abbey C of E VA Primary School – 5.35km to the east (current capacity 1FE, no identified potential to expand)
- Prae Wood Primary School – 4.34km to the east (current capacity 1FE, potential to expand capacity by further 1FE)
- Marlborough Secondary School – 5.21km to the south east
- Killigrew Primary and nursery school – 5.35km to the south east (current capacity 2FE, potential to expand capacity by further 1FE)
- Watling View special school – 5.87km to the south east
- St Adrians RC primary school and nursery – 5.62km to the south east (current capacity 1FE, no identified potential to expand)
- Mandeville Primary school – 5.88km to the south east
- St Peters Primary school – 5.92km to the south east (current capacity 1FE, no identified potential to expand)
- Maple primary school – 6km to the east (current capacity 1FE, no identified potential to expand)
- Loreto College Secondary school -6.20km to the east
- Bernards Heath Infant Primary School – 6.39km to the east current capacity 3FE, no potential to expand)
- Heathlands special school – 6.04km to the east
- Bernards Heath Junior Primary School – 6.33km to the east (See Bernard’s Heath infant primary school above)
- St Albans Girls secondary school Business and Enterprise college – 6.18km to the east

(key distances from Appendix 7; nearest primary 1.1 km / nearest secondary 3.4 km - October 2014)

The scale of development at the sub-area along with committed residential development would result in a requirement for on site delivery of further educational facilities. It is considered that there would be capacity within the sub-area to make provision for some additional educational facilities; however the nature of this provision would need to be determined through discussions with Hertfordshire County Council taking into consideration existing capacity of nearby educational facilities.

Initial Education Authority assessment suggests a need for an additional primary school in connection to the proposed scale of development. The potential scale of development at east Hemel Hempstead overall may also require additional secondary school provision.

HCC (service position update 2014) have indicated a need for the site to provide up to a 3FE primary school and a reserve secondary school site.

As a crude average across Hertfordshire it is likely child yield will be in the range of 1FE per 500 dwellings to 1 FE per 850 dwellings, depending upon the specifics of development. 1form of entry (FE) per 500 dwellings will provide 97.5% confidence that child yield will not be underestimated. It will be necessary to refine the calculation of need generated to take into account the specifics of proposed development.

There is a deficit in Hemel Hempstead primary planning area. Any development at East Hemel Hempstead within St Albans would generate additional school place requirements. Further work and discussions would be required to assess the child yield arising out of any significant residential development in this area.

The table below set out HCC's indicative school requirements for S2 based on the GBR dwelling range.

Site S2	Low 30dph	High 50 dph	Land use budget
Dwelling range (no of dwellings)	684	1140	14.5 to 15ha
Child yield (fe) (1 fe per 850/ 1 fe per 500)	0.8/1.37	1.34/2.28	1 no. secondary site + 1 no. 2 fe or 3fe primary school site

The table below sets out HCC's indicative school requirement for S1 and S2 combined based on the GBR dwelling range.

Site S1 and S2	Low 30 dph	High 50 dph	Land use budget
Dwelling range (no of dwellings)	1710	2850	14.5 ha to 19 ha
Child yield (fe) (1 fe per 850/ 1 fe per 500)	2.0/3.42	3.35/5.7	1 no. secondary site + 1 no.2 fe to 3 no. 2fe primary school sites.

HCC consider that development of both S1 and S2 would be better balanced in terms of creating a critical mass of need which would come closest to enabling the creation of a new viable secondary school.

Proximity to existing public open space and allotments

- A number of public open spaces lie in close proximity to the site. Westwick Farm and Leverstock Green situated along Green Lane, which bounds the south western boundary of the sub-area. These areas have the potential to provide a focus for integration with the existing neighbourhood of Leverstock Green. Woodwells cemetery and Coppinsfield sports ground also bound the west of the site to the north of Breakspear Way but are likely to be relatively in accessible from a new residential neighbourhood.
- St Albans District Council has identified a number of natural play areas. The closest are Verulamium Park, St Stephens Hill Open Space, Greenwood Park and How Wood . These are however some distance away beyond the strategic road network.

There are a number of additional play areas between 4 to 5km located within St Albans District. These are:

- Redbourn Recreation centre and 5 play areas (East Common, Flamsteadbury lane, Long cutt, Brooke end and Silk Mill road) in Redbourn
- Verulamium Play area
- Play area off Batchwood Drive on the edge of St Albans
- Playground off King Harry lane, St Stephens
- Grovehill Woodhall Farm Play ground – 2.41 km to the north west

The nearest allotments are located to the west of the sub area.

- High Street Green (Dacorum) – 1.93 km to the north west
- Adeyfield Road (Dacorum) – 3.05 km to the west
- Gravel Hill (Dacorum) – 4.5 km to the west
- Chaulden (Dacorum) – 5.14 km to the west
- Greyhound Meadow (Redbourn) – 5.14km to the north
- Tassell Hall (Redbourn) – 5.3km to the north
- Long Cutt (Redbourn) – 5.3km to the north

- It is considered that there would be capacity within the sub-area to deliver additional open space which would avoid placing additional pressures on existing provision.

Proximity to existing neighbourhood/local centres

- Hemel Hempstead town centre is located approximately 3.2km* to the west of the sub-area. Only one local centre is located within 1km of the sub-area at Leverstock Green to the south west. A new local centre is to be established in the heart of Maylands at the junction of Maylands Ave and Wood lane End through the East Hemel Hempstead Area Action Plan. There is potential for a new neighbourhood centre could be delivered in the sub area 2b.
- The sub-area relates well to the existing neighbourhood and local centres within Dacorum; especially Leverstock Green and Maylands. Development in this sub-area is likely to generate the need for additional neighbourhood/local centre provision.

(key distances from Appendix 7; town centre 5.2km / nearest local centre 1.6km - October 2014)

Proximity to existing large supermarkets or superstores or potential to provide

- Sainsbury's Supermarket – 2.89 km to the north
- Tesco Extra – 2.73 km to the west
- Tesco – 3.05 km to the north west
- Tesco Express - 3.05 km to the south west
- Asda – 3.3 km to the west
- Aldi – 2.41 km to the north west
- There are also a range of small stores such as Cooperative and Nisa between 2.25 km and 3.21 km to the west of the sub area.

Proximity to existing medical facilities or potential to provide

- Coleridge House Medical Centre (Dacorum) – 2.89 km to the north west
- Woodhall Farm Medical Centre (Dacorum) – 2.89 km to the north
- Bennetts End Surgery (Dacorum) – 2.57 km to the south west
- Everest House Surgery (Dacorum) – 1.93 km to the west
- Fernville Surgery (Dacorum) – 3.54 km to the west
- Sherring-Lucas Dental Laboratory (Dacorum) – 1.44 km to the west
- Leverstock Green Dental Practice (Dacorum) – 1.12 km to the south west
- Highfield Surgery (Dacorum) – 2.41 km to the west
- longlands Dental Practice (Dacorum) – 2.41 km to the west
- Patel M Dental Surgery – 2.41 km to the west
- Pandya Dental Surgery – 2.57 to the south west
- Grovehill Medical Centre (Dacorum) – 3.05 km to the north west
- Hemel Hempstead General Hospital (Dacorum) – 3.37 km to the west
- Breakspear Hospital (Dacorum) – 3.37km to the west
- West Hertfordshire Cardiology (Dacorum) – 3.21 km to the west
- St Albans city hospital (St Albans) – 5.47 km to the east

Proximity to existing leisure facilities or potential to provide

- Virgin Active Gym (Dacorum) – 1.12 km to the west
- The Snow Centre (Dacorum) – 2.89 km to the south west
- Quasar (Dacorum) – 3.54 km to the west
- Sportspace (Dacorum) – 4.18 km to the west
- Batchwood Golf and Tennis Club (St Albans) – 4.66 km to the east
- Redbourn Recreation Centre (St Albans) – 5.63 km to the north east
- Westminster Lodge Leisure Centre (St Albans) – 5.31 km to the east
- Harpenden Sports Centre (St Albans) – 7.88 km to the north east

- Butterfly World (St Albans) – 4.82 km to the south east
- Empire Cinemas (Dacorum) – 2.57 km to the west
- Cinema facilities are also being developed in St Albans, London Road.

Ability for proposed development to link in with existing footpath and cycleway network

- Opportunities exist for both employment and residential uses, but new network connections would need to be planned.

Potential to promote equity and added social inclusion

- The scale of housing development possible in this location should allow a wide variety of housing needs to be met. There is potential for delivering substantial affordable housing in a sustainable and well connected location, with good access to local shopping facilities, schools and transport network.
- Providing much needed housing in an area that will offer socio-economic benefits, with the potential for new jobs through the development of shopping facilities and school expansions.
- Given its location adjacent to Maylands Business Park development in this location would support economic development/growth and provide access to employment for the population in the area.
- The sub-area has potential to provide for the special accommodation needs of gypsy and travellers
- The sub area has the potential to provide self build opportunities

Contribution of development to economic growth potential of the settlement / area

- The sub-area is in a well connected location, with good access to road transport network and nearby schools. The sub-area is suitably sited to offer access to a number of allocated employment areas, as set out in 1. above: (Sustainable Location).
- Development at the sub-area will support the economic aspirations for growth at Maylands Business Park and support the economic development of Hemel Hempstead and the wider sub region.
- The Strategic Economic Plan (SEP) prepared by the Local Enterprise Partnership (LEP) recognises and supports the role that East Hemel Hempstead has in providing economic opportunities and growth. Growth in this area is identified as a Hertfordshire priority The SEP supports the proposal indicating its ability to support other development in the M1/M25 growth area. The SEP is likely to provide investment for projects in the area.

Ability of development to draw on the economic value of built or natural environment features

- The area offers an attractive rural setting with close proximity to and easy access via the M1 – a key national transport corridor. These

existing features could add value to a well planned development.

Comments / Overall Conclusions:

The sub-area relates very well to the services and facilities provided by the town of Hemel Hempstead (and town centre). It would form an urban extension which would integrate well with the existing nearby urban area. Despite the scale of development envisaged there is a particularly strong relationship between the area and the existing neighbourhood of Leverstock Green. Close proximity to facilities there for residential development to the south of the sub area creates the potential to integrate new development and this is reflected in the evaluation score.

The sub-area would support the economic growth of Hemel Hempstead and employment growth aspirations for Maylands Business Park. Employment growth in this location would provide wider employment opportunities for residents within Dacorum and St Albans. The economic aspirations to develop Maylands is recognised and supported in the LEP's Strategic Economic Plan.

It is clear that there are a range of services and facilities within easy access to the sub-area. These include a variety of existing schools, medical facilities, open spaces, recreational and leisure facilities. Development in the sub-area would likely be at scale where additional services would be provided on site. This would avoid putting additional pressure on existing services and facilities. New facilities would serve both the existing and new population in the area.

The scale of development at the sub-area would allow the delivery of new neighbourhood and local centres which would serve the local and wider population.

The sub-area has potential to provide a considerable variety of housing types and tenures to cater for different needs, including the provision of affordable housing. Because of their size the Hemel Hempstead sub areas are likely to be the only locations for development that has potential to provide self build opportunities and new gypsy and traveller accommodation.

Overall it is considered that the sub-area attracts a high evaluation score. The overall scoring does however reflect an assumption of delivery of new services and facilities within the development. Because of the relationship of the potential development areas to the structure of the existing town it is only through such provision that these areas can function as new neighbourhoods.

8

Score: /10

(2) Settlement hierarchy

Main factors to consider:

Main urban settlements (excluded from the Green Belt): St Albans, Harpenden, London Colney
 Other settlements excluded from Green Belt: Bricket Wood, Chiswell Green, How Wood, Park Street, Frogmore, Redbourn, Wheathampstead
 Green Belt settlements: Colney Heath, Folly Fields, Gustard Wood, Kinsbourne Green, Lea Valley Estate, Sandridge, Sleapshyde, Smallford
 Rest of Green Belt: Everywhere else

Comments / Overall Conclusions:

Hemel Hempstead is classed as a 'Town' in the Dacorum Borough Local Plan. Hemel Hempstead has been identified as the Main Centre for Development and Change in the borough as recognised in the Dacorum Core Strategy 2013. It will be the focus for new homes, jobs and infrastructure, including new leisure and cultural facilities and improved public transport links. The town has a population of almost 90,000.

The Sub Area is located adjacent to and relates well to Hemel Hempstead urban area. Whilst the sub-area is quite extensive it would not over dominate the town or the nearest urban areas or significantly alter the settlement hierarchy of Dacorum and St Albans. Therefore in relation to settlement hierarchy the sub area scores high.

10

Score: /10

(3) Mixed-use development

Main factors to consider:

Employment

- The sub area includes a significant area of land that can only be used for employment development and this will create a strategic employment development opportunity The Local Enterprise Partnership SEP identifies Maylands as a priority area to deliver wider sub regional economic development aims. This will not only provide employment opportunities for new residents but also for existing residents in Dacorum and St Albans.
- The residential development of the sub-area will facilitate and support growth and development of Maylands Business Park.
- There is potential for the development of some small-scale shopping facilities as part of a new or extended neighbourhood centre which

would create additional employment opportunities within the sub-area.

- Employment opportunities will also be created through the provision of additional the educational facilities
- Social infrastructure (including schools and community facilities)
- There is potential for the provision of additional school and community facilities to serve the new and nearby existing population.
- Public open space / sport and recreation

Retail

- The area is considered to be well served by range of large supermarkets and is within easy travel distance to the Hemel town centre.
- There are opportunities to deliver additional local retail facilities as part of new or enhanced neighbourhood centres.

Will the benefits of development be accessible to existing communities?

- The sub-area is well related to the existing urban area. There are opportunities to create new pedestrian access into the sub-area linking to proposed and existing nearby residential areas, as well as opportunities to create further access to the existing cycle networks.
- The benefits of development would be accessible to existing communities nearby the sub area; in particular the economic and employment benefits would be accessible to residents both in Dacorum and St Albans.

Comments / Overall Conclusions:

The potential scale of development in this location and in adjoining areas means that development at East Hemel Hempstead is capable of delivering significant mixed use development in a planned new neighbourhood for Hemel Hempstead and / or extension of the Leverstock Green Neighbourhood. The uses likely to be included in this specific sub area could potentially include small scale employment, schools and community facilities, public open space, recreation space and neighbourhood centre.

The opportunity for mixed use arising from the scale of development indicates a high score on this factor.

5

Score: /5

(4) Other matters

Main factors to consider:

Economic contribution of development

- Development in this location is aligned with and supports wider, sub regional economic development priorities as set out in the LEP's SEP.

Economic value of environmental and heritage features

- The Gorhambury Estate includes well managed and productive farms utilising high quality agricultural land. Development will damage this the economic value of this asset.

Ability to improve quality of local environment through development – regeneration

- Potential for significant improvement by support for regeneration of Maylands business area of Hemel Hempstead and creating critical mass for additional services and facilities for use by existing and new population. In particular there is an opportunity to improve the overall urban environment and urban edge at east Hemel Hempstead
- Potential to provide landscaping, reinstate tree and hedgerow belts in the surrounding landscape, particularly to the northern part of the sub-area and the western edge close to the M1 motorway.

Physical constraints such as:

To the north of Breakspear Way, the sub-area lies within the Buncefield Oil Storage Depot HSE Consultation Zone. Approximately one third of the site is covered by the Consultation Zone which includes a Development Proximity Zone (DPZ), Inner Zone (IZ), Middle Zone (MZ) and Outer Zone (OZ). The HSE confirms that development is not unacceptable in this area; however, all planning applications in the DPZ must be referred to it. Underground oil pipelines cut across the site and may affect development capacity. This area would not be suitable for residential development, but could serve as location where additional employment and large scale service facilities could be provided.

Overhead power lines: There is a small section of a 400kV overhead electricity transmission line running across the north east corner of the site, extending from the fields to the north of the site and continuing across the M1. Development would either be designed around this line (national grid have developed a design guide for developers to assist with this) or it would have to be diverted / under grounded

Buncefield/Pipelines: There are oil and gas pipelines within the site. Development would either be designed around these, or they would have to be diverted. In addition, a HSE consultation zone of 400m relates to the Buncefield Oil Depot. This effectively prevents residential development on site 2a. Some employment land uses on Site S2a would still be suitable. The HSE consultation zone does not affect Site S2b. Pipelines may run through S2b which may limit land available for residential development and therefore impact on the overall capacity and/or extent of the site area considered for development. Further investigation of these issues will be required before final development areas are defined..

Sterilisation of mineral reserves: There is chalk across the northern site boundary and chalk and brick clay in the south of the site. However, according to Hertfordshire County Council's Minerals Consultation Areas Supplementary Planning Document there are no Mineral Consultation

Areas within the site

Contaminated land: Further assessments will be required to assess the current ground conditions. However, there are no known problems of contamination due to the Greenfield status of all of Site S2.

'Un-neighbourly development': No potential 'un-neighbourly development' has been identified. However the constraint of proximity to the Buncefield depot limits scope for residential development. The M1 Motorway also generates significant noise and pollution and limits scope for residential development in close proximity.

Topography/steep slopes: The land has a gently undulating topography.

Agricultural land value grade: The Natural England ACL008 map indicates that the site is predominantly grade 2 (to the south of the sub area) and 3. However a note accompanying the map states "This map forms part of a series at 1:250 000 scale derived from the Provisional 1" to one mile ALC maps and is intended for strategic uses. These maps are not sufficiently accurate for use in assessment of individual fields or sites and any enlargement could be misleading. The maps show Grades 1-5, but Grade 3 is not subdivided". Magic Map provides a more detailed breakdown of agricultural grades. According to Magic Map interactive resource the land is predominantly Agricultural Land Classification (ALC) Grade 3a and 3b. Magic Map does not indicate the ALC of the southern extent of the sub area therefore further assessment will be required to determine the ALC. If the area is ALC grade 2 as per the Natural England ALC008 map there will be a loss of the very good rated agricultural land.

Comments / Overall Conclusions:

The overhead power lines and the Motorway are constraints that need to be taken into account in planning development.

The oil / fuel pipelines could restrict the amount of land available for residential use, therefore a wider site area than that indicated in the GBR report may need to be considered.

The HSE consultation zone for the Buncefield Oil Depot presents a significant constraint on residential development in this sub-area (in relation to S2a only). These will impact on the land available for residential use and influence the overall extent of the site considered for development.

There is a significant loss of best and most versatile agricultural land.

Development in this sub area could deliver considerable economic contributions to the local and wider economy and improve the quality of local

environment through assisting with regeneration of Hemel Hempstead, in particular: Maylands and the town centre.

The unique economic development opportunities arising from urban expansion in this area suggest a high evaluation score.

4

Score: /5

(5) Strategic infrastructure provision

Main factors to consider:

What opportunities are there to improve strategic infrastructure for the wider benefit of the District?

- The development area is of a scale that can deliver strategic infrastructure improvements.

Comments / Overall Conclusions:

Development of this sub-area would provide a critical mass sufficient to require / deliver new physical and social infrastructure and this indicates a high evaluation score. The type of infrastructure that could be delivered includes (not exhaustive):

- Road network improvements
- Educational facilities (primary school on site or increasing local capacity, new secondary school on site)
- New neighbourhood social and community facilities (possibly as improvements in Leverstock Green)
- Additional footpath and cycle network links
- Possible additional public transport links
- Additional public open space and recreational space
- Further education capacity (through provision of new facility and additional capacity at existing schools, the exact additional requirement will be established through detailed discussions with HCC if this site forms part of the SLP Development package)
- Additional bus services to connect to new community to St Albans.

10

Score: /10

(6) Vehicular access and traffic impact

Main factors to consider:

Can suitable access to the site be achieved?

- Existing access to the southern section of the Sub area (south of Breakspear way) is considered to be limited.
- Access would need to be achieved with connections to the A414 / A147 and Green Lane and / or Westwick Row. Significant road network improvements will be required.
- The potential for access off the A414 would need careful consideration in terms of impact on the strategic road network (M1 access). Highways agency national network considerations will be relevant.

Degree of impact upon road network and potential for measures to mitigate the impact

- Generally there is poor existing internal road network within the sub-area but as indicated above there are a number of good potential access points to the sub area.
- The sub-area benefits generally from being located close the motorway network, (M1/M25) with direct links to the midlands, the north and the wider south east and its airports.
- Areas for employment development (2a) have good access to the strategic network to the south (M1 access road), but strategic network considerations will apply. However there is a need to improve distributor road access around the eastern side of the town generally.
- A longstanding proposal for a North East Hemel Hempstead Relief is included in the St Albans District Local Plan and in the Dacorum Core Strategy. This would increase traffic capacity on Punchbowl Lane and assist in relieving existing traffic pressures in Maylands. In the case of major development in the sub area it would need consideration in wider context.
- It is likely that increased traffic flows can be accommodated on the basis of new connections to the strategic road network.

Comments / Overall Conclusions:

A large scale development of this kind will inevitably concentrate traffic impacts in a particular location and create some stress on the existing road network, necessitating investment in improvements.

The sub area is located exceptionally well in terms of proximity to the motorway / strategic road network. New network connections need to be planned, but this is achievable and could deliver general improvements to the Hemel Hempstead road system.

This suggests a medium level evaluation score.

5

Score: /10

(7) Public transport

Main factors to consider:

Distance to train station including assessment of frequency of service

- Hemel Hempstead and Apsley railway stations are located approximately 4.7km* to the south west of the sub-area. The station offers a regular service to London, approximately every 10-15 minutes into London Euston during peak hours. The station also provides direct links to Clapham Junction, Milton Keynes Central and Birmingham New Street.
- Hemel Hempstead Railway station provides a regular service to London (London Euston within 30/35 minutes at peak times).

Of less relevance but also accessible via the strategic road network and bus links are the St Albans stations:

- St Albans Abbey Railway is located approximately 5.7 km to the south east of the sub area whilst St Albans City Railway Station is 6.7km to the south east. Harpenden Station is located 8.36km to the north east.
- St Albans City Station provides regular services along the First Capital Connect line to London (St Pancras International within 20 minutes at peak times), and between Luton and Bedford to Brighton. Harpenden station is on the same line.
- St Albans Abbey train station is provides a London Midland service to Watford Junction every 45 minutes. Watford Junction provides regular London Midland and Virgin train services to London Euston and the north. Stops on route to Watford Junction include Park Street, How Wood, Bricket Wood, Garston and Watford North.

(key distances from Appendix 7; railway station 5.5 km - October 2014)

Distance to a bus route including assessment of frequency of service

- Bus services from the sub-area to Hemel Hempstead town centre and rail station are available via route No. 758 which runs along Breakspear Way. This route also provides a bus service to London. Bus routes 300 and 301 to St Albans and Stevenage and the 320 to Watford and Rickmansworth also run along St Albans Road.
- Bus route ML/ML2 passes partially along the western edge of sub area 2a, this route could potentially extend into sub area 2a.
- Bus route 300 to St Albans passes directly south of the sub area 2b along the A4147 providing a regular service, this route could potentially be partially re-routes to serve the central part of sub area 2B. Similarly Bus route 1 which stops opposite Bunkers Farm could potentially be extended to serve the central and northern parts of sub area 2B, however the route would need to extend some considerable way and feasibility will need to be considered in detail.

Potential for new or improved bus services

- Additional, frequent bus networks are essential to connect the new community to the main facilities of Hemel Hempstead and to St Albans district. There is potential to extend some of the existing services through the sub area. Bus networks to settlements beyond Hemel Hempstead (towards St Albans) are considered to be limited although the 300/301 provides a regular service. The scale of development involved will justify re assessment and improvement of services; with the potential for bus services to connect to rail services in St Albans.

Comments / Overall Conclusions:

Access to railway stations and connecting public transport is good as a result of the town location. Large scale development in the form of a new neighbourhood allows for effective and economically viable bus service improvements.

5

Score: /5

(8) Urban Design

Main factors to consider:

Can connections be made with any existing development so that ease of movement is good and social cohesion between new and existing development is facilitated?

- The northern section of the sub area can readily be connected to the Maylands Business Park whilst the southern section has potential to be connected to the existing residential neighbourhood of Leverstock Green.

Can a positive interface between fronts and backs of existing development be achieved?

- Generally yes, but careful consideration needs to be taken of the interface between development between the west edge of the sub area and the existing urban area of Leverstock Green.

Can development of the site have a positive relationship with existing adjacent land uses?

- Yes, but there are significant adjoining land use and design constraints in the form of relationships to the oil depot, pollution and noise from the motorway and its link road to Hemel Hempstead and pylon lines. Proximity to existing neighbourhood facilities in Leverstock Green and nearby employment areas provide opportunities for design integration.

Comments / Overall Conclusions:

As the sub area is directly adjacent to existing development connections can be easily made to / with these areas. The interface of different development uses throughout the sub area need to be given careful consideration to reflect the HSE consultation Zone restrictions, the Motorway and the varying surrounding land uses.

Overall, if comprehensively master planned, the sub area would integrate well and be compatible with surrounding land uses. However high quality urban design provides a greater challenge in large scale development and much will be dependent on successful and careful detailed planning. This will require significant lead times and investment in physical and social infrastructure. The degree of challenge indicates a medium score.

3

Score: /5

(9) Environmental constraints

Main factors to consider:

Environment Agency Flood Zones 2 and 3 and Strategic Flood Risk Assessment (SFRA) results

- The sub area has not been identified as being at risk of flooding.

Proximity to Sites of Special Scientific Interest (SSSI)

- The sub-area is not in close proximity to any SSSIs. The closest SSSI is Roughdown Common, which is approximately 4km west on the opposite side of Hemel Hempstead

Proximity to Local Nature Reserve or Local Wildlife Site

- There is one Wildlife sites within S2b of the Sub area, Westwick Row Wood. This comprises a small area of woodlands which should be retained.
- There are two further Wildlife sites close by, Blackwater Wood – 220m south and Potterscrouch Plantation – 320m to the south

Proximity to Ancient Semi-Natural Woodland

- Blackwater Wood – 220m to the south

Would development harm any trees protected by Tree Preservation Orders or other important trees?

- No TPO

Will there be an adverse impact on a protected habitat or species?

- Unknown at this stage. Mitigation measures are likely to be needed.

Comments / Overall Conclusions:

On specific points above impact on key environmental factors is minimal. However this is a large green field development that will change the local environment and semi natural wildlife habitats dramatically. This scale of development is inherently difficult to integrate into the existing

environment.

Environmental mitigation and compensation measures will need to be provided in the form of strategic open space and new habitat creation.

The overall scale and concentration of development in the East Hemel Hempstead may raise some strategic environmental assessment issues in terms of traffic growth and pollution impacts on protected woodland habitat areas in the Chilterns. This will need to be addressed in mitigation measures, particularly permitted land uses and availability non public transport and walking / cycling opportunities for commuting.

This indicates a medium to low evaluation score.

6

Score: /10

(10) Landscape quality / surrounding area characteristics

Main factors to consider:

Landscape Character Assessment (LCA) condition and sensitivity

- The sub-area lies within the Buncefield Plateau and St Stephen's Plateau landscape character areas (Hertfordshire Landscape Character Assessment, Hertfordshire County Council, 2000-2005). The published landscape character assessment evaluates the condition and strength of character, and provides an overall objective for each landscape character area.
- The Buncefield Plateau is an undulating plateau extending to the east of Hemel Hempstead. The undulating landform is a consequence of several dry valleys that cross it. Arable farmland in a large, regular field pattern is the key land use. The M1 motorway is a dominant feature, which interrupts the landscape pattern. The industrial/commercial structures on the edge of Hemel Hempstead are conspicuous elements that add urban/urban fringe characteristics. The condition of the landscape and strength of character are described as "poor" and "strong" respectively. The overall objective for this landscape character area is to "restore condition to maintain character".
- The St Stephen's Plateau landscape character area (comprises an undulating or gently sloping plateau. Land use is predominately arable crops in an open field pattern, although smaller, pastoral fields are found in places, including within the sub-area. There are larger areas of woodland to the north (including ancient woodland), which create a sense of enclosure. The settlement pattern is dispersed, typically comprising individual farmsteads and houses. This pattern is connected by narrow winding lanes. Urban fringe influences are prominent, particularly motorway infrastructure and built edge of settlements. The condition of the landscape and strength of character are described as "moderate" and "weak" respectively. The overall objective for this landscape character area is to "improve and reinforce".
- It should be noted that the visual intrusion of the urban edge and motorway is most evident in the northern part of the sub area. The impact is less evident in the south due to distance from the employment areas and topography.

Historic Landscape Characterisation information in relation to site

- The area generally retains the historical landscape character referred to above, but there are no special historic factors to take into account.

Landscape Institute Guidelines for Landscape and Visual Impact Analysis

- Principles applied to analysis above

Comments / Overall Conclusions:

Development of the sub area would result in large scale landscape change and this will result in a clear perception of significant visual intrusion into the countryside.

The specific impact on the countryside gap between Hemel Hempstead and St Albans, particularly perception of the gap arising from public viewpoints on the A4147, is important. This factor is influential in decisions on the appropriate scale and extent of development. Overall impact on the “gap” can be minimised if development is restricted to the area between the north eastern edge of Leverstock Green and the M1 Motorway (as recommended in the Council’s independent Green Belt Review), but this may not be possible if other development and socio – economic objectives are to be met.

These points suggest a relatively low evaluation score.

5

Score: /10

(11) Heritage / archaeology potential

Main factors to consider:

Proximity to Conservation Area and impact upon setting

- No conservation areas in close proximity to the sub area.

Proximity to Listed Buildings and impact upon setting

- Listed building within the Sub area S2 b.
- There are also a number of Grade I listed buildings along the south west boundary of the sub area

Proximity to Scheduled Ancient Monuments and impact upon setting

- Closest SAM is Prae wood and Verulamium to the east. There is no direct impact.

Proximity to Historic Parks & Gardens and impact upon setting

- The closest Historic Park and Garden is located approximately 1km to the south east and separated from the site by the M1 corridor Therefore it is unlikely there will be an impact upon its setting.

Presence of archaeological sites for local preservation (Local Plan Review 1994 Policy 110)

- The sub-area is not located in a nationally or locally designated archaeological area.

Comments / Overall Conclusions:

The lack of known heritage constraints suggests a relatively high evaluation score. Careful master planning can address relatively minor issues such as relationship to listed buildings.

4

Score: /5

(12) Opportunities for sustainable energy production

Main factors to consider:

Site location in relation to District Heating Opportunity Areas

- The Dacorum energy opportunities map indicates that there is a district heating opportunity area immediately west of the sub area. The opportunity comes from energy demand from Maylands Business Park therefore there is opportunity to deliver district heating for the new development linked to existing and proposed regeneration at Maylands.
- The sub area is of a scale that it could deliver district heating network to serve new development.

Site location in relation to Wind Turbine Opportunity Areas

- The sub area is located within a wind opportunity area, however potential to deliver wind turbines will be limited given proximity to roads, potential new development and land availability.

Other sustainable energy production opportunities identified

- Potential to incorporate small scale renewable through design of development, e.g. solar, biomass heating, ground source heat pumps.

Comments / Overall Conclusions:

The scale of development possible in this sub area creates an opportunity to deliver renewable energy production and some energy supply efficiency / resilience that will not be available on smaller scale development areas. This justifies a high evaluation score.

5

Score: /5

S3: East of St Albans

Assessment Matrix – Summary of Evaluation Results

THEME	ECONOMIC				SOCIAL				ENVIRONMENTAL															
	1 - Sustainable Location		2 - Settlement hierarchy		3 - Mixed-use development		4 - Other Matters		5 - Strategic infrastructure provision		6 - Vehicular access and traffic impact		7 - Public transport		8 - Urban Design		9 - Environmental constraints		10 - Landscape quality / surrounding area		11 - Heritage / archaeology potential		12 - Opportunities for sustainable energy production	
S3	7		10		2		4		5		7		4		4		7		7		5		2	

Total score: **64**

(Rank: **3**)

Note: Independent Green Belt Review Site Ranking **2**

Assessment of sustainable development principles

(1) Sustainable location

Main factors to consider:

Would the site be well related to existing settlements or an isolated form of development?

- The sub-area borders three urban edges – Marshalswick lies to the northwest, Fleetville to the east/south east and Hatfield Road to the south. The sub-area would relate to the existing settlement and would not form an isolated site.

Proximity to existing employment opportunities or potential to provide such opportunities

- The sub-area lies in close proximity to a number of allocated employment areas (District Local Plan Review Policy 20):
 - EMP 10 – Alban Park/Acrewood Way/Lyon Way, Hatfield Road – B1, B2, B8 uses – approximately 1.1km southeast of sub-area
 - EMP 11 – Longacres, Hatfield Road – B1 use – immediately to the south of the sub-area
 - EMP 12 – Brick Knoll Park, Ashley Road – B1, B2, B8 uses – 500m south of sub-area
 - EMP 13 – Executive Park and adjoining land, Hatfield Road – B1 use – 800m west of sub-area
 - EMP 14 – Camp Road/Campfield Road – B1 use – 1.2km southwest of sub-area
- The site is well connected to college and university and City centre employment opportunities

Proximity to existing schools, consideration of capacity and potential to meet increased demand and consideration of capacity

There are many existing schools in the vicinity of the sub area. Distances are given for those closest to the site.

Analysis is based on HCC “Meeting the Rising Demand for School Places” (2012/2013), HCC consultation response to SACDC Core Strategy 2010, HCC consultation response to DBC Pre-submission Core Strategy 2011 and HCC Service Position Update June 2014

- Oakwood Primary School lies immediately to the west of the sub-area along Oakwood
- St John Fisher Roman Catholic Primary School lies 600m to the north of the sub-area
- Skyswood Primary School lies 800m to the north of the sub-area
- Camp Primary and Nursery School lies 1.2km to the southwest of the sub-area

- Fleetville Infant and Nursery School lies 1km west of the sub-area
- Fleetville Junior School lies 1.2km to the west of the sub-area
- Wheatfield Infant and Junior School (expanding) lie 1.4km northwest of sub-area
- Sandridge Primary School (expanding) sited 2km north of sub-area
- The sub-area contains Beaumont Secondary School and Oaklands College
- Nicholas Breakspear Catholic School lies 800m to the southeast
- Verulam Boys Secondary School lies 1.2km to the west.

(key distances from Appendix 7; nearest primary 1.6 km / nearest secondary 1.8 km - October 2014)

- Potential to expand Oakwood Primary School and Beaumont School (application 5/2013/1554 for Sixth Form and library extension approved).
- The area is one where there are potential school capacity issues, but the scale of development involved is likely to be capable of resolution through use of existing secondary schools. New primary provision is likely to be needed, but further investigation of solutions will be required.
- HCC have made previous representations to Core Strategy consultations and have set out that Oakwood Primary school may have the potential to expand by 0.5FE subject to flexible green belt policy, access improvements and additional playing fields in third party ownership. [Section 5.6 of HCC Core Strategy Consultation response December 2010]. Any additional capacity that might be released through that policy approach is probably best regarded as providing latent capacity which could assist in meeting demand arising out of the existing urban area.
- Considered in isolation, 990 to 1650 dwellings would yield between 1.16/1.98FE and 1.9/3.3FE respectively. There would therefore be a requirement for any strategic release to incorporate one no. 2fe primary school site at the bottom end of the scale, and two no. 2 FE primary school sites at the upper end of the scale. [Land take of 2.5 and 5 hectares respectively]. In their assessment of indicative dwelling capacities, The GBR assumes that 33 hectares (60%) of the sub-area would be developed for housing. The remaining 22 hectares of the site would provide supporting infrastructure, of which education is an identified use.
- If this sub-area is taken forward as an option for further development it would be important that the site should provide for itself in terms of primary capacity.
- Submitting evidence to inform the Core Strategy in 2011 and with reference to secondary education planning, HCC identified that it would be helpful if the Local Planning Authority could make education allocations in relation to land;

- At Site C : Land north west of St Albans Road, St Albans

- At Site D : Land south of House Lane, St Albans

- At Site K : Land south of Holyrood Crescent, St Albans

- At Site L : Land south of Butterfield Crescent, St Albans

Proximity to existing public open space and allotments

- The sub-area contains a number of playing fields and the school grounds of Beaumont Secondary School and Oaklands College. There are also a range of surrounding open spaces within 1km of the sub-area including Longacres to the southwest, Fleetville along Hatfield Road and the Wick Local Nature Reserve to the northwest.
 - Alban Way, a dismantled railway and Green Corridor, runs in an east to west direction approximately 600m to the south of the sub-area. It is a designated walking and cycling route between St Albans and Hatfield.
 - The nearest allotments are located to the southwest of the sub-area
- Two allotment sites on Camp Road, located 1.2km to the southwest of the sub-area – Camp has 76 plots and 11 on waiting list, whilst Camp1 has 44 plots and 19 on waiting list (as of 16 Aug 2013)
 - Sandridge Road Allotment Site lies 1.8km to the northwest of the sub-area – 183 plots and 53 on waiting list
 - Cunningham Allotment Site lies 1.8km to the southwest of the sub-area – 11 plots and 10 on waiting list
 - Shirley Road Allotment Site lies 2km to the west of the sub-area – 10 plots and 25 on waiting list

Proximity to existing neighbourhood/local centres as defined in the Local Plan Review 1994

- Fleetville Neighbourhood Centre lies 800m west of the sub-area
- Primary Shopping Frontage – 193-219 Hatfield Road & Co-op Supermarket
- Class A Frontage – 2 Clarence Road; 59-61 & 62-68 Stanhope Road; 39-101, 109-191, 223-227, 144-156, 180-226 & 248-258 Hatfield Road
- Local Shopping Facilities (Local Plan LC.10) along Hatfield Road – within 100m of sub-area
- The Quadrant, Marshalswick is capable of serving the northern side of the site.
- The sub-area is well served by local shopping facilities
(*key distances from Appendix 7; town (City) centre 3.3 km / local centre 1.3 km October 2014*)

Proximity to existing large supermarkets or superstores or potential to provide

- Morrison's Supermarket, Hatfield Road – 900m west of the sub-area
- Generally speaking residential development should be sited within 15m drive of a supermarket. Morrison's is relatively close to the sub-area

and there are existing local shopping facilities in the vicinity.

Proximity to existing medical facilities or potential to provide

- Dental Surgery, The Quadrant lies 500m to the northwest of the sub-area
- Ellerdale Dental Practice, Woodstock Road lies 900m to the west of the sub-area
- St Albans Dental Centre, Hatfield Road lies 1.6km to the west of the sub-area
- Highfield Surgery, Russet Drive lies 900m to the south of the sub-area
- Jersey Farm Dental Surgery, Saint Brelades Place lies 1km to the north of the sub-area

Proximity to existing leisure facilities or potential to provide

- Good general accessibility to city centre and education based leisure and sports facilities
- Alban Dance School sited immediately to south of sub-area
- Waterman Penny School of Dance sited 150m west of sub-area
- Tigers Shotokan (Family Martial Arts) sited 300m south of sub-area
- Fisher Outdoor Leisure sited 400m south of sub-area
- Mixed Martial Arts Centre sited 700m southwest of sub-area
- Charters Health Club sited 900m south of sub-area

Ability for proposed development to link in with existing footpath and cycleway network

- The Alban Way is a walking and cycling route. This route / green corridor runs from St Albans Abbey to Hatfield House, passing to the south of the sub-area at a distance of 300m.
- An unsurfaced cycle route runs along the west and south of the site along North Drive and South Drive. This unsurfaced route provides links to surfaced routes and pavement routes. The section of Hatfield Road immediately south of the sub-area has a designated on-road cycle lane.
- The sub-area, being adjacent to a cycle route that links to wider and more established routes, is suitably sited to allow development to link in with the existing cycleway network.

Potential to promote equity and added social inclusion

- Potential for delivering affordable housing in a well connected location, with good access to local shopping facilities, schools and public

transport.

Contribution of development to economic growth potential of the settlement / area

- The sub-area is in a well connected location, with good access to public transport and nearby schools/colleges and the university. The sub-area is suitably sited to offer access to a number of allocated employment areas, as set out above.
- Development would contribute to the local economy in terms of jobs during construction phases. Economic benefits would also arise from additional population working and spending in the local economy.

Ability of development to draw on the economic value of built or natural environment features

- No factors of relevance

Comments / Overall Conclusions:

The sub-area has an urban fringe character because of its current mix of land uses (part built education facilities and playing fields, part horticulture) and adjoins three urban edges meaning any development could be well integrated with the existing urban area.

The sub-area is very well related to the St Albans settlement and its existing facilities.

There are a number of employment areas in the vicinity and the sub-area benefits from very good access to primary and secondary schools.

The sub-area is well served by local shopping and medical facilities and is also close to a large food store. The wider area is well served by walking and particularly cycling routes, and there is potential to link the sub-area to this network.

These points justify a high evaluation score

7

Score: /10

(2) Settlement hierarchy

Main factors to consider:

Main urban settlements (excluded from the Green Belt): St Albans, Harpenden, London Colney

Other settlements excluded from Green Belt: Bricket Wood, Chiswell Green, How Wood, Park Street, Frogmore, Redbourn, Wheathampstead
 Green Belt settlements: Colney Heath, Folly Fields, Gustard Wood, Kinsbourne Green, Lea Valley Estate, Sandridge, Sleafshyde, Smallford
 Rest of Green Belt: Everywhere else

Comments / Overall Conclusions:

The sub-area is located in the Parish of Colney Heath, however, the sub-area would be developed as an urban extension of St Albans and is therefore very well related to St Albans, which is the main urban centre within the district.

This indicates a high evaluation score.

10

Score: /10

(3) Mixed-use development

Main factors to consider:

Employment

- Other than in relation to the development of Oaklands College *(see below) there is no potential for inclusion of employment development within the area
- Social infrastructure (including schools and community facilities)
- The development of this site will support funding of, and proceed in conjunction with, improvements to the facilities at the adjoining Oaklands FE College. This will increase economic and social activity in the area and provide an element of mixed use.
- There is potential for the expansion of Oakwood Primary School and Beaumont Secondary School to deal with the increase of students. Herts County Council has previously identified deficiencies in the Beaumont School playing fields and the lack of a sports hall and the need for additional science teaching accommodation. Planning permission has been granted on appeal (5/2009/2471) in order to resolve these deficiencies. Development of this land comprises up to a maximum of 75 dwellings including 2 and 2.5 storey dwellings), 5.7 ha sports pitches including a hard-surfaced area and all-weather pitch, 0.74 ha woodland, new school parking area, new classrooms and sports hall for the school and new vehicular access and access road from Hatfield Road to serve the school and the proposed residential development.

Public open space / sport and recreation

- Longacres Toddlers Play Area and Longacres Teenage Play Area are sited 200m to the south of the sub-area
- Newgate Close Toddlers Play Area is sited 200m to the north of the sub-area
- The Wick Children's Play Area is sited 600m from the northeast corner of the sub-area
- Fleetville Toddler's and Fleetville Teenage Play Area is sited 1km to the west of the sub-area
- Potential to improve Beaumont School playing fields and Verulam School playing fields

Retail

- The sub-area is not considered suitable for any substantial new retail development

Will the benefits of development be accessible to existing communities?

- The sub-area is well related to the existing urban area. There are opportunities to improve pedestrian access into the sub-area from surrounding residential areas, as well as opportunities to create further access to the existing cycle networks.

Comments / Overall Conclusions:

Although there are some potential improvements to the existing social and community infrastructure, particularly in the linked development of Oaklands College facilities adjoining the site, the housing development is not of a scale sufficient to offer opportunities for mixed use development (employment or retail). This indicates a mid to low evaluation score.

2

Score: /5

(4) Other matters

Main factors to consider:

Economic contribution of development

- Development of land in this area can support funding of significant improvements to Oaklands College – which is a key asset in economic development.

Economic value of environmental and heritage features

- Some elements of the Oaklands Estate have economic value for agriculture and agricultural education may be adversely affected by development.

Ability to improve quality of local environment through development – regeneration

- Parts of the existing Oaklands Estate are in need of repair and maintenance (buildings and landscape features) and development could support improvements

Physical constraints such as:

overhead power lines,
Pipelines,
Sterilisation of mineral reserves
Contaminated land
'un-neighbourly development'
topography/steep slopes
Agricultural land value grade

- No overhead power lines
- No major pipelines identified
- The land parcel is located within the Sand and Gravel Belt Mineral Consultation Area (which covers much of the south of the District). However, it is very unlikely that the land parcel would be considered suitable for mineral extraction, for a number of reasons including its size and close proximity to residential development
- No identified contaminated land
- Not in close proximity to un-neighbourly development, for example sources of noise or odour, such as sewerage treatment works or heavy industry or an Air Quality Management Area
- The sub-area is level with the adjacent southern edges, but considerably raised along the northern edge. It slopes gradually downwards to integrate with the surrounding eastern and western boundaries, at between approximately 75m above ordnance datum (AOD) and 100m AOD, and slopes from east to west. Adjacent land is at a comparable elevation, although a notable factor is the slightly steeper slopes where the land falls towards Sandpit Lane.
- The sub-area comprises built development and undeveloped land; the undeveloped land is agricultural land, used for arable crops and pasture, and is agricultural land quality Grade 2/3. Higher quality land is located immediately around Oaklands College and in the south of the sub-area, between Hatfield Road and East Drive/South Drive. *Further detailed information on agricultural land quality is becoming available as part of assessment of planning applications on the site. This indicates that there are significant areas of best and most versatile*

land. This has been taken into account as part of the overall evaluation which recognises the existence of grade 2 land (October 2014)

Comments / Overall Conclusions:

The development of the sub-area is not the subject of any significant physical constraints or other issues.

The future of this area is closely linked to the potential to develop Oaklands College and the gains this offers in terms of economic development and regeneration of the Oaklands Estate. This indicates a high evaluation score.

4

Score: /5

(5) Strategic infrastructure provision

Main factors to consider:

What opportunities are there to improve strategic infrastructure for the wider benefit of the District?

- There is a unique opportunity to support funding of the development of social and community facilities in the form of Oaklands College improvements
- Improving green infrastructure - potential to create footpaths/cycleways to connect to the Alban Way, a designated walking and cycling route between St Albans and Hatfield.
- Some potential for school expansions – extant Beaumont School planning permission

Comments / Overall Conclusions:

No major strategic infrastructure provision envisaged as the sub-area benefits from very good accessibility to existing public transport, schools and employment areas.

However scoring reflects the relationship with Oaklands College development as a positive factor.

There is some potential for improving green infrastructure in this sub-area and there is potential for expansion of the local schools.

A mid to high evaluation score is appropriate.

5

Score: /10

(6) Vehicular access and traffic impact

Main factors to consider:

Can suitable access to the site be achieved?

- Generally existing vehicular access to and within the sub-area is poor
- Oakwood Drive/Central Drive to the west of the sub-area are residential streets with frontage access and serve Oakwood Primary School and Beaumont Secondary School. Access to the wider sub-area from these roads will not be acceptable.
- HCC comments on emerging Core Strategy 2009, with specific reference to land at Beaumont School playing fields/Winches Farm Drive
'It is assumed that access to this site will be taken from a new signalised junction from the A1057 Hatfield Road to the east of Oakwood Drive. The junction has been previously assessed and approved in principle when submitted with a recent application to develop the smaller area of land within the same area of search'
- With reference to the northern part of the site, specifically land to the south of Sandpit Lane, HCC comments;
'a development of a scale up to 1000 homes will require major road and junction improvements. There are significant traffic implications associated with the proposal and the introduction of any sections of a link road between London Road, Hatfield Road and Sandpit Lane'
- A development in the order of 1000 homes will require a sustainable transport strategy
- There is an existing access to the sub-area at the northwest corner of the site, whereby Verulam School playing fields are currently accessed. This is a relatively narrow access, however, and in its current form would be unsuitable for the ingress/egress of large vehicles.

Degree of impact upon road network and potential for measures to mitigate the impact

- Large scale residential development of the sub-area will require investment in new road infrastructure. This will need to address both residential development and the expansion of the College. It is likely that South Drive or a similar line of access would be the most favourable route for a main vehicular access. South Drive is accessed via Hatfield Road, a busy main distributor road. This is a single carriageway road of varying width from 7.5m to 8.5 m near the college access and linking A1(M) and A414 to St Albans City Centre. The speed limit varies from 40mph from Comet Roundabout and passing the college area the speed is at 30mph. Thereafter passing through Ashley Road double mini roundabout, Fleetville, St Albans City Railway Station and to St Albans Town Centre at 30mph. There are two other minor access points at North Drive PROW (Colney Heath 003) and East Drive PROW (Colney Heath 004). East Drive was primarily pedestrian/cyclist route but was used as a vehicular access to the properties in East Drive. It is likely that a second point of access to Sandpit Lane would be needed as part of a new access strategy.

Comments / Overall Conclusions:

There is generally poor existing vehicular access to and within the sub-area. Some transport / road investment would be needed to allow residential

development and College expansion. No insurmountable problems are envisaged.

There is good overall access to the strategic road network (A 414, M25, M1, A1(M) without a requirement to route through towns.

This indicates a mid level evaluation score.

7

Score: /10

(7) Public transport

Main factors to consider:

Distance to train station including assessment of frequency of service

- St Albans City train station is located 2km to the west of the sub-area. This station provides regular services along the First Capital Connect line to London (St Pancras International within 20 minutes at peak times), and between Luton and Bedford to Brighton. St Albans Abbey train station is located 3.3km to the southwest of the sub-area, which provides London Midland a service to Watford Junction every 45 minutes. Watford Junction provides regular London Midland and Virgin train services to London Euston and the north.
(key distance from Appendix 7; railway station 3.0 km - October 2014)

Distance to a bus route including assessment of frequency of service

- There are a number of bus services which run near to the sub-area. Bus service provision (routes and frequency) to the south of the sub-area is very good. However, the area to the north along Sandpit Lane is not served well by bus services. Immediately to the north, bus route 653 runs along Sandpit Lane providing connections to St Albans town centre and Welwyn Garden City. Approximately 300m to the south of the sub-area, bus routes 300, 301, 304, 305, 330, 601, 657, 658, 724 and 725 run along Hatfield Road. These services provide connections to St Albans town centre but also to Stevenage, Hemel Hempstead, Hitchin, Welham Green, Hatfield, Watford, Redbourn, London Colney, Harlow and Heathrow Airport.
- 300, 301 – Stevenage – Welwyn Garden City – Hatfield – St Albans – Hemel Hempstead
- 304, 305 – Welham Green – St Albans/Hitchin
- 330 – St Albans – Hatfield – Welwyn Garden City
- 601 – St Albans – Hatfield – Welwyn Garden City
- 657 – Redbourn/Wheathampstead – St Albans/Hatfield

- 658 – Borehamwood – Shenley – London Colney – St Albans – Hatfield
- 724,725 – Harlow – Hertford – Hatfield – St Albans – Watford – Uxbridge – Heathrow

Potential for new or improved bus services

- Some opportunity for adjustment, but limited due to the scale of development involved

Comments / Overall Conclusions:

Hatfield Road, lying immediately to the south of the sub-area, is a key transport route which provides access to the west into St Albans town centre and beyond, as well as providing a direct route out of the district to the east towards the A1(M), to Hatfield and Welwyn Garden City.

The sub-area benefits from very good access to the public transport, which provides connections to key locations in the district and to other major settlements in wider Hertfordshire and beyond. The sub-area is very well served by bus routes which provide regular services to the main railway station. Improvements to the public transport network would not be required. The sub-area therefore scores highly in terms of public transport.

4

Score: /5

(8) Urban Design

Main factors to consider:

Can connections be made with any existing development so that ease of movement is good and social cohesion between new and existing development is facilitated?

- The sub-area, particularly the area around Beaumont School, benefits from good connections to the existing neighbourhoods. This creates an opportunity for integration and social cohesion.

Can a positive interface between fronts and backs of existing development be achieved?

- Beyond the west boundary of the sub-area lies the residential development of Oakwood Drive and Hazelwood Drive. The rear of these properties face onto the west of the sub-area and there are opportunities for connectivity.

Can development of the site have a positive relationship with existing adjacent land uses?

- With the exception of the eastern boundary to North Drive, the existing adjacent land uses are residential and therefore would be compatible.

Comments / Overall Conclusions:

The sub-area shares three urban edges, bordering residential development, and there are opportunities to create positive interfaces and good social cohesion with the existing development. There is potential to integrate new and existing development and the college provides a good urban design opportunity. This suggests a high evaluation score.

4

Score: /5

(9) Environmental constraints

Main factors to consider:

Environment Agency Flood Zones 2 and 3 and Strategic Flood Risk Assessment (SFRA) results

- Not been identified as being at risk of flooding.

Proximity to Sites of Special Scientific Interest (SSSI)

- The sub-area is not in close proximity to any SSSIs

Proximity to Local Nature Reserve or Local Wildlife Site

- The Wick Local Nature Reserve is sited 600m from the northeast corner of the sub-area, however, the sub-area would have no adverse impact on the Nature Reserve.

Proximity to Ancient Semi-Natural Woodland

- Home Wood is ancient woodland and a local wildlife site which is adjacent to the sub-area

Would development harm any trees protected by Tree Preservation Orders or other important trees?

- Northwest section of the sub-area is covered by an area TPO, which also covers the adjacent Oaklands College site.

Will there be an adverse impact on a protected habitat or species?

- Native hedgerow boundaries are abundant. Any new access created off Hatfield Road would require the removal of a hedgerow.

Comments / Overall Conclusions:

Although some limitations exist, for example TPOs, nearby ancient woodland and native hedgerows, the sub-area is not the subject of any significant environmental constraints. There are no environmental 'showstoppers' and this justifies a mid to high level evaluation score.

(10) Landscape quality / surrounding area characteristics

Main factors to consider:

Landscape Character Assessment (LCA) condition and sensitivity (based on analysis in Green Belt Review 2014)

- The sub-area lies within the De Havilland landscape character area (Hertfordshire Landscape Character Assessment, Hertfordshire County Council 2000-2005). Within the sub-area there is a mix of mineral extraction, development and Oaklands College. This creates what is described as a disjointed and mixed character.
- The surrounding urban edges, to the south, west and north of the sub-area, are strong and clearly defined by the adjacent residential development and road network. Much of the landscape has been modified and field boundaries have been lost. There are some features that relate to a previous historic landscape, but these are dispersed throughout the sub-area and little coherence or legibility remains as the historic character has been eroded by incremental development and change and, in some places, dereliction, for example the former lodge on East Drive.
- Beaumont School playing fields possesses native hedgerow boundaries with remnant ancient oak/hornbeam woodland to the east.
- Key landscape features that make a valuable contribution are the remnants of the historic estate landscape, the field pattern where it remains more intact (e.g. around Oaklands College) and pockets of established/mature woodland (e.g. Home Wood). It is important that any future development recognises the value of these key features of the sub-area and also maintains a degree of connection between them whilst minimising fragmentation.
- Overall the landscape is in fair condition and has medium sensitivity to change.
- However sensitivity to change varies throughout the sub-area. The western part is of lowest sensitivity as it is influenced by the strong adjacent urban edge and erosion of field pattern. The rising ground, and the relationship this has with residential properties to the north of Sandpit Lane, is a potential constraint and is likely to be an important consideration in respect of development.

Historic Landscape Characterisation information in relation to site

- The remnants of the former estate landscape add some positive historic character (tree lined drive and south drive entrance).
- To the south the enclosure pattern has been altered, either following or as a result of extraction and restoration, although some of the mineral sites have been successfully restored to arable. Field sizes are irregular and large to very large in size.
- The land at Beaumont School, to the southwest of the site, comprises ancient settled farmland with remnants of Ancient Winches Wood.

Landscape Institute Guidelines for Landscape and Visual Impact Analysis

- The Beaumont School Site is visually contained and slopes from west to east. Only distant views of poplars and woodland are gained.

- The most visually open landscapes are towards the north and east, associated with larger fields and where some traditional boundaries have been removed. Smaller scale spaces are found around Oaklands College and in the western part of the sub-area. The more enclosed landscape is created by established hedgerows and areas of woodland e.g. Home Wood to the southwest of the College. The falling land towards Sandpit Lane also creates a sense of enclosure and smaller scale landscape at the local level.
- The existing settlement edges of St Albans have a strong and clearly defined form, with the urban edges typically comprising quite rigid lines extending along the primary and local road network. These edges create a sense of enclosure and provide a major urban influence (both in physical and visual terms) on the character of the adjacent landscape with the sub-area. The level of containment provided by St Albans settlement edge is high, and the presence of built development at Oaklands College interrupts the landscape and connection with the wider countryside.

Comments / Overall Conclusions:

Any built development will of course affect the openness and character of the landscape, however, in terms of the visual and landscape impact, the sub-area is of relatively low sensitivity. The potential visual effects of new development would be at a local level, mainly the existing surrounding residents, and would not be highly visible from broader locations. Areas of woodland and hedgerows would provide some level of visual containment. This justifies a mid to high level evaluation score.

7

Score: /10

(11) Heritage / archaeology potential

Main factors to consider:

Proximity to Conservation Area and impact upon setting

- No Conservation Areas in the proximity of the site and therefore no impact.

Proximity to Listed Buildings and impact upon setting

- Winches Farm and The Lodge on Kay Walk, Grade II Listed, lie just outside the boundary of the sub-area. Modern residential development has been built to the east of the Listed Buildings, whilst the setting is well protected by existing vegetation to the west which separates them from the sub-area.

Proximity to Scheduled Ancient Monuments and impact upon setting

- The sub-area is not in close proximity to any Scheduled Ancient Monuments

Proximity to Historic Parks & Gardens and impact upon setting

- No Historic Parks & Gardens in the vicinity. There is some remnant estate / parkland interest in the landscape and this should be taken into account in planning any development

Presence of archaeological sites for local preservation (Local Plan Review 1994 Policy 110)

- The sub-area is not located in a nationally or locally designated archaeological area. Previous archaeological work on surrounding nearby sites, including at the Hatfield Aerodrome (Hatfield Business Park), have produced positive results including artefact scatters and ditches. These findings suggest that there may be some archaeological interest in the sub-area.

Comments / Overall Conclusions:

Although Grade II Listed Buildings are in close proximity, the residential development of the sub-area would have limited impact on their setting and character, when taking into account the modern residential development that currently surrounds these assets. The sub-area is not subject to any significant heritage or archaeological constraint. In terms of heritage and archaeology potential, a high evaluation score is appropriate.

5

Score: /5

(12) Opportunities for sustainable energy production

Main factors to consider:

- Site location in relation to District Heating Opportunity Areas
- The sub-area is not located in a District Heating Opportunity Area and its scale will not be sufficient to support district heating
- Site location in relation to Wind Turbine Opportunity Areas
- The sub-area is located within a Wind Opportunity Area, however, potential to deliver wind turbines in the context of a residential development is very limited given proximity to roads, potential new development and land availability.
- Other sustainable energy production opportunities identified
- Proximity to the Oaklands college development may provide some opportunities for renewable energy (e.g experimental schemes; solar installations on roofs or as part of farming / horticultural uses or energy from waste) that would not arise from residential development alone. Potential to incorporate small-scale renewable energy systems as part of the development, for example solar, biomass heating, ground source heat pumps.

Comments / Overall Conclusions:

The sub area may have some limited opportunities to deliver renewable energy production due to its scale and proximity to the College and related

agricultural activity. This suggests a mid level evaluation score.

2

Score: /5

S4: North of St Albans

Assessment Matrix – Summary of Evaluation Results

THEME	ECONOMIC				SOCIAL				ENVIRONMENTAL			
	1 - Sustainable Location	2 - Settlement hierarchy	3 - Mixed-use development	4 - Other Matters	5 - Strategic infrastructure provision	6 - Vehicular access and traffic impact	7 - Public transport	8 - Urban Design	9 - Environmental constraints	10 - Landscape quality / surrounding area	11 - Heritage / archaeology potential	12 - Opportunities for sustainable energy production
S4	7	10	0	3	0	2	4	3	7	6	5	0

Total score: **47**

(Rank: **5**)

Note: Independent Green Belt Review Site Ranking **4=**

Assessment of sustainable development principles

(1) Sustainable location

Main factors to consider:

Would the site be well related to existing settlements or an isolated form of development?

- Two urban edge relationships exist; Porters Wood / Soothouse Spring Employment Area to the southeast and Harpenden Road to the southwest. The sub-area is fairly well related to existing development at this northern edge of St Albans; but the relationship with the surrounding road layout and the employment area would require careful thought in terms of master planning of development.

Proximity to existing employment opportunities or potential to provide such opportunities

- The sub-area lies in close proximity to employment areas (District Local Plan Review Policy 20), of which the normally acceptable uses are B1 (Offices) and B2 (General Industrial).
 - EMP 8 – Porters Wood/Soothouse Spring – B1 and B2 uses – immediately to the southeast of the sub-area
 - EMP 9 – Council depot and adjoining land, St Albans Road, Sandridge – B1 and B2 uses – 500m southeast of the sub-area

Proximity to existing schools, consideration of capacity and potential to meet increased demand and consideration of capacity

There are many existing schools in the vicinity of the sub area. Distances are given for those closest to the site.

Analysis is based on HCC “Meeting the Rising Demand for School Places” (2012/2013), HCC consultation response to SACDC Core Strategy 2010, HCC consultation response to DBC Pre-submission Core Strategy 2011 and HCC Service Position Update June 2014

- St Albans Girls Secondary School immediately to the south of the sub-area
- Townsend Church of England School 500m to the west of the sub-area
- Sandringham Secondary School 1.3km to the southeast of the sub-area
- Margaret Wix Primary School 600m to the west of the sub-area - school currently has some capacity for expansion
- Bernard’s Heath Junior School 700m to the south of the sub-area

- Garden Fields JMI School 1km to southwest of the sub-area – plans by HCC to expand the school to create further capacity
- Wheatfields Infant and Junior School 1km to the east of the sub-area
- Skyswood JMI School 1.6km to the southeast of the sub-area
- St John Fisher Catholic Primary School 1.7km to the southeast of the sub-area

(key distances from Appendix 7; nearest primary 1.2 km / nearest secondary 1.4 km - October 2014)

- Heathlands School for Deaf Children – Nursery, Primary, Secondary, Provision, Day & Residential – 1km to the south of the sub-area
- The range in the GBR housing capacity assessment given for the land is between 684 and 1140, which equates to a primary yield of between 0.8/1.36FE and 1.34/2.28FE. At this scale of development it would be appropriate to provide a new 2 FE primary school on a 2.5 ha site at the lower end of the scale and a 2 FE school on a site capable of expanding to 3 FE, (a 3 ha site) if housing at the upper end of the scale is achieved.
- Of the 38 hectares contained in this sub-area, 23 hectares would potentially be released to provide housing land, and the remaining 15 hectares would support infrastructure, including education land.
- Submitting evidence to inform the Core Strategy in 2011 and with reference to secondary education planning, HCC identified that it would be helpful if the Local Planning Authority could make education allocations in St Albans
- Careful consideration of further secondary school planning would be required taking account of overall levels of development in St Albans.need to be taken into account should sites S3 and S4 be considered for potential Green Belt release

Proximity to existing public open space and allotments

- Playing fields at St Albans Girls' School and Townsend Church of England School
- Woollams Playing Fields to north of sub-area
- There are a range of public open spaces within 1km of the sub-area. These include Jersey Farm Woodland Park to the east, Ellis Fields, Bernard's Heath and Beech Bottom Dyke to the south, and New Greens Avenue, Heartwood Forest and William Bird to the west.
- Sandridge Road Allotment Site 900m to the south of the sub-area – 183 plots and 53 on waiting list
- Marshall Avenue Allotment Site – 1.5km southeast of sub-area
- Folly Lane Allotment Site 2km southwest of the sub-area – 80 plots and 89 on waiting list

Proximity to existing neighbourhood/local centres as defined in the Local Plan Review 1994

- Local Centre (2-26 High oaks) – sited 500m west of sub-area - Co-op store
- Local Centre 6 (2-36 Beech Road) – sited 700m south of sub-area

- High Oaks New Greens lies 0.5km to the west
- The Quadrant Neighbourhood Centre, Marshalswick, lies 1.5km southeast of the sub-area

- Primary Shopping Frontage – 11-51 The Quadrant

- Class A Frontage – 1-10 & 53-72 The Quadrant; 1-9 Wycombe Place

(key distances from Appendix 7; town (City) centre 2.4 km / nearest local centre 0.9 km - October 2014)

Proximity to existing large supermarkets or superstores or potential to provide

- Morrison's, Hatfield Road is sited 2.5km to the southeast of the sub-area
- Iceland Food Store is sited 2.5km to the south of the sub-area
- Tesco and M&S in St Albans City centre – 2.2km south of sub-area
- LDF 2009 Emerging Core Strategy identified FS3 (Harpenden Road) as one of two potentially suitable sites north of the city centre
- Area of Search 7 of the 2009 LDF consultation document states that the site was identified as having potential to provide a food superstore to serve North St Albans. However it was finally concluded that;

“This out-of-centre site is not a good foodstore location (in terms of town centre impact and road access...., but it is well placed for the currently poorly served north of the City”

Proximity to existing medical facilities or potential to provide

- St Albans City Hospital lies 1.6km to southwest of the sub-area – The Lodge Surgery immediately to the east of the Hospital
- High Oaks Dental Surgery lies 500m west of the sub-area
- The Quadrant Dental Centre lies 1.7km southeast of the sub-area

Proximity to existing leisure facilities or potential to provide

- Good general accessibility to city centre and education based leisure and sports facilities
- Westminster Lodge, St Albans – 3.2km
- St Albans School of Dance sited immediately to west of sub-area
- St Albans Gymnastics Club sited immediately to south of sub-area
- St Albans Top Hat Stage and Screen School sited immediately to south of sub-area
- OA Health & Fitness sited immediately west of sub-area
- Anahata Yoga & Pilates sited 400m southeast of sub-area

- Jado Kuin Do Martial Arts sited 400m southeast of sub-area
- Health Performance Centre sited 400m southeast of sub-area
- The Fit Lab sited 400m southeast of sub-area
- DJ's Jungle Adventure sited 400m southeast of sub-area
- St Albans Hockey Centre sited 700m south of sub-area
- Pioneer Skate Park sited 1km south of sub-area
- Batchwood Sports Centre - Golf and Tennis Centre sited 1.5km southwest of sub-area
- Woollams Playing Field for rugby union, cricket, tennis, hockey and gym – adjacent to sub-area
- William Bird Playing Field for football – 0.8km west of sub-area
- St Albans Boxing Club – 1km west of sub-area
- Riding School on Sandridgebury Lane – 800m northeast of sub-area

Ability for proposed development to link in with existing footpath and cycleway network

- The sub-area is sited to the east of a pavement cycle route along Harpenden Road (A1081) which extends northwards to Harpenden.
- Sandridgebury Lane is a popular cycling route suggested by local cyclists that extends to other routes
- A footpath is located within the sub-area, connecting Sandridgebury Lane to Valley Road
- Limited potential to link in with existing network due to few rights of way or cycleways in close proximity to the land parcel.

Potential to promote equity and added social inclusion

- Potential for delivering affordable housing in a sustainable and well connected location, with good access to local schools and employment.

Contribution of development to economic growth potential of the settlement / area

- Development would contribute to the local economy in terms of jobs during construction phases. Economic benefits would also arise from additional population working and spending in the local economy.

Ability of development to draw on the economic value of built or natural environment features

- The sub-area does not benefit from significant built or natural environment features.

Comments / Overall Conclusions:

The sub-area relates well to the existing settlement. It has good access to local employment opportunities and a number of schools. There are numerous and varied leisure facilities in the vicinity, however, access to medical and shopping facilities are rather more limited. A high evaluation score results.

7

Score: /10

(2) Settlement hierarchy

Main factors to consider:

Main urban settlements (excluded from the Green Belt): St Albans, Harpenden, London Colney
Other settlements excluded from Green Belt: Bricket Wood, Chiswell Green, How Wood, Park Street, Frogmore, Redbourn, Wheathampstead
Green Belt settlements: Colney Heath, Folly Fields, Gustard Wood, Kinsbourne Green, Lea Valley Estate, Sandridge, Sleafshyde, Smallford
Rest of Green Belt: Everywhere else

Comments / Overall Conclusions:

The sub-area is well related to the St Albans settlement, which is the main urban centre within the district. This dictates a high evaluation score.

10

Score: /10

(3) Mixed-use development

Main factors to consider:

Employment

- The sub-area is likely to be considered only for residential use. There is an existing allocated employment site immediately to the southeast of the sub-area at Porter's Wood / Soothouse Spring.
- Opportunities are constrained by local access and relatively poor links to the strategic road network.

Social infrastructure (including schools and community facilities)

- There may be potential for the expansion of St Albans Girls School and the improvement of facilities/playing fields for students and the local population. The landowner has previously been in discussions with St Albans Girls School regarding the potential provision of improved playing facilities as part of a development scheme (for a section of the sub area)

Public open space / sport and recreation

- William Bird playing fields, Woollams playing field, St Albans Girls' School and Townsend School playing fields, New Greens Avenue, Blundell Close, Francis Avenue, Beech Bottom Dyke and Valley Road Open Spaces all in fairly close proximity to the site.
- Batchwood Sports Centre offers a range of sporting facilities
- Heartwood Forest
- Toulmin Drive Toddler's & Children's Play Area lies 900m southwest of the sub-area
- Sandringham Crescent Children's Play Area lies 900m east of the sub-area
- Field Close Children's Play Area lies 900m east of the sub-area
- The scale of development may be sufficient to justify some strategic open space provision to complement existing

Retail

- LDF 2009 Emerging Core Strategy identified FS3 (Harpenden Road) as one of two potentially suitable sites north of the city centre, but this option was later rejected – see above.

Will the benefits of development be accessible to existing communities?

- The sub-area is well related to the existing urban area of St Albans

Comments / Overall Conclusions:

There is little scope for mixed use in this sub area. Though this sub area is sizable, the nature of the site and its relationship with the existing settlement and its facilities and access issues make mixed use unlikely. A low evaluation score is therefore appropriate. .

0

Score: /5

(4) Other matters

Main factors to consider:

Economic contribution of development

The site is only suitable for residential development. There is no special economic contribution

Economic value of environmental and heritage features

- The sub-area possesses some environmental significance in the form of a Local Wildlife Site and Ancient Woodland. Whilst these are important environmental features, they have little economic value and therefore the residential development of the sub-area would not have an adverse impact.

Ability to improve quality of local environment through development – regeneration

- No regeneration issues

Physical constraints such as:

overhead power lines,
Pipelines,
Sterilisation of mineral reserves
Contaminated land
'un-neighbourly development'
topography/steep slopes
Agricultural land value grade

- No overhead power lines
- No major pipelines identified
- No mineral protection areas identified
- No contaminated land identified
- No issues of un-neighbourly development such as noise or odour, such as sewerage treatment works or heavy industry or an Air Quality Management Area
- No site issues relating to steep slopes or topographical issues
- The topography of the sub-area, compared to the land to the immediate north, is fairly low-lying and gently-sloping. The levels fall gently from

125m above ordnance datum (AOD) at the Woollam playing fields to 105m AOD at the south of Sandridgebury Lane.

- A railway line contains the eastern edge of the sub-area
- Agricultural land quality is Grade 3
- The landform, railway embankment and northern edge of St Albans would help contain the development of the sub-area. The northern edge of the sub-area is currently the least definitive boundary; part of it comprises a continuous hedgerow and the entire length of this proposed edge has been planted with young trees which, in time, should create a more definitive boundary.

Comments / Overall Conclusions:

There are no special factors to take account of. However, the development of the sub-area is not the subject of any significant physical constraints and this suggests a mid level evaluation score.

3

Score: /5

(5) Strategic infrastructure provision

Main factors to consider:

What opportunities are there to improve strategic infrastructure for the wider benefit of the District?

- No significant strategic infrastructure provision is required or deliverable through this scale of development
- Any infrastructure will be at a small, localised scale (e.g. on site open space / transport)
- Whilst there is some potential to improve infrastructure within the immediate vicinity of the site (particularly road system), this is not likely to extend to providing benefits for the wider district

Comments / Overall Conclusions:

The sub-area will not deliver improved strategic infrastructure for the wider benefit of the district and this results in a low evaluation score.

0

Score: /10

(6) Vehicular access and traffic impact

Main factors to consider:

Can suitable access to the site be achieved?

- Sandridgebury Lane cuts through the sub-area from southwest to northeast, providing access to the wider sub-area. However, vehicular access

from Sandridgebury Lane is unlikely to be unsuitable.

- The southwest section of the sub-area has been the subject of several planning applications and appeals in recent years. The previous proposals have comprised a relatively small area of residential development, with demolition of one dwelling allowing direct access from the A1081 Harpenden Road. The A1081 Luton Road forms part of the county's primary distributor network. Junctions in the vicinity of the site are under stress and these proposals include some improvements to the Ancient Briton junction.
- A larger scale development in the sub area raises some significant issues as existing approach routes (Sandridgebury Lane / Valley Road) offer little scope for improvement. Further traffic loads on surrounding constrained road junctions (Ancient Briton and King William IV) will also need consideration.

Responding to the 2009 Emerging Core Strategy Consultation, HCC commented;

- 'The County Council's 'Tackling Congestion in Hertfordshire' document identifies this section of the A1081 as a congestion hotspot. The introduction of a development consisting of 1,000 dwellings will generate in the region of 500 additional vehicle movements in the morning peak period. Without any additional measures to ease the existing congestion any additional traffic is likely to make the situation worse.
- It is likely that significant road access works will be required. There is potential for access to be created via the existing road that services the Woollams playing field, to the northwest of the sub-area. However some rearrangement of land uses would be required to facilitate this.

Comments / Overall Conclusions:

The potential scale of development in the sub area will necessitate significant investment in road access improvements. There are a number of potentially difficult problems to solve in relation to both immediate road access and surrounding junction capacity constraints. This results in a low evaluation score.

2

Score: /10

(7) Public transport

Main factors to consider:

Distance to train station including assessment of frequency of service

- St Albans City railway station is located 2.3km to the south of the sub-area. This station offers regular services This station provides regular services along the First Capital Connect line to London (St Pancras International within 20 minutes at peak times), and between Luton and Bedford to Brighton.
- St Albans Abbey train station is located 3.3km to the south of the sub-area, which provides London Midland a service to Watford Junction every 45 minutes. Watford Junction provides regular London Midland and Virgin train services to London Euston and the north.

(key distance from Appendix 7; railway station 3.2 km - October 2014)

- Bus route 321 runs from Harpenden in the north to Chiswell Green in the southwest, passing approximately 400m to the west of the sub-area along Harpenden Road. This service passes through St Albans town centre but does not offer a direct service to St Albans railway station. Bus routes 3004 and 620 run along St Albans Road and Sandridge Road, approximately 800m to the south of the sub-area, providing services between Sandridge and St Albans City centre. Bus services to Hatfield and Hemel Hempstead are also available from St Albans City centre.
- Bus route 653 (UNO) runs from New Greens to Welwyn Garden City via the city station on weekdays, and from New Greens to Jersey Farm via the city station at weekend and bank holidays. The route passes approximately 300m to the west of the sub-area, generally running every 20 minutes, and every 15 minutes at peak times.

Distance to a bus route including assessment of frequency of service

- There are numerous stops along Harpenden Road in the vicinity of the sub-area that offer services north towards Harpenden and south to St Albans City centre. Frequency is reasonable (see above).

Potential for new or improved bus services

- Harpenden Road is the main distributor road in the vicinity of the sub-area, which already offers service between Harpenden and St Albans City centre. It is not envisaged that further services would be necessary, but frequency improvements may be feasible.

Comments / Overall Conclusions:

The sub area is well located in terms of access to a wide range of existing public transport. Overall improvements are most likely to be feasible in a main settlement. This results in a high evaluation score.

4

Score: /5

(8) Urban Design

Main factors to consider:

Can connections be made with any existing development so that ease of movement is good and social cohesion between new and existing development is facilitated?

- The sub-area shares two urban edges with St Albans; along the southwest, south and southeast edges are residential development along Harpenden Road, St Albans Girls School playing fields and Porter's Wood / Soothouse Spring Employment Area. The sub-area is contained to the east by the railway embankment. Highway constraints (noted above) are likely to mean the road network for any development would create a

self contained development area. However there are generally good opportunities for foot and cycle connections with the existing urban area.

Can a positive interface between fronts and backs of existing development be achieved?

- Beyond the southwest boundary of the sub-area lies the residential development of Harpenden Road. The rear of these properties back onto the west of the sub-area and this limits opportunities for connectivity.
- There are greater opportunities for connection via Valley Road / Sandridgebury lane using the established road pattern
- The sub-area is separated from the Employment Area to the southeast by the presence of mature trees and vegetation, which is covered by a Tree Preservation Order.

Can development of the site have a positive relationship with existing adjacent land uses?

- Whilst there are two allocated Employment Sites in the vicinity, with one immediately to the southeast of the sub-area, they are set within a wider context of residential development. To the west of the sub-area the land use is predominantly residential.
- To the south of the sub-area lies St Albans Girls School and playing fields.
- The residential development of the site would therefore have a positive relationship with the adjacent land uses. The land use relationship with the employment area would need specific design attention, with a screening buffer.

Comments / Overall Conclusions:

The sub-area shares two urban edges and generally relate well to the existing urban area and there are good opportunities for urban design integration and connecting routes. The scale of development envisaged and the limited capacity of the surrounding road network suggest a need to plan a residential area that is relatively self contained in terms of road access. The appropriate evaluation score is mid level.

3

Score: /5

(9) Environmental constraints

Main factors to consider:

Environment Agency Flood Zones 2 and 3 and Strategic Flood Risk Assessment (SFRA) results

- None.

Proximity to Sites of Special Scientific Interest (SSSI)

- The sub-area is not in close proximity to any SSSIs

Proximity to Local Nature Reserve or Local Wildlife Site

- Local Wildlife Site 68/004 Long Spring and Soothouse Wood (also Ancient Woodland Inventory site) is located within the sub-area, on the southeast perimeter. Local Wildlife Site 68/005 Beech Bottom Dyke is sited 300m further south.

Proximity to Ancient Semi-Natural Woodland

- Long Spring and Soothouse Wood is an Ancient Woodland Inventory site.

Would development harm any trees protected by Tree Preservation Orders or other important trees?

- The trees lining the southeast boundary of the sub-area are the subject of a TPO. The residential development of this section of the sub-area would have to consider the possible impact of these protected trees.

Will there be an adverse impact on a protected habitat or species?

- None identified

Comments / Overall Conclusions:

Although some limitations exist, for example TPOs, nearby ancient woodland and native hedgerows, the sub-area is not the subject of any significant environmental constraints. These features create opportunities for habitat creation in new open space and provide attractive physical attributes around which to create a high quality residential environment. A mid to high evaluation score results.

7

Score: /10

(10) Landscape quality / surrounding area characteristics

Main factors to consider:

Landscape Character Assessment (LCA) condition and sensitivity

- The sub-area lies within the Ayre's End Valleys and Ridges landscape character area (Hertfordshire Landscape Character Assessment, HCC 2000-2005). The condition and robustness are assessed as being 'moderate'. The recommendation in the above Assessment for this area is to improve and conserve the landscape.
- The sub-area primarily comprises agricultural land uses, predominantly arable crops.
- Although there is limited tree cover within the sub-area, there exists mature vegetation and trees, some of which are protected.

- The strip of woodland adjacent to the Employment Area is protected by a TPO and provides visual separation from the urban edge.
- Surrounding urban edges are relatively contained due to the presence of vegetation.
- The sub-area benefits from relatively high levels of enclosure, which is influenced by a combination of the landform, surrounding tree cover and railway embankment. Views into the sub-area are therefore relatively restricted.
- The sub-area has a relatively low sensitivity compared to that of the wider area to the north. (which has an elevated position and is part of an attractive area of countryside. The sub-area itself is contained by the landform, railway embankment and the urban edge of St Albans.
- The residential development of the sub-area would be apparent from footpath 96 that runs along the edge of Long Spring Wood to the east, from the railway line embankment and from occasional gaps in the adjacent country lanes. This is an attractive countryside area, the Woolams playing fields to the north form a substantial predominantly green development into the open countryside, but the northern edge of St Albans is currently well screened by the existing landform and woodland, maintaining an attractive area of open countryside between St Albans and Harpenden.
- The recently planted vegetation on the northern perimeter of the sub-area will, as it matures, form a clear edge to the sub-area.

Historic Landscape Characterisation information in relation to site

- The field pattern that remains is quite intact with continuous hedgerows and frequent hedgerow trees in places. There is evidence of local landscape enhancement, for example the new area of tree planting either side of the lane that extends north from Sandridgebury Lane.
- The fields of the sub-area are relatively large and regular.

Landscape Institute Guidelines for Landscape and Visual Impact Analysis

- Principles applied to analysis above

Comments / Overall Conclusions:

Any built development will affect the openness and character of the landscape. It is important to note that the area retains a strong countryside character. However, in terms of the visual and landscape impact, the sub-area is of relatively low sensitivity. The potential visual effects of new development would be at a local level, mainly the existing surrounding residents, and would not be highly visible from broader locations. Areas of woodland and hedgerows would provide some level of visual containment and could be enhanced. The evaluation score is therefore mid level..

6

Score: /10

(11) Heritage / archaeology potential

Main factors to consider:

Proximity to Conservation Area and impact upon setting

- Childwickbury CA lies 500m to the northwest of the sub-area and St Albans CA lies 1.5 km to the south.
- The residential development of the sub-area would have no impact on the setting of these CAs.

Proximity to Listed Buildings and impact upon setting

- No Listed or Locally Listed Buildings in the vicinity.

Proximity to Scheduled Ancient Monuments and impact upon setting

- Two Scheduled Ancient Monuments are located near the sub-area, however, the development of the sub-area would not impact upon their setting;
 - the moated manorial site of Batch Wood is sited 800m to the west of the sub-area
 - Beech Bottom Entrenchment runs in a north-easterly direction, located 400m to the south of the sub-area

Proximity to Historic Parks & Gardens and impact upon setting

- No Historic Parks & Gardens in the vicinity - no impact
- The closest are Gorhambury and Lord Bacon's Mount – no impact

Presence of archaeological sites for local preservation (Local Plan Review 1994 Policy 110)

- The sub-area is not located in a nationally or locally designated archaeological area.
- Land adjacent to Batch Wood moated manorial site, located 800m to the west of the sub-area, is an archaeological site for local preservation.

Comments / Overall Conclusions:

There are no significant heritage or archaeological features that would be adversely affected by the residential development of the sub-area. A high evaluation score is appropriate.

5

Score: /5

(12) Opportunities for sustainable energy production

Main factors to consider:

Site location in relation to District Heating Opportunity Areas

- The sub-area is not located in a District Heating Opportunity Area

Site location in relation to Wind Turbine Opportunity Areas

- The sub-area is located within a Wind Opportunity Area, however, potential to deliver wind turbines may be limited given proximity to roads, potential new residential development and land availability.

Other sustainable energy production opportunities identified

- Potential to incorporate small-scale renewable energy systems as part of the development, for example solar, biomass heating, ground source heat pumps.

Comments / Overall Conclusions:

There are no special opportunities for renewable energy due to the scale of development possible. This results in a low evaluation score.

0

Score: /5

S5: NW Harpenden

Assessment Matrix – Summary Evaluation Results

THEME	ECONOMIC						SOCIAL						ENVIRONMENTAL											
	1 - Sustainable Location		2 - Settlement hierarchy		3 - Mixed-use development		4 - Other Matters		5 - Strategic infrastructure provision		6 - Vehicular access and traffic impact		7 - Public transport		8 - Urban Design		9 - Environmental constraints		10 - Landscape quality / surrounding area		11 - Heritage / archaeology potential		12 - Opportunities for sustainable energy production	
S5	8		9		0		3		0		9		4		4		7		7		4		0	

Total score: **55**

(Rank: **4**)

Note: Independent Green Belt Review Site Ranking **4=**

Assessment of sustainable development principles

(1) Sustainable location

Main factors to consider:

Would the site be well related to existing settlements or an isolated form of development?

- The site is well related to an existing settlement. It lies on the north edge of Harpenden, which is designated as one of only two towns in the SADC Local Plan Review 1994 (Town T2).

Proximity to existing employment opportunities or potential to provide such opportunities

- The site is close to existing employment opportunities in Harpenden including EMP1 Coldharbour Lane approx 1.5km; EMP2 Batford Mill Industrial Estate approx 2.1km; EMP3 Southdown Industrial Estate approx 2.2km; EMP3a Rothamsted approx 1.8km and town centre employment opportunities approx 1km.
- In addition there are nearby employment opportunities at Luton Road, such as offices, care home & shops; also at The Kings School, The Spire hospital and Thrales End Business Park.
- It is noted that nearby employment opportunities may not be particularly relevant as the match of home to work location is likely to be minimal.

Proximity to existing schools, consideration of capacity and potential to meet increased demand and consideration of capacity

There are many existing schools in the vicinity of the sub area. Distances are given for those closest to the site.

Analysis is based on HCC "Meeting the Rising Demand for School Places" (2012/2013), HCC consultation response to SACDC Core Strategy 2010, HCC consultation response to DBC Pre-submission Core Strategy 2011 and HCC Service Position Update June 2014

- There are a number of primary schools in close proximity to the site: Wood End Primary School is 400m to the south; St Hilda's Primary School (Independent) is 700m to the southeast and; Roundwood primary school is approx 600m. The southeast edge of the site is adjacent to The King's pre-school and secondary school (Independent). Roundwood Park Secondary School lies approximately 700m to the south, St Georges co-education day and boarding school is located approximately 1km to the southeast, and Sir John Lawes School 1.4km to the east. Harpenden pre-school and nursery (Private) is also relatively close to the site.
(key distances from Appendix 7; nearest primary 1 km / nearest secondary 1 km - October 2014)
- Capacity issues exist at many local schools and HCC is taking forward various initiatives to increase the number of school places in

Harpenden.

- HCC are undertaking planned expansions at some existing schools such as High Beeches Primary. The school currently has 238 pupils on roll. By 2020, it is anticipated that the school would have capacity for 420 pupils. An additional 25 places for Wheathampstead children have been established as an interim measure, at Sandringham School in St. Albans. It is expected that by making these additional places available it will reduce some pressure on the Harpenden secondary schools.
- HCC are also facilitating free school proposals at primary and secondary levels to increase number of school places. Such as Harpenden Free School (primary) which is currently operating at a temporary location until the permanent school is built (Conditional planning permission for the permanent school was secured October 2013). With regard to secondary school places, in September 2013 HCC Cabinet agreed to secure a site for a new school, based on the recommendations by V&G at the time of their report. HCC Cabinet also agreed to secure funds for an acquisition. It is understood that HCC has now tendered for a specialist planning consultant to review the work and assumptions to date and develop a planning strategy and identify the site(s) in respect of which the strongest Green Belt 'very special circumstances' argument can be advanced. The consultants will also carry out a brownfield site search. HCC continues to work closely with the Harpenden Free School Trust in its bid to the Education Funding Agency to establish a new secondary school.
- With regard to onsite school provision, HCC advise 'At the range of densities in the SKM report, the site has a residential capacity of between 324 and 540 dwellings. This equates to a primary yield of 0.38/0.65 FE to 0.63/1.08FE. This suggests that it would be prudent to plan for an additional 2FE primary school on a 2.5 ha site to meet the need arising from this housing.' It is considered that this requirement would be met on the 7 hectares of the site identified by the GBR as potentially being available to support delivery of new infrastructure, including education. In addition HCC note that '7 hectares is identified as potentially being available to support delivery of new infrastructure, including education.' and that '7 hectares is less than the 12 hectares identified as being required to provide a new 8FE secondary school'. It is considered that this site would not have capacity for a new secondary school if the GBR recommended residential capacity is delivered.
- It is expected that residential development at smaller scale would contribute to delivery of local infrastructure, including education, through planning obligations (S106) and / or Community Infrastructure Levy (CIL).

Proximity to existing public open space and allotments

- Rothamsted park approx 1.2km. There are a number of public open spaces in the vicinity of the site including Roundwood Lane open space 200m to the south, Tuffnells Way open space 700m to the west and the slightly larger Derwent Road open space 1km to the west. It is also close to allotments at Harpenden Rise.

Proximity to existing neighbourhood/local centres as defined in the Local Plan Review 1994

- The site is situated on the north edge of Harpenden. Harpenden town centre is approximately 1km to the southeast of the site. There are two local centres at 95-105 Luton Road 100m to the southeast and 50-54 Westfield Road 800m to the east.
- Kinsbourne Green local centre is approx 1.2km, Harpenden public halls, St Mary's church, Harpenden scout group are approx 1.5-1.6km.

- The landowner suggests there is scope for new community facilities to meet local need.

Proximity to existing large supermarkets or superstores or potential to provide

- Nearest large supermarket in Harpenden town centre approx 1km including Waitrose; Sainsbury. M&S Food is a smaller foodstore in the town centre.
(key distances from Appendix 7; town centre 1.5 km / local centre 0.35 km October 2014)

Proximity to existing medical facilities or potential to provide

- The Elms GP and Harpenden Memorial hospital approx 1.2 km and there are 2 further GPs in Harpenden town centre. BUPA Harpenden Spire hospital (Private) approx 200m. Harpenden Dental Centre adjoins the southern corner of the site, and further dental services are located at the Kinsbourne Green local centre.

Proximity to existing leisure facilities or potential to provide

- Harpenden sports centre approx 1.4 km. The Lawn Tennis club is located adjacent to the leisure centre, as are the town's skate park and football club. Additionally, there is a gym located close to the site at Thrales End Business Park. Three golf clubs are located around the town. In conjunction with recreational open space located within the town, the settlement is well served by leisure facilities.

Ability for proposed development to link in with existing footpath and cycleway network

- Good potential accessibility as site is located on the edge of Harpenden and close to existing footpaths, footways and cycle routes. The Nickey Line, a disused railway which now forms a cycling and walking path runs approximately 300m to the southeast of the site. This path provides links to Hemel Hempstead and Redbourn.
- The Chiltern Way footpath runs adjacent to the site along Cooters End Lane. The Chiltern Way is approximately 125 miles in length and has links to the wider footpath network. Potential for footpath links to be reinforced and accommodated as part of any development on site to ensure access to the wider countryside.

Potential to promote equity and added social inclusion

- The development could deliver a range of house types and tenures including affordable housing to meet local needs. Development would integrate with the existing community by supporting existing services and providing opportunities for new services, facilities and open space at a location that is readily accessible to existing residents of the local area.

Contribution of development to economic growth potential of the settlement / area

- Development would contribute to the local economy in terms of jobs during construction phases. Economic benefits would also arise from additional population working and spending in the local economy.

Ability of development to draw on the economic value of built or natural environment features

- No factors of relevance

Comments / Overall Conclusions:

A wide range of facilities including those in the town centre are accessible within walking and cycling distance. Topography is favourable for walking and cycling. Education capacity issues exist but are capable of resolution.. A high evaluation score results.

8

Score: /10

(2) Settlement hierarchy

Main factors to consider:

Main urban settlements (excluded from the Green Belt): St Albans, Harpenden, London Colney

Other settlements excluded from Green Belt: Bricket Wood, Chiswell Green, How Wood, Park Street, Frogmore, Redbourn, Wheathampstead

Green Belt settlements: Colney Heath, Folly Fields, Gustard Wood, Kinsbourne Green, Lea Valley Estate, Sandridge, Sleafshyde, Smallford

Rest of Green Belt: Everywhere else

Comments / Overall Conclusions:

The main urban settlements are the most sustainable locations for development, as the widest range of services and facilities are accessible. The site is located on the edge of Harpenden which is the second largest main urban settlement in the district. This results in a high evaluation score.

9

Score: /10

(3) Mixed-use development

Main factors to consider:

Employment

Social infrastructure (including schools and community facilities)

Public open space / sport and recreation

Retail

Will the benefits of development be accessible to existing communities?

It is considered that there is no scope for a substantial mixed use development because the site is relatively small and would be primarily residential. HCC advise that it would be prudent to provide a 2.5 ha primary school site to meet the need arising from this housing. This could be met on the 7 hectares identified by the GBR as potentially being available to support delivery of new infrastructure, including education. This is viewed as a supporting community facility, and not as mixed use.

Comments / Overall Conclusions:

Due to the relatively small site size and proximity to existing employment/retail/social infrastructure in Harpenden, mixed use development would not be appropriate on this site. The result is a low evaluation score

0

Score: /5

(4) Other matters

Main factors to consider:

Economic contribution of development

The site is only suitable for residential development. There is no special economic contribution

Economic value of environmental and heritage features

- none identified

Ability to improve quality of local environment through development – regeneration

- none identified

Physical constraints such as:

overhead power lines,
Pipelines,
Sterilisation of mineral reserves
Contaminated land
'un-neighbourly development'
topography/steep slopes
Agricultural land value grade

- Minimal physical constraints - agricultural land quality is grade 3 and sloping site but topography is unlikely to constrain ability to deliver housing

Additional Matters

- In terms of an additional matter, a potential option has been identified to split this site along Cooters End Lane as a clear and defensible boundary to include only the southeast part for housing with possible reductions in housing capacity. The northwest part of the site would be retained in the Green Belt, though it might be required to accommodate primary school as part of an overall scheme.

Comments / Overall Conclusions:

There are no special advantages to development on this site, but also no special constraints. A mid level evaluation score results.

An alternative site boundary, which would retain the northwest part of the site in the Green Belt, may be considered as an alternative to that proposed by the GBR.

3

Score: /5

(5) Strategic infrastructure provision

Main factors to consider:

What opportunities are there to improve strategic infrastructure for the wider benefit of the District?

- No identified scope for strategic infrastructure provision due to relatively small scale of development
- HCC advise that it would be prudent to provide a 2.5 ha primary school site to meet the need arising from this housing. This could be met

on the 7 hectares identified by the GBR as potentially being available to support delivery of new infrastructure, including education.

Comments / Overall Conclusions:

A low evaluation score results from the lack of opportunity for strategic infrastructure provision on this site.

0

Score: /10

(6) Vehicular access and traffic impact

Main factors to consider:

Can suitable access to the site be achieved?

- The site fronts A1081 Luton Road along the SW boundary. Single track country lanes run through the site and along part of the boundary to the north east.
- Detailed work on access and traffic impact & potential mitigation will be required at a future stage, but, with appropriate improvement work, access can readily be achieved.
- Proximity to existing pedestrian and cycle routes, bus routes, train station, town centre and local facilities such as schools & local shops etc suggests there is good potential for non car journeys.
- Previous comments from HCC Transport Department in 2009 can be summarised as follows. The A1081 Luton Road is a congested road, without measures to ease existing congestion, additional traffic is likely to add to the existing situation. With regard to junctions, there may be a case for introducing another arm to the existing junction with Roundwood Lane. An additional access for emergency use may be needed. A sustainable transport strategy is also required (to encourage non car journeys)
- There is potentially additional traffic from Luton Airport expansion.
- Hertfordshire Local Transport Plan and Harpenden Urban Transport Plan 2011 provide background in relation to transport priorities, transport issues and potential improvements. They do not provide detailed guidance regarding vehicular access and traffic impact for potential development on this site.

Degree of impact upon road network and potential for measures to mitigate the impact

- It is considered that satisfactory vehicular access could be provided and that traffic impact is likely to be acceptable. Potential for range of measures to promote sustainable transport.

Comments / Overall Conclusions:

The relatively straightforward access position results in a high evaluation score.

9

Score: /10

(7) Public transport

Main factors to consider:

Distance to train station including assessment of frequency of service

- Harpenden railway station is located approximately 1.5km to the southeast of the site. The station offers regular services along the First Capital Connect Line to London (St Pancras International within 25 minutes at peak times), and between Luton and Bedford to Brighton via Gatwick Airport.

(key distance from Appendix 7; Railway station 1.7km - October 2014)

Distance to a bus route including assessment of frequency of service

- The site is served by a number of bus routes. Bus routes 321, 636 and 637 run along Luton Road to the south of the site. These routes provide services to Harpenden town centre, Watford, St Albans, London Colney, Hatfield and Luton. Frequency to local destinations is reasonable. Routes 321 & 636 run generally at least hourly 08:00 – 18:00 M-F. Route 637 runs less often.

Potential for new or improved bus services

- Potential for new or improved bus services in the area, but scale of development in itself unlikely to support significant improvement

Comments / Overall Conclusions:

Overall the good accessibility of the site to public transport is reflected in a high evaluation score

4

Score: /5

(8) Urban Design

Main factors to consider:

Can connections be made with any existing development so that ease of movement is good and social cohesion between new and existing development is facilitated?

- Site is located on the edge of an urban area. It is considered that there is potential for good connection to existing and integration with

existing neighbourhoods to provide ease of movement and promote social cohesion

Can a positive interface between fronts and backs of existing development be achieved?

- It is considered that positive interface between fronts and backs of existing development can be achieved with good design.

Can development of the site have a positive relationship with existing adjacent land uses?

- It is considered that development of the site for housing can achieve a positive relationship with existing adjacent land uses which are primarily residential and agricultural.

Comments / Overall Conclusions:

Potential for integration with the existing urban area justifies a high evaluation score.

4

Score: /5

(9) Environmental constraints

Main factors to consider:

Environment Agency Flood Zones 2 and 3 and Strategic Flood Risk Assessment (SFRA) results

- The site is in a low flood risk zone.

Proximity to Sites of Special Scientific Interest (SSSI)

- Not on site or immediately adjacent.

Proximity to Local Nature Reserve or Local Wildlife Site

- Not on site or immediately adjacent.

Proximity to Ancient Semi-Natural Woodland

- Not on site or immediately adjacent.

Would development harm any trees protected by Tree Preservation Orders or other important trees?

- There is a small remnant woodland area within the site which is subject to a TPO - east corner of site. It is considered that TPO trees should be retained on site and incorporated within a new development scheme. Appropriate measures to protect trees during the construction phase would be required.

Will there be an adverse impact on a protected habitat or species?

- Not known on site or immediately adjacent.

Other factors

Where possible, existing landscape features, including hedgerows are retained and are proposed to be strengthened especially within the site and on the northwest boundary to help define the site and screen potential development from the wider countryside to the north and respect visual links with historic landscapes from elevated locations.

Comments / Overall Conclusions:

It is considered that the impact of development on TPO can be successfully mitigated with appropriate design. Acceptable impact on existing landscape features which should be retained where possible. A mid to high evaluation score is justified due to lack of significant environmental constraints.

7

Score: /10

(10) Landscape quality / surrounding area characteristics

Main factors to consider:

Landscape Character Assessment (LCA) condition and sensitivity

- The site lies within the Thrales End Plateau landscape character area (Hertfordshire Landscape Character Assessment, Hertfordshire County Council, 2000-2005).
- The site is designated as a Landscape Conservation Area within the SADC Local Plan Review 1994. In accordance with Policy 104, within these priority landscape areas, the Council will seek to preserve and enhance the quality of the countryside and will not grant permission for any development that would adversely affect the high landscape quality.
- Built development would affect openness of landscape character. However, the landform provides enclosure and together with the existing hedgerow along Ambrose Lane, would help contain development. Agricultural intensification has resulted in loss of field boundaries and has altered landscape pattern, although in this part of the sub-area the road network has restricted the extent of such change.

- Development would be continuous with the northern edge of Harpenden, which extends to the southern edge of this part of the sub-area and built form is already established on the opposite side of the valley.
- Key potential visual effects of new development would be at a local level. Notable effects would be in relation to residents within the sub-area (e.g. Cooters End Farm, residents of properties on the opposite side of the valley and people travelling along the local road network).

Historic Landscape Characterisation information in relation to site

- No special factors

Landscape Institute Guidelines for Landscape and Visual Impact Analysis

- Principles applied to analysis above

Further information

- The landowner has submitted a preliminary landscape and visual appraisal which has been referred to at section 4 above.

Comments / Overall Conclusions:

A mid level evaluation score is appropriate as development can be assimilated into the wider landscape. However overall landscape quality is high and there will be some impacts.

7

Score: /10

(11) Heritage / archaeology potential

Main factors to consider:

Proximity to Conservation Area and impact upon setting

- Conservation area - not on site or immediately adjacent.

Proximity to Listed Buildings and impact upon setting

- 'Cooters End Farm' is a Listed Building on-site & off-site there is listed building 'The Old Bell PH' close to the south west boundary across Luton Road. Both are grade 2. It is expected that listed building would be retained and incorporated within a new development scheme in an appropriate manner. A new development scheme would also need to be designed to respect the listed building close to the boundary.

Proximity to Scheduled Ancient Monuments and impact upon setting

- not on site or immediately adjacent.

Proximity to Historic Parks & Gardens and impact upon setting

- Not on site or immediately adjacent.

Presence of archaeological sites for local preservation (Local Plan Review 1994 Policy 110)

- Not on site or immediately adjacent.

Comments / Overall Conclusions:

A high evaluation score is appropriate because few significant heritage / archaeology constraints are present and it is considered that the impact of development for the listed buildings on and off site can be successfully mitigated with appropriate design.

4

Score: /5

(12) Opportunities for sustainable energy production

Main factors to consider:

Site location in relation to District Heating Opportunity Areas

- The sub-area is not located in a District Heating Opportunity Area

Site location in relation to Wind Turbine Opportunity Areas

- The sub-area is located within a Wind Opportunity Area, however, potential to deliver wind turbines may be limited given proximity to roads, potential new residential development and land availability.

Other sustainable energy production opportunities identified

- Potential to incorporate small-scale renewable energy systems as part of the development, for example solar, biomass heating, ground source heat pumps

Comments / Overall Conclusions:

There are no special opportunities for renewable energy due to the scale of development possible. This results in a low evaluation score.

0

Score: /5

S6: NE Harpenden

Assessment Matrix – Summary of Evaluation Results

THEME	ECONOMIC				SOCIAL				ENVIRONMENTAL															
	1 - Sustainable Location		2 - Settlement hierarchy		3 - Mixed-use development		4 - Other Matters		5 - Strategic infrastructure provision		6 - Vehicular access and traffic impact		7 - Public transport		8 - Urban Design		9 - Environmental constraints		10 - Landscape quality / surrounding area		11 - Heritage / archaeology potential		12 - Opportunities for sustainable energy production	
S6	7		8		0		3		0		5		3		2		7		5		5		0	

Total score: **45**

(Rank: **6**)

Note: Independent Green Belt Review Site Ranking **6**

Assessment of sustainable development principles

(1) Sustainable location

Main factors to consider:

Would the site be well related to existing settlements or an isolated form of development?

- The site is well related to an existing settlement. It lies on the northeast edge of Harpenden, which is designated as one of only two towns in the SADC Local Plan Review 1994 (Town T2).

Proximity to existing employment opportunities or potential to provide such opportunities

- The site is close to existing employment opportunities in Harpenden including:
 - EMP 1 – Coldharbour Lane – B1 uses is located approximately 250m southwest of the site
 - EMP 2 – Batford Mill Industrial Estate – B1 uses is located 1.02km to the southeast of the site
 - EMP 3 – Southdown Industrial Estate – B1 uses and former Gas Works (part), Southdown Road is situated 2.4km to the southwest of the site
 - EMP 3a – Rothamsted Experimental Station – B1 uses is 2.3km to the southwest of the site and
- Town centre employment opportunities approx 1.6 km.
(key distance from Appendix 7; town centre 2.2 km / local centre 0.6 km October 2014)

Proximity to existing schools, consideration of capacity and potential to meet increased demand and consideration of capacity

There are many existing schools in the vicinity of the sub area. Distances are given for those closest to the site.

Analysis is based on HCC “Meeting the Rising Demand for School Places” (2012/2013), HCC consultation response to SACDC Core Strategy 2010, HCC consultation response to DBC Pre-submission Core Strategy 2011 and HCC Service Position Update June 2014

- A number of primary schools are located within 800m of the site. Sauncey Wood Primary School is situated less than 200m to the south and Manland Primary School is 800m to the southwest. Also The Lea Primary School is approx 500m. Slightly further afield lies Crabtree Infant and Junior School, 1.3km to the south.

- There is a secondary school within 800m of the site at Sir John Lawes School to the southwest. In addition, St George's co-educational day and boarding school is situated 1.3km to the southwest and The King's School (Independent) is located 1.8km to the west. Roundwood Park secondary school is approx 2.1 km.

(key distances from Appendix 7; nearest primary 1.1km (on existing roads) / nearest secondary 1.8 km - October 2014)

- Capacity issues exist at many local schools and HCC is taking forward various initiatives to increase the number of school places in Harpenden.
- HCC are undertaking planned expansions at some existing schools such as High Beeches Primary. The school currently has 238 pupils on roll. By 2020, it is anticipated that the school would have capacity for 420 pupils. An additional 25 places for Wheathamstead children have been established as an interim measure, at Sandringham School in St. Albans. It is expected that by making these additional places available it will reduce some pressure on the Harpenden schools.
- HCC are also facilitating free school proposals at primary and secondary levels to increase number of school places; Such as Harpenden Free School (primary) which is currently operating at a temporary location until the permanent school is built (Conditional planning permission for the permanent school was secured October 2013). With regard to secondary school places, in September 2013 HCC Cabinet agreed to secure a site for a new school, based on the recommendations by V&G at the time of their report. HCC Cabinet also agreed to secure funds for an acquisition. It is understood that HCC has now tendered for a specialist planning consultant to review the work and assumptions to date and develop a planning strategy and identify the site(s) in respect of which the strongest 'very special circumstances' argument can be advanced. The consultants will also carry out a brownfield site search. HCC continues to work closely with the Harpenden Free School Trust in its bid to the Education Funding Agency to establish a new secondary school.
- HCC advise that 'Assuming that 19 hectares of land are developed, the child yield arising from the development would be in the range of 0.67/1.14FE to 1.12 to 1.9 FE. It would therefore be prudent for any development in this location to provide a 2FE primary school site of 2.5ha area.' It is considered that this requirement would be met on the 13 hectares of the site identified by the GBR as potentially being available to support delivery of new infrastructure, including education.
- It is expected that residential development at smaller scale would contribute to delivery of local infrastructure, including education, through planning obligations (S106) and / or Community Infrastructure Levy (CIL).

Proximity to existing public open space and allotments

- Public open spaces in the vicinity of the site include Batford Open Space (designated as new space in the St Albans City and District Council Local Plan, to the south). Tallents Crescent open space lies 500m to the southeast and Marshalls Heath Local Nature Reserve is situated 1.2km to the southeast. Rothamsted Park is approximately 2.5km to the southwest of the site.

Proximity to existing neighbourhood/local centres as defined in the Local Plan Review 1994

- The site is situated on the northeast edge of Harpenden. Harpenden town centre is located approximately 1.6km to the southwest of the site.

There are two local centres located in close proximity to the site at Lower Luton Road (LC17) and station road (LC18) which are 400m and 700m to the south.

(key distance from Appendix 7; town centre 2.2km / local centre 0.6 km October 2014)

Proximity to existing large supermarkets or superstores or potential to provide

- Nearest large supermarkets in Harpenden town centre approx 1.6 km including Waitrose; Sainsbury and M&S Food

Proximity to existing medical facilities or potential to provide

- Harpenden Memorial Hospital and Elms Medical Practise is located 1.2km to the southwest of the sub area and two further GPs in the town centre. *Bupa Spire Harpenden Hospital (Private)* is located 1.2km to the west of the site.

Proximity to existing leisure facilities or potential to provide

- Harpenden sports centre approx 1.7 km.

Ability for proposed development to link in with existing footpath and cycleway network

- Good potential accessibility as site is located on the edge of Harpenden close to existing footpaths, footways and cycle routes. The Lee Valley Walk and Green Corridor runs in a north to south direction approximately 600m to the west of the site. This forms part of a 50 mile walking and cycling path that runs between Leagrave near Luton and the Thames at Limehouse, east London.

Potential to promote equity and added social inclusion

- Provision of affordable homes in the north of the district will assist in promoting equity and social inclusion.

Contribution of development to economic growth potential of the settlement / area

- Development would contribute to the local economy in terms of jobs during construction phases. Economic benefits would also arise from additional population working and spending in the local economy.

Ability of development to draw on the economic value of built or natural environment features

- No factors of relevance

Comments / Overall Conclusions:

A wide range of facilities including those in the town centre are accessible within walking and cycling distance. However topography is not ideal for central area and rail access by walking and cycling due to Lea Valley slopes. Education capacity issues exist but are capable of resolution. Overall this results in a mid to high evaluation score.

7

Score: /10

(2) Settlement hierarchy

Main factors to consider:

Main urban settlements (excluded from the Green Belt): St Albans, Harpenden, London Colney

Other settlements excluded from Green Belt: Bricket Wood, Chiswell Green, How Wood, Park Street, Frogmore, Redbourn, Wheathampstead

Green Belt settlements: Colney Heath, Folly Fields, Gustard Wood, Kinsbourne Green, Lea Valley Estate, Sandridge, Sleafshyde, Smallford

Rest of Green Belt: Everywhere else

Comments / Overall Conclusions:

The main urban settlements are the most sustainable locations for development, as the widest range of services and facilities are accessible. The site is located on the edge of Harpenden which is the second largest main urban settlement in the district. This results in a high evaluation score.

8

Score: /10

(3) Mixed-use development

Main factors to consider:

Employment

Social infrastructure (including schools and community facilities)

Public open space / sport and recreation

Retail

Will the benefits of development be accessible to existing communities?

It is considered that there is no scope for a substantial mixed use development because that the site is relatively small and would be primarily residential. HCC advise that it would be prudent to provide a 2.5 ha primary school site to meet the need arising from this housing. This could be met on the 13 hectares identified by the GBR as potentially being available to support delivery of new infrastructure, including education. This is viewed as a supporting community facility, and not as mixed use.

Comments / Overall Conclusions:

Due to the relatively small site size and proximity to existing employment/retail/social infrastructure in Harpenden, substantial mixed use development would not be appropriate on this site. The result is a low evaluation score

0

Score: /5

(4) Other matters

Main factors to consider:

Economic contribution of development

- The site is only suitable for residential development. There is no special economic contribution

Economic value of environmental and heritage features

- None identified

Ability to improve quality of local environment through development – regeneration

- None identified.

Physical constraints such as:

overhead power lines,
Pipelines,
Sterilisation of mineral reserves
Contaminated land

'un-neighbourly development'
topography/steep slopes
Agricultural land value grade

- Minimal physical constraints:
 - agricultural land quality is grade 3
 - part sloping site, with quite steep gradients, but topography is unlikely to constrain ability to deliver housing
 - overhead power lines/telegraph poles affect a small part of the site. They are relatively small scale and are likely to be incorporated into the development, probably underground; and are not considered a significant constraint.

Comments / Overall Conclusions:

There are no special advantages to development on this site, but also no special constraints. A mid level evaluation score results.

3

Score: /5

(5) Strategic infrastructure provision

Main factors to consider:

What opportunities are there to improve strategic infrastructure for the wider benefit of the District?

- No identified scope for strategic infrastructure provision due to relatively small scale of development

HCC advise that it would be prudent to provide a 2.5 ha primary school site to meet the need arising from this housing. This could be met on the 7 hectares identified by the GBR as potentially being available to support delivery of new infrastructure, including education. This is considered to be local infrastructure.

Comments / Overall Conclusions:

A low evaluation score results from the lack of opportunity on this site.

0

Score: /10

(6) Vehicular access and traffic impact

Main factors to consider:

Can suitable access to the site be achieved?

- The site fronts B653 Lower Luton Road along the SW boundary. Single track country lanes runs along part of the boundary to the north and east. The B653 is often congested at peak times. Without measures to ease existing congestion, additional traffic is likely to add to the existing situation. There is potentially additional traffic from Luton Airport expansion.
- Junctions for new development will need careful planning.
- New access would be required and some impact on road network likely.
- A combination of access points will be required and it may be necessary to consider some access via existing residential roads adjoining the site.
- Proximity to existing pedestrian and cycle routes, bus routes, train station, town centre and local facilities such as schools & local shops etc suggests there is good potential for non car journeys.
- A sustainable transport strategy is likely to be required.
- Hertfordshire Local Transport Plan and Harpenden Urban Transport Plan 2011 provide general background regarding transport priorities, transport issues and potential improvements. They do not provide detailed guidance regarding vehicular access and traffic impact for development on this site.

Degree of impact upon road network and potential for measures to mitigate the impact

- This site presents some access issues around design and practical land availability (possible new access points via existing residential streets). Appropriate detailed work on access and traffic impact & potential mitigation will be required

Comments / Overall Conclusions:

Existing direct road access is poor. Access to this site will require careful planning and some investment in new road infrastructure.. A mid level evaluation score is appropriate

5

Score: /10

(7) Public transport

Main factors to consider:

Distance to train station including assessment of frequency of service

- Harpenden railway station is located approximately 1.7km to the southwest of the site. The station offers regular services along the First Capital Connect Line to London (St Pancras International within 25 minutes at peak times), and between Luton and Bedford to Brighton via Gatwick Airport.

(key distance from Appendix 7; railway station 2.4 km October 2014)

Distance to a bus route including assessment of frequency of service

- The site is served by a number of bus routes. Bus routes 657 and HA1 run immediately past the site to the west along Lower Luton Road offering services to Harpenden town centre and a local service around Harpenden itself, Redbourn, St Albans and Hatfield. Further to the southwest along Lower Luton Road, approximately 400m from the site, run bus routes 45, 366 and 636 providing further services to Harpenden town centre, Stevenage, Luton, Hatfield, Welwyn Garden City and London Colney. Frequency for local journeys is reasonable. Routes 657, 366 & 636 run generally at least hourly 08:00 – 18:00 M-F; Routes HA1 and 45 run less often.

Potential for new or improved bus services

- The site is well located to benefit from improvements. However the scale of development is unlikely to justify improvements.

Comments / Overall Conclusions:

The sub area is well located in terms of access to a wide range of existing public transport. Overall improvements are most likely to be feasible in a main settlement. This results in a mid level evaluation score.

3

Score: /5

(8) Urban Design

Main factors to consider:

Can connections be made with any existing development so that ease of movement is good and social cohesion between new and existing development is facilitated?

- Site is located on the edge of an urban area. It is considered that there is potential for good connection to existing development in Harpenden to provide ease of movement and promote social cohesion.

Can a positive interface between fronts and backs of existing development be achieved?

- It is considered that positive interface between fronts and backs of existing development can be achieved with good design. The nature of

the site, particularly its topography and its “wrapping around” an existing neighbourhood presents some design challenges if integration is to be achieved.

- Careful design will be required to address the “backing on to” relationship of the existing dwellings around the edge of the site. There is a need to identify some pedestrian / cycle and vehicular through routes to existing residential streets to maximise integration.
- The relatively small scale of development, the configuration of the site and the availability of some existing community focus points (school and open space) should assist integration with the existing urban area and community.

Can development of the site have a positive relationship with existing adjacent land uses?

- It is considered that development of the site for housing can achieve a positive relationship with existing adjacent land uses which are primarily residential and agricultural.

Comments / Overall Conclusions:

There are a number of design challenges to creating a successful integration of development in this area but with careful planning they can be addressed. This results in a low to mid level evaluation score.

2

Score: /5

(9) Environmental constraints

Main factors to consider:

Environment Agency Flood Zones 2 and 3 and Strategic Flood Risk Assessment (SFRA) results

- The vast majority of the site is in a low flood risk zone. A small area of land is within Flood Zone 2 at 198 Lower Luton Road and Greenacres which are in residential use. Parts of Lower Luton Road itself are in the flood zone. Any future scheme must take the flood zone into account and / or options to exclude this small area from the development site may be considered when detailed boundaries are finalised. It is considered that residential development is unlikely to be ruled out on flood zone grounds because it affects a very small area of land and there are existing residential properties on the land affected.

Proximity to Sites of Special Scientific Interest (SSSI)

- Not on site or immediately adjacent.

Proximity to Local Nature Reserve or Local Wildlife Site

- Not on site or immediately adjacent.

Proximity to Ancient Semi-Natural Woodland

- Not on site or immediately adjacent.

Would development harm any trees protected by Tree Preservation Orders or other important trees?

- Not known on site or immediately adjacent.

Will there be an adverse impact on a protected habitat or species?

- No known issues

Other factors

There are some important existing and adjoining environmental/ landscape features. Where possible, existing landscape features, including hedgerows and rural lanes should be retained. In terms of potential landscape measures, reinforcement of vegetation is proposed on the northern edge of the site. This would help the layout align with Common Lane. Planting along Common Lane would also help strengthen the character of this route. In addition, structural planning within the site especially on more elevated slopes would help to soften the appearance of any potential development, particularly when viewed across the valley.

Comments / Overall Conclusions:

There are no major environmental constraints. There is acceptable impact on existing environmental features, which can in part be retained. A mid level evaluation score is appropriate.

7

Score: /10

(10) Landscape quality / surrounding area characteristics

Main factors to consider:

Landscape Character Assessment (LCA) condition and sensitivity

- The site lies within the Upper Lea Valley landscape character areas (Hertfordshire Landscape Character Assessment, Hertfordshire County Council, 2000-2015).
- The site is designated as a Landscape Conservation Area within the SADC Local Plan Review 1994.

- The landform and limited vegetation create an open landscape and built development would affect this component of landscape character. Changes in the landscape have resulted in the loss of traditional boundaries and replacement with wooden post and rail fences. The remnant hedgerows comprise key features that help to maintain some integrity in the landscape and a sense of enclosure.
- Potential visual effects of new development would be at both a local level and wider. Key local visual receptors comprise the residents on this edge of Harpenden, road users and people using local Public Rights of Way (including those within the sub-area). Wider effects are likely particularly in relation to the parts of the site that are on valley slopes. There will be visual effects on the southwest side of the Lea Valley, particularly from the more elevated parts of development within the sub area.

Historic Landscape Characterisation information in relation to site

- No special factors

Landscape Institute Guidelines for Landscape and Visual Impact Analysis

- Principles applied to analysis above

Comments / Overall Conclusions:

There are some landscape constraints and issues in this sub area. Existing landscape quality is high. A mid level evaluation score is appropriate.

5

Score: /10

(11) Heritage / archaeology potential

Main factors to consider:

Proximity to Conservation Area and impact upon setting

- Not on site or immediately adjacent.

Proximity to Listed Buildings and impact upon setting

- Not on site or immediately adjacent.

Proximity to Scheduled Ancient Monuments and impact upon setting

- Not on site or immediately adjacent.

Proximity to Historic Parks & Gardens and impact upon setting

- Not on site or immediately adjacent.

Presence of archaeological sites for local preservation (Local Plan Review 1994 Policy 110)

- Not on site or immediately adjacent.

Comments / Overall Conclusions:

A high evaluation score is appropriate because no heritage / archaeology constraints are present

5

Score: /5

(12) Opportunities for sustainable energy production

Main factors to consider:

Site location in relation to District Heating Opportunity Areas

- The sub-area is not located in a District Heating Opportunity Area

Site location in relation to Wind Turbine Opportunity Areas

- The sub-area is located at the edge of a Wind Opportunity Area, however, potential to deliver wind turbines may be limited given proximity to roads, potential new residential development and land availability.

Other sustainable energy production opportunities identified

- Potential to incorporate small-scale renewable energy systems as part of the development, for example solar, biomass heating, ground source heat pumps

Comments / Overall Conclusions:

There are no special opportunities for renewable energy due to the scale of development possible. This results in a low evaluation score.

0

Score: /5

S7: Land at London Colney

Assessment Matrix – Summary of Evaluation Results

THEME	ECONOMIC				SOCIAL				ENVIRONMENTAL			
	1 - Sustainable Location	2 - Settlement hierarchy	3 - Mixed-use development	4 - Other Matters	5 - Strategic infrastructure provision	6 - Vehicular access and traffic impact	7 - Public transport	8 - Urban Design	9 - Environmental constraints	10 - Landscape quality / surrounding area	11 - Heritage / archaeology potential	12 - Opportunities for sustainable energy production
S7	5	6	0	3	1	7	1	2	5	5	4	0

Total score: **39**

(Rank: **8**)

Note: Independent Green Belt Review Site Ranking **3**

Assessment of sustainable development principles

(1) Sustainable location

Main factors to consider:

Would the site be well related to existing settlements or an isolated form of development?

- The sub-area adjoins two urban edges to the north and east, of which residential is the predominant land use. However the area to the north is Napsbury CA which is residential development in a landscaped park setting. This reads as a low density form of residential development with significant open areas and intervening views.
- The sub-area is located to the southwest of London Colney, a designated Specified Settlement under the 1994 Plan, and its siting relates relatively well to the existing surrounding residential development. However, the nature of the Napsbury redevelopment and its separation from the main settlement of London Colney by Shenley Road makes the development site feel more isolated than distance might suggest.

Proximity to existing employment opportunities or potential to provide such opportunities

- Within London Colney there are four allocated Employment Areas, whereby the normally acceptable uses are a range of B1, B2 and B8;
 - EMP.16 – Wellington Road – B1 – 600m northeast of sub-area
 - EMP.17 – The Hertfordshire Business Centre, Alexander Road – B1 – 700m northeast of sub-area
 - EMP.18 – Riverside Estate – B1, B2, B8 – 900m east of sub-area
 - EMP.19 – Former Halsey's Sawmill, Barnet Road – B1 – 1.4km southeast of sub-area

Proximity to existing schools, consideration of capacity and potential to meet increased demand and consideration of capacity

There are many existing schools in the vicinity of the sub area. Distances are given for those closest to the site.

Analysis is based on HCC "Meeting the Rising Demand for School Places" (2012/2013), HCC consultation response to SACDC Core Strategy 2010, HCC consultation response to DBC Pre-submission Core Strategy 2011 and HCC Service Position Update June 2014

- London Colney Primary School 1 km
- Bowmans Green Primary School 1.5 km

- St Bernadette Primary School 500 m
(key distances from Appendix 7; nearest primary 0.3 km / nearest secondary 3 km - October 2014)
- The GBR report identifies that 8 hectares of land at this sub-area would be available for housing, with 8 hectares providing supporting infrastructure, including education facilities. HCC have identified that a development of between 240 and 400 dwellings would generate a child yield in the range of 0.28/0.48fe and 0.47/0.8fe. In HCCs Core Strategy Consultation response on behalf of HCC Services, a need was identified to provide additional primary school capacity to meet the needs arising from development south east of London Colney and from the Harperbury Hospital site. [See section 5.20 of HCC Core Strategy Consultation Response February 2011]. This has been restated in recent HCC comments. The analysis of potential child yield from urban capacity sites identified that urban capacity sites could yield 1.03 fe of child yield and confirmed that it would be prudent to plan for an additional 2fe of primary school capacity at London Colney.
- The yield arising from the strategic growth at S7 would be slightly less than 1fe, however taking into account the potential demand for school places which could come from urban capacity sites, it would be prudent to ensure that any new strategic site should also provide a 2.5 ha, 2fe primary school site. Such a site would not only meet the needs arising from the strategic development, it would also provide latent capacity to serve the existing urban area. This approach is potentially achievable as the site is owned by the County Council.
- Submitting evidence to inform the Core Strategy in 2011 and with reference to secondary education planning, HCC identified that it would be helpful if the Local Planning Authority could make education allocations in relation to land in St Albans generally.

Proximity to existing public open space and allotments

- Broad Colney Lakes, a local nature reserve, is sited to the southeast of the sub-area
- Alsop Close, Five Acres and Cotlandswick Open Space all in the vicinity
- Walsingham Way Play Area sited immediately to the east of the sub-area
- Shenley Lane playing fields 600m north of sub-area
- Morris recreation ground 800m east of the sub-area (OS.8 in 1994 Plan)
- Napsbury HPG (OS.7) is sited immediately to north of sub-area
- Shenley Lane and Whitehorse Lane allotment sites in proximity of sub-area – both are currently full
- Burydell Allotment Site in Park Street is 2km to the west, of which there are 59 plots and 7 on the waiting list (as of 16 Aug 2013)

Proximity to existing neighbourhood/local centres as defined in the Local Plan Review 1994

- London Colney Neighbourhood Centre - 500m northwest of sub-area
 - Primary Shopping Frontage – Co-op Supermarket Haseldine Road; 152-166 & 184-196 High Street

- Class A Frontage – 1-17 Haseldine Road; 170 High Street – White Horse P.H.

- Local Centre at 1-5 Shenley Lane

(key distances from Appendix 7; nearest local centre 1.0km (taken as proxy for town centre) - October 2014)

Proximity to existing large supermarkets or superstores or potential to provide

- Sainsbury's Superstore 1km southeast of sub-area – this forms part of the large Colney Fields Retail Park
- The existence of the Colney Fields retail facility provides local shopping opportunities equivalent to a small town centre. This affects considerations of access to facilities in the settlement. It should be noted that the draft Strategic Local Plan to date has treated London Colney as a "Town" and this reflects availability this shopping facility
- No potential for sub-area to provide additional retail

Proximity to existing medical facilities or potential to provide

- London Colney Clinic 400m northeast of sub-area
- London Colney Medical Centre 500m northeast of sub-area
- Village Surgery 700m northeast of sub-area
- NHS Dentist 700m northeast of sub-area
- No potential to provide further medical facilities

Proximity to existing leisure facilities or potential to provide

- Cotlandswick Leisure Centre

Ability for proposed development to link in with existing footpath and cycleway network

- To the north of the site, in Napsbury, is a traffic-free, surfaced route that extends northwards to the A414 North Orbital Road.
- A pavement route links Napsbury to Shenley Lane
- A traffic-free, unsurfaced route runs to the south of the sub-area along the River Colne, which runs from Shenley Lane to the south and west towards Radlett Road and Harper Lane.
- A footpath runs across the south of the sub-area that extends to further footpaths to the south and east, linking up with the River Colne in both directions
- The sub-area is fairly well connected to existing footpath/cycleways and there is potential to link up to these routes to access broader

locations.

Potential to promote equity and added social inclusion

- No special factors exist with this site and the scale of development limits potential to provide for specialist needs

Contribution of development to economic growth potential of the settlement / area

- No special factors apply. The sub-area is likely to be suitable only for residential development and related community / education uses.

Ability of development to draw on the economic value of built or natural environment features

- The sub-area does not contain any built or natural environmental features of economic value that the development could draw on

Comments / Overall Conclusions:

The sub-area is well related to London Colney and Napsbury and is in close proximity to several employment areas. The sub-area benefits from good access to a number primary and secondary schools. The sub-area is also well served by local shopping and medical facilities and is also close to larger food stores. The wider area is well served by walking and particularly cycling routes, and there is potential to link the sub-area to this network and integrate new development with the available services and facilities.

However the overall level of facilities and services provided in London Colney is below that available in a larger settlement. This dictates a mid range evaluation score.

5

Score: /10

(2) Settlement hierarchy

Main factors to consider:

Main urban settlements (excluded from the Green Belt): St Albans,
Harpenden, London Colney

Other settlements excluded from Green Belt: Bricket Wood, Chiswell
Green, How Wood, Park Street, Frogmore, Redbourn, Wheathampstead

Green Belt settlements: Colney Heath, Folly Fields, Gustard Wood,
Kinsbourne Green, Lea Valley Estate, Sandridge, Sleafshyde,

Smallford

Rest of Green Belt: Everywhere else

Comments / Overall Conclusions:

The sub-area is located to the southwest of London Colney, defined as a main urban settlement excluded from the Metropolitan Green Belt. The sub-area is well related to the settlement of London Colney which has significant local facilities. However, London Colney is a lower order centre, and this results in a mid range evaluation score.

6

Score: /10

(3) Mixed-use development

Main factors to consider:

Employment

- Unsuitable for employment development.

Social infrastructure (including schools and community facilities)

- Potential for a new primary school, which would also benefit the existing Napsbury community; but supporting community uses of this kind are not regarded as full mixed use.

Public open space / sport and recreation

- Shenley Lane playing fields 600m north of sub-area
- St Albans Centurians Rugby League Club 700m north of sub-area
- Morris recreation ground 800m east of the sub-area (OS.8 in 1994 Plan)
- Potential to provide some small-scale local open space / sport facilities that would also benefit the Napsbury community. However this is not likely to provide significant mixed use opportunities
- Unlikely to be scope or demand for larger sport/recreation facilities due to the development of the Cotlandswick leisure centre.

Retail

- There is may be potential for some small-scale retail development, which would serve the needs of both the sub-area and Napsbury to the north. It has been identified that Napsbury is lacking local conveniences and community facilities. However this would not introduce

significant mixed use.

Will the benefits of development be accessible to existing communities?

- The sub-area is very accessible to both the communities of both London Colney and Napsbury but aside from the potential for some minor enhancement of facilities for the Napsbury area there is no potential for mixing uses.

Comments / Overall Conclusions:

Due to the relatively small site size, mixed use development would not be appropriate on this site. A low evaluation score is therefore appropriate.

0

Score: /5

(4) Other matters

Main factors to consider:

Economic contribution of development

- The site is only suitable for residential development and some supporting community uses. There is no special economic contribution.

Economic value of environmental and heritage features

- None identified

Ability to improve quality of local environment through development – regeneration

- None identified

Physical constraints such as:

overhead power lines,
Pipelines,
Sterilisation of mineral reserves
Contaminated land

'un-neighbourly development'
topography/steep slopes
Agricultural land value grade

Comments:

- No overhead power lines
- No major pipelines identified
- Land parcel is located within the Sand & Gravel Belt Minerals Consultation area
- No evidence of contaminated land in the sub-area.
- Sub-area not in proximity to un-neighbourly development, for example sources of noise or odour, such as sewerage treatment works or heavy industry or an Air Quality Management Area
- No issues relating to topography or steep slopes – the sub-area is fairly level
- Grade 3 agricultural land (broad brush)

Comments / Overall Conclusions:

There are no special factors to take account of. However, the development of the sub-area is not the subject of any significant physical constraints and this suggests a mid level evaluation score.

3 **Score: /5**

(5) Strategic infrastructure provision

Main factors to consider:

- What opportunities are there to improve strategic infrastructure for the wider benefit of the District?
- No significant opportunities to improve strategic infrastructure, however, some potential for minor improvements, for example green infrastructure
- Opportunities for connecting the sub-area to the wider footpaths/cycleways that connect the sub-area to broader locations
- Sub-area already well-sited in terms of access to allocated employment areas
- The site is in Local Government ownership (HCC). This may be a significant factor in creating opportunities to meet social and community needs for the wider area (e.g. school site)

Comments / Overall Conclusions:

No major strategic infrastructure provision can be delivered on the basis of this development area alone. However due to public ownership there will be opportunities to consider wider needs for infrastructure. The appropriate evaluation score is low, but this opportunity suggests a higher score than would otherwise be justified.

1

Score: /10

(6) Vehicular access and traffic impact

Main factors to consider:

Can suitable access to the site be achieved?

- The sub-area benefits from a long frontage with Shenley Lane to the east, from which suitable access could be gained. There are excellent links to the strategic road network (A414 North Orbital Road to the north and the M25 to the south)

Degree of impact upon road network and potential for measures to mitigate the impact

- The sub-area is very well connected in terms of proximity to the strategic road network (M25 and North Orbital Road).
- The site is previously identified as Area of Search 3 in the Emerging Core Strategy 2009 as a potential site for Green Belt release, with an indicative capacity of up to 900 dwellings. This is considerably more than the estimated dwelling capacities in the GBR report. HCC commented in the 2009 consultation that, at the more significant scale of 900 dwellings, improvements would be required to Shenley Lane to accommodate additional traffic. Improvements to the Bell Lane/Harper Lane roundabout junction were also likely to be needed. At the indicative lower dwelling capacities wider transport issues raised previously by HCC are not likely to apply.

Comments / Overall Conclusions:

There is very good access to the sub-area from the existing road network, with excellent connections to the M25 and North Orbital Road. This results in a high evaluation score.

7

Score: /10

(7) Public transport

Main factors to consider:

Distance to train station including assessment of frequency of service

- There are no railway stations in London Colney. Radlett railway station is located 3km to the southwest and St Albans City railway station is 3.8km to the northwest. This station provides regular services along the First Capital Connect line to London (St Pancras International within 20 minutes at peak times), and between Luton and Bedford to Brighton.
- St Albans Abbey train station is located 3.3km to the southwest of the sub-area, which provides London Midland a service to Watford Junction every 45 minutes. Watford Junction provides regular London Midland and Virgin train services to London Euston and the north.
(key distances from Appendix 7; nearest railway station 4.5 km - October 2014)
- Park Street and How Wood railway stations are sited 2.5km and 2.8km to the west of the sub-area. These stations are served by the St Albans Abbey-Watford Junction line, which provides London Midland a service to Watford Junction every 45 minutes. Watford Junction provides regular London Midland and Virgin train services to London Euston and the north.

Distance to a bus route including assessment of frequency of service

- Bus services run along Barnet Road approximately 200m to the northeast of the sub-area. The service includes routes 84, 602, 636, 658 and 659 providing access to London Colney High Street, St Albans, New Barnet, Potters Bar, Welwyn Garden City, Hatfield, Watford, Luton, Borehamwood and Redbourn.

Potential for new or improved bus services

- Limited – there already exists a number of bus stops at Napsbury, Kings Road and Shenley Lane. Stops along Barnet Lane provide regular services to the wider areas of the district and beyond. It is unlikely that further or improved services would be feasible on the basis of a development of this scale.

Comments / Overall Conclusions:

The railway stations in the district are sited a substantial distance from the sub-area. Bus services are adequate, but unlikely to be capable of significant improvement. The evaluation score is low as a result.

1	Score: /5
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(8) Urban Design

Main factors to consider:

Can connections be made with any existing development so that ease of movement is good and social cohesion between new and existing

development is facilitated?

- The eastern edge of the sub-area is bound by Shenley Lane, beyond which the predominant land use is residential. To the north of the sub-area lies Napsbury Park. This has undergone considerable change in recent years following the redevelopment of the redundant hospital site for residential use. Napsbury is a designated Historic Park and Garden and Conservation Area. There is strong potential to link the new and existing areas of development with pedestrian and cycle routes, but the special character of Napsbury (parkland setting) will present urban design challenges for new development in close proximity.
- The relationship with both London Colney and Napsbury create the potential to promote cohesion, through shared open spaces and facilities.

Can a positive interface between fronts and backs of existing development be achieved?

- To the east of Shenley Lane and beyond the land use is predominantly residential. The front elevations of these residential properties face onto the sub-area. The sub-area is undeveloped agricultural land and there is potential for a variety of positive interfaces. There are special issues noted above in respect of the relationship with Napsbury Park

Can development of the site have a positive relationship with existing adjacent land uses?

- The existing land use of the sub-area, and land to the west and south, is agricultural. To the north lies the fairly modern residential redevelopment of Napsbury, and to the west is established residential use.
- The sub-area shares two edges with existing residential development. A positive interface can be created.

Comments / Overall Conclusions:

The sub area presents a special problem of integration with the unique character of Napsbury and its Green Belt / countryside / parkland setting. The problems are not insurmountable, but careful design would be required. This results in a low evaluation score.

2

Score: /5

(9) Environmental constraints

Main factors to consider:

Environment Agency Flood Zones 2 and 3 and Strategic Flood Risk Assessment (SFRA) results

- None – although noted that River Colne passes to the south of sub-area

Proximity to Sites of Special Scientific Interest (SSSI)

- Moor Mill Quarry West sited 3km west of sub-area – no impact.

Proximity to Local Nature Reserve or Local Wildlife Site

- Broad Colney Lakes Nature Reserve is locally designated and lies 200m beyond the southeast corner of the sub-area – potentially some impact

Proximity to Ancient Semi-Natural Woodland

- None in close proximity

Would development harm any trees protected by Tree Preservation Orders or other important trees?

- Blanket TPO exists in Napsbury, immediately to the north of the sub-area – this reflects important environmental character and quality issues at the northern site boundary.

Will there be an adverse impact on a protected habitat or species?

- None identified

Comments / Overall Conclusions:

The sub-area is not subject to any significant environmental constraints within the site, but the relationship to the well treed parkland to the north requires careful treatment. This results in a medium level evaluation score.

5

Score: /10

(10) Landscape quality / surrounding area characteristics

Main factors to consider:

Landscape Character Assessment (LCA) condition and sensitivity

- The sub-area lies within the Vale of St Albans landscape character area. The Vale of St Albans comprises the broad, shallow basin of the River Colne. It is a flat area with very limited topographic variation.
- The condition of the landscape and strength of character for the broader area is described as 'poor' and 'weak' respectively. The overall objective for this landscape character area is to 'reconstruct'.

- The land to the south of Napsbury is relatively flat and has limited landscape character.
- The sub-area is open and level, views of which are gained from Shenley Lane.
- There are no landscape designations within or adjacent to the sub-area.
- The land parcel is open with weak boundaries. Visual impact would be considerable, but contained adjacent to Shenley Lane. Development further west of the land parcel would have far greater impact.

Historic Landscape Characterisation information in relation to site

- Formal 18th Century Parliamentary Enclosure

Landscape Institute Guidelines for Landscape and Visual Impact Analysis

- Principles applied to analysis above

Comments / Overall Conclusions:

Landscape quality of the site itself is poor and its flat nature allows for effective screening. However the urbanising effect on the setting of the Napsbury parkland is a negative factor. This results in a medium level score.

5

Score: /10

(11) Heritage / archaeology potential

Main factors to consider:

Proximity to Conservation Area and impact upon setting

- Napsbury Conservation Area lies immediately to the north of the sub-area and therefore any development will have to consider the potential impacts on this heritage asset.

Proximity to Listed Buildings and impact upon setting

- There are several Listed Buildings at All Saints Pastoral Centre and a coal marker at Broad Colney Bridge. There is also a number of Listed Buildings further west where High Street/Barnet Road crosses the River Colne.
- There are also a number of Locally Listed Buildings in the vicinity of the sub-area, mainly at Napsbury. The Birches, also Locally Listed, lies immediately to the north of the sub-area.

Proximity to Scheduled Ancient Monuments and impact upon setting

- Colney Chapel moated site lies 300m to the south of the sub-area. There is no impact

Proximity to Historic Parks & Gardens and impact upon setting

- Napsbury Park, which lies immediately to the north of the sub-area, is a designated Historic Park & Garden

Presence of archaeological sites for local preservation (Local Plan Review 1994 Policy 110)

- None identified

Comments / Overall Conclusions:

There are no significant heritage or archaeological features within the site that would be adversely affected by the residential development of the sub-area. There may be some adverse impact on the setting of the adjoining Napsbury CA Historic Park and Garden. A mid level evaluation score is appropriate.

4

Score: /5

(12) Opportunities for sustainable energy production

Main factors to consider:

Site location in relation to District Heating Opportunity Areas

- The sub-area is not located in a District Heating Opportunity Area

Site location in relation to Wind Turbine Opportunity Areas

- The sub-area is located within a Wind Opportunity Area, however, potential to deliver wind turbines may be limited given proximity to roads, potential new residential development and land availability.

Other sustainable energy production opportunities identified

- Potential to incorporate small-scale renewable energy systems as part of the development, for example solar, biomass heating, ground source heat pumps

Comments / Overall Conclusions:

There are no special opportunities for renewable energy due to the scale of development possible. This results in a low evaluation score.

0

Score: /5

S8: Land at Chiswell Green

Assessment Matrix – Summary of Evaluation Results

THEME	ECONOMIC				SOCIAL				ENVIRONMENTAL			
	1 - Sustainable Location	2 - Settlement hierarchy	3 - Mixed-use development	4 - Other Matters	5 - Strategic infrastructure provision	6 - Vehicular access and traffic impact	7 - Public transport	8 - Urban Design	9 - Environmental constraints	10 - Landscape quality / surrounding area	11 - Heritage / archaeology potential	12 - Opportunities for sustainable energy production
S8	4	4	0	3	0	6	2	4	8	8	5	0

Total score: **44**

(Rank: **7**)

Note: Independent Green Belt Review Site Ranking **1**

Assessment of sustainable development principles

(1) Sustainable location

Main factors to consider:

Would the site be well related to existing settlements or an isolated form of development?

- The sub-area has an urban fringe character is fairly well related to the existing settlement.
- Residential development exists to the east, Butterfly World and access road to the west, residential/agricultural to the north and residential/employment/hotel to the south

Proximity to existing employment opportunities or potential to provide such opportunities

- EMP 20 Watling Street, Frogmore – normally acceptable uses B1, B2 & B8 – 2km southeast of sub-area

Proximity to existing schools, consideration of capacity and potential to meet increased demand and consideration of capacity

There are many existing schools in the vicinity of the sub area. Distances are given for those closest to the site.

Analysis is based on HCC “Meeting the Rising Demand for School Places” (2012/2013), HCC consultation response to SACDC Core Strategy 2010, HCC consultation response to DBC Pre-submission Core Strategy 2011 and HCC Service Position Update June 2014

- Killigrew Nursery & Primary School 800m northeast of sub-area
- How Wood Primary School 1.2km southeast of sub-area
- Park Street Church of England Junior Mixed and Infant School – 1.6km southeast of sub-area
- Park Street Primary School – 1.7km southeast of sub-area
- Prae Wood Primary School – 2.1km north of sub-area
- The Haberdashers’ Aske’s Boys’ Pre-Preparatory School – 1.2km south of the sub-area
- The Abbey Church of England Voluntary Aided Primary School
- St Peter’s School

- Mandeville Primary School
- St Adrian Roman Catholic Primary School
- Mount Pleasant Lane Junior Mixed and Infant School and Nursery
- St Michael's Church of England Voluntary Aided Primary School

(key distances from Appendix 7; nearest primary 1.1 km / nearest secondary 2.5 km - October 2014)

- The GBR report identifies that the 9 hectares of land to the west of Chiswell Green could provide between 270 and 450 dwellings. The report identifies that in addition, 6 hectares of land would be available to provide supporting infrastructure, including education facilities. The dwelling numbers identified in the GBR report would yield between 0.31/0.54fe to 0.52/0.9 fe respectively.
- Concerns over the deliverability of expansion of existing primary schools were identified in previous representations, (HCC Core Strategy Representations February 2011, para 5.6). It was identified that any further expansion of Killigrew school would rely upon flexible Green Belt policy and upon the resolution of highways issues which may be insurmountable. Given these uncertainties, and the child yield which would arise from the new development, it would be appropriate for any release here to provide for a new 2fe school on a 2.5ha site, (which might be developed with a 1fe school in the first instance). However, the additional potential capacity would provide additional latent, deliverable capacity to provide both for the new community and any additional needs arising from recycling of sites in the existing urban area. In addition, it is worth noting that the strategic release would offer the potential to provide a new school on the south west side of Chiswell Green, and west of Watford Road. In addition to the fact that it would be prudent to plan for additional primary capacity within the settlement, further development at Chiswell Green would generate demand for additional secondary school places.
- Submitting evidence to inform the Core Strategy in 2011 and with reference to secondary education planning, HCC identified that it would be helpful if the Local Planning Authority could make education allocations in relation to land in St Albans generally.

Proximity to existing public open space and allotments

- Tippendell Lane Allotments 500m east of sub-area
- Watford Road Allotments 900m northeast of sub-area
- Burydell Allotments 1.6km east of sub-area
- Nearby allotments all currently full or subject to heavy demand

Proximity to existing neighbourhood/local centres as defined in the Local Plan Review 1994

- LC.23 Chiswell Green along Tippendell Lane and Watford Road – 160m east of sub-area

Proximity to existing large supermarkets or superstores or potential to provide

- Waitrose sited 2.1km north of sub-area
- Sainsbury sited 2.3km northeast of sub-area

(key distances from Appendix 7; nearest local centre 0.4 km / nearest town centre 3.5 km - October 2014)

Proximity to existing medical facilities or potential to provide

- Chiswell Green Dental Centre, Watford Road – 160m west of sub-area
- Family Dental Practice, Vesta Avenue – 1.8km northeast of sub-area
- Priory Park Dental Centre, Old London Road – 3km northeast of sub-area

Proximity to existing leisure facilities or potential to provide

- Butterfly World sited immediately to west of sub-area
- The Gardens of the Rose sited 400m west of sub-area
- Herts in Dance sited 500m west of sub-area
- Blue Velvet Line Dancers 500m east of sub-area
- Spirit Taekwondo sited 500m northeast of sub-area
- Go Ballistic Paintballing sited 1km south of sub-area
- Bricket Wood Sports & Country Club sited 1km south of sub-area
- Greenwood Park offers a range of outdoor recreation facilities

Ability for proposed development to link in with existing footpath and cycleway network

- No special / dedicated footpath or cycleway networks are present within the sub-area
- National Cycle Network Route 6 runs along the eastern fringe of Chiswell Green, parallel to Watford Road. National Route 6 passes through Watford, St Albans, Luton, Milton Keynes, Northampton, Market Harborough, Leicester, Derby, Nottingham, Worksop, Sheffield, Manchester, Blackburn, Preston, Lancaster, Kendal and Windermere, and will connect London and Threlkeld (near Keswick) in Cumbria when complete
- To the south of the sub-area at the Watford Road/North Orbital roundabout a pavement cycling route exists that extends southwards towards Bricket Wood and Garston – potential for new development to link in to this existing route
- Chiswell Green Lane itself is classified as a 'suggested route' by local cyclists
- The Site is currently accessed from Chiswell Green Lane. Wide, lit footways are provided from the existing eastern boundary of the Site on

both sides of the carriageway. They lead to the B4630 Watford Road where a number of shops and services are available, as well as the Three Hammers bus stops. A pedestrian crossing with central refuge provides safe access to the southbound stop on the eastern side of Watford Road.

Potential to promote equity and added social inclusion

- No special factors exist with this site and the scale of development limits potential to provide for specialist needs

Contribution of development to economic growth potential of the settlement / area

- No special factors apply. The sub-area is likely to be suitable only for residential development and associated community facilities.

Ability of development to draw on the economic value of built or natural environment features

- The sub-area does not contain any built or natural environmental features of economic value that the development could draw on.

Comments / Overall Conclusions:

The sub-area relates well to the existing settlement of Chiswell Green, with good access to local schools and community facilities. However the nature of the settlement means that local facilities are limited and this will mean that residents of new development will be dependent on access to nearby higher order settlements and associated facilities. The sub-area is likely to deliver only residential development and therefore there is no special economic arising from development in this location. This suggests a low evaluation score

4

Score: /10

(2) Settlement hierarchy

Main factors to consider:

Main urban settlements (excluded from the Green Belt): St Albans, Harpenden, London Colney

Other settlements excluded from Green Belt: Bricket Wood, Chiswell Green, How Wood, Park Street, Frogmore, Redbourn, Wheathampstead

Green Belt settlements: Colney Heath, Folly Fields, Gustard Wood, Kinsbourne Green, Lea Valley Estate, Sandridge, Sleafshyde, Smallford

Rest of Green Belt: Everywhere else

Comments / Overall Conclusions:

The sub-area is well related to the settlement of Chiswell Green which is excluded from the Green Belt, However, it is not a main urban settlement within the District, resulting in a low evaluation score.

4

Score: /10

(3) Mixed-use development

Main factors to consider:

Employment

- Unsuitable for employment use.

Social infrastructure (including schools and community facilities)

- Unlikely to deliver general social infrastructure; though primary school need and impact is identified by Education Authority as a significant issue

Public open space / sport and recreation

- Limited opportunity to provide open and play space serving the development itself

Retail

- Unsuitable for retail use

Will the benefits of development be accessible to existing communities?

- The land parcel is integrated in the settlement and very accessible to existing Chiswell Green residents; but is not likely to provide any facilities to serve the wider community. However potential need for a new primary school site is noted.

Comments / Overall Conclusions:

Due to the relatively small site size, mixed use development would not be appropriate on this site. A low evaluation score is therefore appropriate.

0

Score: /5

(4) Other matters

Main factors to consider:

Economic contribution of development

- The site is only suitable for residential development. There is no special economic contribution.

Economic value of environmental and heritage features

- None identified

Ability to improve quality of local environment through development – regeneration

- None identified

Physical constraints such as:

overhead power lines,
Pipelines,
Sterilisation of mineral reserves
Contaminated land
'un-neighbourly development'
topography/steep slopes
Agricultural land value grade

- No overhead power lines
- No major pipelines identified
- The land parcel is located within the Sand and Gravel Belt Minerals Consultation Area, as is much of the south of the District; but is unlikely to be suitable for extraction
- No contaminated land identified

- Grass airfield to the west of the sub-area (Plaistowes farm) – used for micro-lighting aircraft. This use may result in occasional / intermittent noise intrusion for residents, but is not regarded as a constraint on development of the site
- Gently sloping from north to south
- At a broad brush scale part classed as Grade 3 and part non-agricultural

Comments / Overall Conclusions:

There are no favourable special factors to take account of. However, the development of the sub-area is not the subject of any significant physical constraints and this suggests a mid level evaluation score.

3	Score: /5
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(5) Strategic infrastructure provision

Main factors to consider:

What opportunities are there to improve strategic infrastructure for the wider benefit of the District?

- No significant strategic infrastructure provision is required or deliverable through this scale of development
- Any infrastructure will be at a small, localised scale (e.g. on site open space)
- Impact of the development on education is noted and this may necessitate consideration of new primary provision – but this will primarily address development related need

Comments / Overall Conclusions:

The sub-area will not deliver improved strategic infrastructure for the wider benefit of the district and this results in a low evaluation score.

0	Score: /10
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(6) Vehicular access and traffic impact

Main factors to consider:

Can suitable access to the site be achieved?

- Chiswell Green Lane provides direct access. However, this is a residential road which begins to narrow after Chiswell Green Farm and improvements will be needed. Potentially access could be taken from Butterfly World Access Road. There is also scope for access to existing residential streets to the east of the site.

Degree of impact upon road network and potential for measures to mitigate the impact

- The sub-area lies in close proximity to the A405 North Orbital Road, which provides access to the M25 to the south and to the A414 to the north. The sub-area therefore benefits good connectivity to major road networks. However, access to the site via parts of Chiswell Green Lane is limited due to the lane narrowing significantly as it meets Miriam Lane. Junction points with Watford Road B4630 need assessment. Local improvements and mitigation measures will be required.

Comments / Overall Conclusions:

Access to the sub-area is constrained by the current form of Chiswell Green Lane. However this route could be improved and a combination of alternative access points exist to supplement this route. Some investment in local road improvements will be required. Strategic road accessibility is good. This suggests a medium level evaluation score.

6

Score: /10

(7) Public transport

Main factors to consider:

Distance to train station including assessment of frequency of service

- Railway stations at How Wood and Park Street are located within 1.5km of the sub-area. This service provides a London Midland service to Watford Junction every 45 minutes. Watford Junction provides regular London Midland and Virgin train services to London Euston and the north.
(key distance from Appendix 7; railway station 2.4km - October 2014)
- Both stations are roughly equidistant to the Site with a walking journey time of approximately 30 minutes, along Chiswell Green Lane, Tippendell Lane and then respectively Park Street Lane and Hyde Lane for How Wood railway station and Park Street for Park Street railway station. Both stations are also served by regular bus services from Watford Road. Footways are provided along the whole length of the journey and a dedicated footbridge straddling the A405 North Orbital Road enables pedestrians to cross safely.
- St Albans City railway station is sited 3.2km to the north of the sub-area. This station provides regular services along the First Capital Connect line to London (St Pancras International within 20 minutes at peak times), and between Luton and Bedford to Brighton.

Distance to a bus route including assessment of frequency of service

- Two bus routes run in close proximity to the site. Bus route 724 passes along Watford Road, 200m to the east of the site, providing a service to Harlow, Heathrow Airport, Hertford, Welwyn Garden City, St Albans, Hatfield and Watford. Bus route 321 also passes along

Watford Road, providing connections to Watford, St Albans, Harpenden and Luton. Frequencies are generally every half-hour.

Potential for new or improved bus services

- None identified – the area is fairly well served by buses that provide regular connections to St Albans, Harpenden, Watford and Luton and the scale of development is unlikely to be sufficient to support improvements.

Comments / Overall Conclusions:

The sub-area is fairly well served by bus routes. However, access to the train network is more limited. Whilst two train stations are sited within 1.5km of the sub-area, these are not easily accessible by bus and only provide access to a limited service (every 45 minutes) on the Watford Junction-St Albans Abbey line every 45 minutes. This results in a low evaluation score.

2

Score: /5

(8) Urban Design

Main factors to consider:

Can connections be made with any existing development so that ease of movement is good and social cohesion between new and existing development is facilitated?

- The land parcel is well related to existing development at Chiswell Green and design integration of new development can readily be achieved. Access, including foot and cycle connections could be made from Chiswell Green Lane and at a number of points from residential areas east of the land parcel.

Can a positive interface between fronts and backs of existing development be achieved?

- Yes. To the east lies residential development, the rear elevations of which predominantly face onto the sub-area, and this will require back-to-back residential development. Nevertheless the potential for access routes via existing residential streets allows for permeability and some design integration of existing and new residential areas.

Can development of the site have a positive relationship with existing adjacent land uses?

- Yes. There are no conflicts as adjoining uses are residential, with the exception of Butterfly World, which already has a clear separation with its access road and parking (with landscaping).

Comments / Overall Conclusions:

The sub-area is well related to the existing residential development to the east and opportunities exist to create designed connections with benefits for social cohesion. The residential development of the sub-area would have a positive relationship with the existing land uses. The evaluation score is therefore high.

4

Score: /5

(9) Environmental constraints

Main factors to consider:

Environment Agency Flood Zones 2 and 3 and Strategic Flood Risk Assessment (SFRA) results

- None

Proximity to Sites of Special Scientific Interest (SSSI)

- Moor Mill Quarry West is sited 1.5km south-east of sub-area – no impact

Proximity to Local Nature Reserve or Local Wildlife Site

- Watercress Local Nature Reserve – 2.6km
- How Wood Local Wildlife Site – 500m

Proximity to Ancient Semi-Natural Woodland

- Ancient Woodland at How Wood – 500m

Would development harm any trees protected by Tree Preservation Orders or other important trees?

- Two areas of TPO are located within the land parcel and three located along the western boundary. These can be retained and enhanced as features in the development area.

Will there be an adverse impact on a protected habitat or species?

- None identified

Comments / Overall Conclusions:

Although areas of TPOs are sited within the sub-area the protected trees can be retained. There are no significant environmental constraints that would prevent the residential development of the site. The evaluation score is therefore high.

8 | Score: /10

(10) Landscape quality / surrounding area characteristics

Main factors to consider:

Landscape Character Assessment (LCA) condition and sensitivity

- St Stephen's Plateau landscape character area. Condition assessed as moderate and robustness as weak
- The residential development of the sub-area would reduce the openness of landscape to the west of the settlement. However, the landform and vegetation provide a degree of enclosure. The sub-area shares a connection with the countryside to the west beyond the Butterfly World site, however, the existing access road creates strong separation and additional planting could increase the screening of the sub-area.
- The land parcel raises to the north and is visually prominent in parts when approaching Chiswell Green from the south
- The greatest visual impacts will be at a local level, specifically those views of residents on the western edge of Chiswell Green and the dispersed residential properties.

Historic Landscape Characterisation information in relation to site

- 20th Century agriculture. Post 1950s enclosure

Landscape Institute Guidelines for Landscape and Visual Impact Analysis

- Principles applied to analysis above

Comments / Overall Conclusions:

The visual impact of any residential development would occur at a local scale, particularly the residents on the western edge of Chiswell Green. Existing vegetation and new planting would mitigate the impacts to a degree. The relatively limited landscape impact results in a high evaluation score.

8 | Score: /10

(11) Heritage / archaeology potential

Main factors to consider:

Proximity to Conservation Area and impact upon setting

- Potters Crouch CA 1.3km northwest of sub-area – no impact
- Park Street & Frogmore CA 1.5km east of sub-area – no impact
- St Albans CA 1.8km north of sub-area – no impact

Proximity to Listed Buildings and impact upon setting

- The Three Hammers Public House in Chiswell Green (Grade II) - 160 metres west of sub-area – no impact

Proximity to Scheduled Ancient Monuments and impact upon setting

- Prae Wood settlement (AM 8) – 2km north of sub-area – no impact

Proximity to Historic Parks & Gardens and impact upon setting

- Napsbury – 2.8km east of sub-area – no impact
- Gorhambury & Lord Bacons Mount (Grade II) – 3km northwest of sub-area – no impact.

Presence of archaeological sites for local preservation (Local Plan Review 1994 Policy 110)

- None

Comments / Overall Conclusions:

There are no significant heritage or archaeological features that would be adversely affected by the residential development of the sub-area. A high evaluation score is appropriate.

5

Score: /5

(12) Opportunities for sustainable energy production

Main factors to consider:

Site location in relation to District Heating Opportunity Areas

- The sub-area is not located in a District Heating Opportunity Area

Site location in relation to Wind Turbine Opportunity Areas

- The sub-area is located within a Wind Opportunity Area, however, potential to deliver wind turbines may be limited given proximity to roads, potential new residential development and land availability.

Other sustainable energy production opportunities identified

- Potential to incorporate small-scale renewable energy systems as part of the development, for example solar, biomass heating, ground source heat pumps

Comments / Overall Conclusions:

There are no special opportunities for renewable energy due to the scale of development possible. This results in a low evaluation score.

0

Score: /5

REFERENCE LIST / MAPS OF SITE LOCATIONS

SA – S1: East of Hemel Hempstead (north) – land enclosed by east Hemel Hempstead and the M1 motorway within Strategic Parcel GB21A.
Eaton Lodge, Punch Bowl Lane, HP2 7HT

SA- S2: East of Hemel Hempstead (south) - land enclosed by east Hemel Hempstead and motorway with Strategic Parcel GB24A.
Swedish Cottages, Westwick Row, Hemel Hempstead, HP2 4UB

SA – S3: East of St Albans- land enclosed by residential development at east along Sandpit Lane within Strategic Parcel GB36
Barnfield Road, St Albans, AL4 9UP

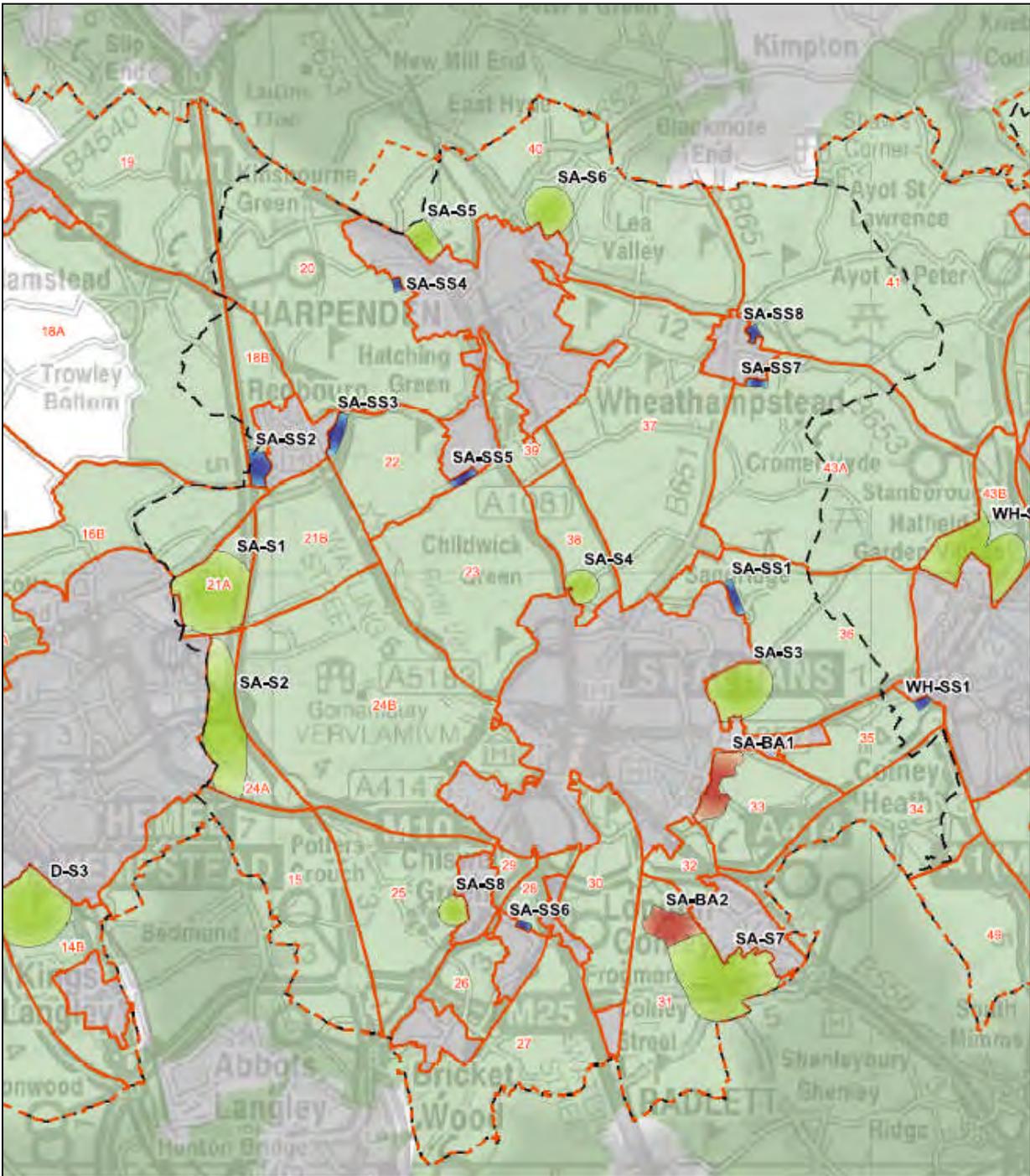
SA – S4: North of St Albans – land at north St Albans along Sandridgebury Lane within Strategic Parcel GB38
Sandridgebury Lane, St Albans, AL3 6DD

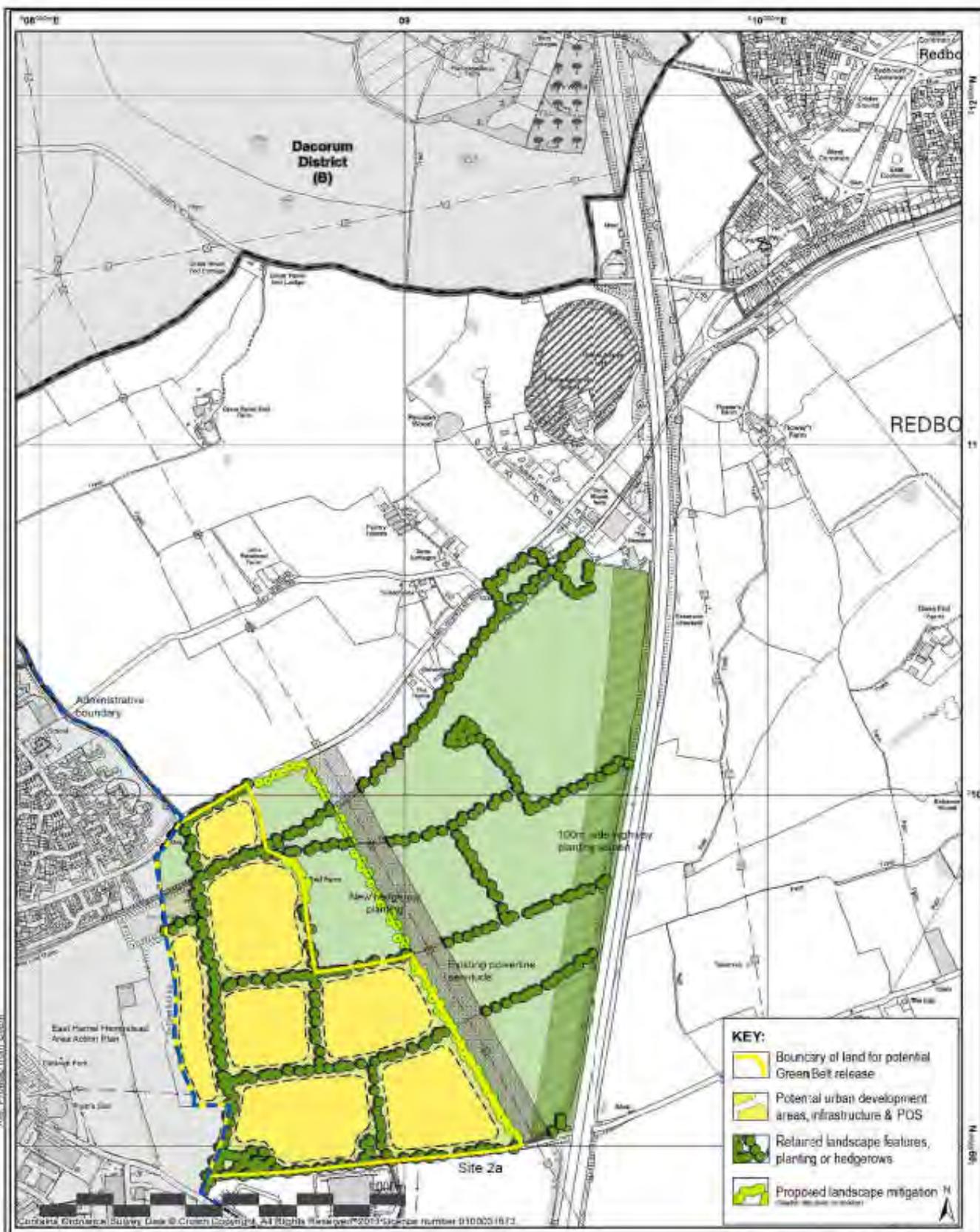
SA –S5: Northwest of Harpenden - land at north Harpenden in the vicinity of Luton Road, Cooters End Lane and Ambrose Lane within Strategic Parcel GB40
Cooters End Lane, Harpenden, AL5 3NR

SA – S6: Northeast of Harpenden – land at northeast Harpenden along Lower Luton Road, and extending to the vicinity of Whittings Close within Strategic Parcel GB40
Bower Heath Lane, Harpenden, AL5 5EF

SA – S7: land at London Colney - land to the south and southwest of London Colney within Strategic Parcel GB31
Shenley Lane, London Colney, AL12 1AD

SA – S8: Land at Chiswell Green – Land at Chiswell Green Lane at Chiswell Green within Strategic Parcel GB25
Chiswell Green Lane, Chiswell Green, AL2 3AN



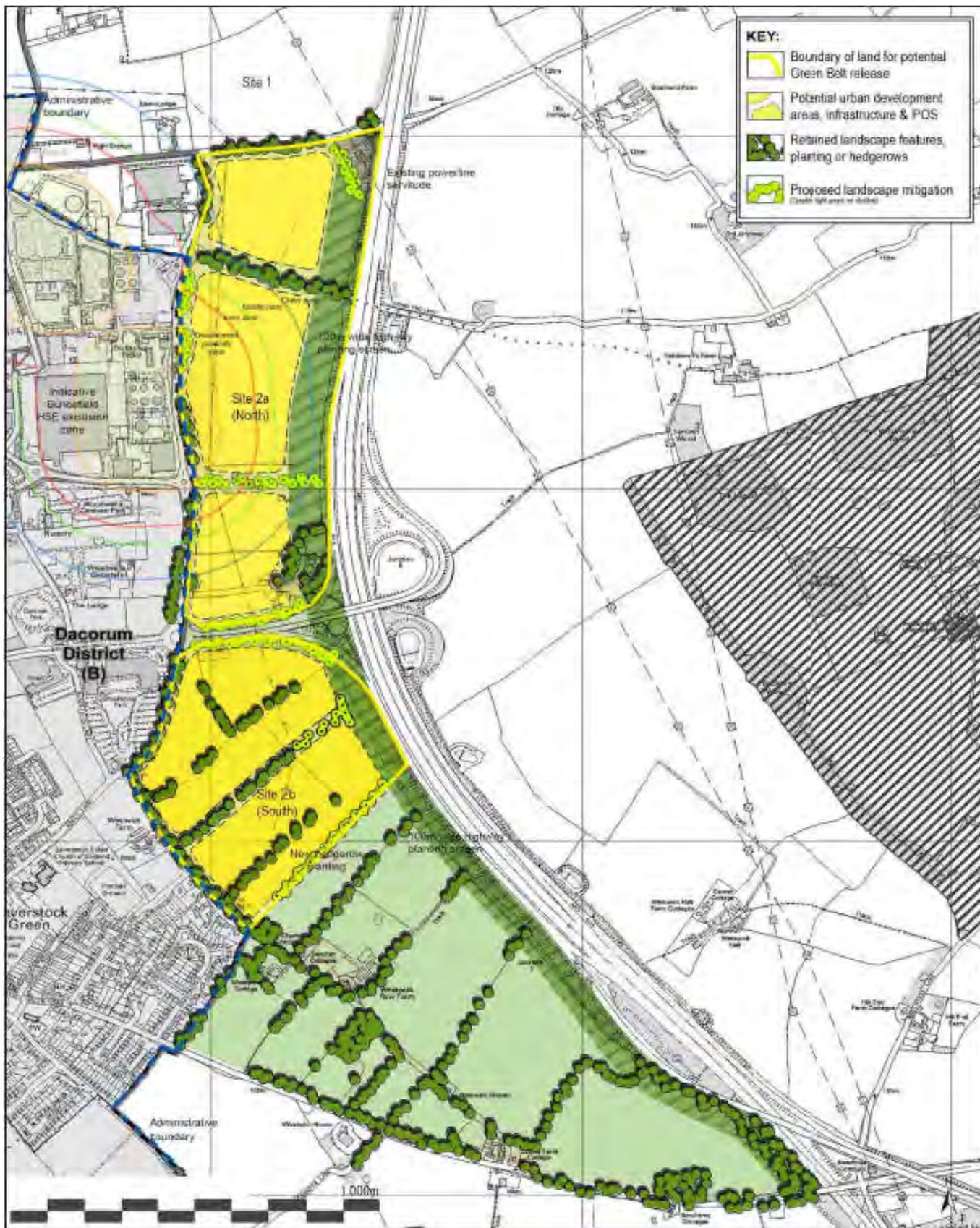


**Sites and boundary study
for St Albans City and
District Council**

PROJECT: LE30781 STAGE 2
DATE: Nov 2013 Res. No: 14/10/05
SCALE: indicative

**FIGURE 3.3 Indicative layout
Site 1 East of Hemel Hempstead (north)**





**Sites and boundary study
for St Albans City and
District Council**

PROJECT: E30781
DATE: Nov 2013
SCALE: Indicative

STAGE 2
Rev: Jan 14 v005

**FIGURE 4.3 Indicative layout
Site 2a and 2b East of Hemel Hempstead (south)**



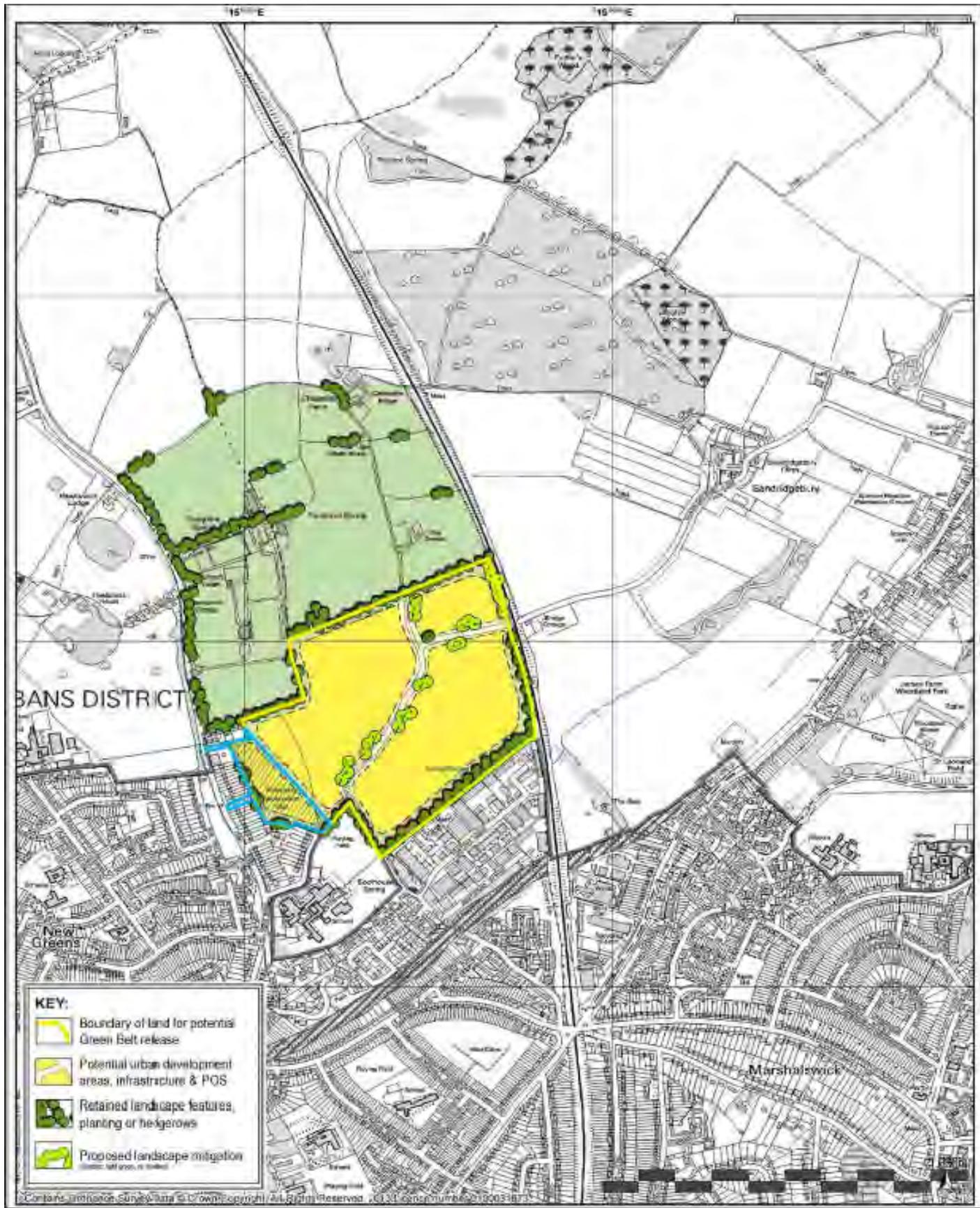


Sites and boundary study for St Albans City and District Council

PROJECT JE00751 STAGE 2
 DATE Nov 2013 Revision 14/005
 SCALE Indicative

FIGURE 5.3 Indicative layout Site 3 East of St Albans



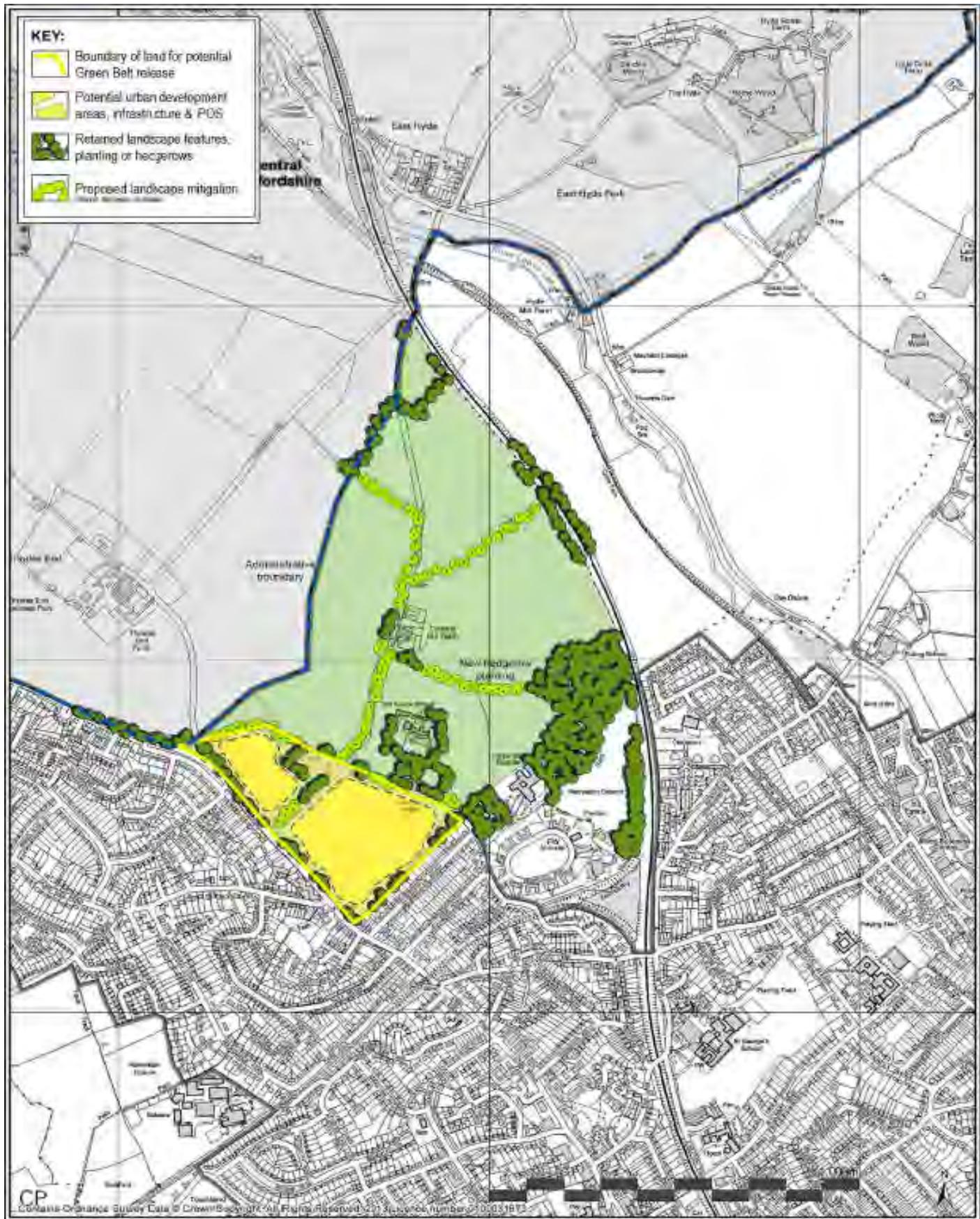


**Sites and boundary study
for St Albans City and
District Council**

PROJECT: E20781 STAGE 2
DATE: Nov 2013 Rev: Jan 14/005
SCALE: Indicative

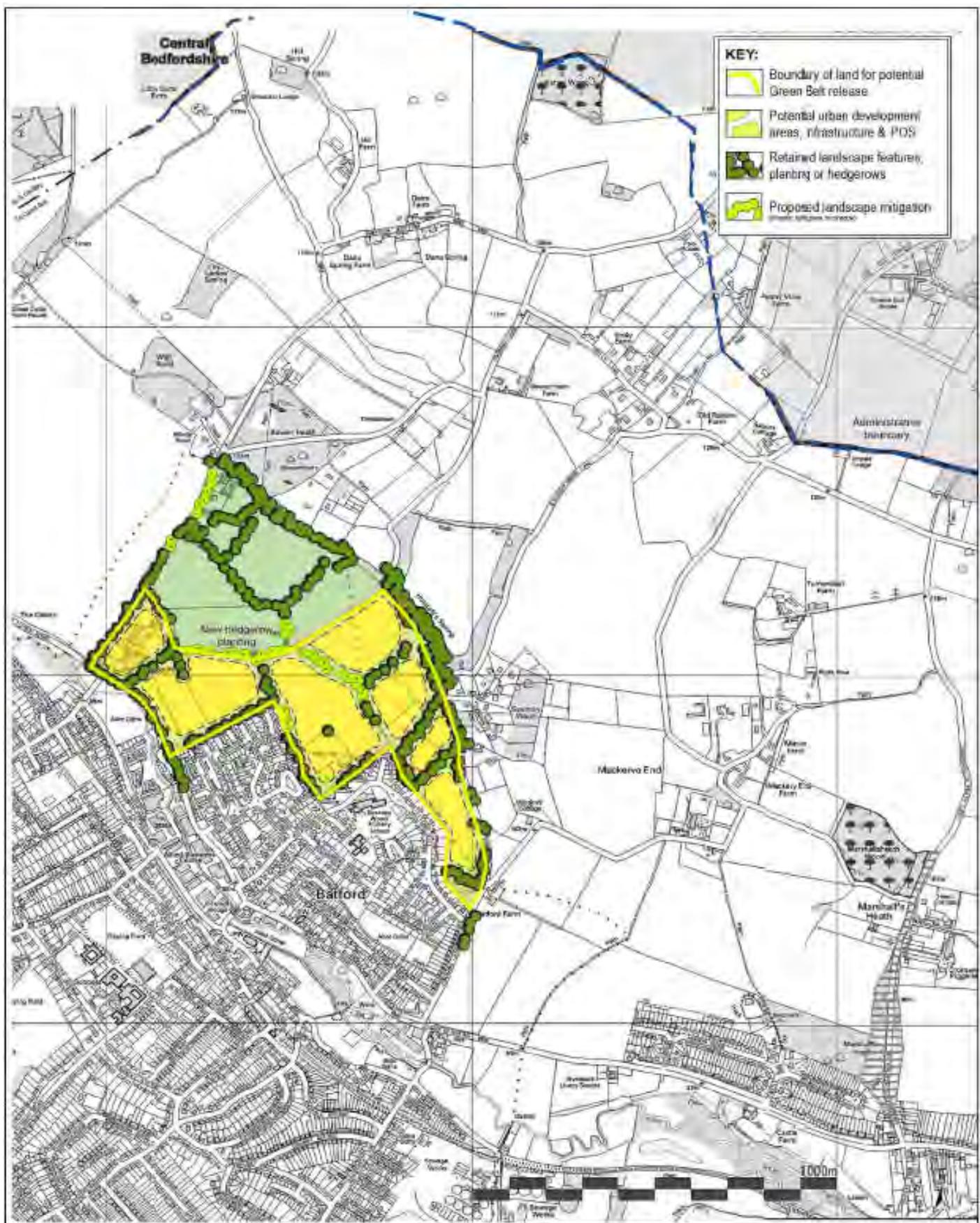
FIGURE 6.3 Indicative layout
Site 4 North of St Albans





Sites and boundary study for St Albans City and District Council

FIGURE 7.3 Indicative layout Site 5 North-west of Harpenden



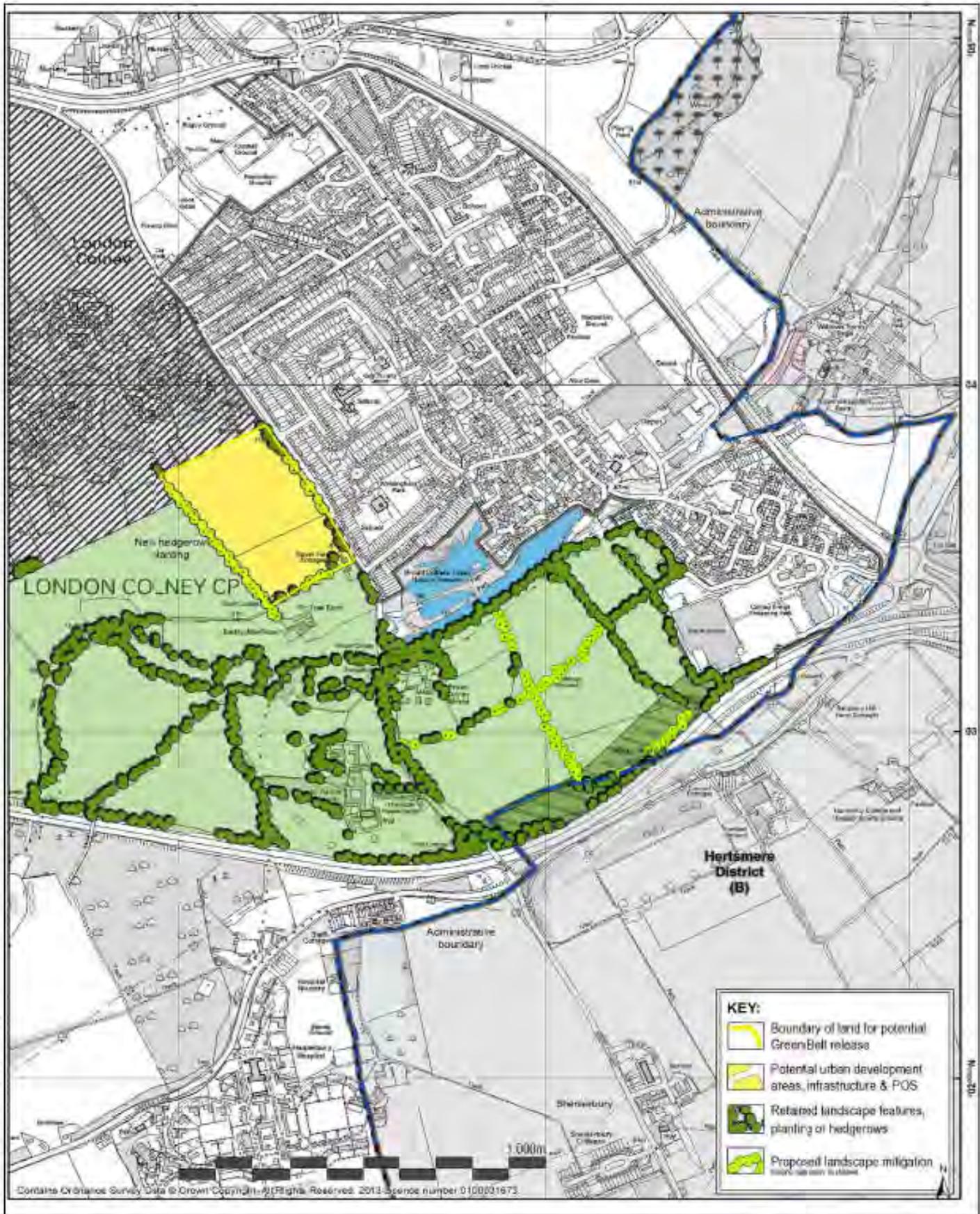
**Sites and boundary study
for St Albans City and
District Council**

PROJECT: JE00781
DATE: Nov 2013
SCALE: indicative

STAGE 2
Rev: Jan 14/015

FIGURE 8.3 Indicative layout
Site 6 North-east of Harpenden





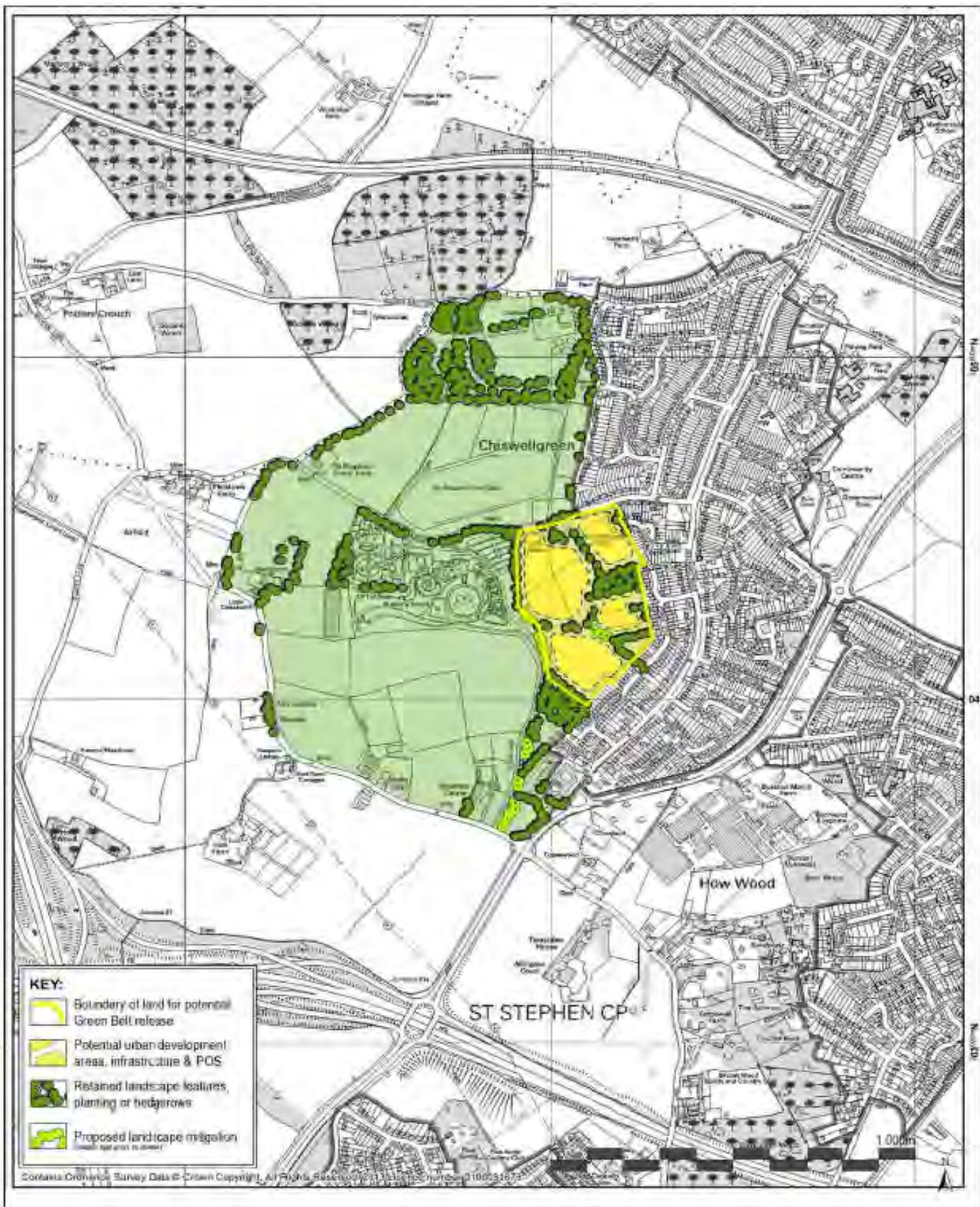
**Sites and boundary study
for St Albans City and
District Council**

PROJECT JS0761
DATE Nov-2013
SCALE Inductive

STAGE 2
Rev Jan 14/085

FIGURE 9.3 Indicative layout
Site 7 Land at London Colney





**Sites and boundary study
for St Albans City and
District Council**

PROJECT LE30781
DATE Nov 2013
SCALE indicative

STAGE 2
REV JAN14/005

FIGURE 10.3 Indicative layout
Site 8 Land at Chiswell Green



Development Sites Evaluation Results Overall Scoring Matrix

THEME	ECONOMIC							SOCIAL							ENVIRONMENTAL					
Strategic Sub Areas	1 - Sustainable Location Weighting (10)	2 - Settlement hierarchy Weighting (10)	3 - Mixed-use development Weighting (5)	4 - Other Matters Weighting (5)	5 - Strategic infrastructure provision Weighting (10)	6 - Vehicular access and traffic impact Weighting (10)	7 - Public transport Weighting (5)	8 - Urban Design Weighting (5)	9 - Environmental constraints Weighting (10)	10 - Landscape quality / surrounding area Weighting (10)	11 - Heritage / archaeology potential Weighting (5)	12 - Opportunities for sustainable energy production Weighting (5)	Total/ Rank (potential maximum score 90)							
SA-S1 – Land enclosed by east Hemel Hempstead and M1 (North)	7	10	5	4	10	5	5	3	6	4	4	5	68 (Rank 2)							
SA-S2 – Land enclosed by east Hemel Hempstead and M1 (South)	8	10	5	4	10	5	5	3	6	5	4	5	70 (Rank 1)							
SA-S3 – Area enclosed by residential development at east St Albans along Sandpit Lane	7	10	2	4	5	7	4	4	7	7	5	2	64 (Rank 3)							

SA-S4 – Enclosed land at north St Albans along Sandridgebury Lane	7		10		0		3		0		2		4		3		7		6		5		0		47 (Rank 5)
SA-S5 – Enclosed land at north Harpenden in vicinity of Luton Road, Cooters End Lane and Ambrose Lane	8		9		0		3		0		9		4		4		7		7		4		0		55 (Rank 4)
SA-S6 – Enclosed land at northeast Harpenden along Lower Luton Road and extending to the vicinity of Whitings Close	7		8		0		3		0		5		3		2		7		5		5		0		45 (Rank 6)
SA-S7 – Land south and south west of London Colney	5		6		0		3		1		7		1		2		5		5		4		0		39 (Rank 8)
SA-S8 – Enclosed land at Chiswell Green Lane at Chiswell Green	4		4		0		3		0		6		2		4		8		8		5		0		44 (Rank 7)

SECTION 4

STRATEGY EVALUATION DETAILED RESULTS

Evaluation Results for Option 1 a) Mixed Location / Scale Development

Assessment of sustainable development principles

(1) Sustainable location

Main factors to consider:

- Would the (*combination of*) site(s) be well related to existing settlements or (*represent*) isolated form(s) of development?

This strategy includes a combination of sites that expand the main Towns in and adjoining the district and thus development relates very well to existing settlements.

- Proximity to existing employment opportunities or potential to provide such opportunities
- Proximity to existing schools, consideration of capacity and potential to meet increased demand and consideration of capacity
- Proximity to existing public open space and allotments
- Proximity to existing neighbourhood/local centres as defined in the Local Plan Review 1994
- Proximity to existing large supermarkets or superstores or potential to provide
- Proximity to existing medical facilities or potential to provide
- Proximity to existing leisure facilities or potential to provide
- Ability for proposed development to link in with existing footpath and cycleway network

All the above questions address aspects of how well the occupants of new development can access activity and services normally best provided in larger urban areas (with higher population levels). The strategy includes a large new urban extension to Hemel Hempstead, where the scale of development will justify substantial new provision, or where the existing Town facilities will offer many opportunities. The smaller development locations are unlikely to provide opportunities for significant new provision, but all are located in the main settlements of the District with good access to existing facilities.

- Potential to promote equity and added social inclusion

All the sites are of a scale that a significant contribution to affordable housing provision should be achievable. Only the East Hemel Hempstead sites are likely to contribute in other ways, particularly in meeting specialist needs such as gypsy and traveller provision, self build and local job opportunities.

- Contribution of development to economic growth potential of the settlement / area

As above, the inclusion of the East Hemel Hempstead development in this package provides a significant opportunity for specific employment related development.

- Ability of development to draw on the economic value of built or natural environment features

Comments / Overall Conclusions:

Overall this strategy relies on a combination of sites that are expansions of the main settlements. They offer future residents ease of access to a wide range of facilities and services. In addition there is a significant economic development opportunity incorporated. This justifies a high evaluation score.

8

Score: /10

(2) Settlement hierarchy

Main factors to consider:

- Main urban settlements (excluded from the Green Belt): St Albans, Harpenden, London Colney
- Other settlements excluded from Green Belt: Bricket Wood, Chiswell Green, How Wood, Park Street, Frogmore, Redbourn, Wheathampstead
- Green Belt settlements: Colney Heath, Folly Fields, Gustard Wood, Kinsbourne Green, Lea Valley Estate, Sandridge, Sleafshyde, Smallford
- Rest of Green Belt: Everywhere else

Comments / Overall Conclusions:

Overall this strategy assumes a combination of development sites in the highest order settlements in the hierarchy (Towns), thus offering future residents ease of access to a wide range of facilities and services. This justifies a high evaluation score.

It should be noted that if the strategy sites package were to include development at Chiswell Green or London Colney (Sites S7/8) the position is weakened as these are settlements with a lower level of services and facilities. However the strategy level evaluation assumes that neither of these sites would be needed for this strategy.

London Colney is classified as a large village in the District Local Plan. However the policy intention in the SLP to date has been to recognise

significant housing growth and the development of a major shopping facility at London Colney over the last 20 years by designating the settlement as a Town for the purposes of future planning decisions. This issue is dealt with in more detail at site evaluation level, but may need to be considered further as a specific influence on final decisions on preferred strategy.

8

Score: /10

(3) Mixed-use development

Main factors to consider:

- Employment
- Social infrastructure (including schools and community facilities)
- Public open space / sport and recreation
- Retail
- Will the benefits of development be accessible to existing communities?

Comments / Overall Conclusions:

Inclusion of major sites at east Hemel Hempstead creates an opportunity for a planned, full, mixed use development. The scale of development demands some integral local facilities, particularly schools and strategic open space and the relationship with existing employment generating activities will be good. There is also scope for a large new allocation of employment land. By way of contrast the scale of development at other locations in this strategy will be insufficient to allow for other than mainly residential development. However the small size of these other residential sites and their location does create scope to relate development well to the existing wide range of uses in Towns. This strategy provides scope to select only the additional sites that offer the best prospects for aspects of mixed use. This combination of opportunities justifies a relatively high evaluation score for mixed use potential.

4

Score: /5

(4) Other matters

Main factors to consider:

- Economic contribution of development
- Economic value of environmental and heritage features

As noted above a development strategy that includes east Hemel Hempstead clearly offers opportunities for employment related development not available from other sites. There is a wider dimension to this, in the opportunity to enhance land availability, infrastructure and environmental quality around a major existing focus for economic growth and employment (the Maylands area M1 corridor and M25

accessibility). Housing focused in this location could support economic activity and its role in economic development for Hertfordshire and the sub region.

The area is capable of accommodating this type of large scale economic related development with lesser impact on countryside and better use of existing infrastructure than any other location in the district.

A development strategy that includes this area will create opportunities for wider economic development work and promotion in collaboration with relevant organisations (County Council, Local Enterprise Partnership, National agencies). This could also unlock future Government economic development, housing, infrastructure and training related funding opportunities.

- Ability to improve quality of local environment through development – regeneration

A development strategy including east Hemel Hempstead offers significant regeneration benefits to Hemel Hempstead. The Buncefield explosion and aftermath combined with the 2007 – 12 recession left Maylands with a legacy of economic change and physical regeneration challenges. Other sites in the strategy do not offer specific regeneration opportunities and benefits.

- Physical constraints such as:

- overhead power lines,
- Pipelines,
- Sterilisation of mineral reserves
- Contaminated land
- 'un-neighbourly development'
- topography/steep slopes
- Agricultural land value grade

All the factors listed affect east Hemel Hempstead in various ways. This will necessitate a comprehensive and effective planning process that addresses all the site constraints involved. The impact on the likely timescales for a start of development and delivery of new housing could be significant. This points to a danger in any overreliance on the contribution to be made from this particular element of the strategy. However as the east Hemel Hempstead area is part of a mixed sites development strategy, the combination of opportunities overall becomes a positive factor and supports a relatively high evaluation score.

A specific negative factor against any strategy including development at east Hemel Hempstead is the high impact in loss of Best and Most Versatile agricultural land (Grade 2). Such land has high current ,and higher future, economic value. This is taken into account by lowering the overall score to reflect this unique and important factor. It is acknowledged that there is a Sustainability Appraisal argument that this issue should be weighted more highly in scoring. For this reason it is highlighted in this general conclusion.

Comments / Overall Conclusions:

This evaluation factor picks up a range of disparate factors not easily considered under other standard headings. It is the most difficult aspect to consider and score. There are some clear issues in relation to the east Hemel Hempstead aspect of the strategy that inevitably require a degree of judgement as to overall weighting. The evaluation score gives high importance to the opportunities created for long term, planned economic development. It reduces marginally for the delivery issues and significant loss to agriculture.

4

Score: /5

(5) Strategic infrastructure provision

Main factors to consider:

- What opportunities are there to improve strategic infrastructure for the wider benefit of the District?

Comments / Overall Conclusions:

This evaluation factor requires careful judgement. As a matter of principle the inclusion of large scale development at Hemel Hempstead is positive in terms of ability to provide strategic infrastructure to the wider area. The scale of development involved would certainly be able to support, and assist in funding of, new schools, roads, open space and environmental enhancement. However, judging whether such provision would directly benefit the District depends on the view taken of the overall advantages of expansion at Hemel Hempstead and the relative roles of the main settlements in the sub region. For the purposes of the evaluation it is assumed that expansion of Hemel Hempstead could benefit the district by providing jobs and homes in close proximity to needs generated from the St Albans City and District population. This justifies a relatively high score. The mixed nature of the option results in inclusion of a number of medium scale developments that would not deliver strategic infrastructure.

5

Score: /10

(6) Vehicular access and traffic impact

Main factors to consider:

- Can suitable access to the site be achieved?
- Degree of impact upon road network and potential for measures to mitigate the impact

Comments / Overall Conclusions:

Major development at East Hemel Hempstead will require careful transport planning and significant investment. However it is clear from work conducted by the landowners and initial Highways Agency / Authority assessment undertaken in the past that a phased development can be successfully accessed with a variety of links to the A 414/M1, A4147 and the B478.

An assumption is made that the smaller development sites included in this strategy will be selected to have viable access and transport options. The mixed strategy offers some advantages as heavy reliance on major development at East Hemel Hempstead, with its ability to provide new transport infrastructure, lessens the burden on existing transport infrastructure. This is because a more dispersed pattern of development spreads impact but offers lesser opportunities to mitigate through new infrastructure.

8

Score: /10

(7) Public transport

Main factors to consider:

- Distance to train station including assessment of frequency of service
- Distance to a bus route including assessment of frequency of service
- Potential for new or improved bus services

Comments / Overall Conclusions:

This strategy has the potential to be based on a combination of sites that all provide opportunities for access to public transport. The potential to choose the medium scale sites in the strategy allows a focus on the bigger settlements which have the best rail access (including via bus services). The inclusion of major development at Hemel Hempstead provides a realistic opportunity for bus service improvement due to the concentration of new housing in one location. This will create sufficient demand to support new services. Thus a high evaluation score is justified.

4

Score: /5

(8) Urban Design

Main factors to consider:

- Can connections be made with any existing development so that ease of movement is good and social cohesion between new and existing development is facilitated?
- Can a positive interface between fronts and backs of existing development be achieved?
- Can development of the site have a positive relationship with existing adjacent land uses?

Comments / Overall Conclusions:

The mix of the strategy provides a good combination of opportunities to achieve high quality urban design outcomes. The ability to choose from a range of medium scale development sites allows those with the best potential for design integration within the existing grain of settlements. The inclusion of major development at Hemel Hempstead presents challenges in the sense that achieving high quality design is always more difficult in a situation where new neighbourhoods have to be planned from a blank canvass. There are also some inherent geographic urban design problems caused by the relationships of the site with the M1 motorway and oil depot and the structure of the Town. In particular the employment area separates the development area from the centre and main facilities and the distances to the centre and to rail transport are greater than desirable. However there is also greater potential from a large scale development to address these disadvantages through careful master and site planning and public transport related design. This position justifies a mid level score reflecting the scale of the urban design challenge for east Hemel Hempstead.

3

Score: /5

(9) Environmental constraints

Main factors to consider:

- Environment Agency Flood Zones 2 and 3 and Strategic Flood Risk Assessment (SFRA) results
- Proximity to Sites of Special Scientific Interest (SSSI)
- Proximity to Local Nature Reserve or Local Wildlife Site
- Proximity to Ancient Semi-Natural Woodland
- Would development harm any trees protected by Tree Preservation Orders or other important trees?
- Will there be an adverse impact on a protected habitat or species?

Comments / Overall Conclusions:

There are no specific environmental constraint issues to highlight in respect of this strategy. This justifies a relatively high evaluation score. However it can be argued that reliance on major development at Hemel Hempstead results in a concentration of environmental impact in terms of pollution and intrusion on open and semi natural areas (though such areas have no specific environmental designation). This also means a high perception of environmental impact. The evaluation score is moderated on that basis.

6

Score: /10

(10) Landscape quality / surrounding area characteristics

Main factors to consider:

- Landscape Character Assessment (LCA) condition and sensitivity
- Historic Landscape Characterisation information in relation to site
- Landscape Institute Guidelines for Landscape and Visual Impact Analysis

Comments / Overall Conclusions:

The Strategy includes some smaller sites that are readily capable of assimilation into the landscape around existing urban areas with relatively limited impact. This is especially so where an assumption is made that the development will include urban design and landscaping measures to achieve mitigation. However the reliance on the large scale East Hemel Hempstead development inevitably results in a concentration of significant landscape intrusion and change in one area. The area affected has some strong countryside character and good landscape quality and some areas affected are prominent to views. This results in a low evaluation score.

4

Score: /10

(11) Heritage / archaeology potential

Main factors to consider:

- Proximity to Conservation Area and impact upon setting
- Proximity to Listed Buildings and impact upon setting
- Proximity to Scheduled Ancient Monuments and impact upon setting
- Proximity to Historic Parks & Gardens and impact upon setting
- Presence of archaeological sites for local preservation (Local Plan Review 1994 Policy 110)

Comments / Overall Conclusions:

The major east Hemel Hempstead development does not affect any known significant areas of historic environmental interest. The choice available for smaller sites to be included within this strategy also allows avoidance of impact under this factor. The evaluation score is therefore high.

4

Score: /5

(12) Opportunities for sustainable energy production

Main factors to consider:

- Site location in relation to District Heating Opportunity Areas
- Site location in relation to Wind Turbine Opportunity Areas
- Other sustainable energy production opportunities identified

Comments / Overall Conclusions:

At strategy level energy production is judged as including both on site generation and beneficial methods of supply to site, such as combined heat and power. The major east Hemel Hempstead development is the only opportunity within any of the strategies that offers special potential in respect of energy issues. Other sites and site combinations do not offer a scale of development, or a mix of uses sufficient to give realistic and economic options for strategic improvements to supply (i.e. options that go beyond normal individual household / home / premises choices). A high evaluation score is therefore justified

4

Score: /5

Evaluation results for Option 1 b) Mixed Location / Scale Development With Smaller, But More, Sites

It should be noted that overall this strategy is similar to 1a) but evaluation is adjusted to reflect the more limited benefits from reduced scale, and (likely) slower paced, development at East Hemel Hempstead and the advantages and disadvantages of a wider spread of development around the district, including some inevitable reliance on expansion of smaller, lower order settlements.

Assessment of sustainable development principles

(1) Sustainable location

Main factors to consider:

- Would the (*combination of*) site(s) be well related to existing settlements or (*represent*) isolated form(s) of development?

This strategy includes a combination of sites that expand a range of settlements in and adjoining the district and thus development relates very well to existing settlements.

- Proximity to existing employment opportunities or potential to provide such opportunities
- Proximity to existing schools, consideration of capacity and potential to meet increased demand and consideration of capacity
- Proximity to existing public open space and allotments
- Proximity to existing neighbourhood/local centres as defined in the Local Plan Review 1994
- Proximity to existing large supermarkets or superstores or potential to provide
- Proximity to existing medical facilities or potential to provide
- Proximity to existing leisure facilities or potential to provide
- Ability for proposed development to link in with existing footpath and cycleway network

All the above questions address aspects of how well the occupants of new development can access activity and services normally best provided in larger urban areas (with higher population levels). This strategy will rely on inclusion of some sites that place significant development in settlements which are less well provided with existing services and facilities.

- Potential to promote equity and added social inclusion

A greater reliance on smaller development sites may reduce opportunities to address a variety of affordable housing requirements and to provide for specialist needs such as gypsies and travellers.

- Contribution of development to economic growth potential of the settlement / area

As above, the inclusion of the East Hemel Hempstead development in this package provides a significant opportunity for specific employment related development; but the reduced scale and pace of development envisaged could limit and dilute these benefits somewhat.

- Ability of development to draw on the economic value of built or natural environment features

Comments / Overall Conclusions:

Overall this strategy is given a significantly lower evaluation score because it spreads development to some less well serviced, lower order settlements, and dilutes the benefits of a focus on major development at Hemel Hempstead.

4

Score: /10

(2) Settlement hierarchy

Main factors to consider:

- Main urban settlements (excluded from the Green Belt): St Albans, Harpenden, London Colney
- Other settlements excluded from Green Belt: Bricket Wood, Chiswell Green, How Wood, Park Street, Frogmore, Redbourn, Wheathampstead
- Green Belt settlements: Colney Heath, Folly Fields, Gustard Wood, Kinsbourne Green, Lea Valley Estate, Sandridge, Sleafshyde, Smallford
- Rest of Green Belt: Everywhere else

Comments / Overall Conclusions:

As above, the inclusion of more development in lower order settlements reduces the evaluation score significantly. The greater reliance on a spread of development increases the likelihood of needing to include less well located sites in terms of the settlement hierarchy.

4

Score: /10

(3) Mixed-use development

Main factors to consider:

- Employment
- Social infrastructure (including schools and community facilities)
- Public open space / sport and recreation
- Retail
- Will the benefits of development be accessible to existing communities?

Comments / Overall Conclusions:

Inclusion of some major development at east Hemel Hempstead creates an opportunity for planned, full, mixed use development, but the reduced scale and focus under this strategy results in a lower evaluation score. The greater spread of development will mean there is less opportunity to plan mixed uses. These issues are further exacerbated by the greater reliance on smaller sites.

3

Score: /5

(4) Other matters

Main factors to consider:

- Economic contribution of development
- Economic value of environmental and heritage features
- Ability to improve quality of local environment through development – regeneration

As noted above a development strategy that reduces the scale and focus on development at east Hemel Hempstead offers lesser opportunity in respect of all these points and a corresponding reduction in evaluation score is justified.

- Physical constraints such as:

overhead power lines,
Pipelines,
Sterilisation of mineral reserves
Contaminated land
'un-neighbourly development'
topography/steep slopes

Agricultural land value grade

Several of these factors create constraints for development at East Hemel Hempstead. This strategy reduces reliance on development there and thus creates more opportunity to avoid, or plan for, these constraints. This is a positive in respect of the evaluation score.

Comments / Overall Conclusions:

This evaluation factor picks up a range of disparate factors not easily considered under other standard headings. It is the most difficult aspect to evaluate. The evaluation score reflects a balance between diminished benefits due to a reduced scale of development at east Hemel Hempstead, but some related reduced problems in respect of constraint factors.

3

Score: /5

(5) Strategic infrastructure provision

Main factors to consider:

- What opportunities are there to improve strategic infrastructure for the wider benefit of the District?

Comments / Overall Conclusions:

This evaluation factor requires careful judgement. As a matter of principle the inclusion of large scale development at Hemel Hempstead is positive in terms of ability to provide strategic infrastructure to the wider area. The scale of development involved would certainly be able to support, and assist in funding of, new schools, roads, open space and environmental enhancement. However, judging whether such provision would directly benefit the District depends on the view taken of the overall advantages of expansion at Hemel Hempstead and the relative roles of the main settlements in the sub region. For the purposes of the evaluation it is assumed that expansion of Hemel Hempstead could benefit the district by providing jobs and homes in close proximity to needs generated from the St Albans City and District population.

In this strategy the opportunities from east Hemel Hempstead are diluted by the lesser scale and focus of development in this location.

The inclusion of an increased number of smaller sites spread across the District does not give the same opportunity to deliver strategic infrastructure. This point does however need to be balanced by the consideration that the need for strategic infrastructure becomes less with a strategy based on a range of smaller sites because development impacts are spread. Delivery of new development is eased as a result.

Overall a lower evaluation score results.

3

Score: /10

(6) Vehicular access and traffic impact

Main factors to consider:

- Can suitable access to the site be achieved?
- Degree of impact upon road network and potential for measures to mitigate the impact

Comments / Overall Conclusions:

Major development at East Hemel Hempstead will require careful transport planning and significant investment. However it is clear from work conducted by the landowners and initial Highways Agency / Authority assessment undertaken in the past that a phased development can be successfully accessed with a variety of links to the A 414/M1, A4147 and the B478.

An assumption is made that the greater number of smaller development sites included in this strategy will all be selected to have viable access and transport options. The greater spread of sites under this strategy will result in dispersed traffic and transport impacts across the district. This spread impact may be beneficial in some respects, but offers lesser opportunities to mitigate through new infrastructure.

The evaluation score is reduced slightly to reflect a lesser ability to select the least impact locations and to plan for effective mitigation.

7

Score: /10

(7) Public transport

Main factors to consider:

- Distance to train station including assessment of frequency of service
- Distance to a bus route including assessment of frequency of service
- Potential for new or improved bus services

Comments / Overall Conclusions:

This strategy includes some locations that are less readily served by public transport. The evaluation score is reduced slightly to reflect the overall greater dispersal of development which limits the opportunity to invest in service improvement and to give good rail accessibility.

3

Score: /5

(8) Urban Design

Main factors to consider:

- Can connections be made with any existing development so that ease of movement is good and social cohesion between new and existing development is facilitated?
- Can a positive interface between fronts and backs of existing development be achieved?
- Can development of the site have a positive relationship with existing adjacent land uses?

Comments / Overall Conclusions:

The mix of the strategy provides a good combination of opportunities to achieve high quality urban design outcomes. The ability to choose from a range of medium scale development sites allows selection of those with the best potential for design integration within the existing grain of settlements. The inclusion of major development at Hemel Hempstead presents challenges in the sense that achieving high quality design is always more difficult in a situation where new neighbourhoods have to be planned from a blank canvass. There are also some inherent geographic urban design problems caused by the relationships of the site with the motorway and oil depot and the structure of the Town (in particular the employment area separates the development area from the centre and main facilities and the distances to the centre and to rail transport are greater than desirable). However there is also greater potential from a large scale development to address these disadvantages through careful master and site planning. This position justifies a mid level score reflecting the scale of the urban design challenge for east Hemel Hempstead.

4

Score: /5

(9) Environmental constraints

Main factors to consider:

- Environment Agency Flood Zones 2 and 3 and Strategic Flood Risk Assessment (SFRA) results
- Proximity to Sites of Special Scientific Interest (SSSI)
- Proximity to Local Nature Reserve or Local Wildlife Site
- Proximity to Ancient Semi-Natural Woodland
- Would development harm any trees protected by Tree Preservation Orders or other important trees?
- Will there be an adverse impact on a protected habitat or species?

Comments / Overall Conclusions:

There are no specific environmental constraint issues to highlight in respect of this strategy. This justifies a relatively high evaluation score. However it can be argued that reliance on major development at Hemel Hempstead results in a concentration of environmental impact in terms of pollution and intrusion on open and semi natural areas (though such areas have no specific environmental designation). This also means a high perception of environmental impact. The evaluation score is moderated on that basis.

7

Score: /10

(10) Landscape quality / surrounding area characteristics

Main factors to consider:

- Landscape Character Assessment (LCA) condition and sensitivity
- Historic Landscape Characterisation information in relation to site
- Landscape Institute Guidelines for Landscape and Visual Impact Analysis

Comments / Overall Conclusions:

The Strategy relies significantly on smaller sites that are spread around the district. In most cases these sites can be planned in a way that allows assimilation into the landscape around existing urban areas, with relatively limited impact. However there is inevitably a wider spread of impacts across the district. This has to be balanced against the lesser scale and impact from the large scale development at East Hemel Hempstead. A mid level evaluation score is used to reflect this.

5

Score: /10

(11) Heritage / archaeology potential

Main factors to consider:

- Proximity to Conservation Area and impact upon setting
- Proximity to Listed Buildings and impact upon setting
- Proximity to Scheduled Ancient Monuments and impact upon setting
- Proximity to Historic Parks & Gardens and impact upon setting
- Presence of archaeological sites for local preservation (Local Plan

Review 1994 Policy 110)

Comments / Overall Conclusions:

The greater spread of development gives a higher risk of adverse impact under these factors, for instance at London Colney / Napsbury. Because the reliance on a spread of sites is greater, opportunities for choice between sites and avoidance of high impacts through mitigation are lessened. This reduces the evaluation score.

3

Score: /5

(12) Opportunities for sustainable energy production

Main factors to consider:

- Site location in relation to District Heating Opportunity Areas
- Site location in relation to Wind Turbine Opportunity Areas
- Other sustainable energy production opportunities identified

Comments / Overall Conclusions:

At strategy level energy production is judged as including both on site generation and beneficial methods of supply to site, such as combined heat and power. The major east Hemel Hempstead development is the only opportunity within any of the strategies that offers special potential in respect of energy issues. Other sites and site combinations do not offer a scale of development, or a mix of uses sufficient to give realistic and economic options for strategic improvements to supply (i.e. options that go beyond normal individual household / home / premises choices). The reduction of scale at East Hemel Hempstead under this strategy therefore reduces the evaluation score.

3

Score: /5

Evaluation Results for Option 2 Dispersed Development:

Assessment of sustainable development principles

(1) Sustainable location

Main factors to consider:

- Would the site be well related to existing settlements or an isolated form of development?
- Proximity to existing employment opportunities or potential to provide such opportunities

Generally the smaller sites making up this strategy will be reasonably located for access to employment. However the spread of development involved means that there is more reliance on sites with poor rail commuting access to employment. There is also a much reduced ability to plan for mixed use development where some new employment development is created close to new homes.

- Proximity to existing schools, consideration of capacity and potential to meet increased demand and consideration of capacity

A strategy with a dispersed pattern of development will relate well to existing primary schools, but may be more difficult to relate to secondary school capacity and investment in new facilities. More concentrated forms of development can justify investments or new completely new provision. This is an important factor given current issues in meeting need in some parts of the district.

- Proximity to existing public open space and allotments
- Proximity to existing neighbourhood/local centres as defined in the Local Plan Review 1994
- Proximity to existing large supermarkets or superstores or potential to provide
- Proximity to existing medical facilities or potential to provide
- Proximity to existing leisure facilities or potential to provide
- Ability for proposed development to link in with existing footpath and cycleway network

All the above factors are very variable in relation to the specific choice of sites available. Some sites perform better than others, because of local opportunities. Overall, because some of the sites required will offer less opportunity for access to facilities and services, this strategy attracts a reduced evaluation score. Reliance on smaller sites also severely limits ability to plan in new facilities due the scale of development

involved. This further reduces the evaluation score.

- Potential to promote equity and added social inclusion

Affordable housing and special needs provision will be more difficult to deliver through dispersed development (scale of development and scope of reasonable planning obligations).

- Contribution of development to economic growth potential of the settlement / area

This strategy offers no special opportunity comparable to the East Hemel Hempstead development option, and therefore attracts a low evaluation score in respect of this factor.

- Ability of development to draw on the economic value of built or natural environment features

It can be argued that greater dispersal of development gives the best opportunity for the economic growth that can be generated by the special environmental and heritage character and attraction of the District (added local jobs from the development itself and increased business and entrepreneurial opportunity from the growth in population).

Comments / Overall Conclusions:

Balancing all the points above, but giving particular emphasis to the loss of the major economic development potential of East Hemel Hempstead, justifies a relatively low evaluation score

3

Score: /10

(2) Settlement hierarchy

Main factors to consider:

- Main urban settlements (excluded from the Green Belt): St Albans, Harpenden, London Colney
- Other settlements excluded from Green Belt: Bricket Wood, Chiswell Green, How Wood, Park Street, Frogmore, Redbourn, Wheathampstead
- Green Belt settlements: Colney Heath, Folly Fields, Gustard Wood, Kinsbourne Green, Lea Valley Estate, Sandridge, Sleafshyde, Smallford
- Rest of Green Belt: Everywhere else

Comments / Overall Conclusions:

This strategy attracts a low evaluation score because it necessitates locating more development in settlements with poorer access to services and facilities (Chiswell Green and London Colney in particular, but note comments above about the future role of London Colney and its position in the settlement hierarchy).

4

Score: /10

(3) Mixed-use development

Main factors to consider:

- Employment
- Social infrastructure (including schools and community facilities)
- Public open space / sport and recreation
- Retail
- Will the benefits of development be accessible to existing communities?

Comments / Overall Conclusions:

This strategy offers the least opportunity for planning mixed uses within development sites, as there is a total reliance on small to medium site sites which offer few opportunities for uses other than housing. The sites will also need to accommodate maximum housing numbers, further limiting scope for other uses. There is some limited ability to improve housing mix, ancillary uses and development patterns within existing neighbourhoods, but this is not a major influence on a low evaluation score.

2

Score: /5

(4) Other matters

Main factors to consider:

- Economic contribution of development
- Economic value of environmental and heritage features
- Ability to improve quality of local environment through development – regeneration
- Physical constraints such as:

overhead power lines,

Pipelines,
Sterilisation of mineral reserves
Contaminated land
'un-neighbourly development'
topography/steep slopes
Agricultural land value grade

Comments / Overall Conclusions:

The mix of factors under this heading makes it difficult to evaluate in the round. In this case the loss of all opportunity to exploit the wider economic development benefits of development at east Hemel Hempstead dominates the evaluation and results in a low evaluation score. Some benefits from a spread of economic development across the district and avoidance of some constraints inherent in the east Hemel Hempstead development; as noted for the mixed strategies above, are reflected in this score.

1

Score: /5

(5) Strategic infrastructure provision

Main factors to consider:

- What opportunities are there to improve strategic infrastructure for the wider benefit of the District?

Comments / Overall Conclusions:

This strategy offers the least opportunity to achieve strategic infrastructure improvements from development, or to effectively mitigate infrastructure pressures. This is because the developments will all be relatively small scale and national policy / site specific viability considerations will limit what can be achieved. None of the sites will, in themselves, be big enough to provide for schools, local services and major open space on site. Negotiation of planning agreements will therefore prioritise affordable housing provision and proportional financial contributions to infrastructure. A low evaluation score results.

1

Score: /10

(6) Vehicular access and traffic impact

Main factors to consider:

- Can suitable access to the site be achieved?
- Degree of impact upon road network and potential for measures to mitigate the impact

Comments / Overall Conclusions:

This strategy removes the risk of pressure arising from a concentration of traffic and transport impact around one or two main locations (and major development at east Hemel Hempstead in particular). Instead it spreads journey needs and impacts widely across the district. This generates some positives, in that it is less likely that particular roads will be heavily impacted, necessitating investment in improvements. However there will be incremental road link and junction pressures at locations throughout the district. For the reasons set out above, there will be little ability to achieve significant transport mitigation or improvement.

On balance the evaluation score is similar to other strategies, but it reflects the likely advantages of choosing complete dispersal, against the variant of the mixed strategy that both dilutes focus on Hemel Hempstead and goes for a greater number of smaller sites.

8

Score: /10

(7) Public transport

Main factors to consider:

- Distance to train station including assessment of frequency of service
- Distance to a bus route including assessment of frequency of service
- Potential for new or improved bus services

Comments / Overall Conclusions:

This level of development dispersal will do nothing to support or improve public transport opportunities. Bus services rely on concentrations of population and demand around existing main routes. Good rail access requires sites in reasonable proximity to main stations with good potential bus links. None of the sites that would make up the dispersed strategy are highly inaccessible, but some (for example London Colney and North East Harpenden) perform less well.

0

Score: /5

(8) Urban Design

Main factors to consider:

- Can connections be made with any existing development so that ease of movement is good and social cohesion between new and existing development is facilitated?
- Can a positive interface between fronts and backs of existing development be achieved?
- Can development of the site have a positive relationship with existing adjacent land uses?

Comments / Overall Conclusions:

This strategy performs relatively well in providing opportunities for integration of small / medium scale sites into the grain of existing urban areas in ways that reflect local character. There is less opportunity to plan and design whole neighbourhoods, but this reduces the inherent greater risk of poor quality design outcomes in large scale development.

4

Score: /5

(9) Environmental constraints

Main factors to consider:

- Environment Agency Flood Zones 2 and 3 and Strategic Flood Risk Assessment (SFRA) results
- Proximity to Sites of Special Scientific Interest (SSSI)
- Proximity to Local Nature Reserve or Local Wildlife Site
- Proximity to Ancient Semi-Natural Woodland
- Would development harm any trees protected by Tree Preservation Orders or other important trees?
- Will there be an adverse impact on a protected habitat or species?

Comments / Overall Conclusions:

Spreading development to a larger number of smaller sites and avoiding any development at east Hemel Hempstead potentially minimises actual and perceived conflict with these constraints (for example East Hemel Hempstead intrudes very widely on wider countryside and habitats because of its scale and changes the environment quite dramatically). Smaller sites are generally easier to integrate into, and can improve the environmental quality of, urban fringe locations.

7

Score: /10

(10) Landscape quality / surrounding area characteristics

Main factors to consider:

- Landscape Character Assessment (LCA) condition and sensitivity
- Historic Landscape Characterisation information in relation to site
- Landscape Institute Guidelines for Landscape and Visual Impact Analysis

Comments / Overall Conclusions:

For similar reasons to those explained above adverse landscape impacts are likely to be easier to assimilate and mitigate in a range of smaller sites. However the evaluation score must also reflect the requirement in this strategy to use all the identified sites, including those at north east Harpenden, London Colney and north St Albans which have higher levels of landscape impact.

6

Score: /10

(11) Heritage / archaeology potential

Main factors to consider:

- Proximity to Conservation Area and impact upon setting
- Proximity to Listed Buildings and impact upon setting
- Proximity to Scheduled Ancient Monuments and impact upon setting
- Proximity to Historic Parks & Gardens and impact upon setting
- Presence of archaeological sites for local preservation (Local Plan Review 1994 Policy 110)

Comments / Overall Conclusions:

There are no known serious constraints with any of the development locations under consideration. However this strategy does spread development to all parts of the District and this inevitably means development is around the most historically interesting, heritage rich, settlements. The evaluation score therefore reflects a higher level of risk in respect of this factor.

2

Score: /5

(12) Opportunities for sustainable energy production

Main factors to consider:

- Site location in relation to District Heating Opportunity Areas
- Site location in relation to Wind Turbine Opportunity Areas
- Other sustainable energy production opportunities identified

Comments / Overall Conclusions:

Dispersed packages of development (in urban / suburban, as opposed to very low density rural, form) offer limited opportunities for efficiency in energy generation and supply (see more detailed comments in relation to other strategies above)

1

Score: /5

Evaluation Results for Option 3 Concentrated Development

Assessment of sustainable development principles

(1) Sustainable location

Main factors to consider:

- Would the (*combination of*) site(s) be well related to existing settlements or (*represent*) isolated form(s) of development?

This strategy focuses entirely on a major Town and thus relates very well to existing settlements.

- Proximity to existing employment opportunities or potential to provide such opportunities
- Proximity to existing schools, consideration of capacity and potential to meet increased demand and consideration of capacity
- Proximity to existing public open space and allotments
- Proximity to existing neighbourhood/local centres as defined in the Local Plan Review 1994
- Proximity to existing large supermarkets or superstores or potential to provide
- Proximity to existing medical facilities or potential to provide
- Proximity to existing leisure facilities or potential to provide
- Ability for proposed development to link in with existing footpath and cycleway network

All the above questions address aspects of how well the occupants of new development can access activity and services normally best provided in larger urban areas (with higher population levels). The strategy includes a large new urban extension to Hemel Hempstead, where the scale of development will justify substantial new provision, or where the existing Town facilities will offer many opportunities.

Potential to promote equity and added social inclusion

The site is of a scale that can provide a significant contribution to affordable housing provision. The size and scope of the development offers most potential to contribute in other ways, particularly in meeting specialist needs such as gypsy and traveller provision, self build and local job opportunities.

- Contribution of development to economic growth potential of the settlement / area

As above, the inclusion of the East Hemel Hempstead development in this package provides a significant opportunity for specific employment related development.

- Ability of development to draw on the economic value of built or natural environment features

Comments / Overall Conclusions:

This strategy is entirely based on expansion of a main settlement. It therefore offers future residents ease of access to a wide range of facilities and services. In addition there is a significant economic development opportunity incorporated. This justifies the highest evaluation score.

10

Score: /10

(2) Settlement hierarchy

Main factors to consider:

- Main urban settlements (excluded from the Green Belt): St Albans, Harpenden, London Colney
- Other settlements excluded from Green Belt: Bricket Wood, Chiswell Green, How Wood, Park Street, Frogmore, Redbourn, Wheathampstead
- Green Belt settlements: Colney Heath, Folly Fields, Gustard Wood, Kinsbourne Green, Lea Valley Estate, Sandridge, Sleafshyde, Smallford
- Rest of Green Belt: Everywhere else

Comments / Overall Conclusions:

This strategy relies on expansion of major town in the sub region – a high order settlement. It therefore achieves the highest evaluation score.

10

Score: /10

(3) Mixed-use development

Main factors to consider:

- Employment
- Social infrastructure (including schools and community facilities)
- Public open space / sport and recreation

- Retail
- Will the benefits of development be accessible to existing communities?

Comments / Overall Conclusions:

Concentration of major development at east Hemel Hempstead maximises opportunities for planned, full, mixed use development. The scale of development demands some integral local facilities, particularly schools and strategic open space and the relationship with employment generating activities will be good. This justifies a maximum evaluation score.

Mixed use development in this one concentrated location is highly accessible to the population of Hemel Hempstead and also accessible to residents of St Albans City and District. Indeed significant new employment / leisure or service uses would be relatively accessible across the whole sub region.

5

Score: /5

(4) Other matters

- Economic contribution of development
- Economic value of environmental and heritage features

As noted above a development strategy that includes east Hemel Hempstead clearly offers opportunities for employment related development not available from other sites. There is a wider dimension to this, in the opportunity to enhance land availability, infrastructure and environmental quality around a major existing focus for economic growth and employment (the Maylands area M1 corridor and M25 accessibility). Housing focused in this location could support economic activity and its role in economic development for Hertfordshire and the sub region.

The area is capable of accommodating this type of large scale economic related development with lesser impact on countryside and better use of existing infrastructure than any other location in the district.

A development strategy that includes this area will create opportunities for wider economic development work and promotion in collaboration with relevant organisations (County Council, Local Enterprise Partnership, National agencies). This could also unlock future Government economic development, housing, infrastructure and training related funding opportunities.

- Ability to improve quality of local environment through development – regeneration

A development strategy including east Hemel Hempstead offers significant regeneration benefits to Hemel Hempstead, as the Buncefield explosion and aftermath, combined with the 2007 – 12 recession, left Maylands with a legacy of economic change and physical regeneration challenges. Other sites in the strategy do not offer specific regeneration opportunities and benefits.

- Physical constraints such as:

overhead power lines,

Pipelines,
Sterilisation of mineral reserves
Contaminated land
'un-neighbourly development'
topography/steep slopes
Agricultural land value grade

All the factors listed affect east Hemel Hempstead in various ways and will necessitate a comprehensive and effective planning process that addresses the site constraints involved. The impact on the likely timescales for a start of development and delivery of new housing could be significant. This points to a danger in any overreliance on the contribution to be made from this particular element of the strategy.

A specific negative factor against any strategy including development at east Hemel Hempstead is the very high impact in loss of Best and Most Versatile agricultural land (Grade 2). Such land has high current, and higher future, economic value. This is taken into account by lowering the overall score to reflect this unique and important factor. It is acknowledged that there is a Sustainability Appraisal argument that this issue should be weighted more highly in scoring, so it is highlighted in this general conclusion.

Comments / Overall Conclusions:

This evaluation factor picks up a range of disparate factors not easily considered under other standard headings. It is the most difficult aspect to evaluate. There are some clear issues in relation to the east Hemel Hempstead aspect of the strategy that inevitably require application of a degree of judgement as to overall weighting. The evaluation score given gives high importance to overall economic development opportunities and the opportunities created for long term planned economic benefits. It only reduces marginally for the delivery issues and significant loss to agriculture.

However, in this strategy total reliance on one strategic location is a significant negative factor, particularly as, (due to the planning and infrastructure lead times noted above) it will be very difficult to deliver a steady and varied flow of housing development opportunity. As this can be seen as a significant factor in achieving sustainable development in the round, this point alone justifies a zero evaluation score.

0

Score: /5

(5) Strategic infrastructure provision

Main factors to consider:

- What opportunities are there to improve strategic infrastructure for the wider benefit of the District?

Comments / Overall Conclusions:

This evaluation factor requires careful judgement. As a matter of principle the inclusion of large scale development at Hemel Hempstead is positive in terms of ability to provide strategic infrastructure to the wider area. The scale of development involved would certainly be able to support, and assist in funding of, new schools, roads, open space and environmental enhancement. However, whether such provision would directly benefit the District depends on the view taken of the overall advantages of expansion at Hemel Hempstead and the relative roles of the main settlements in the sub region. For the purposes of the evaluation it is assumed that expansion of Hemel Hempstead could benefit the district by providing jobs and homes in close proximity to needs generated from the St Albans' City and District population. This justifies a relatively high score.

However this score is moderated downwards as there is no opportunity to spread infrastructure benefit (e.g. the Oaklands College improvements to core areas of the District).

3

Score: /10

(6) Vehicular access and traffic impact

Main factors to consider:

- Can suitable access to the site be achieved?
- Degree of impact upon road network and potential for measures to mitigate the impact

Comments / Overall Conclusions:

Complete reliance major development at East Hemel Hempstead results in a very specific assessment under this evaluation factor. The development strategy will be dependent on careful transport planning and significant investment, but it is clear that a phased development can be successfully accessed with a variety of links to the A 414/M1, A4147 and the B478. This strategy scores relatively well because the ability of major development at East Hemel Hempstead to provide new transport infrastructure will lessen the burden on existing transport infrastructure. However the score is moderated downwards as the strategy becomes very reliant on infrastructure investment and could be seen to over concentrate impacts in particular parts of the District.

6	Score: /10
(7) Public transport	
Main factors to consider:	
<ul style="list-style-type: none"> • Distance to train station including assessment of frequency of service • Distance to a bus route including assessment of frequency of service • Potential for new or improved bus services 	
<u>Comments / Overall Conclusions:</u>	
Concentrated development in the form of well located expansion of an existing higher order settlement (which offers good existing services) creates the best opportunity for use and improvement of public transport. This strategy therefore achieves the highest evaluation score.	
5	Score: /5
(8) Urban Design	
Main factors to consider:	
<ul style="list-style-type: none"> • Can connections be made with any existing development so that ease of movement is good and social cohesion between new and existing development is facilitated? • Can a positive interface between fronts and backs of existing development be achieved? • Can development of the site have a positive relationship with existing adjacent land uses? 	
<u>Comments / Overall Conclusions:</u>	
Total reliance on major development at Hemel Hempstead presents a greater level of challenge for this strategy. Achieving high quality design is always more difficult in a situation where new neighbourhoods have to be planned from a blank canvass. There are also some inherent geographic urban design problems caused by the relationships of the site with the motorway and oil depot and the structure of the Town (in particular the employment area separates the development area from the centre and main facilities and the distances to the centre and to rail transport are greater	

than desirable). However there is also greater potential from a large scale development to address these disadvantages through careful master and site planning. This position justifies a low level score reflecting the scale of the urban design challenge for east Hemel Hempstead.

2

Score: /5

(9) Environmental constraints

Main factors to consider:

- Environment Agency Flood Zones 2 and 3 and Strategic Flood Risk Assessment (SFRA) results
- Proximity to Sites of Special Scientific Interest (SSSI)
- Proximity to Local Nature Reserve or Local Wildlife Site
- Proximity to Ancient Semi-Natural Woodland
- Would development harm any trees protected by Tree Preservation Orders or other important trees?
- Will there be an adverse impact on a protected habitat or species?

Comments / Overall Conclusions:

There are no specific environmental constraint issues to highlight in respect of this strategy. This justifies a relatively high evaluation score. However it can be argued that reliance on major development at Hemel Hempstead results in a concentration of environmental impact in terms of pollution and intrusion on open and semi natural areas (though such areas have no specific environmental designation). This also means a high perception of environmental impact. The evaluation score is moderated on that basis.

4

Score: /10

(10) Landscape quality / surrounding area characteristics

Main factors to consider:

- Landscape Character Assessment (LCA) condition and sensitivity
- Historic Landscape Characterisation information in relation to site
- Landscape Institute Guidelines for Landscape and Visual Impact Analysis

Comments / Overall Conclusions:

The total reliance on the large scale East Hemel Hempstead development inevitably results in a concentration of significant landscape intrusion and change in one area. The area affected has some strong countryside character and good landscape quality and some areas affected are prominent. This results in a low evaluation score.

3

Score: /10

(11) Heritage / archaeology potential

Main factors to consider:

- Proximity to Conservation Area and impact upon setting
- Proximity to Listed Buildings and impact upon setting
- Proximity to Scheduled Ancient Monuments and impact upon setting
- Proximity to Historic Parks & Gardens and impact upon setting
- Presence of archaeological sites for local preservation (Local Plan Review 1994 Policy 110)

Comments / Overall Conclusions:

The major east Hemel Hempstead development does not affect any known significant areas of historic environmental interest. This therefore justifies the highest evaluation score.

5

Score: /5

(12) Opportunities for sustainable energy production

Main factors to consider:

- Site location in relation to District Heating Opportunity Areas
- Site location in relation to Wind Turbine Opportunity Areas
- Other sustainable energy production opportunities identified

Comments / Overall Conclusions:

At strategy level energy production is judged as including both on site generation and beneficial methods of supply to site, such as combined heat and power. The major east Hemel Hempstead development is the only opportunity within any of the strategies that offers real potential in respect of energy issues, as other sites and combinations do not offer a scale of development, or a mix of uses, sufficient to give realistic and economic options for strategic improvements to supply (i.e. options that go beyond normal individual household / home / premises choices). Reliance entirely on concentrated development at this location therefore justifies the highest evaluation score.

5

Score: /5

Development Strategy Evaluation Results Overall Scoring Matrix

THEME	ECONOMIC						SOCIAL						ENVIRONMENTAL						Total/ Rank (potential maximum score 90)
	1 - Sustainable Location Weighting (10)	2 - Settlement hierarchy Weighting (10)	3 - Mixed-use development Weighting (5)	4 - Other Matters Weighting (5)	5 - Strategic infrastructure provision Weighting (10)	6 - Vehicular access and traffic impact Weighting (10)	7 - Public transport Weighting (5)	8 - Urban Design Weighting (5)	9 - Environmental constraints Weighting (10)	10 - Landscape quality / surrounding area Weighting (10)	11 - Heritage / archaeology potential Weighting (5)	12 - Opportunities for sustainable energy production Weighting (5)							
Development Strategy Options																			
<u>Option 1 a) Mixed Location / Scale Development;</u>	8	8	4	4	5	8	4	3	6	4	4	4					62 (Rank1)		
<u>Option 1 b) Mixed Location / Scale Development With Smaller, But More, Sites;</u>	4	4	3	3	3	7	3	4	7	5	3	3					49 (Rank 3)		
<u>Option 2 Dispersed Development;</u>	3	3	2	1	1	8	0	4	7	6	2	1					38 (Rank 4)		
<u>Option 3 Concentrated Development;</u>	10	10	5	0	3	6	5	2	4	3	5	5					58 (Rank 2)		

APPENDICES

Appendix1

Summary of SA process and reference documents

(all except 6. prepared by independent consultants TRL Limited, Centre For Sustainability for SADC as part of a joint contract with other Hertfordshire District Councils - using a common SA framework)

1. SA Scoping Report 2006: This included the SA Framework, which was closely related to overarching Plan objectives then subject to consultation. It was noted that both the Plan objectives and evaluation framework would be expected to evolve as the Plan was developed.
2. SA Working Note on Core Strategy Issues and Options Consultation Document on LDF and Sustainable Community strategy 2006: This document was referenced UPR/IE/119/06 and given the specific title "SA Core Strategy and Development Control Development Plan documents – Working Note on Core strategy Issues and Options". Options set out in the consultation document were evaluated against the SA Framework. Plan options were defined only in terms of overall policy choices set against a series of issues that were then subject to consultation. Evaluation was undertaken at a general theme level – looking at choices about the direction of the Plan as a whole. A strong SA recommendation at this stage was to minimise green field development and avoid its associated environmental impacts.
3. SA Working note on Core Strategy Issues and Options Consultation Document 2007: This document was referenced UPR/IE/106/07 and given the specific title "SA Core strategy DPD Consultation Issues and Options as Part of Local Development Framework - SA Working Paper July 2007". This included a first view on potential development locations termed "Areas of Search". Each was assessed against the evaluation Framework in general terms. From the information available at that point there was little evident differentiation in the assessment.
4. Shaping Our Community Consultation SA Working Notes A / B / C: This series of notes was referenced CPR 419 and given the specific title "SA (incorporating SEA) Working Note for Emerging Core Strategy – June 2009". Note A covers general SA issues. Note B is an assessment of the emerging strategy as a whole. Note C assesses a series of strategic sites. This work on strategic sites used a more detailed criteria / constraints list than previously. The points covered were largely environmental rather than socio – economic. Due to the nature of the emerging Plan and the SA recommendation to focus on urban rather than green field development the majority of the sites assessed were urban redevelopment or previously developed land in the Green Belt. Wider areas of search in Green Belt were assessed, but conclusions drawn are very general reflecting the issues stage of the work.

5. Core Strategy: Spatial Strategy Options SA Working Note September 2010: The specific title of this document was: “St Albans Local Development Framework Core Strategy: Spatial Strategy Options” SA (incorporating SEA) Working Note September 2010 (unreferenced) This update to the SA related to the new legislative and policy requirement to plan locally for housing development levels pending the abolition of Regional Spatial Strategies. Appendix A was an “Assessment of Growth Options” considered three possible levels of housing development in the period to 2028 that had been canvassed in consultation (9720 / 8950 /12100 dwellings – also presented as per annum rates of development). The assessment drew out key issues that remain relevant for SA of the Plan approach to levels of development; that higher levels of development would necessitate significant impact on Green Belt. Appendix B was an “Assessment of Strategic Sites”. It covered similar ground to 4.above and presented conclusions, largely environmental constraint related at, at high level. There was detailed consideration of the option of major expansion of Hemel Hempstead into the district for the first time.
6. SADC Core Strategy Study to Inform Appropriate Assessment (Halcrow Consultancy): This study was prepared to screen any Plan impacts, particularly given greater levels of development contemplated) on European protected wildlife habitats. Only one designated area – the Chilterns Beechwoods SAC was identified as potentially affected (by any major expansion of Hemel Hempstead). The conclusions were that there would be no significant effects subject to detailed planning and mitigation of employment development and traffic impacts.

Appendix 2

Summary of Independent Green Belt Review Part 2 Report Recommendations.

Areas recommended for release from Green Belt with general ranking tiers and capacity:

Table 13.1: Estimated residential capacity

ID	Site	Ranking Tier	Estimated Residential Capacity (30dph)	Estimated Residential Capacity(50d ph)
8	Land at Chiswell Green	1st	270	450
3	East of St Albans	1st	990	1,650
7	Land at London Colney	2nd	252	420
4	North of St Albans	2nd	684	1,140
5	Northwest of Harpenden	2nd	324	540
6	Northeast of Harpenden	2nd	576	960
2b	East of Hemel Hempstead (South)	3rd	684	1,140
1	East of Hemel Hempstead (North)	3rd	1,026	1,710

A note on the standardised method of calculating development capacity taken from the report Methodology Appendix is set out below:

Task 2d: Assessing Potential Development Capacity – Land use Schedules and Concept Plans

“The study brief requires the consultant team to prepare an indicative land use schedule for each defined strategic sub-area that identified a potential development capacity for those portions of the sub-areas that contributed least to Green Belt purposes.

In order to assess potential development capacity, certain broad assumptions have been made and are applicable to all sub-areas, namely:

The **Gross Development Area** (GDA) defines that portion of the sub-area that could potentially be released for development. The remainder of the sub-area would remain Green Belt. Landscape mitigation measures may be required to maintain the integrity of the Green Belt within these sub-areas and forms a critical component in understanding which areas of land could be released;

In accordance with urban design practise, we have used the benchmark that up to 60% of the GDA would be developed (termed **Net Development Area**); the remainder 40% would be required to provide for public open space, roads and public facilities;

All developable land would come forward predominantly for residential development, but a provision has been made for employment use on the two largest Development Areas identified (Site 1 and Site 2). The employment use allows for general commercial activity that one typically finds in the UK High Street (retail, office, etc) and potentially for an employment cluster/estate. The exact site area required by this land use has not been defined by the client and consequently this is open for further discussion;

The full assessment matrix and ranking results are below:



11.2. Overall Ranking

11.2.1. The overall results of the sites suitability assessment are set out in Table 9.1 below. The results demonstrate the range of performance against the four categories (A-D) assessed as a basis for informing the overall suitability of each site for potential Green Belt release and future development. The colour coding highlights variations in site performance. Sites rated with a greater number of lighter shades are considered to be more suitable for potential Green Belt release than sites with darker shades.

Table 9.1. Performance of sites against all four assessment categories (sites listed in rank order of suitability)

ID	Site	A - Green Belt Purposes*			B - Constraints	C - Integration	D - Sensitivity	Tier	Rank
		Significant	Partial	Limited / No					
8	Land at Chiswell Green	0	1	4				1 st	1
3	East of St Albans	0	2	3				1 st	2
7	Land at London Colney	0	2	3				2 nd	3
4	North of St Albans	1	1	3				2 nd	4=
5	Northwest of Harpenden	1	1	3				2 nd	4=
6	Northeast of Harpenden	1	1	3				2 nd	6
2b	East of Hemel Hempstead (South)	1	1	3				3 rd	7=
1	East of Hemel Hempstead (North)	1	2	2				3 rd	7=
2a	East of Hemel Hempstead (Central)	0	2	3				3 rd	9

*numbers in relation to 'Green Belt Purposes' refer to the number of purposes scoring significant, partial and limited or no levels of contribution

Appendix 3

Definition of the development strategy options evaluated (based on consideration by SADC Planning Policy Committee January 2014)

Illustrative Development Strategy Options - to meet higher Plan Housing Requirement / Target of 550 dpa and Green Belt 'Gap' (6,000 dwellings or 300 dpa)

Option 1 (a) Mixed Location / Scale Development

Source / Location	Site (suggested order for phasing of release indicated for each location) Phase 1 before 2021 Phase 2 after 2021 Long term safeguarded – after 2031 as required	Dwelling Estimate at 40 dph	Notes
S1 East of Hemel Hempstead (North)	SKM north site Phase 2	1,500	Strategic site likely to be more difficult to bring forward in short term due to master planning and strategic infrastructure requirements. However significant earlier development is feasible if encouraged in SLP.
S2 East of Hemel Hempstead (South)	SKM south site with further extension and density maximised Phase 2 Long term safeguarded	1,000 (1,000)	Strategic site likely to be more difficult to bring forward in short term due to master planning and strategic infrastructure requirements. However significant earlier development is feasible if encouraged in SLP.
Three to four additional strategic sites TBC		3,500	Site selection to be confirmed through further evaluation / choice – see report
TOTAL		6,000	Offers potential site and density choices, flexibility and contingency and long term safeguarding potential available. Note contribution of east HH site numbers will need to be considered in context of Duty to Co-operate issues

**Illustrative Development Strategy Options - to meet lower Plan Housing Requirement
/ Target of 450 dpa and Green Belt 'Gap' (4,000 dwellings or 200 dpa)**

Option 1 (a) Mixed Location / Scale Development

Source Location /	Site (suggested order for phasing of release indicated for each location) Phase 1 before 2021 Phase 2 after 2021 Long term safeguarded – after 2031 as required	Dwelling Estimate at 40 dph	Notes
S1 East of Hemel Hempstead (North)	SKM north site Phase 2	1,500	SKM recommended safeguarded for post 2031 development. Strategic site likely to be more difficult to bring forward in short term, however significant earlier development is feasible if encouraged in SLP
S2 East of Hemel Hempstead (South)	SKM south site with further extension and density maximised Phase 2 Long term safeguarded	1,000 (1,000)	SKM recommended safeguarded for post 2031 development. Not fully investigated in initial draft of SKM Enviro report, but now under more detailed investigation. Strategic site likely to be more difficult to bring forward in short term, however significant earlier development is feasible if encouraged in SLP
Two to three additional strategic sites TBC		1,500	Site selection to be confirmed through further evaluation / choice – see report
TOTAL		4,000+	Offers potential site and density choices, flexibility and contingency and long term safeguarding potential available. Note contribution of east HH site numbers will need to be considered in context of Duty to Co-operate

			issues
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Option 1 (b) Mixed Location / Scale Development With Smaller, But More, Sites

This is a variant on Option 1 that would, instead of limiting development to 2-4 sites additional to east Hemel Hempstead, would involve:

- Development of parts of all or most of the SKM recommended strategic land Green Belt release areas
- Achieving higher densities – at least 50dph overall
- Tighter Green Belt boundary definition to limit scope of development in these areas
- Inclusion of Green Belt boundary changes and development allocations at all of the viable / deliverable SKM recommended small scale sub area Green belt release areas

Some considerable further work would be needed to fully develop this option in detail. Precise boundaries for the sites to be released for development need to be well defined. This would also possibly need a full Local Plan that included a detailed Policies (formerly Proposals) Map.

Option 2 Dispersed Development - to meet higher Plan Housing Requirement / Target of 550 dpa and Green Belt ‘Gap’ (6,000 dwellings or 300 dpa)

Source Location	Site (suggested order for phasing of release indicated for each location) Phase 1 before 2021 Phase 2 after 2021 Long term safeguarded – after 2031 as required	Dwelling Estimate at 50 dph	Notes
S3	East of St Albans (Oaklands area) Phase 1	1,200	Earlier phasing due to College development needs and integration with currently permitted development
S4	North of St Albans Phase 2	1,500	Later phasing due to need to consider planning brief for large scale development and internal master planning and phasing
S5	Northwest of Harpenden Phase 1	500	Earlier phasing due to smaller scale of development and potential to bring forward through planning
S6	Northeast of Harpenden Phase 2	1,100	Later phasing due to scale and greater complexity of access and settlement
S8	Land at Chiswell Green	600	Earlier phasing due to

	Phase 1		smaller scale of development and potential to bring forward through planning
S7	Land at London Colney	1,000+	Later phasing as possible nil capacity – figure notional and subject to further study. SKM final report to include options
TOTAL		5,900+	Offers little choice within the SKM recommendations. Very limited long term safeguarding potential. Delivery at 50 dph, rather than assumed 40 dph for other options.

Option 2 Dispersed Development to meet lower Plan Housing Requirement / Target of 450 dpa and Green Belt 'Gap' (4,000 dwellings or 200 dpa)

Source Location /	Site (suggested order for phasing of release indicated for each location) Phase 1 before 2021 Phase 2 after 2021 Long term safeguarded – after 2031 as required	Dwelling Estimate at 40 dph	Notes
S3	East of St Albans (Oaklands area) Phase 1	900	Earlier phasing due to College development needs and integration with currently permitted development
S4	North of St Albans Phase 2	1,200	Later phasing due to need to consider planning brief for large scale development and internal master planning and phasing
S5	Northwest of Harpenden Phase 1	400	Earlier phasing due to smaller scale of development and potential to bring forward through planning
S6	Northeast of Harpenden Phase 2	900	Later phasing due to scale and greater complexity of access and settlement
S8	Land at Chiswell Green Phase 1	450	Earlier phasing due to smaller scale of development and potential to bring forward through

			planning
S7	Land at London Colney Long term safeguarded	0-500	Later phasing as possible nil capacity – figure notional and subject to further study. SKM final report to include options
TOTAL		4,000+	Offers little choice within the SKM recommendations. Very limited long term safeguarding potential.

**Option 3 Concentrated Development - to meet higher Recommended Plan Housing -
to meet higher Recommended Plan Housing Requirement / Target of 550 dpa and
Green Belt 'Gap' (6,000 dwellings or 300 dpa)**

Source / Location	Site Phase 1 before 2021 Phase 2 after 2021 Long term safeguarded – after 2031 as required	Dwell ing Estim ate at 40 dph	Notes
S1 East of Hemel Hempstead (North)	SKM north site with further extension and density maximised Internal phasing and some safeguarding potential	2,000 +	SKM recommended safeguarded for post 2031 development. Strategic site likely to be more difficult to bring forward in short term, however significant earlier development is feasible if encouraged in SLP.
S2 East of Hemel Hempstead (South)	SKM south site with further extension and density maximised Internal phasing and some safeguarding potential	2,000 +	SKM recommended safeguarded for post 2031 development. Not fully investigated in initial draft of SKM Enviro report, but now under more detailed investigation. Strategic site likely to be more difficult to bring forward in short term, however significant earlier development is feasible if encouraged in SLP
Two or three additional sites - TBC		1,500 +	
Totals		5,500 +	High dependency on single location (east HH) with longer time scales for development. <u>May cause land supply issues in medium term.</u> Note contribution of east HH site numbers will need to be

			considered in context of Duty to Co-operate issues
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Option 3 Concentrated Development to meet lower Plan Housing Requirement / Target of 450 dpa and Green Belt 'Gap' (4,000 dwellings or 200 dpa)

Source Location /	Site Phase 1 before 2021 Phase 2 after 2021 Long term safeguarded – after 2031 as required	Dwelling Estimate at 40 dph	Notes
S1 East of Hemel Hempstead (North)	SKM north site with further extension and density maximised Internal phasing and some safeguarding potential	2,000 +	SKM recommended safeguarded for post 2031 development. Strategic site likely to be more difficult to bring forward in short term, however significant earlier development is feasible if encouraged in SLP.
S2 East of Hemel Hempstead (South)	SKM south site with further extension and density maximised Internal phasing and some safeguarding potential	2,000 +	SKM recommended safeguarded for post 2031 development. Not fully investigated in initial draft of SKM Enviro report, but now under more detailed investigation. Strategic site likely to be more difficult to bring forward in short term, however significant earlier development is feasible if encouraged in SLP
One or two additional sites - TBC		500+	Assume small Green Belt boundary amendments only; will not require full strategic sub area options from SKM.
Totals		4,500 +	High dependency on single location (east HH) with longer time scales for development. <u>May cause land supply issues in medium term.</u> Note contribution of east HH site numbers will need to be considered in context of Duty to Co-operate issues

Notes:

- Green Belt Review part 1 SKM **small scale sub area potential** is not included in these Options other than in 1a above. This is to allow flexibility for consideration as a longer term Detailed Local Plan (DLP) and Neighbourhood Planning issue.

- For **employment land**, a strategic view is taken that existing land and floor space within the District is sufficient. This is largely based on the strength of the local knowledge economy; local demographics; the complex pattern of in and out commuting and the strong relationship of the District economy with surrounding areas – in particular London. In addition to this, two of the development strategy options considered could, in the longer term, create options for further large scale employment land provision at East Hemel Hempstead. This would ensure local economic development needs can be met, provide a longer time horizon for meeting those needs and offer significant potential for wider sub-regional needs to be met as well.
- It will need to be ensured, and it is reasonable to assume, that **community facility and infrastructure needs** can be met within any areas proposed for Green Belt release. The assumptions made for development capacity set aside 40% of the overall development areas for this purpose.

Reference list of sites included in the development strategy options (Extract from Green Belt Review Sites and Boundaries Study)

Table 13.1 Estimated Residential Capacity - of identified Strategic Sub Area Sites suggested for potential development

ID	Site	Ranking Tier	Estimated Residential Capacity (30dph)	Estimated Residential Capacity(50dph)
8	Land at Chiswell Green	1st	270	450
3	East of St Albans	1st	990	1,650
7	Land at London Colney	2nd	252	420
4	North of St Albans	2nd	684	1,140
5	Northwest of Harpenden	2nd	324	540
6	Northeast of Harpenden	2nd	576	960
2b	East of Hemel Hempstead (South)	3rd	684	1,140
1	East of Hemel Hempstead (North)	3rd	1,026	1,710

Appendix 4

Evaluation Framework

Note:

The Council's framework for evaluation was initially designed for application to assessment of individual development sites. For this assessment of development strategy options, which comprise a combination of individual sites the thrust of the questions and their applicability necessitates some adjustment. Adjustments are indicated in italics.

Assessment of sustainable development principles

(1) Sustainable location

Main factors to consider:

- Would the (*combination of*) site(s) be well related to existing settlements or (*represent*) isolated form(s) of development?
- Proximity to existing employment opportunities or potential to provide such opportunities
- Proximity to existing schools, consideration of capacity and potential to meet increased demand and consideration of capacity
- Proximity to existing public open space and allotments
- Proximity to existing neighbourhood/local centres as defined in the Local Plan Review 1994
- Proximity to existing large supermarkets or superstores or potential to provide
- Proximity to existing medical facilities or potential to provide
- Proximity to existing leisure facilities or potential to provide
- Ability for proposed development to link in with existing footpath and cycleway network
- Potential to promote equity and added social inclusion
- Contribution of development to economic growth potential of the settlement / area
- Ability of development to draw on the economic value of built or natural environment features

Comments / overall conclusions:

Score: /10

(2) Settlement hierarchy

Main factors to consider:

- Main urban settlements (excluded from the Green Belt): St Albans, Harpenden, London Colney
- Other settlements excluded from Green Belt: Bricket Wood, Chiswell Green, How Wood, Park Street, Frogmore, Redbourn, Wheathampstead
- Green Belt settlements: Colney Heath, Folly Fields, Gustard Wood, Kinsbourne Green, Lea Valley Estate, Sandridge, Sleepshyde, Smallford
- Rest of Green Belt: Everywhere else

Comments:

Score: /10

(3) Mixed-use development

Main factors to consider:

- Employment
- Social infrastructure (including schools and community facilities)
- Public open space / sport and recreation
- Retail
- Will the benefits of development be accessible to existing communities?

Comments:

Score: /5

(4) Other matters

Main factors to consider:

- Economic contribution of development
- Economic value of environmental and heritage features
- Ability to improve quality of local environment through development – regeneration
- Physical constraints such as:
 - overhead power lines,
 - Pipelines,
 - Sterilisation of mineral reserves
 - Contaminated land
 - ‘un-neighbourly development’
 - topography/steep slopes
 - Agricultural land value grade

Comments:

Score: /5

(5) Strategic infrastructure provision

Main factors to consider:

- What opportunities are there to improve strategic infrastructure for the wider benefit of the District?

Comments:

Score: /10

(6) Vehicular access and traffic impact

Main factors to consider:

- Can suitable access to the site be achieved?
- Degree of impact upon road network and potential for measures to mitigate the impact

Comments:

Score: /10

(7) Public transport

Main factors to consider:

- Distance to train station including assessment of frequency of service
- Distance to a bus route including assessment of frequency of service
- Potential for new or improved bus services

Comments:

	Score: /5
(8) Urban Design	
Main factors to consider:	
<ul style="list-style-type: none"> • Can connections be made with any existing development so that ease of movement is good and social cohesion between new and existing development is facilitated? • Can a positive interface between fronts and backs of existing development be achieved? • Can development of the site have a positive relationship with existing adjacent land uses? 	
Comments:	
	Score: /5
(9) Environmental constraints	
Main factors to consider:	
<ul style="list-style-type: none"> • Environment Agency Flood Zones 2 and 3 and Strategic Flood Risk Assessment (SFRA) results • Proximity to Sites of Special Scientific Interest (SSSI) • Proximity to Local Nature Reserve or Local Wildlife Site • Proximity to Ancient Semi-Natural Woodland • Would development harm any trees protected by Tree Preservation Orders or other important trees? • Will there be an adverse impact on a protected habitat or species? 	
Comments:	
	Score: /10
(10) Landscape quality / surrounding area characteristics	
Main factors to consider:	
<ul style="list-style-type: none"> • Landscape Character Assessment (LCA) condition and sensitivity • Historic Landscape Characterisation information in relation to site • Landscape Institute Guidelines for Landscape and Visual Impact Analysis 	

Comments:

Score: /10

(11) Heritage / archaeology potential

Main factors to consider:

- Proximity to Conservation Area and impact upon setting
- Proximity to Listed Buildings and impact upon setting
- Proximity to Scheduled Ancient Monuments and impact upon setting
- Proximity to Historic Parks & Gardens and impact upon setting
- Presence of archaeological sites for local preservation (Local Plan Review 1994 Policy 110)

Comments:

Score: /5

(12) Opportunities for sustainable energy production

Main factors to consider:

- Site location in relation to District Heating Opportunity Areas
- Site location in relation to Wind Turbine Opportunity Areas
- Other sustainable energy production opportunities identified

Comments:

Score: /5

Appendix 5

Extracts from Inspector's Report on Dacorum Local Plan

Dacorum Borough Council Core Strategy: Inspectors Preliminary Findings on Matters relating to Housing Provision and the Green Belt, November 2012

3. I consider the starting point should be the identification of full 'objectively assessed needs' (paragraph 47 of NPPF). The most recent CLG household projections¹ indicate a need for 13,500 new households in the Borough (about 540 dwellings a year) over the plan period and there is also a significant need for affordable housing. The population projections also identify a significant growth....

... 4. Having identified the full need, the Council should then have undertaken the appropriate analysis to ascertain whether or not that full need for market and affordable housing could be met, remembering that the objective is to 'boost significantly the supply of housing'.....

... 5. I have two specific concerns: the lack of a robust and comprehensive green belt review and the limited emphasis that appears to have been given to the role that neighbouring local planning authorities could play in accommodating some of Dacorum's housing needs....

... 8. I acknowledge that the situation may change but there is no reason to conclude that the needs for housing in Dacorum Borough will not continue to grow beyond 2031. In these circumstances and bearing in mind the tight constraint which the green belt imposes (together with the AONB elsewhere in the Borough) I am not satisfied that longer term development needs could be satisfactorily accommodated....

With regard to neighbouring local planning authorities making a contribution to meeting the housing needs of Dacorum, this is clearly not a new concept, particularly in terms of St Albans City and District (which is immediately to the east of Hemel Hempstead). Hemel Hempstead is rightly identified in the CS as the main centre for sustainable development and change in the Borough and in my view every opportunity for re-enforcing the role of the town and making the best use of the facilities and services that it provides should have been robustly assessed (together with any consequential infrastructure improvements).

Whilst it is clear that Dacorum and St Albans have 'co-operated', particularly with regard to the joint Area Action Plan, it appears to me that the co-operation was directed more towards securing protection for the land in St Albans District between Hemel Hempstead and the M1, rather than investigating ways in which the area could contribute towards meeting the full housing needs of Dacorum. Bearing in mind the conclusion in HG10 that 'if significant expansion of Hemel Hempstead is required, this should be taken forward in the form of the eastern growth option' (i.e. primarily within St Albans City and District), then I consider the Council should have attached greater weight to the role that this area could play in meeting the Borough's housing needs more fully.

In summary there is insufficient substantive evidence to enable me to confidently conclude firstly that the figure of 11,320 dwellings represents full objectively assessed need; secondly that the housing needs of Dacorum up to 2031 could not be met more fully than is currently proposed without causing significant harm to interests of acknowledged importance; and thirdly that future needs (i.e. post 2031) could be satisfactorily accommodated without a review of the green belt.

The Council will wish to consider the options available to it but one of those options may be to commit to an early partial review of the CS (by way of an appropriate Main Modification), in order to investigate ways of assessing and meeting housing need more fully (taking into account updated household and population projections). Any such partial review would need to consider the identification of a housing target that closely reflects identified need; a thorough review of the green belt boundary (including the potential for safeguarded sites); and the role that effective co-operation with neighbouring local planning authorities could play in helping to meet the housing needs of Dacorum.

Dacorum Core Strategy Examination: Inspectors Report, July 2013

Full report available at (30 pages in length): <http://web.dacorum.gov.uk/docs/default-source/strategic-planning/inspectors-report-on-dacorum-s-core-strategy-july-2013.pdf?sfvrsn=0>

8. Concern was raised regarding the co-operation between the Councils of Dacorum and the City and District of St Albans, particularly with regard to land to the east of Hemel Hempstead. However, confirmation was received from both Dacorum and St Albans Councils that the commitment to co-operate is genuine Overall I am satisfied that the duty to co-operate has been met. The issue therefore becomes whether or not that co-operation has led to the most appropriate strategy being proposed and that is discussed in the following sections.

57. A number of sites were considered for housing development ²², although it should be noted that this most recent assessment did not include any land outside the Borough boundary (e.g. land between the town and the M1 which is within St Albans City and District). However, an earlier assessment in 2009 ²³ did consider an eastern growth scenario and concluded that if significant expansion of Hemel Hempstead is required 'this should be taken forward in the form of the eastern growth option'. This would require the co-operation of St Albans City and District Council but it is not a 'new' concept and it would appear that a significant assessment of this option has been undertaken in the past, upon which further consideration could be based.

Main Modification 28

29.10 Through the partial review, the Council will assess:

- a) household projections;
- b) the role and function of the Green Belt affecting Dacorum, including long term boundaries and the potential to identify safeguarded land beyond 2031; and more significantly,
- c) the role that effective co-operation with local planning authorities could play in meeting any housing needs arising from Dacorum. This element will include St Albans district and relevant areas lying beyond the Green Belt.

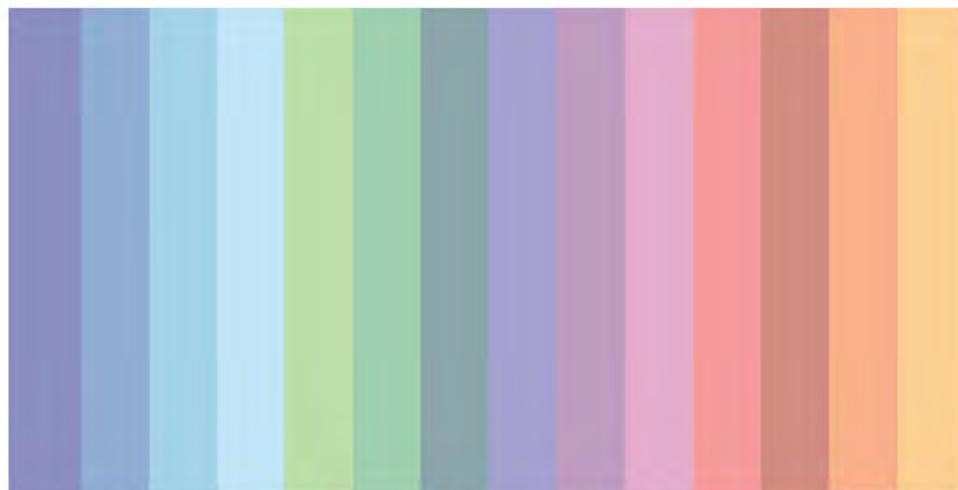
The outcome of the review cannot be prejudged.

[Note the inclusion of (c) in the main modification]

Appendix 6

Extracts from Local Enterprise Partnership Emerging Strategic Economic Plan (SEP 2014)

Updated to Final version SEP October 2014



Perfectly Placed for Business

Hertfordshire's Strategic Economic Plan

March 2014

Hertfordshire 
Local Enterprise Partnership

Our priorities

In responding to national imperatives for growth and delivering *Perfectly Placed for Business*, we have four Priorities. In partnership with government, we want to invest in these to generate nationally significant impacts in relation to jobs, economic output (GVA) and housing.

I: Global excellence in science and technology

Hertfordshire is home to world class science. It also has outstanding credentials in film, digital animation, media and creativity. This combination provides an exceptional foundation for high value and accelerated economic growth.

Bioscience, life science, pharmaceuticals

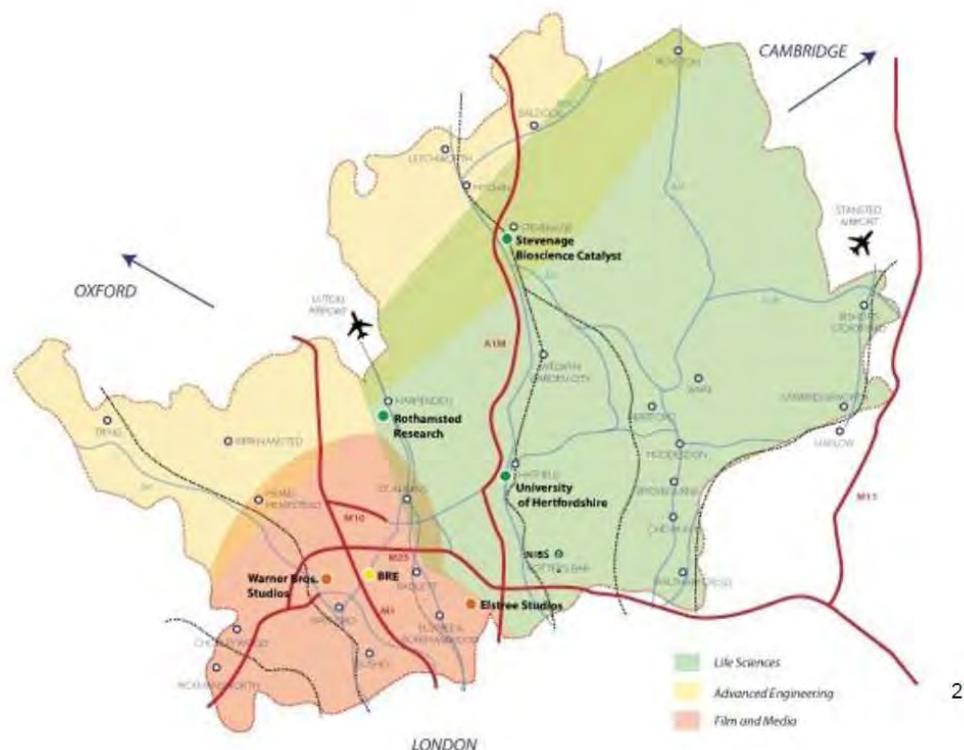
Hertfordshire has a unique concentration of expertise in pharmaceuticals and bioscience (in which a recent report by the Enterprise Research Centre (2014)

found that it had almost five times more employment than the national average) – but also broader science and engineering specialisms. It is second to none in translational research.

With major sites at Stevenage and Ware, GlaxoSmithKline (GSK) has invested heavily: it has chosen to concentrate much of its overall research capability in the county and large numbers of research scientists are engaged in world class science linked to drug discovery. The pharmaceutical R&D laboratories of Merck Sharp and Dohme (MSD) are in Hoddesdon in the south of the county, and these too have seen substantial recent investment. So already, Hertfordshire is a global hub of pharmaceuticals-related R&D.

But – as a result of our past efforts – our assets go further and deeper. **Over the last decade, we have seen the development of a world class infrastructure for open innovation. It is this on which we want to build.**

At its core is the Stevenage Bioscience Catalyst. This venture was initiated by GSK and the Wellcome Trust with government support. It is physically



located in the midst of GSK's Medicines Research Centre site in Stevenage and it provides an environment in which new and small bioscience companies can benefit from corporate networks, expertise and scientific facilities. Hence it is – effectively – de-risking the formation and growth of new bioscience businesses. Its first phase has been very successful. With University College London, University of Cambridge, GE Healthcare and Johnson and Johnson joining the ever-lengthening list of tenants, the conditions for moving to the second and third phases of its expansion plan have been given added impetus by the decision of MRC Technology to locate its Centre for Therapeutics Discovery in Stevenage by the end of 2015.

In parallel, BioPark – in Welwyn Garden City – has become a hub for small biopharmaceutical, contract research and medical technology businesses. It occupies the site of the former Roche laboratory and it offers R&D space on flexible terms. It is run by Exemplas on behalf of the University of Hertfordshire, and it therefore has strong links to higher education; these are invaluable for small, new and growing knowledge-based firms.

Our infrastructure for open innovation is therefore already strong. Our intention is to invest in it further so that the growth of high value businesses can be accelerated, with significant impacts measured in both GVA and employment.

We are confident we can succeed. This is partly because – through Stevenage Bioscience Catalyst, BioPark and the like – we have a demonstrable track record of making it happen.

But it is also because Hertfordshire is in precisely the “right place”:

- Immediately to our south is London which is seeing substantial investment in bioscience-focused R&D. But – as a basis for wider commercialisation – it is congested and very expensive

- To the north is Cambridge. It too is seeing significant investment, notably through the relocation of Astra Zeneca, itself a response to the depth of bioscience expertise in Cambridge: the Laboratory for Molecular Biology, the Babraham Research Campus, the Genome Campus, and so on.

The growth of bioscience in London and Cambridge is not a threat to Hertfordshire. Quite the opposite: the physical presence of both University College London and the University of Cambridge at Stevenage Bioscience Catalyst provides ample evidence of Hertfordshire's role and potential at the core of the UK's Golden Triangle.

Film, digital animation and creativity

Alongside bioscience, we have world class assets in film, digital animation and creativity.

Warner Brothers (at Leavesden) and Elstree Film Studios are globally significant locations in relation to film and TV; they are seven miles apart in south west Hertfordshire. Both have seen substantial investment in recent years and together, they form the core of a cluster which is growing rapidly in its scale and impact.

As part of it – and located nearby – we now have two University Technical Colleges at Elstree (specialising in entertainment, film, television, theatre, visual arts and digital communication industries) and Watford (focusing on digital communication).

Further, the University of Hertfordshire is recognised as among the top 20 universities in the world to study animation. It runs four undergraduate programmes in digital animation: 2D animation, 3D animation, 3D games art and visual effects.

Through major companies and a strong supporting infrastructure – expressed

especially in terms of skills – we therefore have a unique concentration of world class assets, and a strong foundation for knowledge-based economic growth. We intend to use this fully.

2: Harnessing our relationships with London (and elsewhere)

Hertfordshire has a distinctive economic geography. In addition to the orbital M25, it is traversed by three major radial corridors. Each of these is defined by strategic road and rail routes. Moving from west to east, they are:

- **M1 / West Coast Mainline** which extends from London through Watford and Hemel Hempstead (and then onto Luton, Milton Keynes and beyond)
- **A1(m) / East Coast Mainline / King's Cross to Cambridge railway line** which runs from London through Hatfield, Welwyn Garden City, Stevenage and Hitchin; and then onto Peterborough on one spur and (via Letchworth Garden City and Royston) onto Cambridge on the other

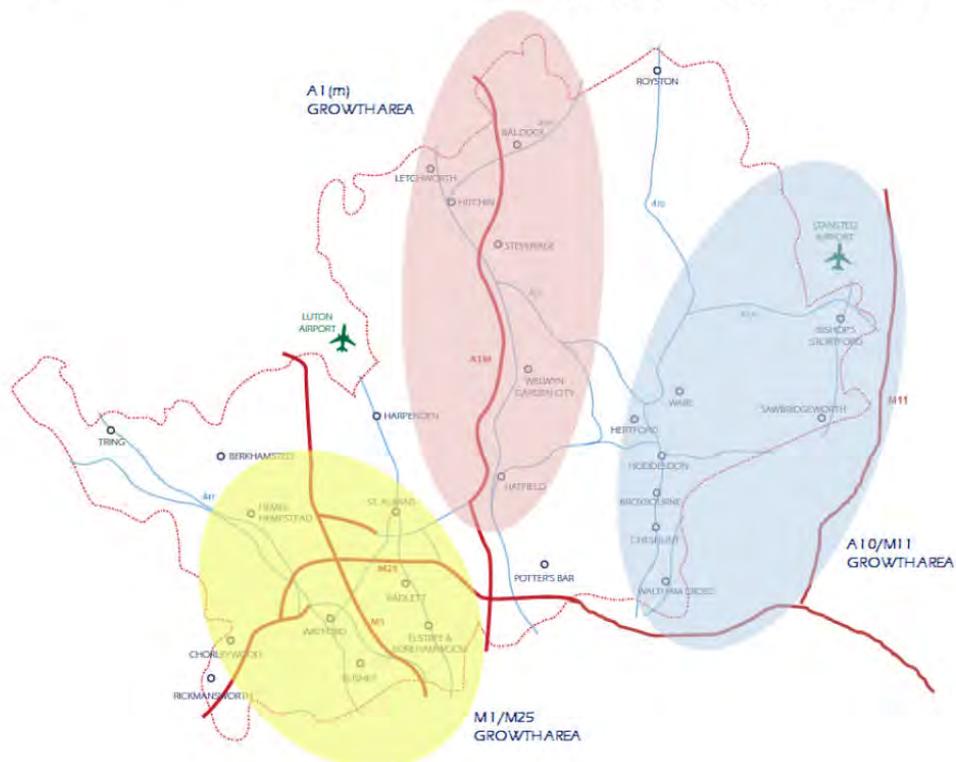
- **M11 / A10 / Liverpool Street to Cambridge railway line** which extends from London through Broxbourne and Cheshunt to Bishop's Stortford (and Harlow, in Essex) and onto Cambridge.

In each case, the rail corridor is increasingly important alongside the principal strategic road connections. And in combination, they are providing crucially important economic corridors defined around their connectivity. We are seeing increasing commuting and business-to-business activity along these corridors.

This is a growth dynamic that we are determined to harness.

It of course brings with it some downside risks. Hertfordshire cannot become simply a home for low value activities priced out of London. It also places an ever greater reliance on a transport infrastructure that is already congested and badly in need of investment; it is telling, for example, that Hertfordshire can claim 2% of the national population; 1.3% of the land; and nearly 3% of all national vehicle miles.

But the upside risks are considerable too. In harnessing these corridors



appropriately – and the agglomeration effects that are being created within them – we believe that we will significantly accelerate the pace of economic growth county-wide.

3: Re-invigorating our places

Reinventing our New Towns

Hertfordshire has no dominant city (or city-region) at its functional core. Instead, our spatial economy is characterised by a dense network of urban areas. The largest – with a population of 132,000 – is Watford, but there are nine others with a population of more than 35,000 nearby.

We have four “first wave” New Towns within Hertfordshire (Hatfield, Hemel Hempstead, Stevenage, Welwyn Garden City) plus a fifth – Harlow New Town – on our border with Essex. In addition, South Oxhey is a London overspill town.

Together the Hertfordshire New Towns have a combined population of over 270,000 – meaning that around a quarter of Hertfordshire’s population lives in a New Town. Our New Towns also accommodate 1,000 hectares of employment land, much of which is in need of renewal to accommodate future economic growth. **In combination, these New Towns have the scale of a medium-sized city;** and they are bigger than Cambridge, Oxford and Ipswich (all of which have benefitted from City Deals when Hertfordshire’s urban areas have been deemed ineligible).

As New Towns, though – perhaps with the exception of Welwyn Garden City – all of their infrastructure is decaying simultaneously. It needs re-investment: town centres are jaded, the retail offer is poor and the socio-economic make-up of our New Towns differs starkly from elsewhere in Hertfordshire.

Re-investment in our New Towns needs an active development process and – despite the proximity of London – this is

almost entirely absent (in large part because of planning issues (see below)).

It also needs new and more creative thinking – with higher density solutions, recognising the particular opportunities linked to railway hubs within our growth corridors. Our New Towns are superbly well located in these terms. **Well connected, our New Towns need to become vibrant, lively, urban hubs underpinned by new models of both living and working** (in which “third spaces” (between home and work) play an ever-growing role).

Across England, the New Towns that have fared best in recent years – and delivered significant housing growth – have invariably been the larger ones, particularly Milton Keynes and Peterborough. **Collectively, our New Towns are bigger than either of these.** We are determined to find ways of making their scale and collective critical mass count. However their growth processes have been stymied and they have never had the delivery machinery to respond.

Yet the New Towns want to grow. To secure the re-investment that they desperately need, they must grow. And for Hertfordshire to prosper, it is imperative that a new phase of re-investment, regeneration and growth is unleashed.

We recognise that the challenges faced by our New Towns are not unique – although the local concentration of New Town “issues” is distinctive to Hertfordshire. Through our “Urban Futures” venture – and through the choices we are making with regard to the use of our own resources – we see ourselves as a national trail-blazer in this context.

Re-building a coalition for growth

Over 50% of our green field land is designated Green Belt; development is therefore complicated. Our overall spatial vision is in the hands of ten different

district councils. The granularity of our local government structure means that major growth opportunities are often complicated in terms of boundary issues.

These challenges have been significantly aggravated by constant changes to the planning system – by successive governments – over the last 20 years. The upshot is that:

- only four of our ten Local Planning Authorities (Watford, Three Rivers, Dacorum and Hertsmere) currently have adopted Core Strategies
- major development schemes – particularly those which cross boundaries – have so far proved difficult to advance.

Aside from the New Towns, Hertfordshire’s development economics does, however, generally stack up. Private sector developers have therefore funded the infrastructure needed to open up the available development sites.

But there are two substantial issues that an active development process cannot disguise.

One relates to the speed with which the planning system is bringing forward major schemes. Many of our major schemes have been on the horizon for decades. Over the last 18 months, there has been some local progress – led by Hertfordshire LEP and the local authorities. But even with a fair wind, these schemes will still take years to come forward. We must accelerate them.

The second surrounds the chronic congestion facing much of the county. With viable – if small – development opportunities, incremental growth has occurred. But it has been dispersed and “under the radar”. It has not triggered commensurate levels of transport investment to relieve ever-growing congestion: infrastructure investment is both a catalyst and necessary precursor to growth. Hertfordshire has not “*had a Northstowe*” to put major transport

investment (in that case, Cambridgeshire Guided Busway and A14 improvements) on the national agenda. We must put this right in order to move forward.

4: Foundations for growth

Our fourth priority is cross-cutting in nature. Hertfordshire performs well on all key metrics of economic well-being – skills, employment rates, activity rates, business start-up rates, etc. – at a county level. But within this, there are localised pockets of chronic disadvantage and really quite poor performance.

These are concentrated within our New Towns, but not exclusively so. County-wide – including in our extensive rural areas – there are small businesses that struggle to access the support they need to grow, and individuals who could enter and/or progress within the workforce if their skills were developed. Our fourth priority is concerned with addressing these cross-cutting opportunities and concerns.

Links between our priorities

Our priorities differ from each other. But they are linked.

Despite our assets, we will not succeed in becoming a global hub for open innovation unless our skilled and highly sought-after workers:

- can find somewhere locally that they – and their families – want to live
- can move around the county.

So **we need more housing. We need our towns to perform** as vibrant and connected settlements and communities; some of our historic settlements fit this bill, but our New Towns generally do not. This is a wasted opportunity. **We also need our infrastructure to function.** We are determined to put all of these challenges right. Our implementation priorities have been defined in response.

Appendix 7

Detailed Information on Distance Measurements Relevant to the Evaluation

Note:

Questions were raised by members of the public about the basis for, and consistency of, distance measurements used in the original version of this Report (considered by the Council's Planning Policy Committee in July 2014).

To assist understanding of the evaluation key distances have been re-measured and recorded with a full, mapped, explanation of the assumptions used.

Key measurements are those for road route trips from the nearest edge of the site to the nearest:

- Town centre / or nearest local centre (where relevant)
- Nearest railway station
- Nearest primary school
- Nearest secondary school

These distances are recorded and mapped in the Table below.

A matrix summarising and comparing the distances for the sites is also provided

The Google Maps web tool is used for calculation in order to illustrate the method and assumptions in full. This tool is standardised and calculates distances and journey times automatically (*see below for note of the assumptions embodied in distance / time calculations). It only measures on-road routes from existing street address points. Thus the measurements have to be related to particular road or other routes from the edge of the site. However, an adjustment figure is also given in the tables to allow an addition to cover the potential 'as the crow flies', within site, distance. This is measured from the approximate centre point of the site as shown.

It is also recognised that the tool will not always opt for a practical or most obvious route. The routes mapped in this Appendix are on road car routes which do not show the options available for walk / cycle routes using cut through footpath and cycle ways or open spaces. Additionally, no account is taken of the potential to create new road, foot and cycle path links as part of a new development. These points are important for interpretation. The Google tool does allow the user to map alternative walk / cycle routes, but these are not shown in the maps reproduced below. However, where these routes are shorter the automatically calculated walk, cycle or public transport route times are provided for reference.

The new distance measurements are provided to give a consistent baseline for assessment, but are clearly not the only distances that could be measured / used. Many different routes could be defined.

Understanding absolute distances and having a clear understanding of how they have been derived is important. However the most important thing for the purposes of the evaluation undertaken is to show relative differences between the sites in terms of the key travel distances. The distinctions between sites are very apparent, whatever variations on the distance measures are used. As one example; distances to the Town Centre and rail stations in Hemel Hempstead are much greater than in Harpenden.

The main text of the report retains the original (July 2014) distance measures for comparative purposes. Where appropriate these distances have been annotated with relevant comparisons to the new baseline measurements (edge of site is recorded).

The new measurement information in this Appendix does not change the evaluation scoring or overall conclusions.

*Note on Google maps distance / time assumptions (approximate – SADC interpretation)

Car - 32 – 48 km ph (20 – 30 mph)

Walk - 4.8 km ph (3 mph)

Cycle - 16 – 19 km ph (10 – 12 mph)

Matrix Summarising and Comparing Distances (km) Between Sites and Key Facilities / Services

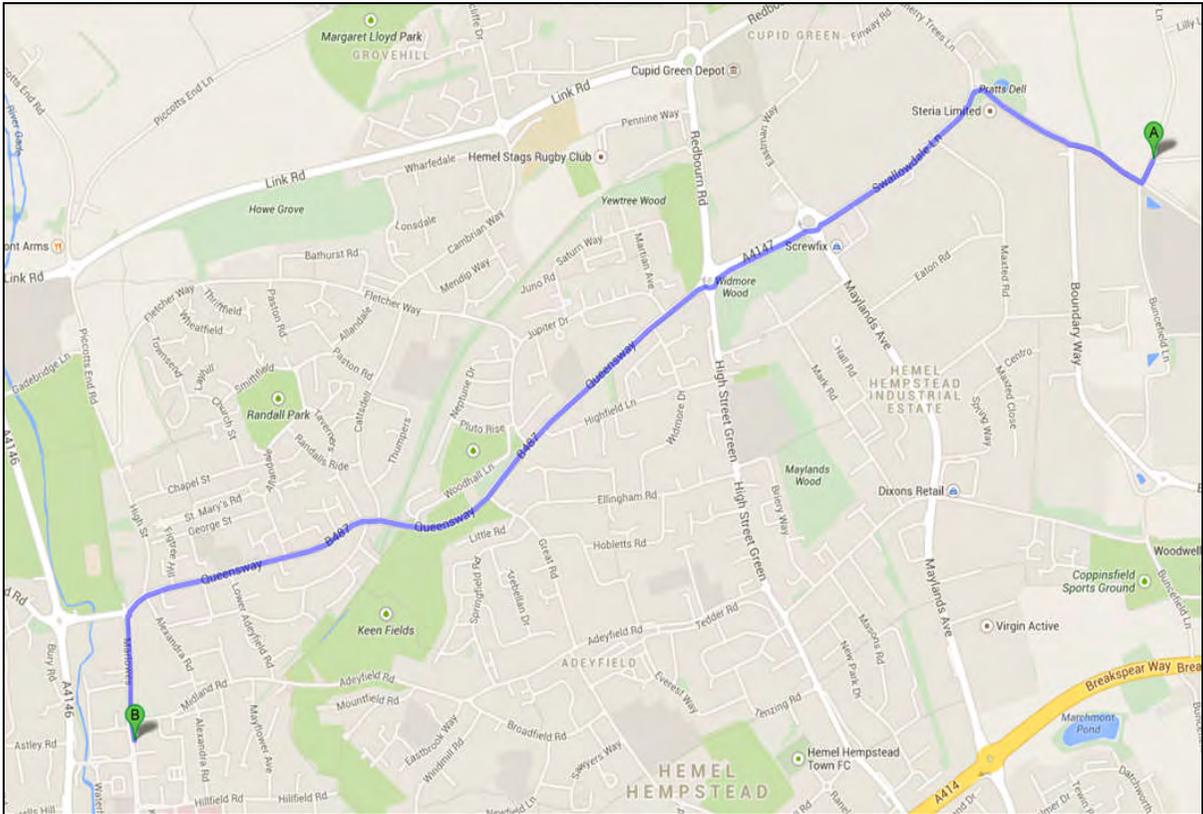
SITE	Edge of site to nearest town centre (to centre of site)	Edge of site to nearest local centre (to centre of site)	Edge of site to nearest railway station (to centre of site)	Edge of site to nearest primary school (to centre of site)	Edge of site to secondary school (to centre of site)	Notes
S1 East of Hemel Hempstead (north)	3.7 (+0.48 = 4.18)	1.7 (+0.48 = 2.18)	6.4 (+0.48 = 6.88)	1.7 (+0.48 = 2.18)	2.4 (+0.48 = 2.88)	
S2 East of Hemel Hempstead (south)	5.2 (+ 0.7 = 5.9)	1.6 (+ 0.7 = 2.3)	5.5 (+ 0.7 = 6.2)	1.1 (+ 0.7 =1.8)	4.6 (+ 0.7 = 5.3)	
S3 East of St Albans	3.3 (+0.48 = 3.78)	1.2 (+0.48 = 1.68)	3.0 (+0.48 = 3.48)	1.6 (+0.48 = 2.08)	1.8 (+0.48 = 2.28)	
S4 North of St Albans	2.4 (+0.37 = 2.77)	0.9 (+0.37 = 1.27)	3.2 (+0.37 =3.57)	1.2 (+0.37 = 1.57)	1.4 (+0.37 =1.77)	
S5 Northwest of Harpenden	1.5 (+0.23 = 1.73)	0.35 (+0.23 = 0.58)	1.7 (+0.23 = 1.93)	1.0 (+0.23 = 1.23)	1.0 (+0.23 = 1.23)	
S6 Northeast of Harpenden	2.2 (+0.5 = 2.27)	0.6 (+0.5 = 1.1)	2.4 (+0.5 = 2.9)	1.1 (+0.5 = 1.6)	1.8 (+0.5 = 2.3)	
S7 Land at London Colney	1.0 (+0.17 = 1.17)	1.0 (+0.17 = 1.17)	4.5 (+0.17 = 4.67)	0.3 (+0.17 = 0.47)	3.0 (+0.17 = 3.17)	Local centre is taken as a proxy for 'town centre' in these measurements – given general shopping facilities

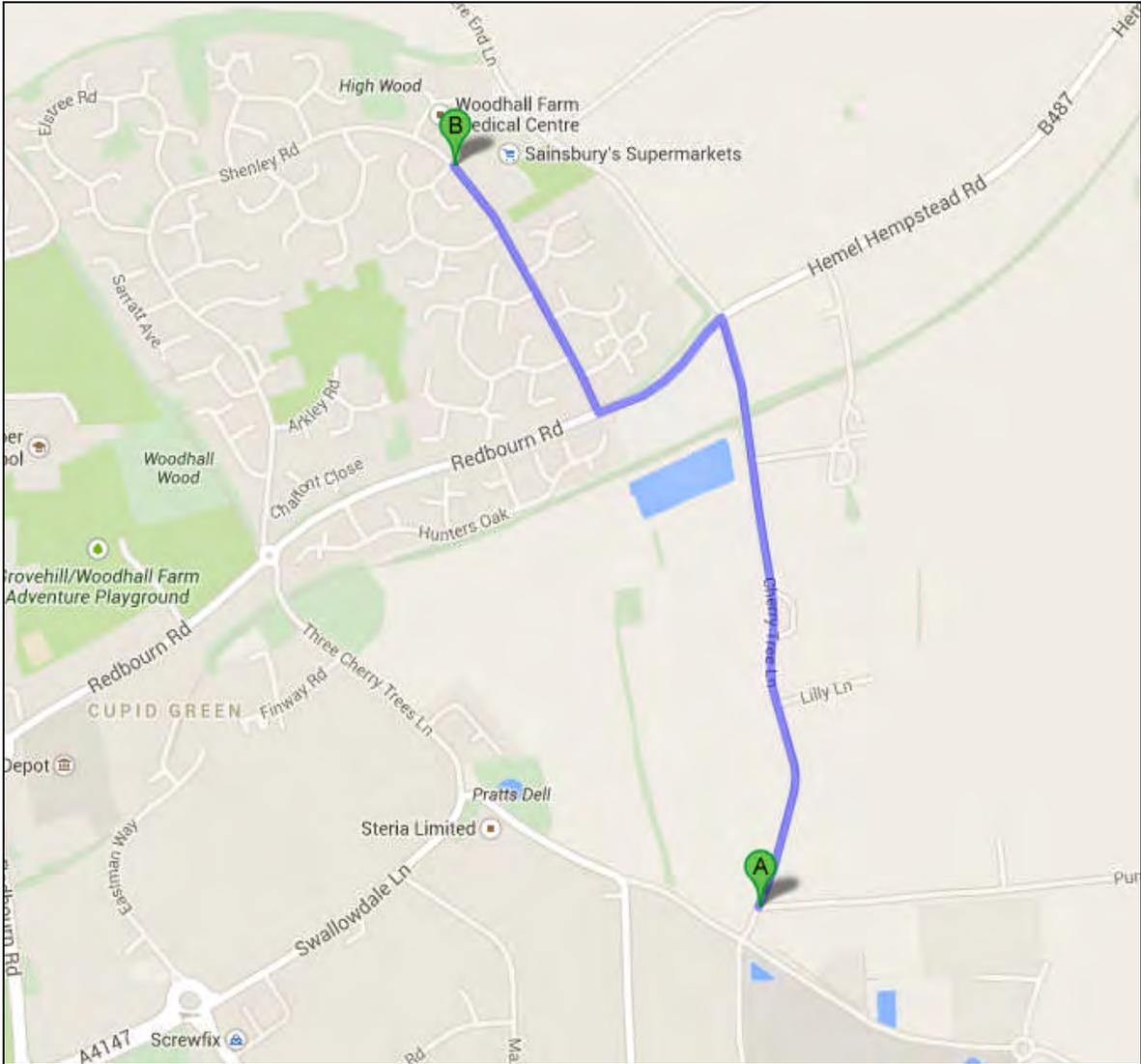
						available in London Colney. Rail access is to Abbey Line with limited services
S8 Land at Chiswell Green	3.5 (+0.28 = 3.78)	0.4 (+0.28 = 0.68)	2.4 (+0.28 = 2.68)	1.1 (+0.28 = 1.38)	2.5 (+0.28 = 2.78)	Rail access is to Abbey Line with limited services

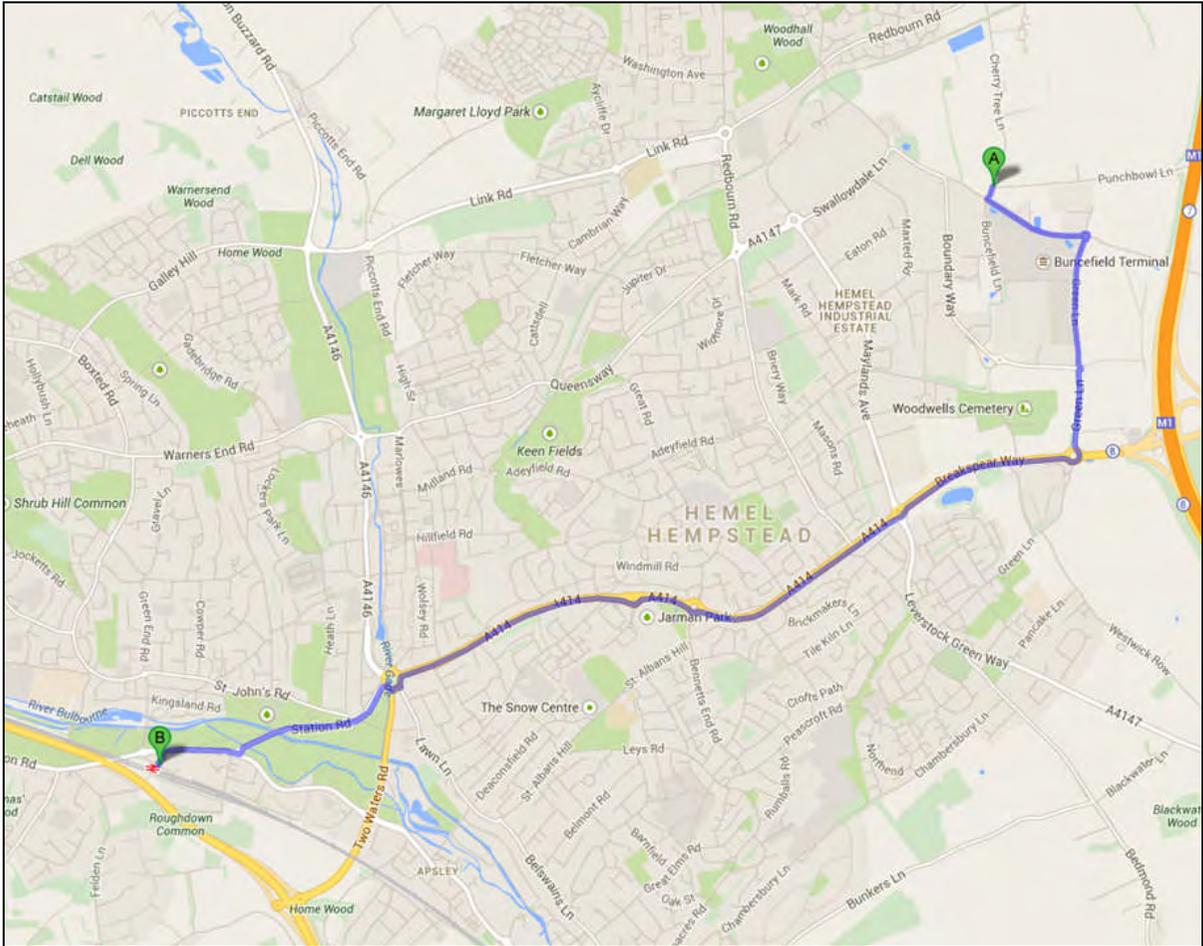
This demonstrates the key issues for evaluation:

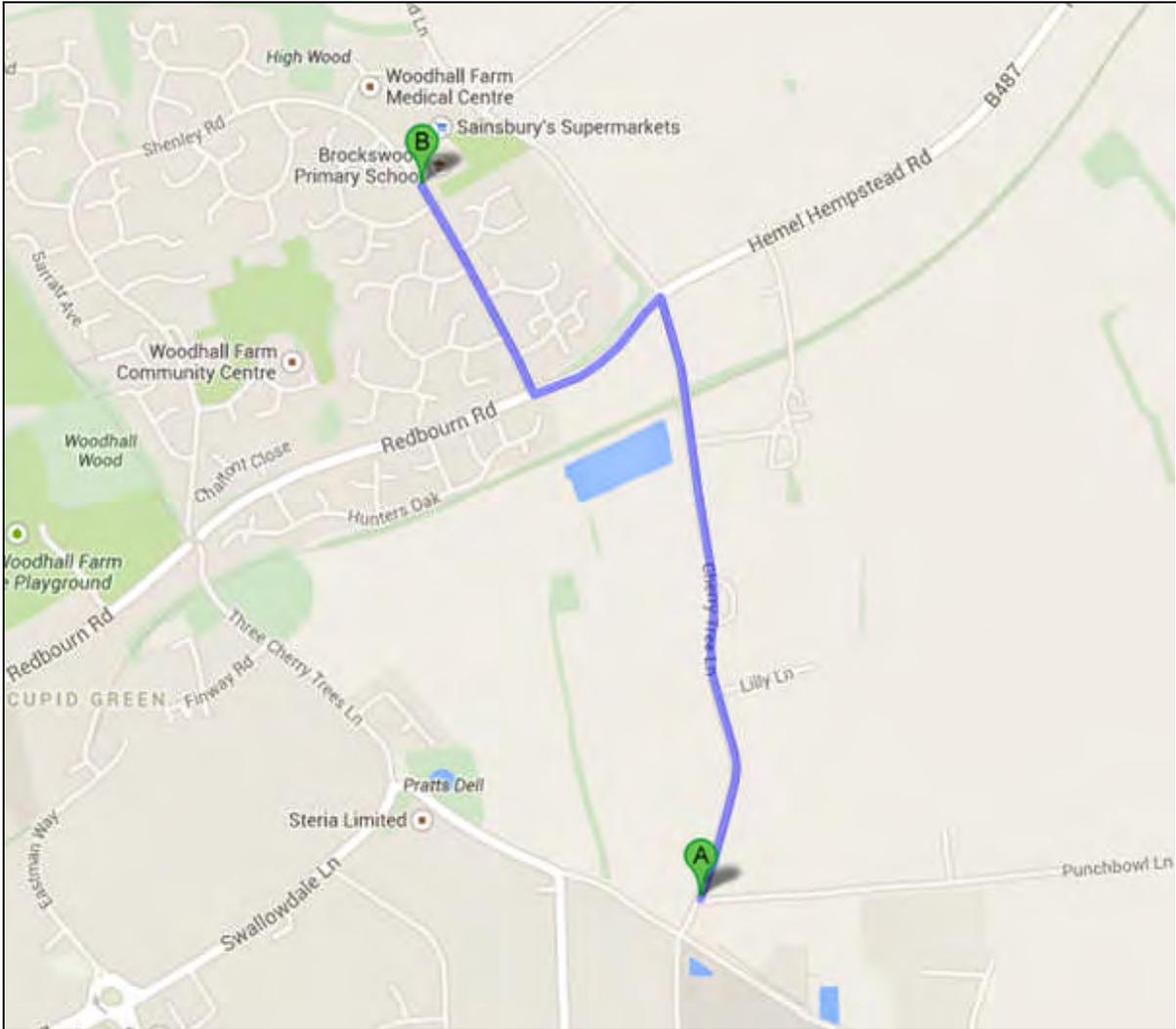
- The east Hemel Hempstead sites are relatively distant from facilities and services. This is partly due to the overall size of the Town. However in the wider evaluation it is relevant that the facilities and services available in a larger Town are wider ranging, including public transport and main line rail access. The position raises issues for the provision of new local / neighbourhood facilities, and design of any development. This includes public transport provision. The potential scale of development in these locations does provide opportunities to address this issue.
- The St Albans sites are relatively close to an excellent range of services including main line rail.
- The Harpenden sites are the closest to a good range of services including main line rail. This is particularly true of NW Harpenden.
- The London Colney and Chiswell Green sites are relatively distant from higher order central facilities and services and from secondary schools and rail. The closest rail is the Abbey Line with a very limited service.

Site 1 – East of Hemel Hempstead (north)

Edge of the site to town centre	Transport modes	Route
<p>Distance: 3.7 km</p>	<ol style="list-style-type: none"> 1. Car: 6 mins 2. Walk: 45 mins 3. Cycle: 13 mins 4. Public transport: 31 mins 	 <p>The map displays a blue route starting from point B at the edge of the site and ending at point A in the town centre. The route follows Link Rd, Queensway, and High Street Green. Key landmarks include Margaret Lloyd Park, Randall Park, Keen Fields, and the Hemel Hempstead Industrial Estate. Major roads like A147 and A14 are also visible.</p>

Edge of the site the nearest local centre	Transport modes	Route
<p>Distance: 1.8 km</p>	<ol style="list-style-type: none"> 1. Car: 3 mins 2. Walk: 22 mins 3. Cycle: 6 mins 4. Public transport: 18 mins 	 <p>The map displays a route starting at point A (bottom right) and ending at point B (top center). The route follows a path through residential streets, including Redbourn Rd, Hemel Hempstead Rd, and Swallowdale Ln. Key landmarks such as Woodhall Farm Medical Centre, Sainsbury's Supermarkets, and Woodhill Wood are visible. The route is highlighted in blue, and the surrounding area is labeled with various street names and local features.</p>

Edge of the site to the nearest railway station	Transport modes	Route
<p>Distance:</p> <p>Hemel Hempstead Railway Station - 6.4km</p>	<ol style="list-style-type: none"> 1. Car: 10 mins 2. Walk: 1 hour 14 mins 3. Cycle: 22 mins 4. Public transport: 28 mins 	 <p>The map displays the town of Hemel Hempstead with a highlighted route. The route starts at a point labeled 'A' on the River Bulbourne, crosses the river, and follows a path through residential areas. It passes through 'Station Rd' and 'Two Waters Rd', then continues through 'Lawn Ln' and 'Apsley'. The route then turns east, passing through 'Belmont Rd' and 'Belvedere Ln', before heading north towards 'Station Rd' and 'Two Waters Rd' again. The route ends at a point labeled 'B' near Hemel Hempstead Railway Station. The map also shows major roads like the A114 and A117, and landmarks such as Margaret Lloyd Park, Keen Fields, and the Hemel Hempstead Industrial Estate.</p>

Edge of the site to the nearest primary school	Transport modes	Route
Distance: 1.7km	<ol style="list-style-type: none"> 1. Car: 3 mins 2. Walk: 21 mins 3. Cycle: 6 mins 4. Public transport: N/A 	 <p>The map displays a route from point A (bottom right) to point B (top center) at Brockswold Primary School. The route is highlighted in blue and follows the following path: from point A, it goes north on a road, then west onto Redbourn Rd, then north onto Hemel Hempstead Rd (B487), and finally west to Brockswold Primary School. Other landmarks on the map include Woodhall Farm Medical Centre, Sainsbury's Supermarkets, Woodhall Farm Community Centre, Woodhall Wood, Woodhall Farm Playground, Steria Limited, and various residential streets like Shenley Rd, High Wood, and Swallowdale Ln.</p>

Edge of the site to the nearest secondary school	Transport modes	Route
Distance: 2.4 km	<ol style="list-style-type: none"> 1. Car: 4 mins 2. Walk: 27 mins 3. Cycle: 8 mins 4. Public transport: 21mins 	

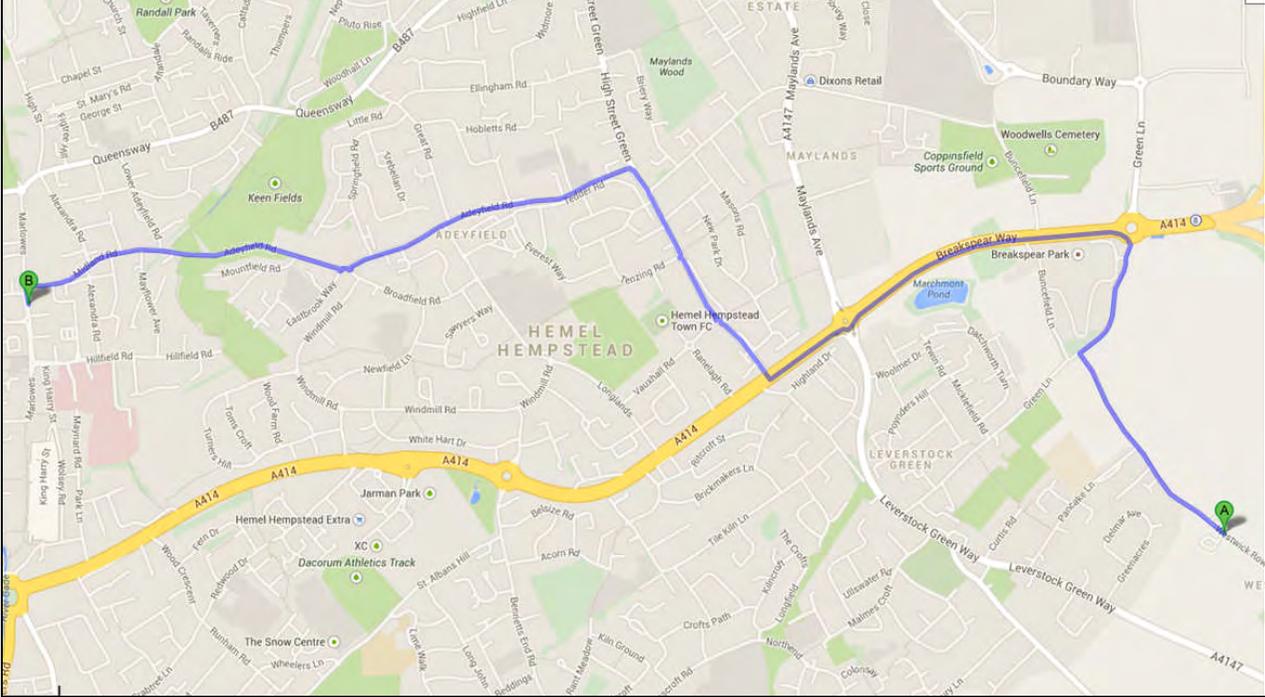
Central Point

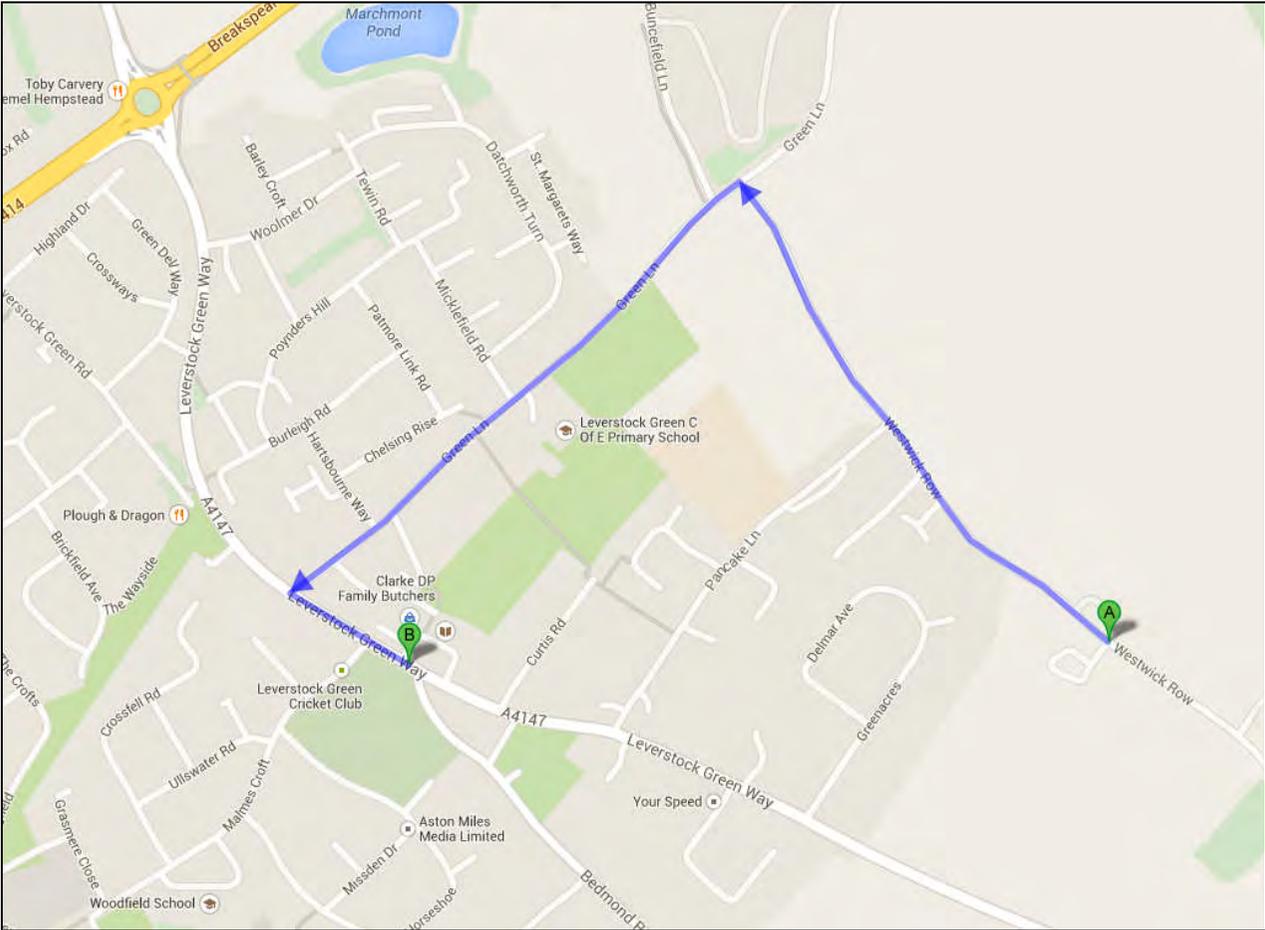
Distance from a central mapped point within the potential development site to the edge of the site as plotted above is 0.48km.

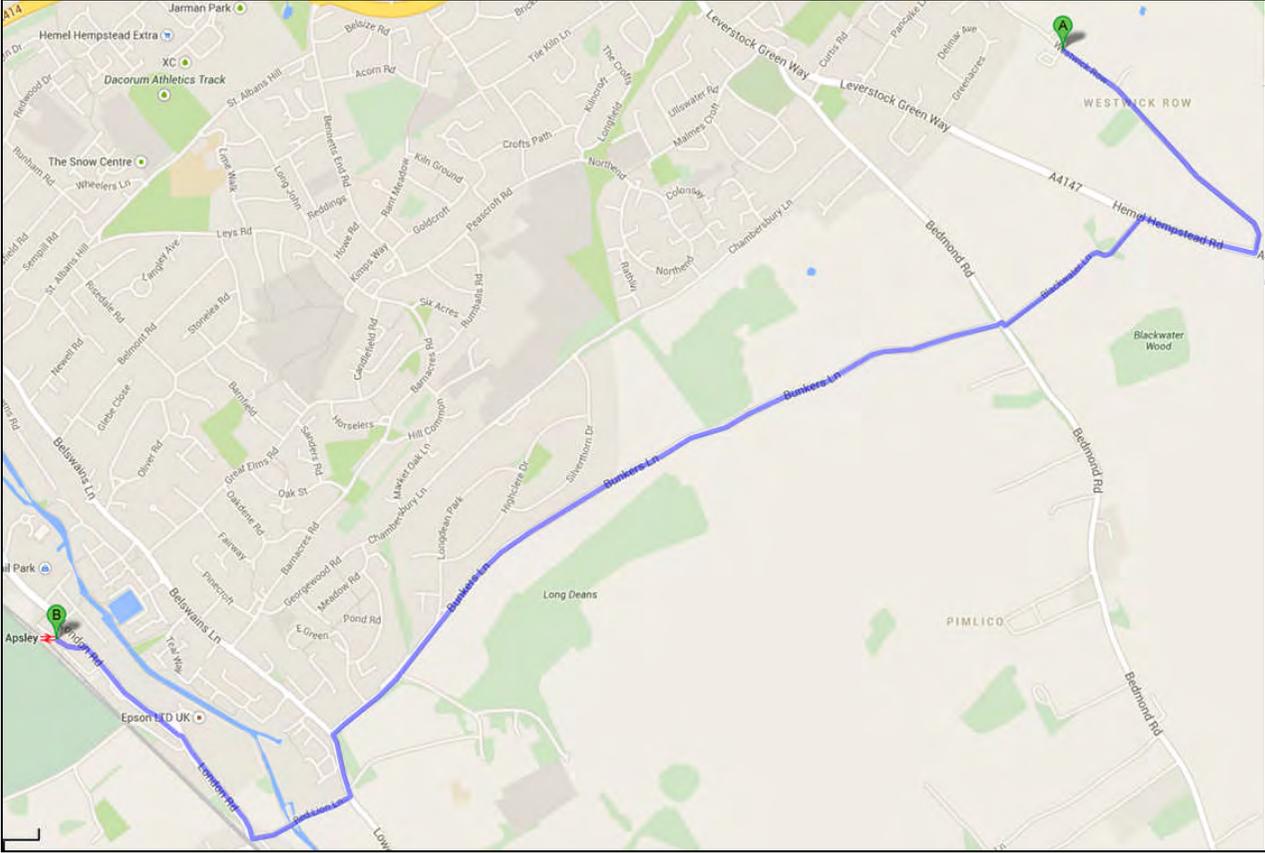
Maps

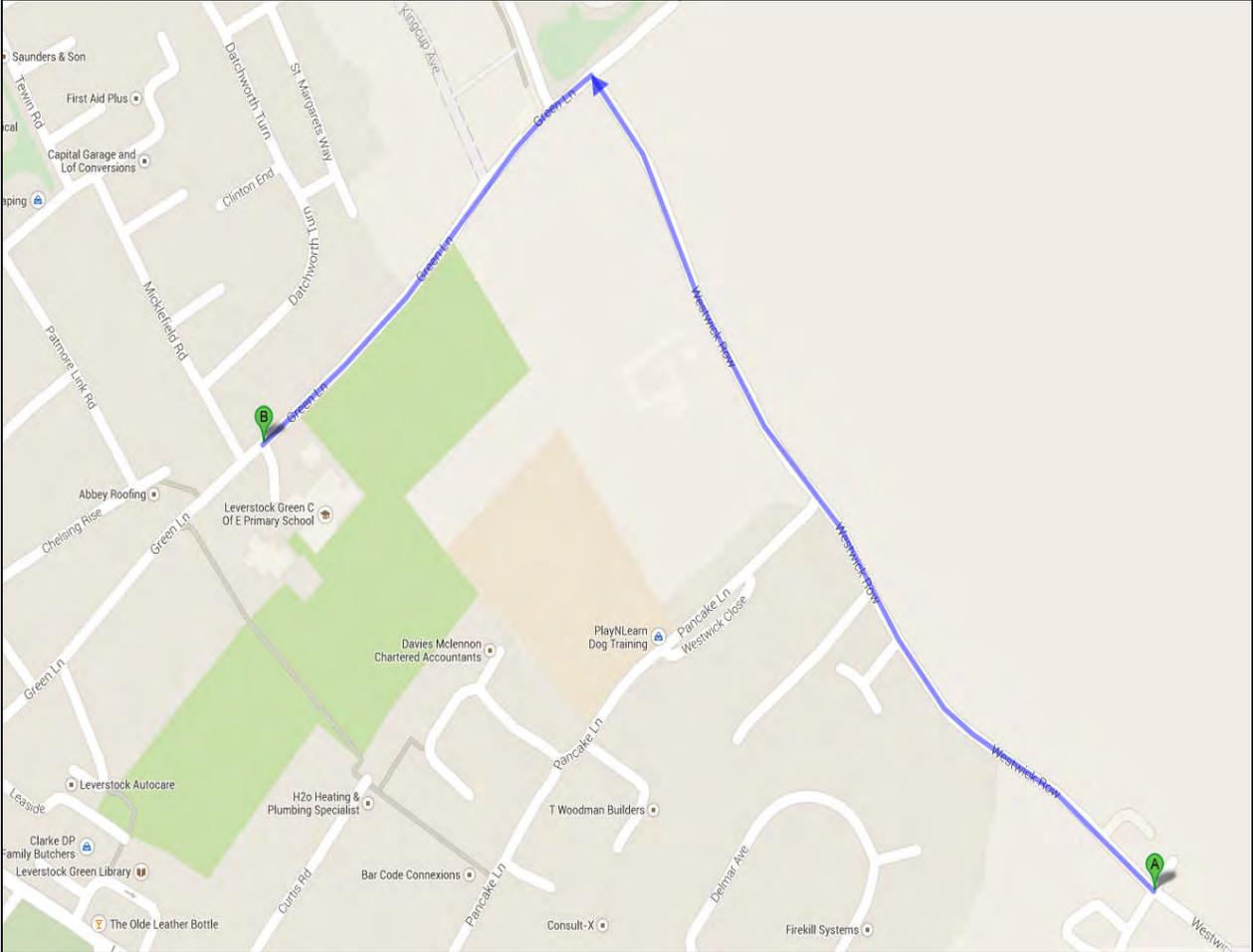


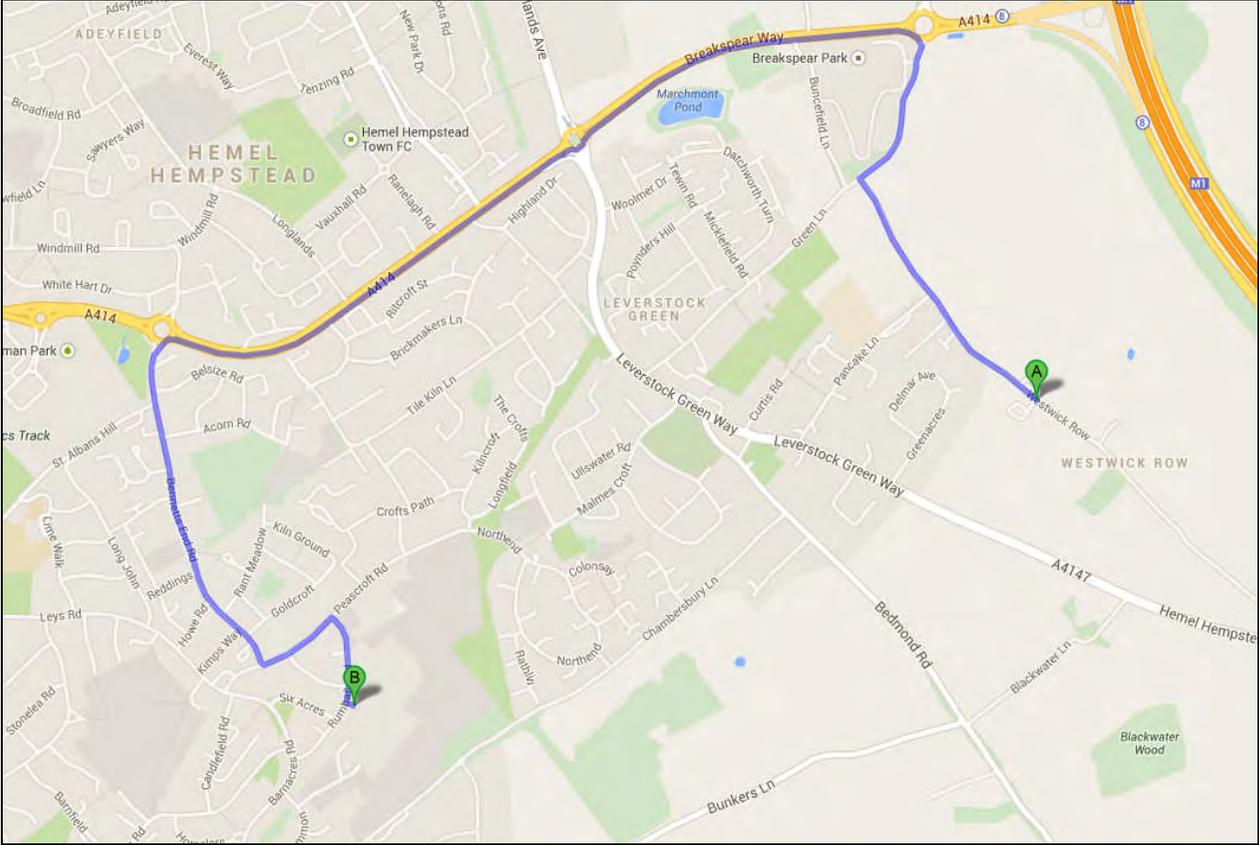
Site 2 – East of Hemel Hempstead (south)

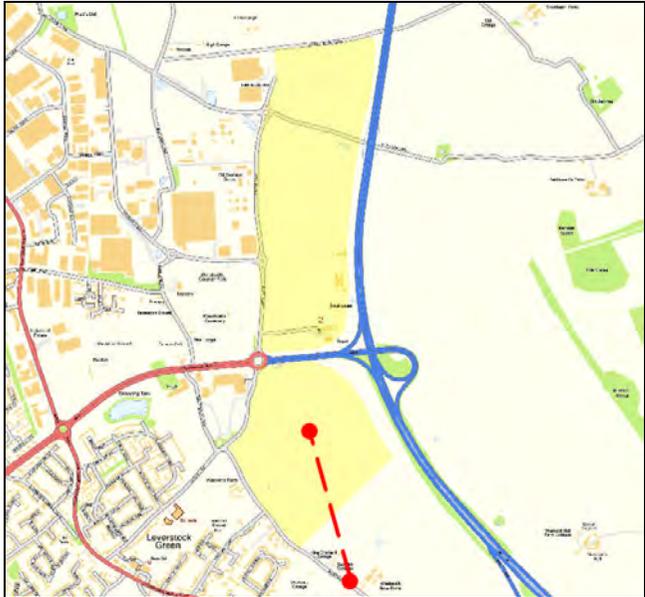
Edge of the site to town centre	Transport modes	Route
<p>Distance: 5.2 km</p>	<ol style="list-style-type: none"> 1. Car: 9 mins 2. Walk: 55 mins 3. Cycle: 17 mins 4. Public transport: 24 mins 	

Edge of the site to local centre	Transport modes	Route
Distance: 1.6km	<ol style="list-style-type: none"> 1. Car: 3 mins 2. Walk: 14 mins 3. Cycle: 5 mins 4. Public transport: N/A 	 <p>The map displays a route starting at point 'A' on Westwick Row and ending at point 'B' on Leverstock Green Way. The route is marked with a blue line and arrows. Key landmarks and streets shown include Marchmont Pond, Leverstock Green C of E Primary School, Clarke DP Family Butchers, and Leverstock Green Cricket Club. Major roads like A414 and A4147 are also visible.</p>

Edge of the site to the nearest railway station	Transport modes	Route
Distance: 5.5 km	<ol style="list-style-type: none"> 1. Car: 7 mins 2. Walk: 53 mins 3. Cycle: 16 mins 4. Public transport: 37 mins 	 <p>The map displays a blue route starting from Apsley station (marked with a green 'B' icon) and ending at a green 'A' icon on West Wick Row. The route follows a path through residential streets including Belwains Ln, Bunkers Ln, and Leverstock Green Way. Key landmarks and roads shown include Jarman Park, Dacorum Athletics Track, The Snow Centre, and various residential roads like Belwains Ln, Bunkers Ln, and Leverstock Green Way. The map also shows the A4147 road and the Hemel Hempstead Rd.</p>

Edge of the site to the nearest primary school	Transport modes	Route
<p>Leverstock Green Church of England Primary School Distance: 1.1 km</p> <p>(Adeyfield School Distance: 3.1 km</p> <p>Hobletts Manor Junior School Distance: 3.4km)</p> <p>Alternatives given as Leverstock Green is faith school.</p>	<ol style="list-style-type: none"> 1. Car: 2 mins 2. Walk: 13 mins 3. Cycle: 3 mins 4. Public transport: N/A 	 <p>The map displays a residential area with several streets. A blue route is marked, starting at point A on Westwick Row, heading north along Westwick Row, then turning west onto Green Ln, and finally turning south onto Green Ln to reach point B. The route is highlighted in blue. Various landmarks and businesses are labeled on the map, including Saunders & Son, First Aid Plus, Capital Garage and Lof Conversions, St. Margerita's Way, Datchworth Tunn, Kiggold Ave, Datchworth Tunn, Clinton End, Datchworth Tunn, Micklefield Rd, Peamore Link Rd, Green Ln, Chelving Rise, Abbey Roofing, Leverstock Green C of E Primary School, Davies McLennon Chartered Accountants, PlayNLearn Dog Training, Pancake Ln Westwick Close, T Woodman Builders, H2o Heating & Plumbing Specialist, Bar Code Connexions, Consult-X, Firekill Systems, Debnar Ave, The Olde Leather Bottle, Leverstock Autocare, Clarke DP Family Butchers, and Leverstock Green Library.</p>

Edge of the site to the nearest secondary school	Transport modes	Route
<p>Distance: 4.6 km (Longdean School)</p>	<p>Transport modes: 1. Car: 8 mins 2. Walk: 31 mins 3. Cycle: 9 mins 4. Public transport: 32 mins</p>	

Central Point	Maps	
<p>Distance from a central mapped point within the potential development site to the edge of the site as plotted is 0.7km.</p>		

Site 3 – East of St Albans

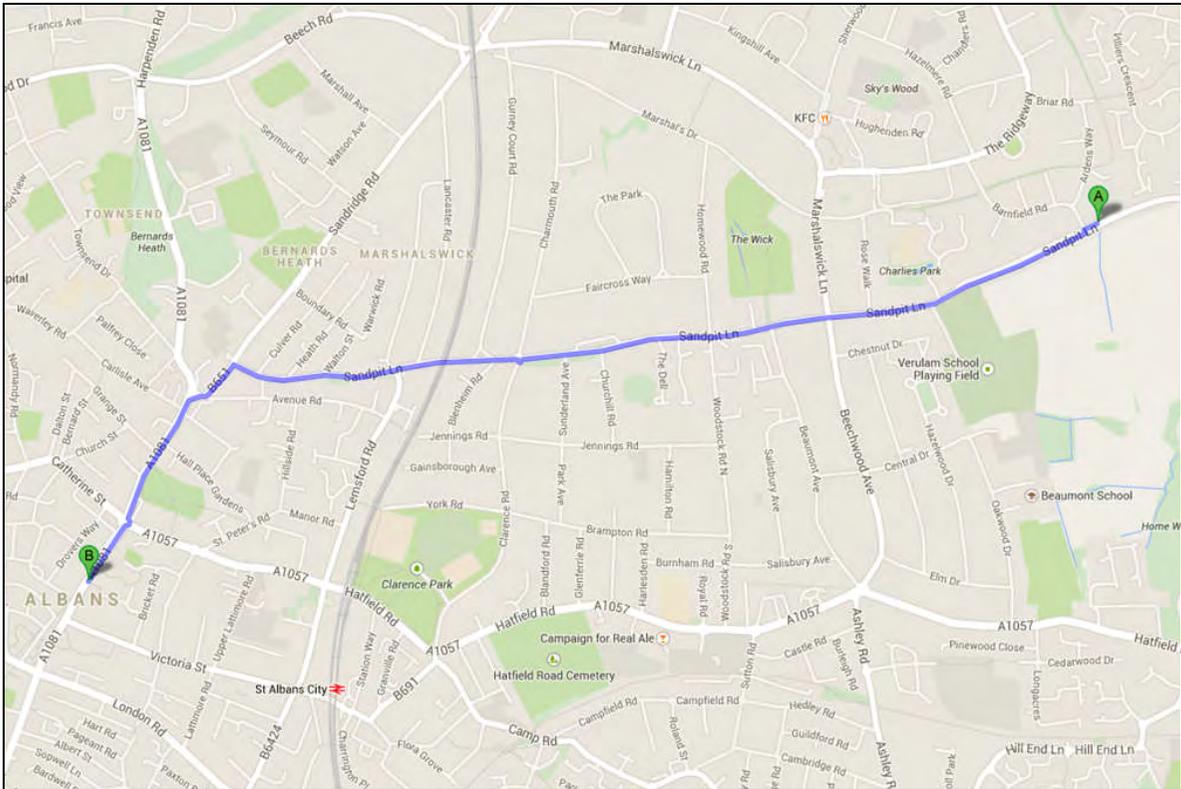
Edge of the site to town centre

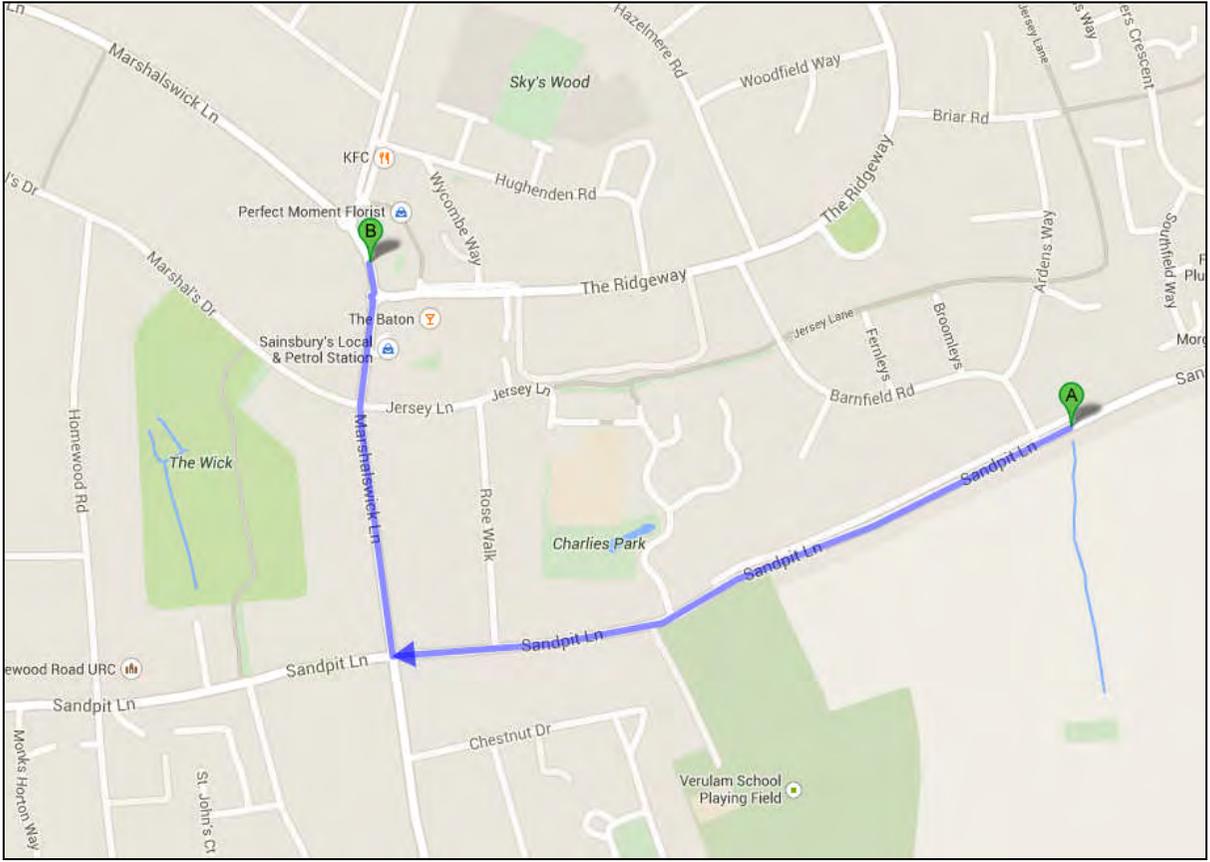
Transport modes

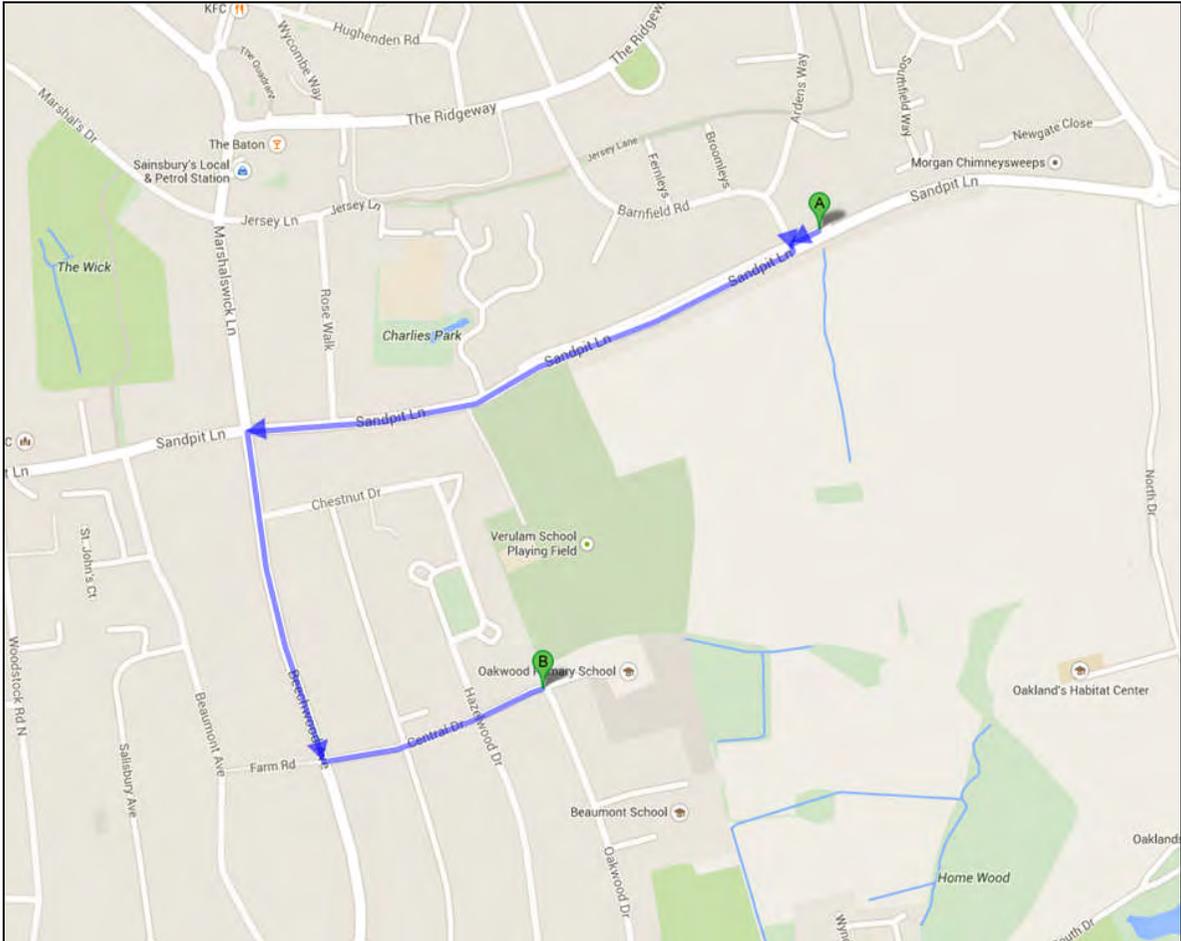
Route

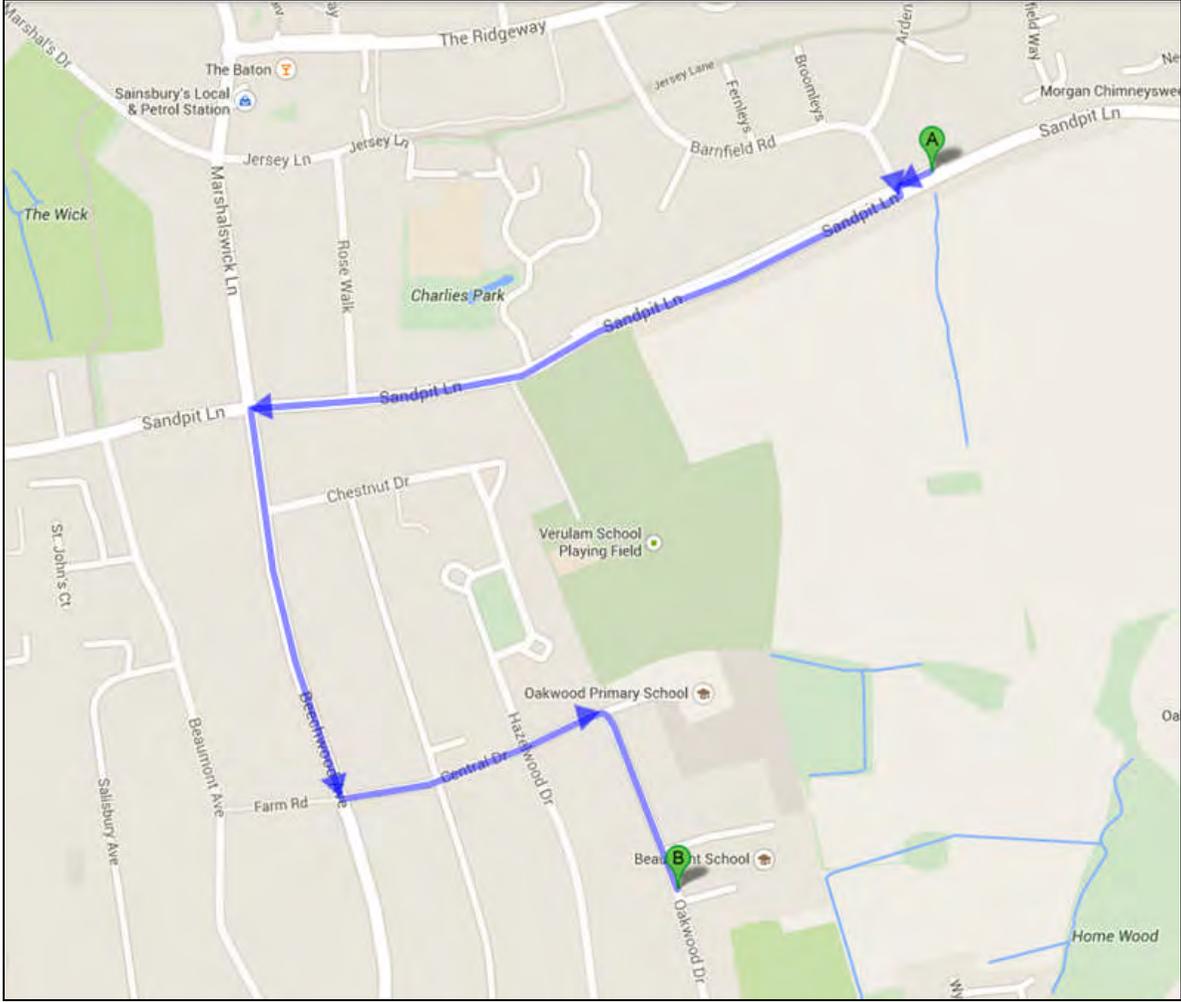
Distance: 3.3 km

- 1. Car: 6 mins
- 2. Walk: 43 mins
- 3. Cycle: 15 mins
- 4. Public transport: 28 mins



Edge of the site the nearest local centre	Transport modes	Route
<p>Distance: 1.2 km</p>	<ol style="list-style-type: none"> 1. Car: 2 mins 2. Walk: 12 mins 3. Cycle: 5 mins 4. Public transport: N/A 	 <p>The map displays a residential area with a highlighted blue route. Point A is located on Sandpit Ln, and Point B is located near Sainsbury's Local & Petrol Station. The route follows Sandpit Ln westward, then turns north onto Marshalswick Ln. Key locations shown include The Wick, Charles Park, and Verulam School Playing Field. Other streets visible include Marshalswick Ln, Sandpit Ln, Jersey Ln, The Ridgeway, and Woodfield Way.</p>

Edge of the site to the nearest primary school	Transport modes	Route
<p>Distance: 1.6km</p>	<ol style="list-style-type: none"> 1. Car: 3 mins 2. Walk: 20 mins 3. Cycle: 6 mins 4. Public transport: N/A 	 <p>The map displays a residential area with several streets. A blue route is marked, starting from a green pin on Sandpit Ln. The route proceeds south along Sandpit Ln to Farm Rd, then turns west onto Beaumont Ave, and finally turns north onto Central Dr to reach Verulam School. Other nearby streets include Jersey Ln, Chestnut Dr, and Farm Rd. Landmarks such as Verulam School, Beaumont School, and Oakwood Primary School are also visible.</p>

Edge of the site to the nearest secondary school	Transport modes	Route
Distance: 1.8km	<ol style="list-style-type: none"> 1. Car: 3 mins 2. Walk: 23 mins 3. Cycle: 7 mins 4. Public transport: 20 mins 	 <p>The map displays a residential area with several streets including Marshalswick Ln, Jersey Ln, Sandpit Ln, Chestnut Dr, Farm Rd, and Oakwood Dr. A blue route is marked with arrows, starting from a green pin 'A' on Sandpit Ln, moving west to Marshalswick Ln, then south to Farm Rd, and finally east to Verulam School. Other landmarks include Sainsbury's Local & Petrol Station, The Wick, Charles Park, Verulam School Playing Field, Oakwood Primary School, and Beauhit School.</p>

Central Point

Distance from a central mapped point within the potential development site to the edge of the site as plotted above is 0.48km.



Maps



Site 4 – North of St Albans

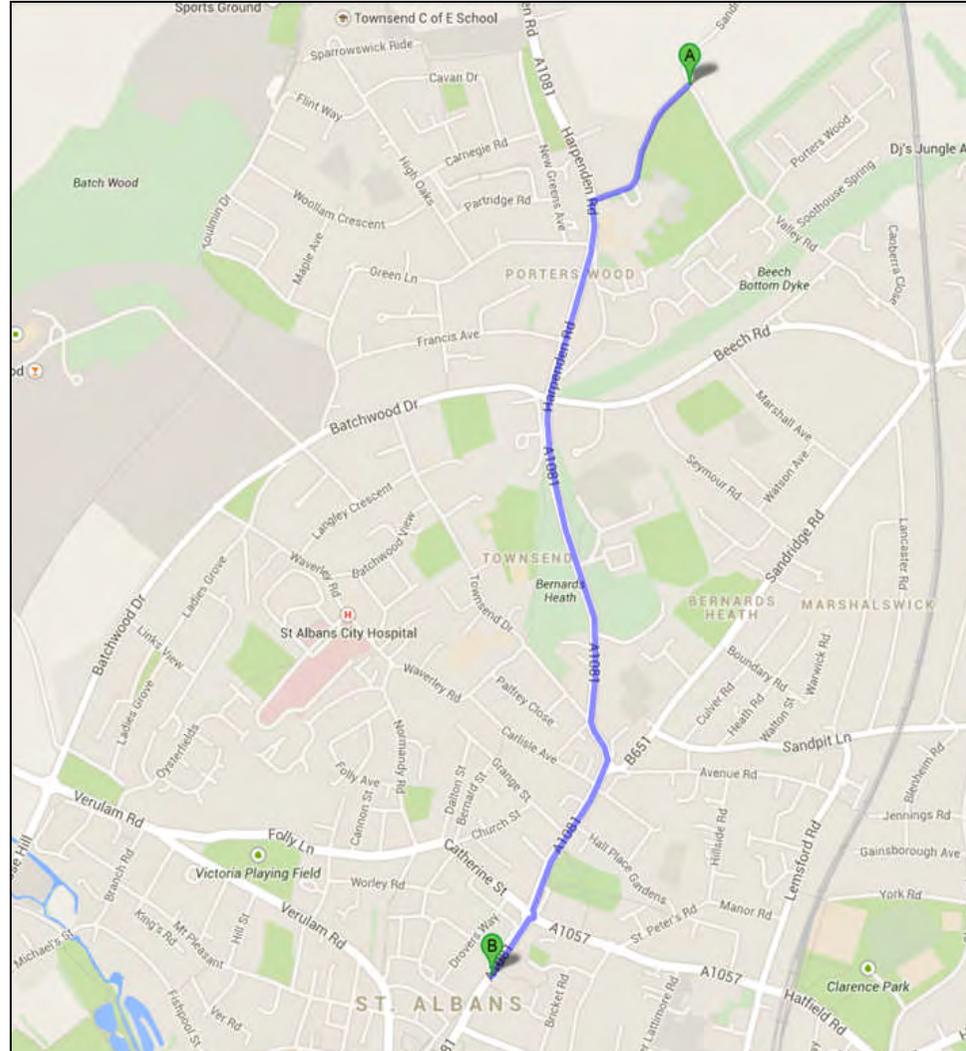
Edge of the site to town centre

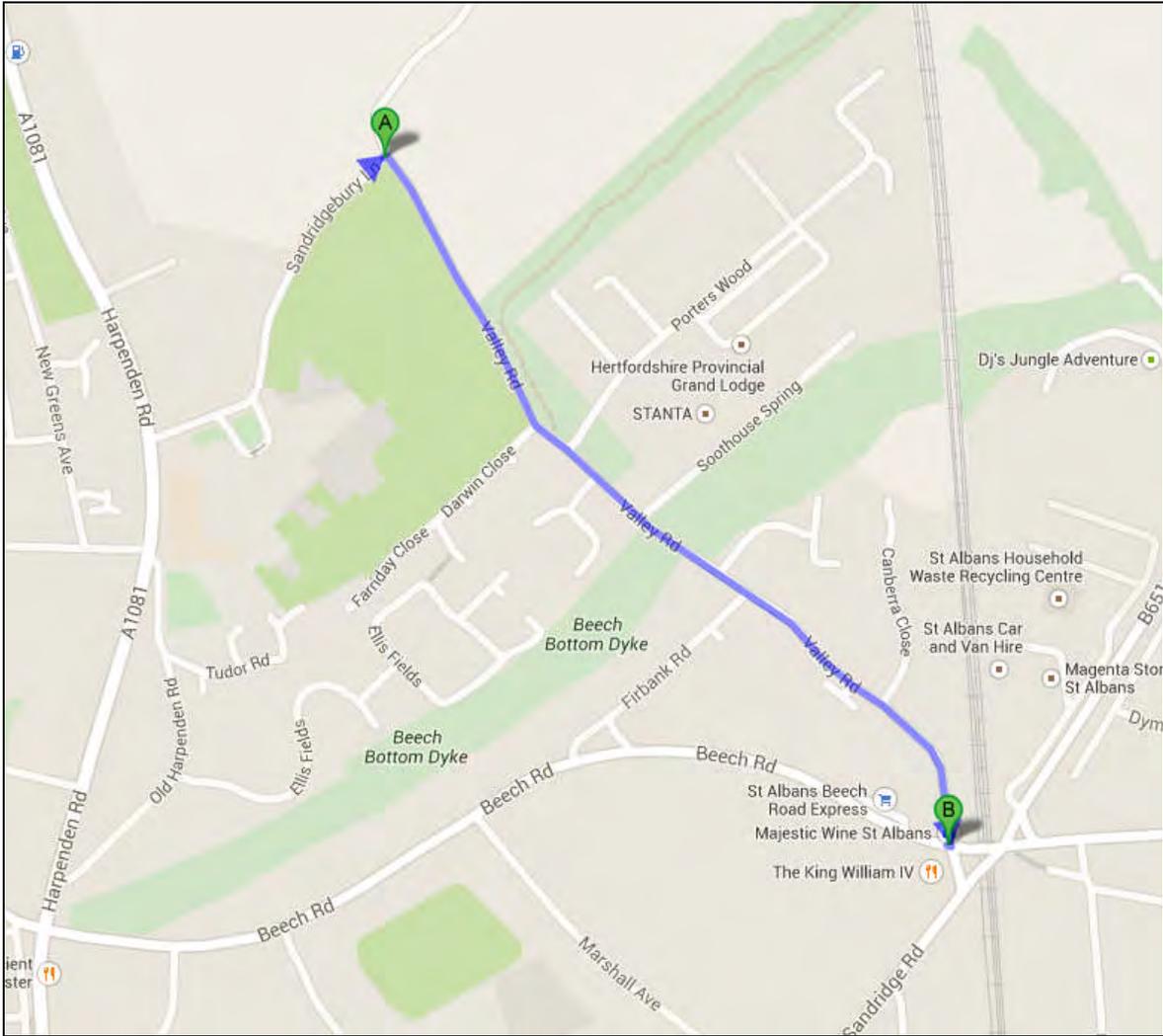
Transport modes

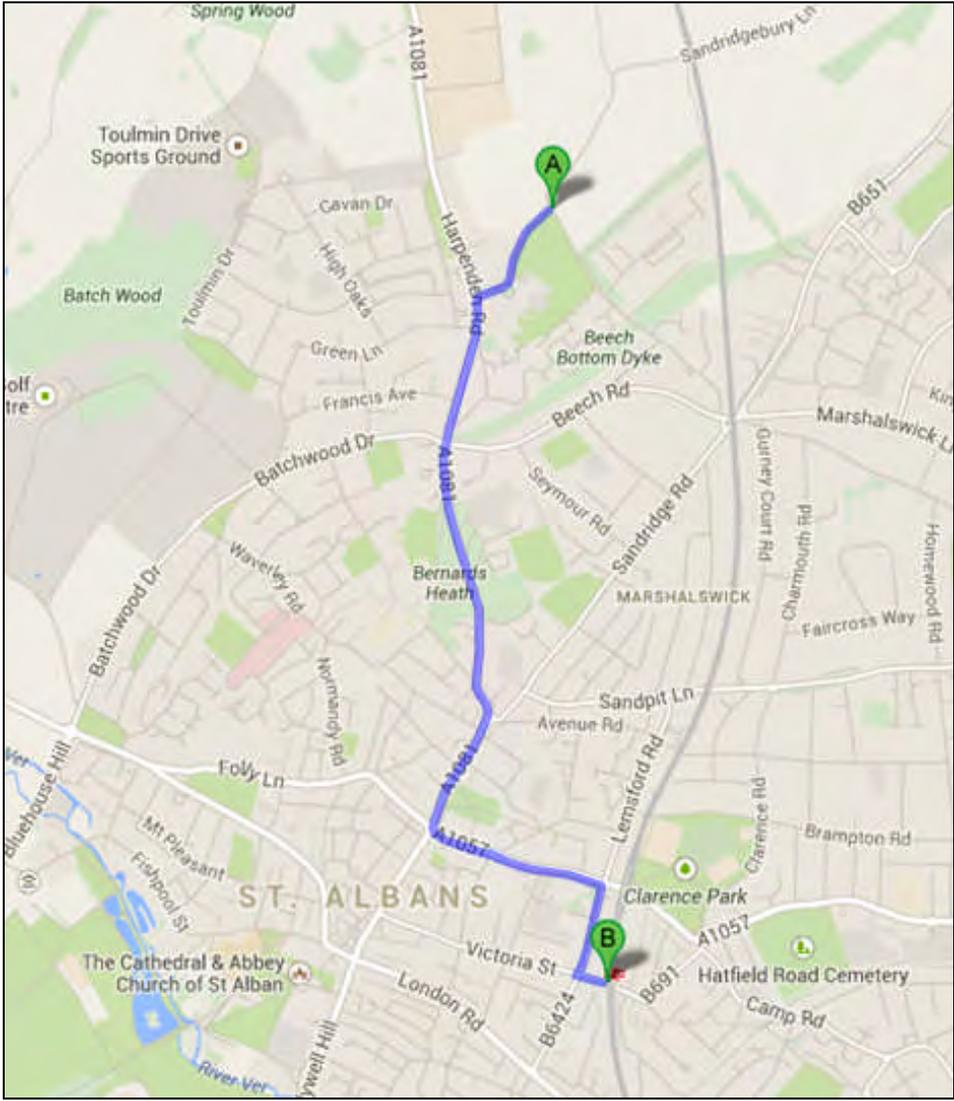
Route

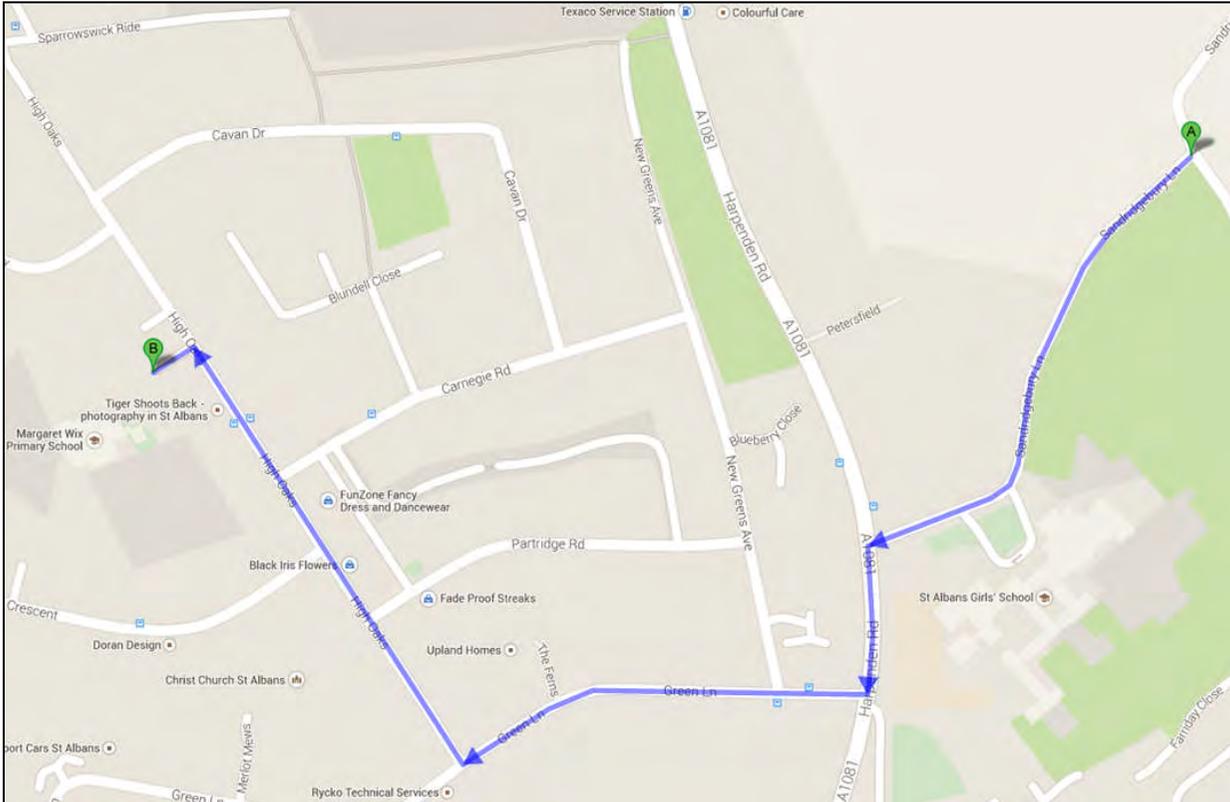
Distance: 2.4 km

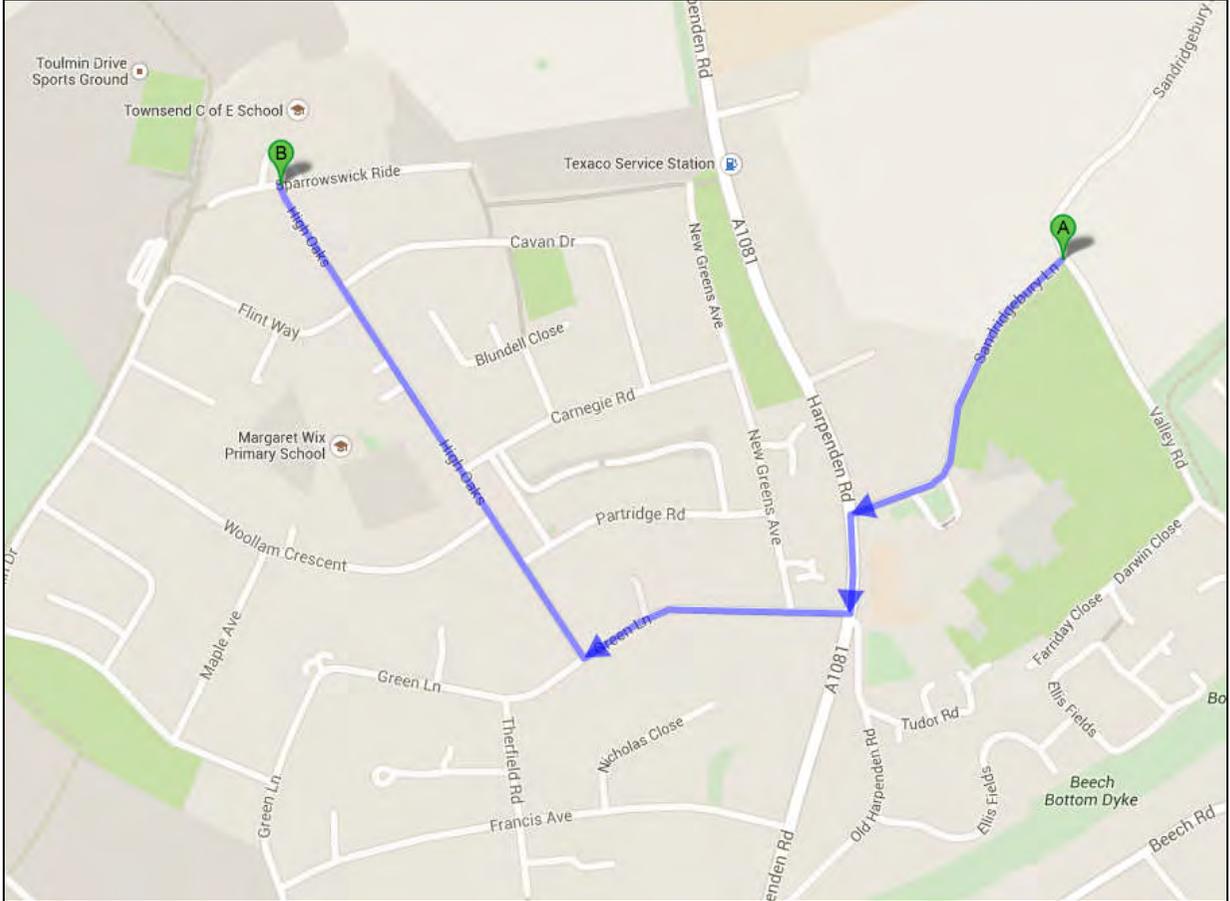
1. Car: 5 mins
2. Walk: 30 mins
3. Cycle: 9 mins
4. Public transport: 20 mins



Edge of the site to nearest local centre	Transport modes	Route
Distance: 900 m	<ol style="list-style-type: none"> 1. Car: 3 mins 2. Walk: 11 mins 3. Cycle: 4 mins 4. Public transport: N/A 	 <p>The map displays a route starting at point A (Sandridgebury) and ending at point B (St Albans Beech Road Express). The route is highlighted in blue and follows the following path: Sandridgebury, Valley Rd, Darwin Close, Beech Bottom Dyke, Beech Rd, and Sandridge Rd. Key landmarks and roads shown include Harpenden Rd, A1081, New Greens Ave, Tudor Rd, Ellis Fields, Beech Bottom Dyke, Beech Rd, Marshall Ave, Sandridge Rd, Porters Wood, Hertfordshire Provincial Grand Lodge, STANTA, Soothouse Spring, St Albans Household Waste Recycling Centre, St Albans Car and Van Hire, Magenta Stor St Albans, The King William IV, and St Albans Beech Road Express.</p>

Edge of the site to the nearest railway station	Transport modes	Route
Distance: 3.2 km	<ol style="list-style-type: none"> 1. Car: 6 mins 2. Walk: 36 mins 3. Cycle: 11 mins 4. Public transport: 26 mins 	 <p>The map displays a blue route connecting two points, A and B, in St Albans. Point A is situated in the northern part of the town, near the Toulmin Drive Sports Ground. Point B is located in the southern part, near the Hatfield Road Cemetery. The route starts at Point A, travels south along Harpenden Rd (A1081), then turns west onto Batchwood Dr (A1081), and finally turns south onto Victoria St (A1057) to reach Point B. The map also shows various other roads and landmarks in the area, including the River Ver and the Cathedral & Abbey Church of St Alban.</p>

Edge of the site to the nearest primary school	Transport modes	Route
<p>Distance: 1.2km</p>	<ol style="list-style-type: none"> 1. Car: 3 mins 2. Walk: 15 mins 3. Cycle: 5 mins 4. Public transport: 14 mins 	

Edge of the site to the nearest secondary school	Transport modes	Route
Distance: 1.4 km	<ol style="list-style-type: none"> 1. Car: 3 mins 2. Walk: 16 mins 3. Cycle: 4 mins 4. Public transport: N/A 	 <p>The map displays a residential area with various streets. A blue route is marked with arrows, starting at point A (green pin) on Sandridgebury Lane, heading south to Harpenden Rd, then west to Green Ln, then north to Sparrowswick Ride, and finally north to point B (green pin) on Sparrowswick Ride. Key landmarks include Margaret Wix Primary School, Toulmin Drive Sports Ground, and a Texaco Service Station. Major roads like A1081 and New Greens Ave are also visible.</p>

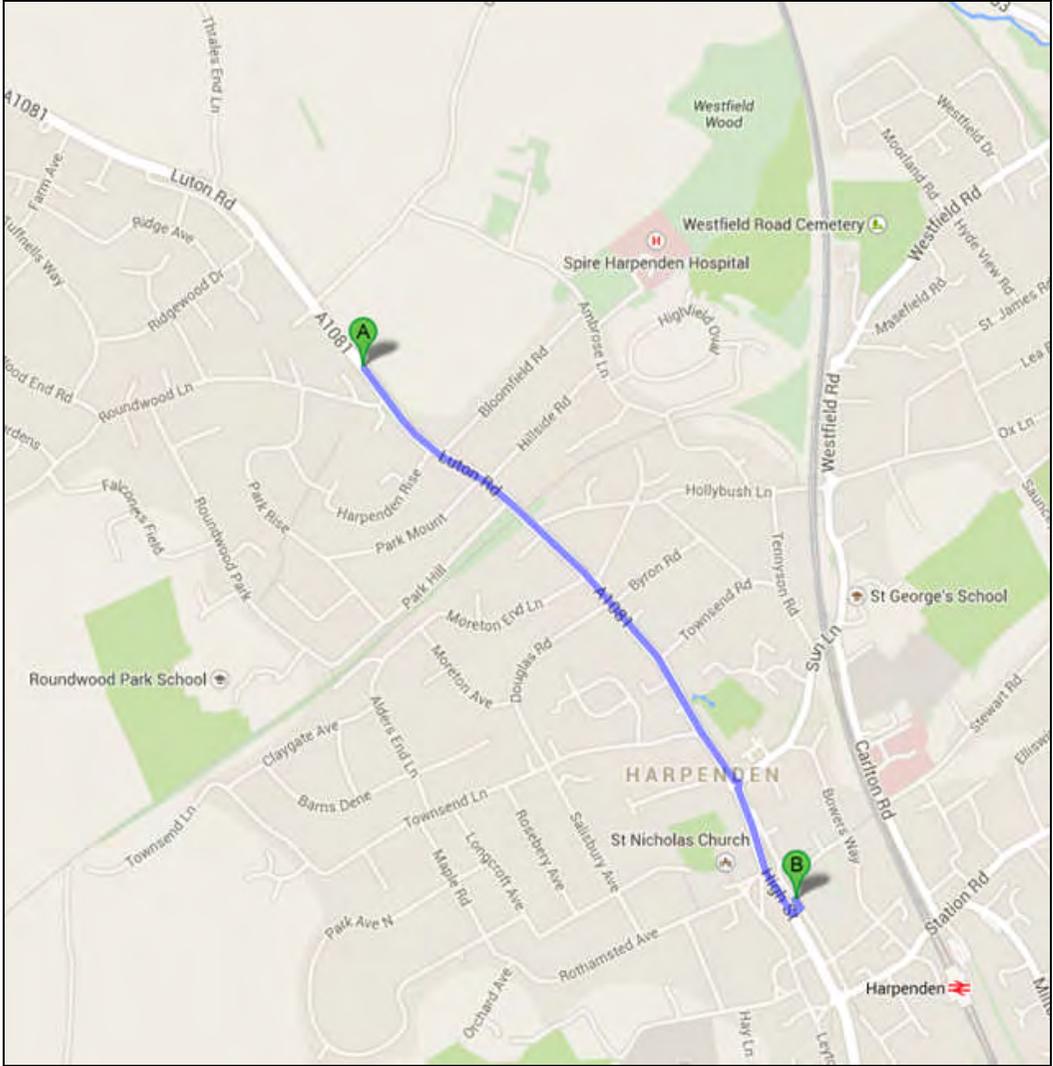
Central Point

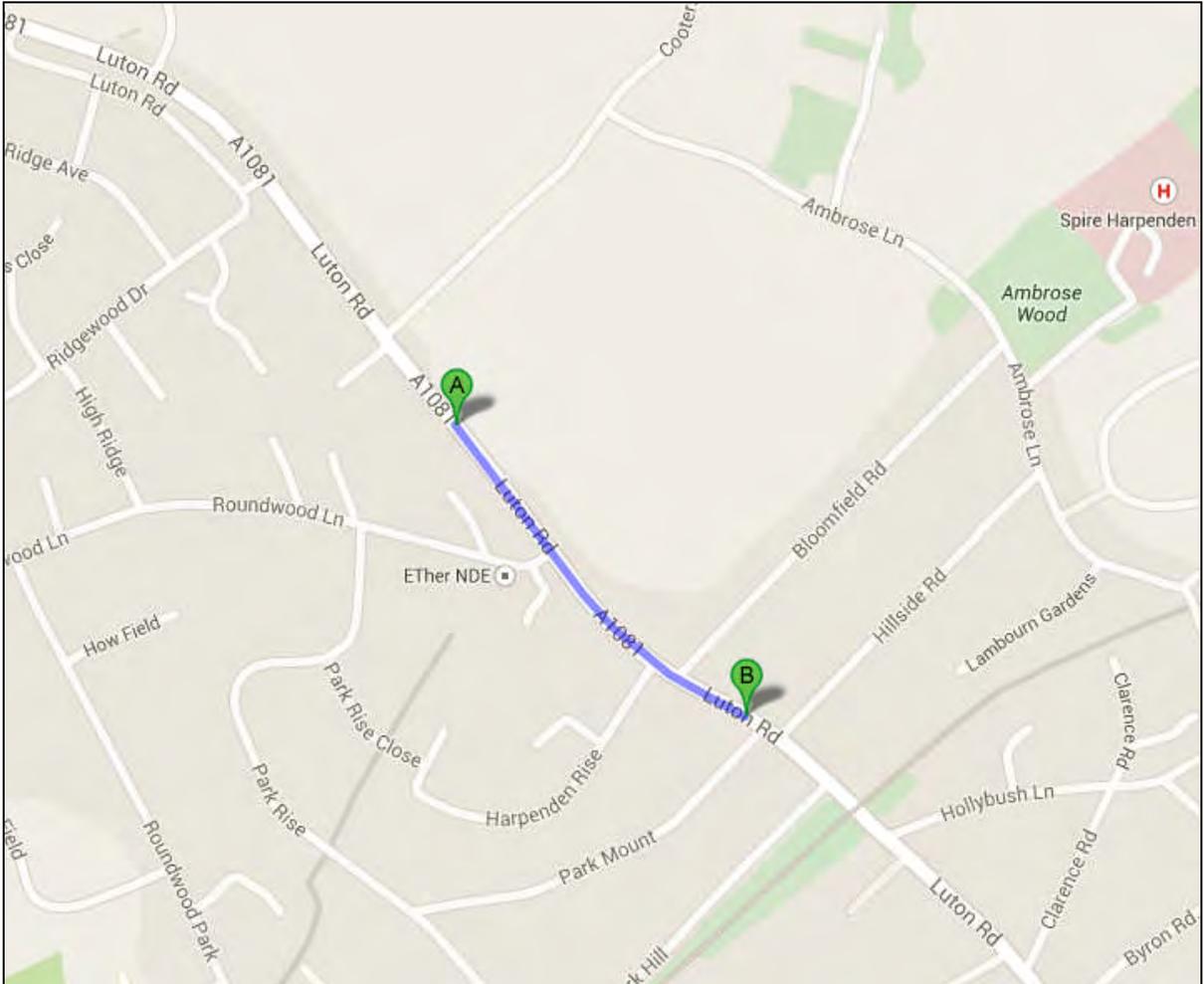
Maps

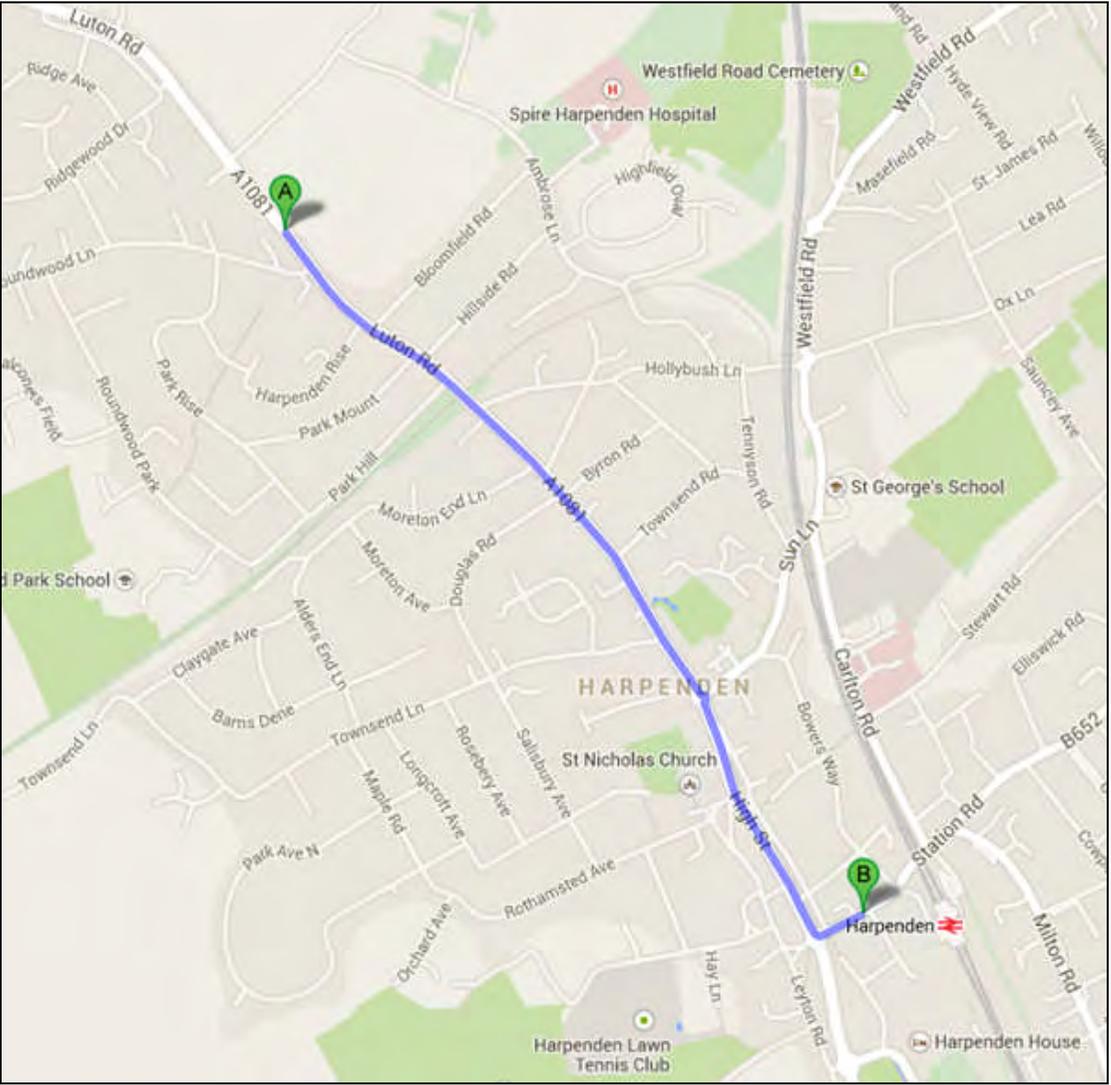
Distance from a central mapped point within the potential development site to the edge of the site as plotted above is 0.37km.

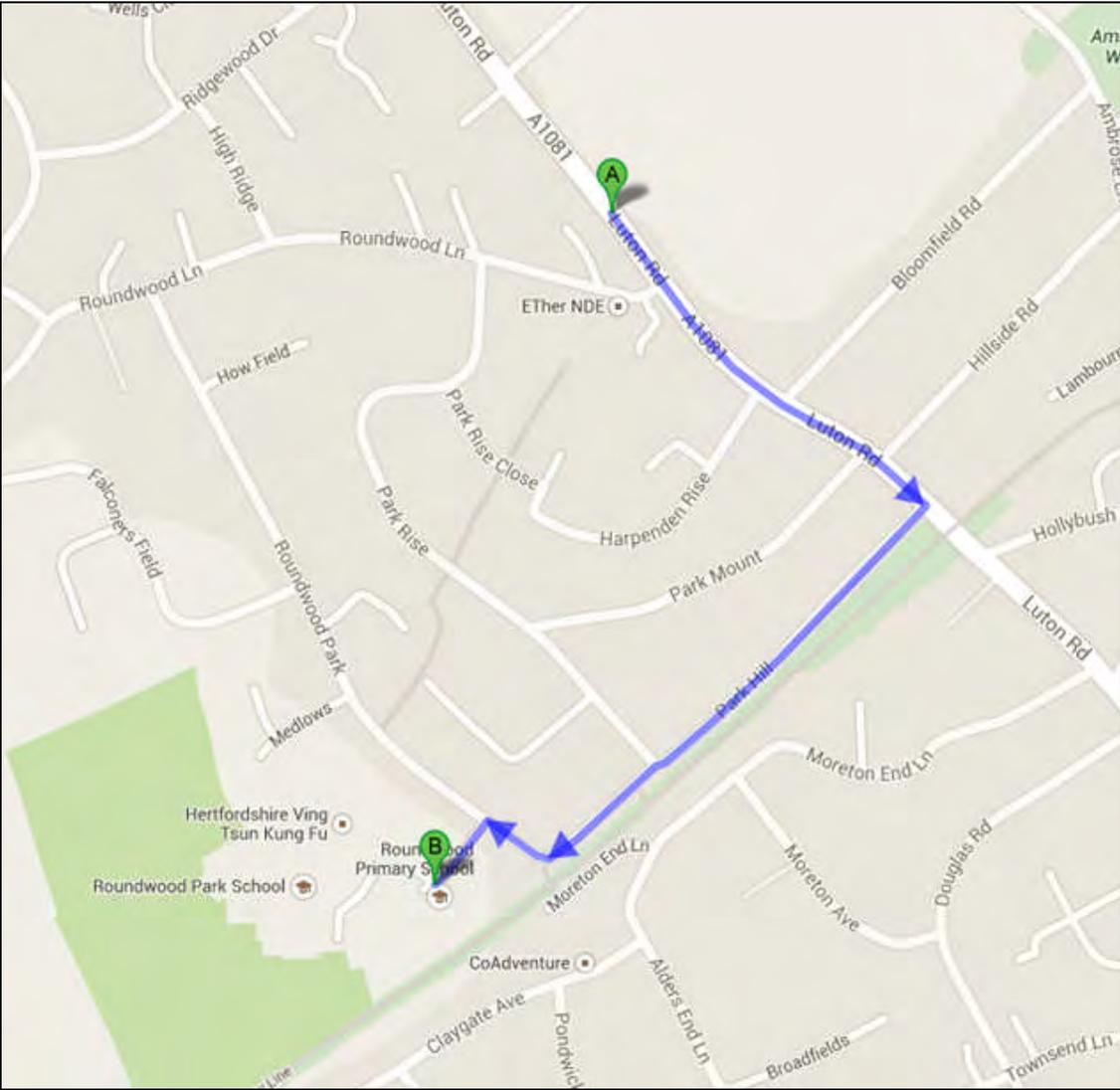


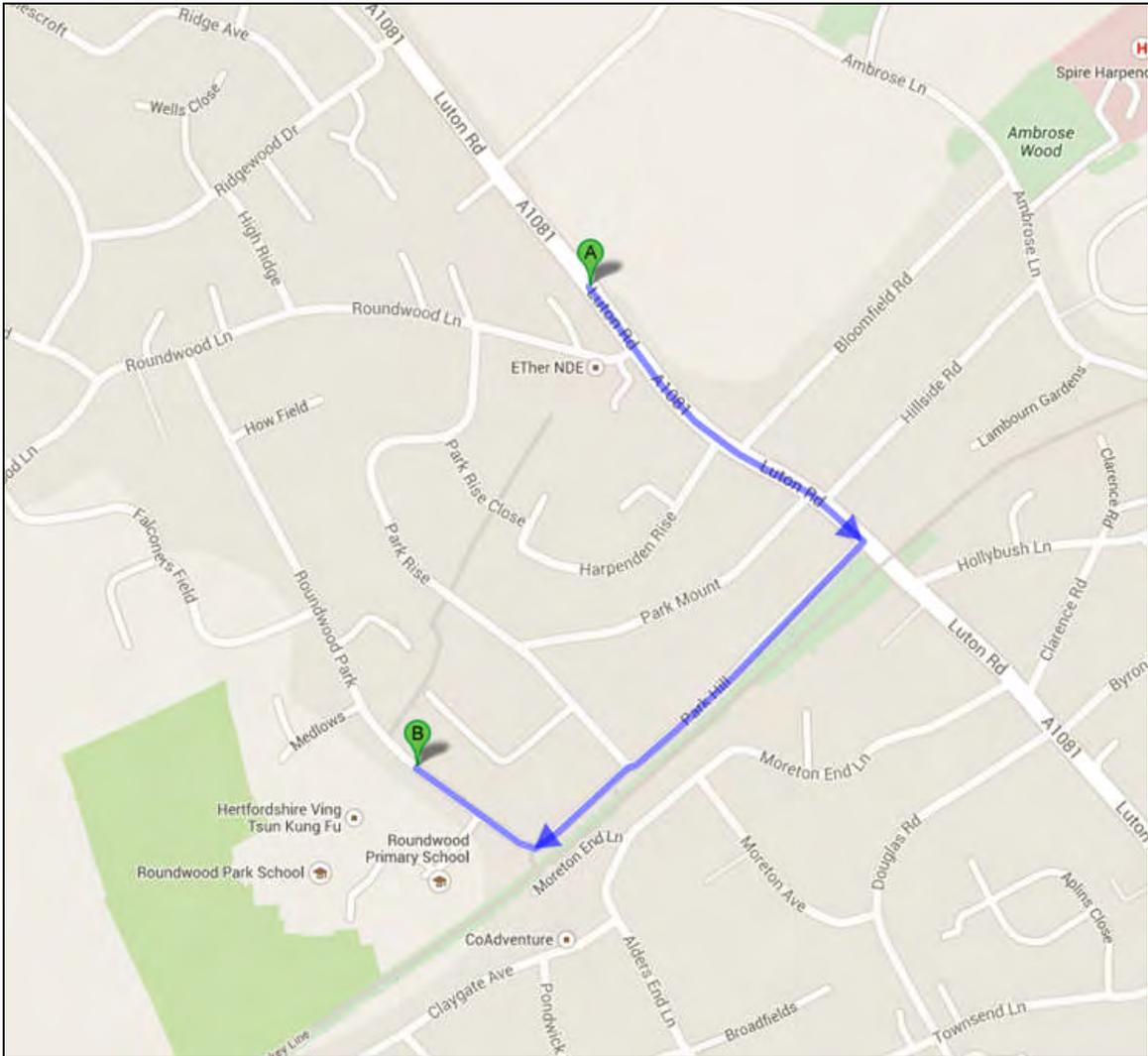
Site 5 – North West Harpenden

Edge of the site to town centre	Transport modes	Route
<p>Distance: 1.5 km</p>	<ol style="list-style-type: none"> 1. Car: 3 mins 2. Walk: 17 mins 3. Cycle: 4 mins 4. Public transport: 6 mins 	 <p>The map displays a blue route starting at point A on Luton Rd and ending at point B on High St. The route passes through the town of Harpenden, with key landmarks such as Spire Harpenden Hospital, Westfield Road Cemetery, St George's School, and St Nicholas Church. Major roads like Luton Rd and High St are clearly marked.</p>

Edge of the site to the nearest local centre	Transport modes	Route
Distance: 350 m	<ol style="list-style-type: none"> 1. Car: 1 mins 2. Walk: 4 mins 3. Cycle: 1 mins 4. Public transport: N/A 	

Edge of the site to the nearest railway station	Transport modes	Route
<p>Distance: 1.7 km</p>	<ol style="list-style-type: none"> 1. Car: 3 mins 2. Walk: 21 mins 3. Cycle: 5 mins 4. Public transport: 8 mins 	 <p>The map displays a blue route starting at a green pin labeled 'A' on Luton Rd and ending at a red pin labeled 'B' at Harpenden railway station. The route follows Luton Rd south, then turns east onto High St, and finally south onto Station Rd. Key landmarks shown include Spire Harpenden Hospital, Westfield Road Cemetery, St George's School, and Harpenden Lawn Tennis Club. The map also shows a network of residential streets and the A1081 road.</p>

Edge of the site to the nearest primary school	Transport modes	Route
<p>Roundwood Primary School - 1.0km</p> <p>(Wood End Primary School – 1.0km)</p>	<ol style="list-style-type: none"> 1. Car: 2 mins 2. Walk: 13 mins 3. Cycle: 5 mins 4. Public transport: N/A 	 <p>The map displays a residential area with a network of roads. A blue line with arrows indicates the route from point A (marked with a green pin) on Luton Rd (A1081) to point B (marked with a green pin) at Roundwood Primary School. The route starts on Luton Rd, heading south, then turns left onto Park Hill, and finally turns left onto Moreton End Ln to reach the school. Other roads shown include Roundwood Ln, How Field, Park Rise, Park Rise Close, Park Mount, Moreton End Ln, Moreton Ave, Douglas Rd, Broadfields, Townsend Ln, Alders End Ln, Claygate Ave, Roundwood Park, Medlows, Hertfordshire Ving Tsun Kung Fu, Roundwood Park School, CoAdventure, Park Rise, Harpenden Rise, Park Mount, Hillside Rd, Bloomfield Rd, Lambourn, Hollybush, and Luton Rd. A green shaded area is visible in the bottom left corner of the map.</p>

Edge of the site to the nearest secondary school	Transport modes	Route
Distance: 1.0 km	<ol style="list-style-type: none"> 1. Car: 2 mins 2. Walk: 11 mins 3. Cycle: 5 mins 4. Public transport: N/A 	 <p>The map displays a residential area with a network of roads. A blue route is highlighted, starting at a green pin labeled 'A' on Luton Rd (A1081) and ending at a green pin labeled 'B' on Moreton End Ln. The route follows Luton Rd south, then turns right onto Moreton End Ln. Key landmarks include Roundwood Primary School and Roundwood Park School. Other roads shown include Ridge Ave, Roundwood Ln, Park Rise, and Moreton Ave.</p>

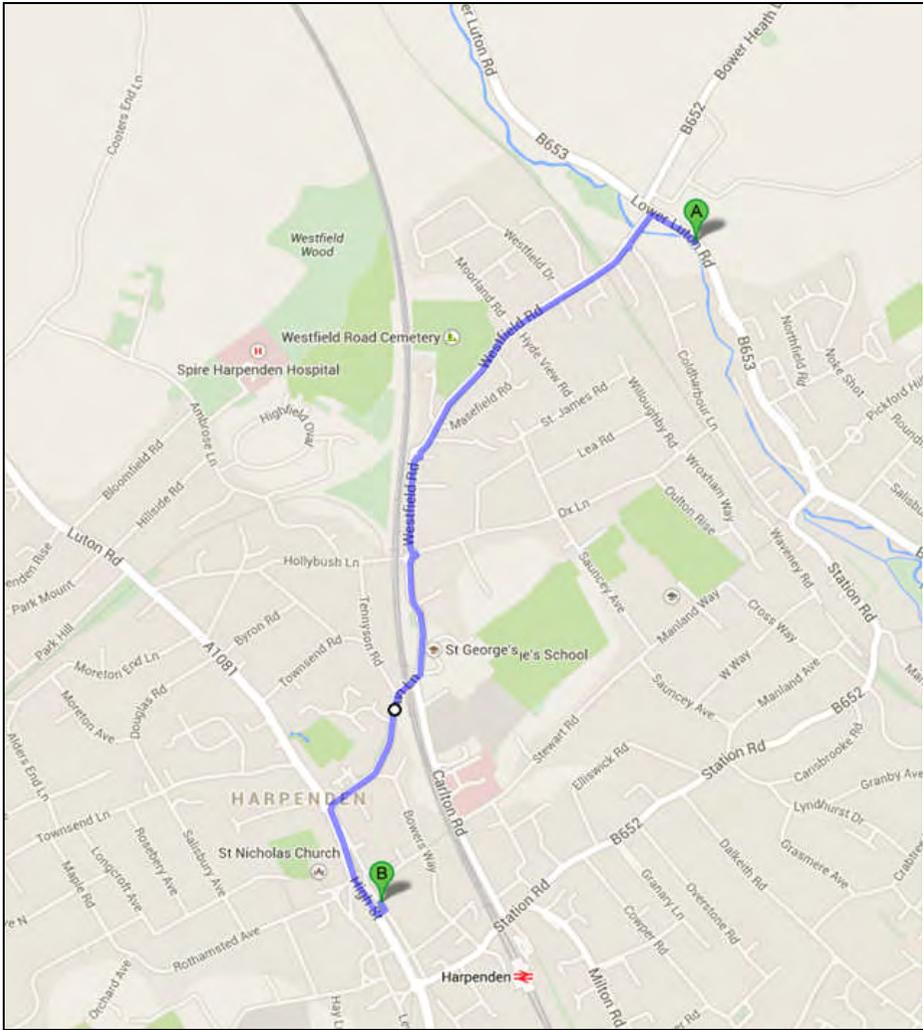
Central Point

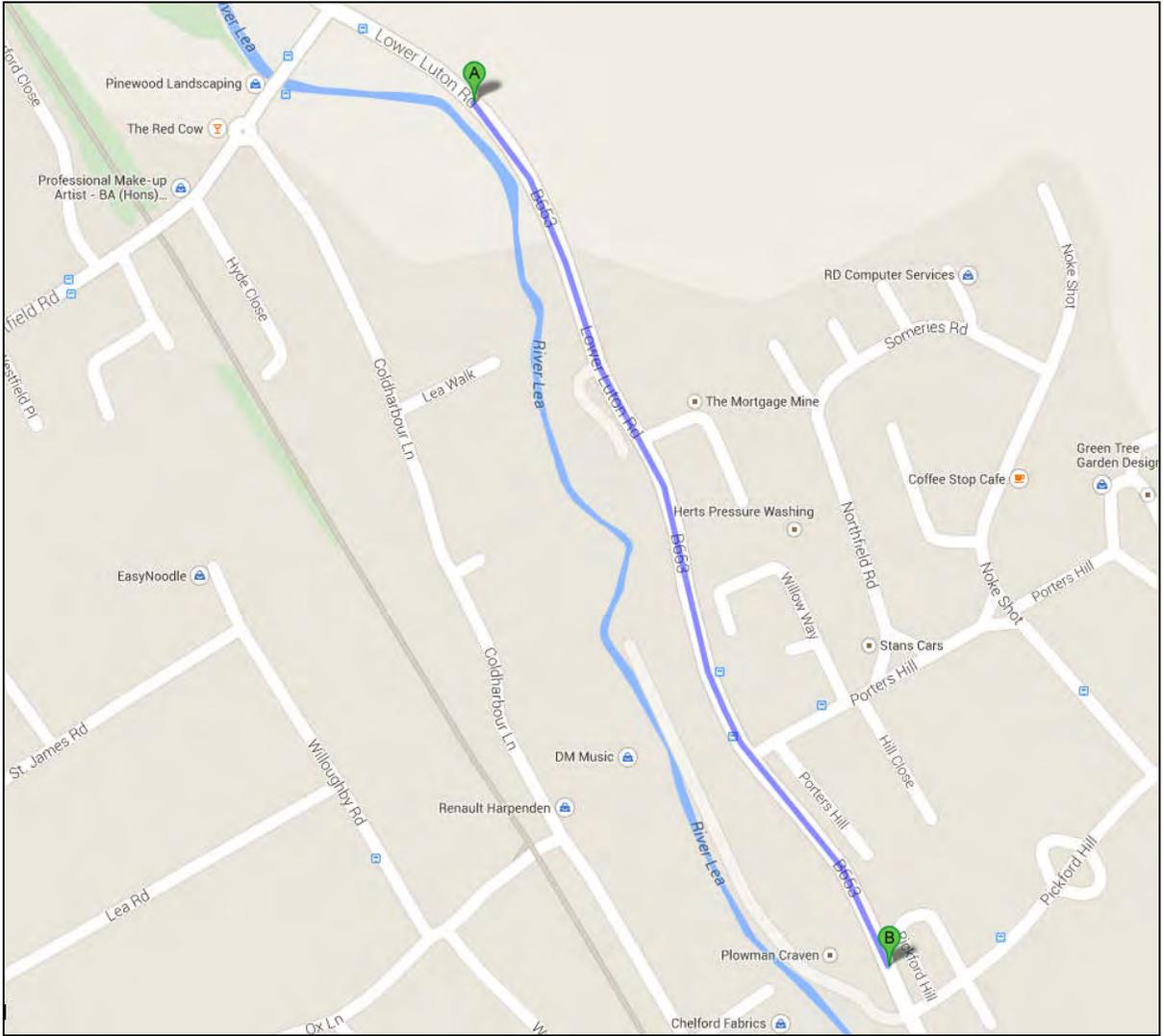
Maps

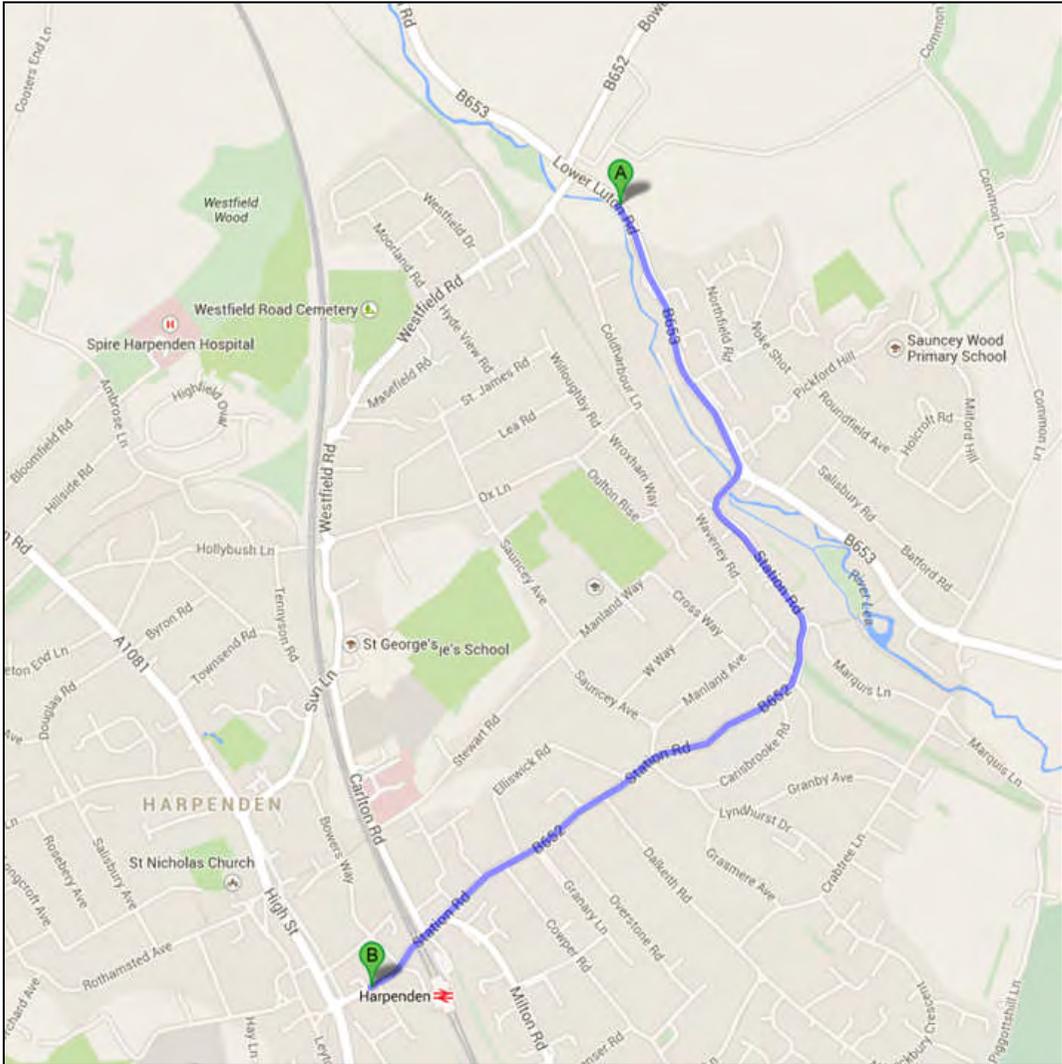
Distance from a central mapped point within the potential development site to the edge of the site as plotted above is 0.23km.

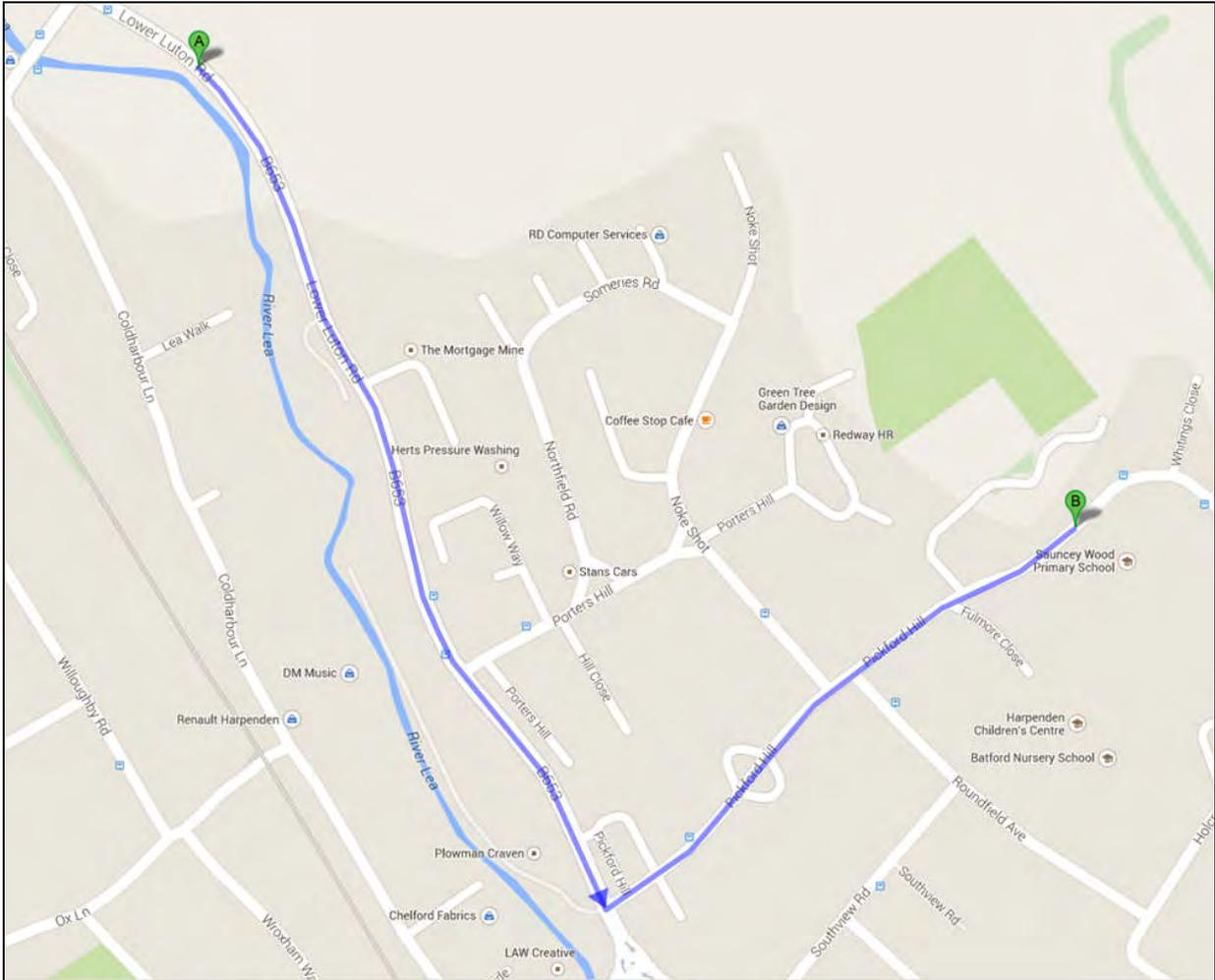


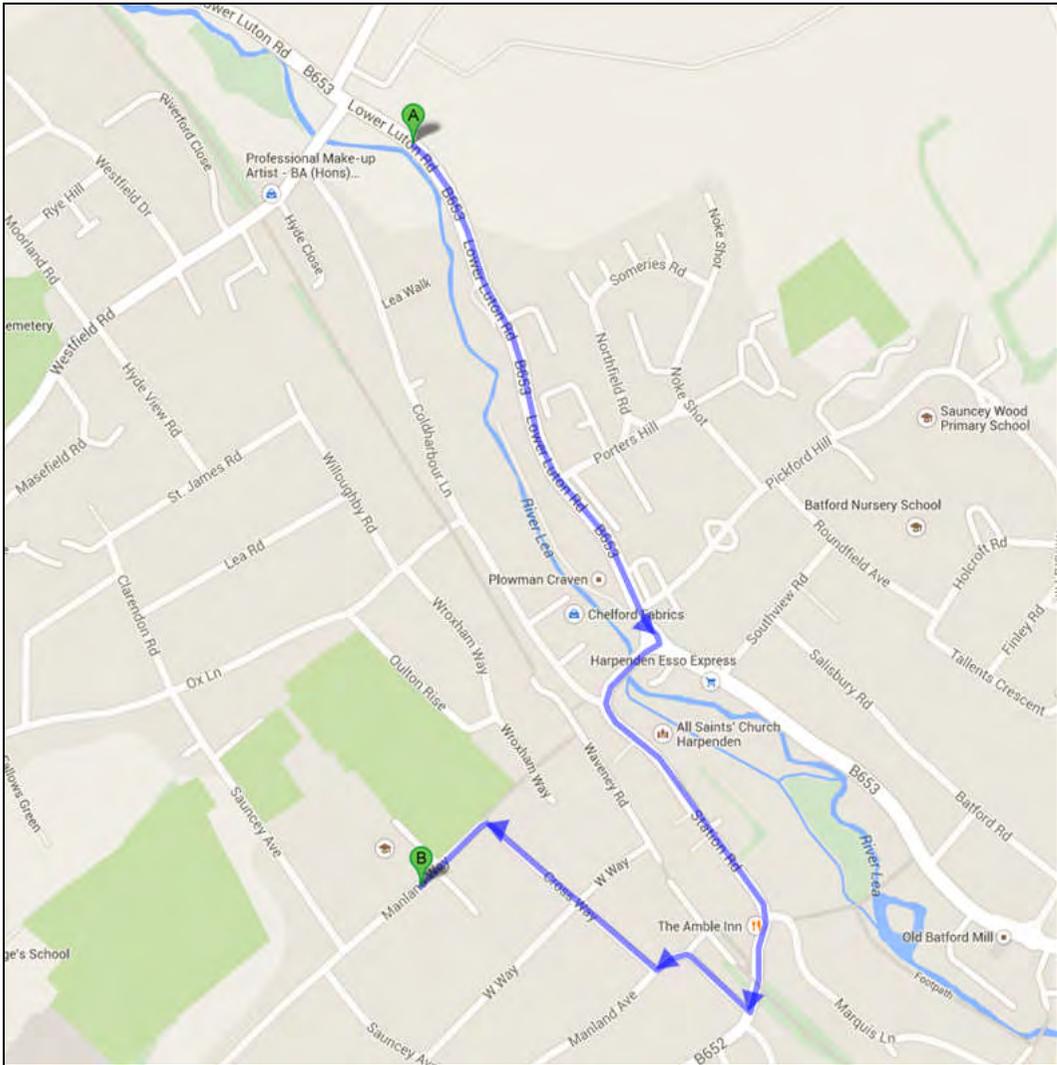
Site 6 – North East Harpenden

Edge of the site to town centre	Transport modes	Route
<p>Distance: 2.2 km</p>	<ol style="list-style-type: none"> 1. Car: 5 mins 2. Walk: 28 mins 3. Cycle: 12 mins 4. Public transport: 8 mins 	 <p>The map displays a route from the town center of Harpenden to a site located in the north-east. The route is marked with a blue line and starts at a bus stop labeled 'B' near St Nicholas Church and Harpenden station. It proceeds north along Westfield Rd, then turns east onto Lower Luton Rd, ending at a site marked with a green 'A'. Key landmarks include Westfield Wood, Westfield Road Cemetery, Spire Harpenden Hospital, and St George's School. Major roads shown include Luton Rd (A1081) and Westfield Rd (B653).</p>

Edge of the site to the nearest local centre	Transport modes	Route
<p>Distance: 600 m</p>	<ol style="list-style-type: none"> 1. Car: 1 mins 2. Walk: 7 mins 3. Cycle: 2 mins 4. Public transport: N/A 	 <p>The map displays a route starting at a green pin labeled 'A' on Lower Luton Rd and ending at a green pin labeled 'B' on Porters Hill. The route is highlighted in blue and follows the River Lea and several roads including Lower Luton Rd, Coldharbour Ln, and Porters Hill. Various local businesses and landmarks are labeled on the map, such as Pinewood Landscaping, The Red Cow, Professional Make-up Artist, EasyNoodle, DM Music, Renault Harpenden, Herts Pressure Washing, The Mortgage Mine, Coffee Stop Cafe, Stans Cars, and Chelford Fabrics.</p>

Edge of the site to the nearest railway station	Transport modes	Route
Distance: 2.4 km	<ol style="list-style-type: none"> 1. Car: 4 mins 2. Walk: 31 mins 3. Cycle: 11 mins 4. Public transport: 13 mins 	 <p>The map displays a blue route starting at Harpenden railway station (marked with a red train icon and 'B') and ending at Lower Lude Rd (marked with a green 'A'). The route follows a path through Harpenden, passing through Saucy Wood and Westfield. Key landmarks and roads shown include Spire Harpenden Hospital, Westfield Road Cemetery, St George's School, and the River Lee. Major roads like Westfield Rd, Lower Lude Rd, and Harpenden Rd are clearly visible. The map also shows various residential streets and green spaces in the area.</p>

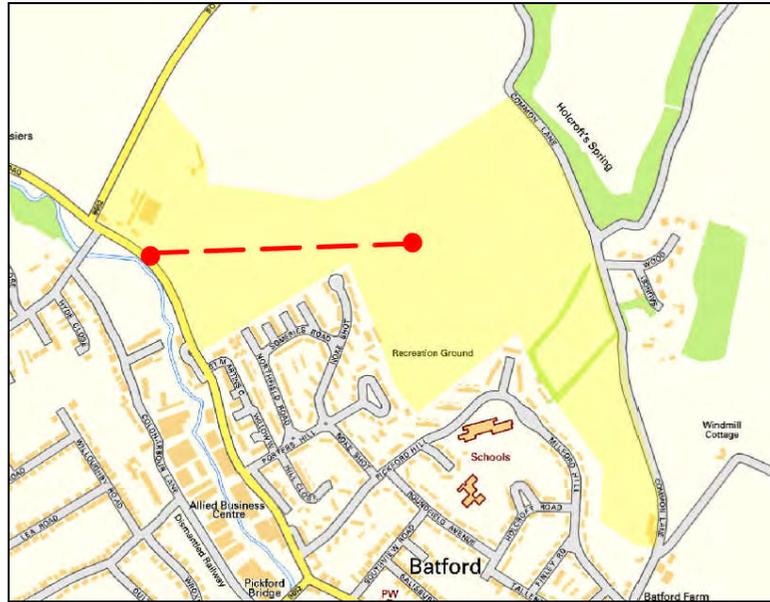
Edge of the site to the nearest primary school	Transport modes	Route
<p>Distance: 1.1km</p>	<ol style="list-style-type: none"> 1. Car: 2 mins 2. Walk: 14 mins 3. Cycle: 5 mins 4. Public transport: 6 mins 	

Edge of the site to the nearest secondary school	Transport modes	Route
Distance: 1.8 km	<ol style="list-style-type: none"> 1. Car: 4 mins 2. Walk: 15 mins 3. Cycle: 6 mins 4. Public transport: N/A 	 <p>The map displays a blue route starting at point A (marked with a green circle) on Lower Luton Rd. The route proceeds south along Lower Luton Rd, then turns right onto Wrotham Way, and finally turns right onto Manland Ave to reach point B (marked with a green circle) at the edge of the site. The map includes various roads such as Lower Luton Rd, Wrotham Way, Manland Ave, and Marquis Ln. Landmarks like the River Lea and several schools are also visible.</p>

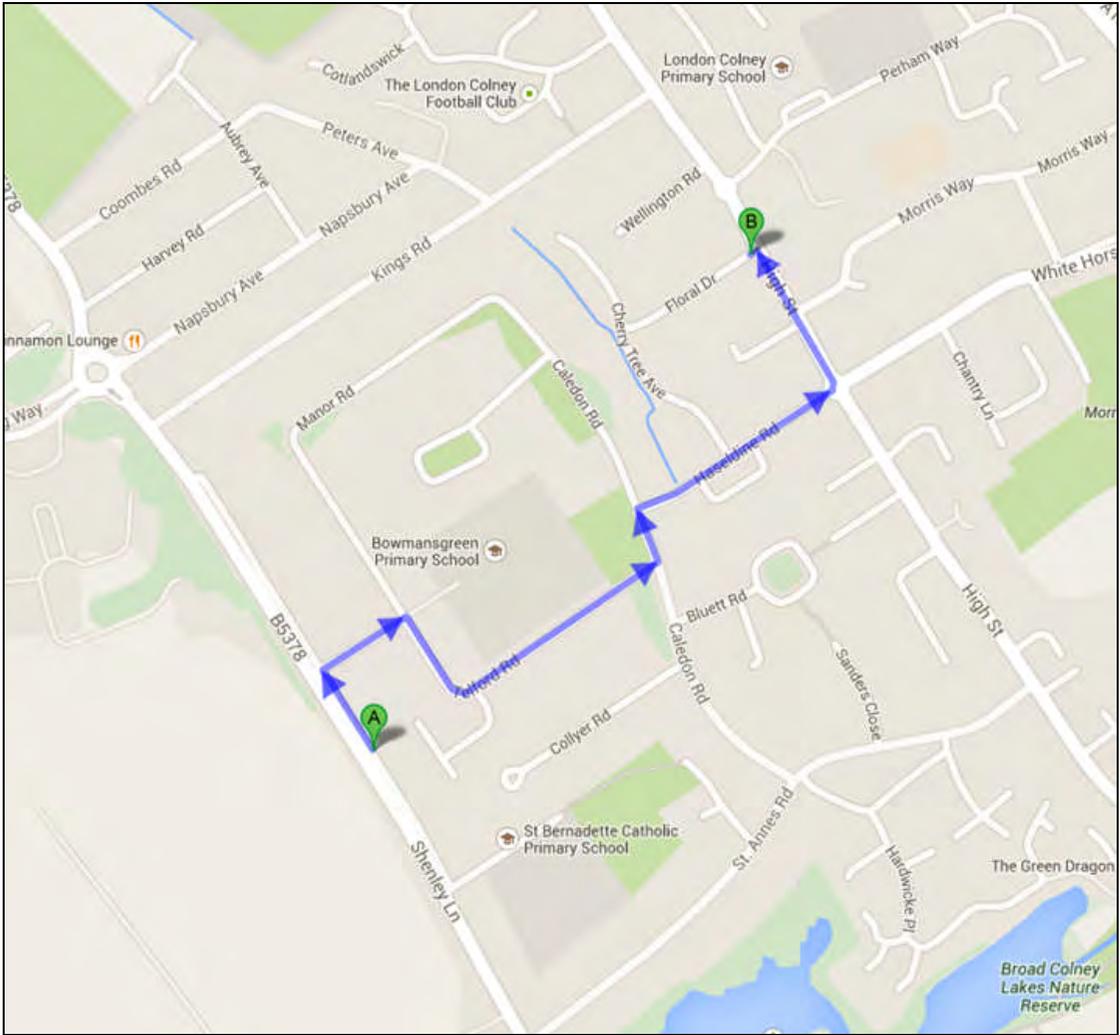
Central Point

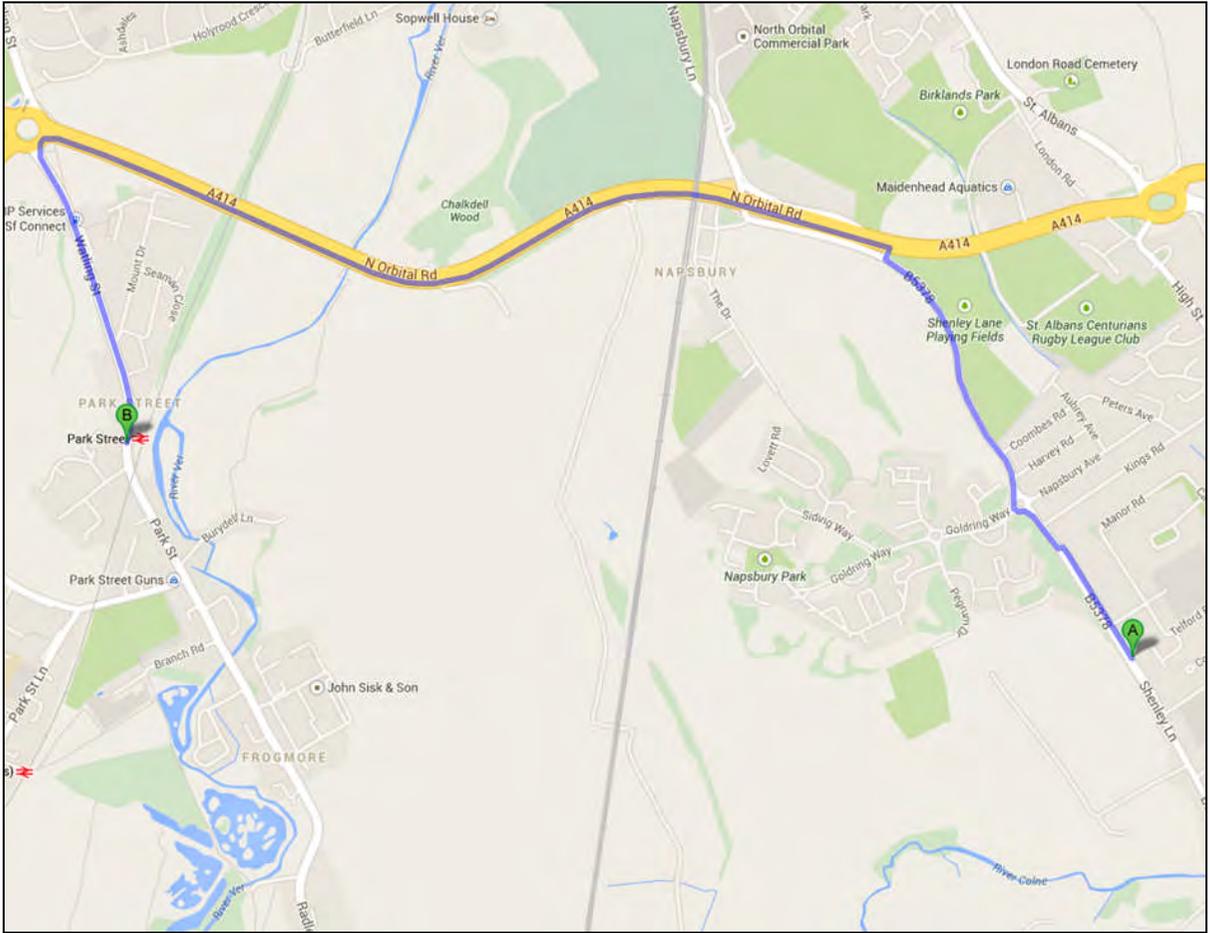
Maps

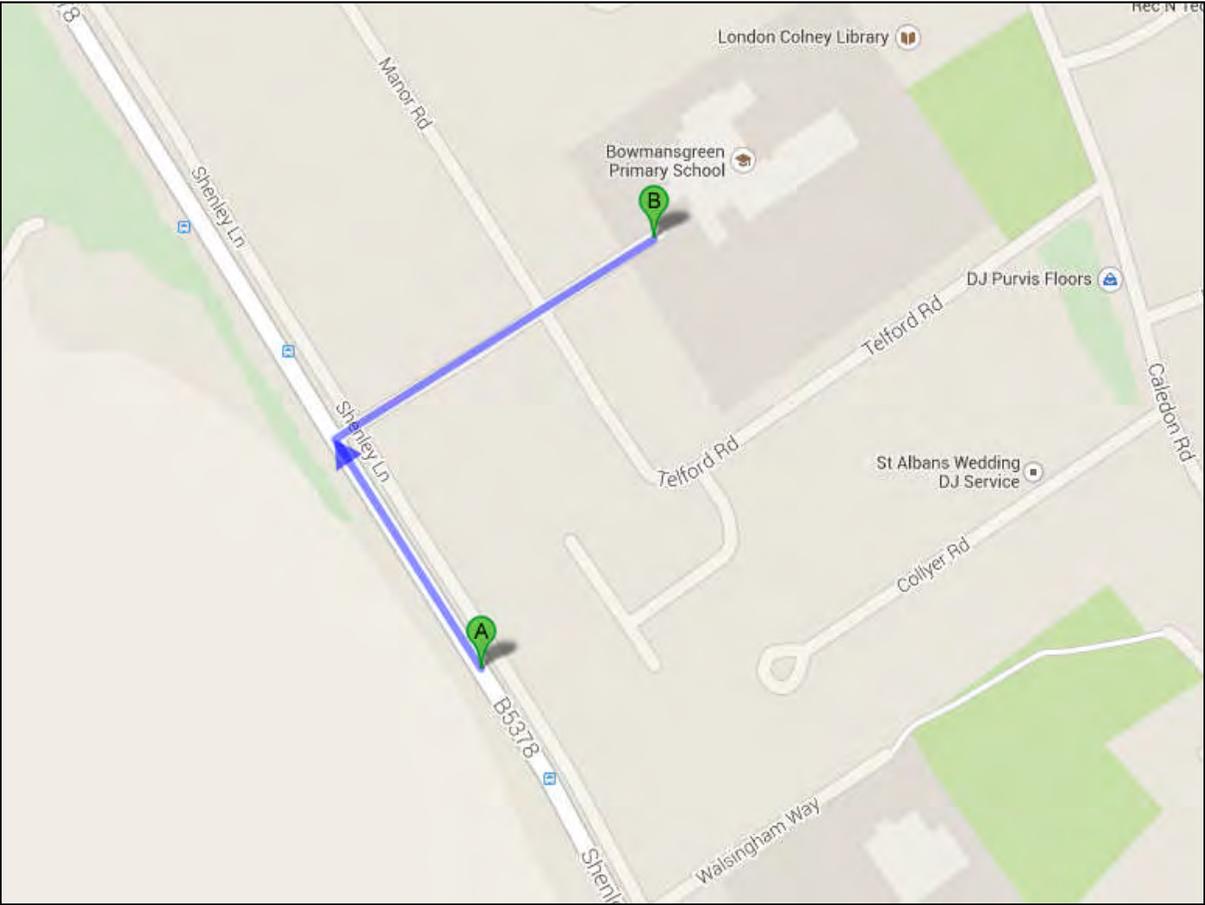
Distance from a central mapped point within the potential development site to the edge of the site as plotted above is 0.5 km.

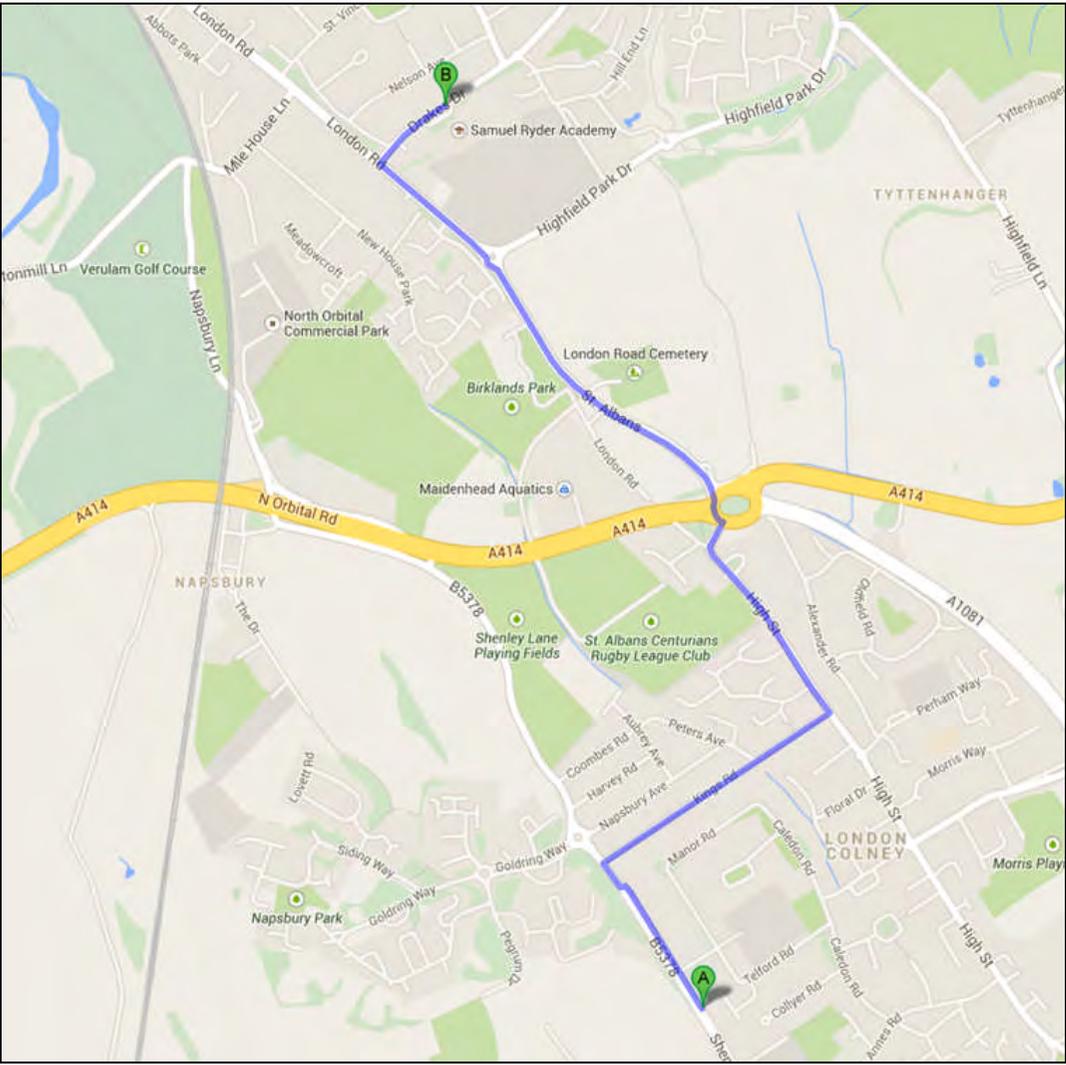


Site 7 – London Colney

Edge of the site to town centre	Transport modes	Route
<p>Distance: 1.0 km</p> <p>Note: The London Colney District centre is treated as a proxy for a 'Town Centre' – though it is noted that facilities are limited. There are however significant local shopping facilities at Colney Fields.</p> <p>Distance to St Albans Town Centre is 5.2 km</p>	<ol style="list-style-type: none"> 1. Car: 3 mins 2. Walk: 13 mins 3. Cycle: 3 mins 4. Public transport: N/A 	

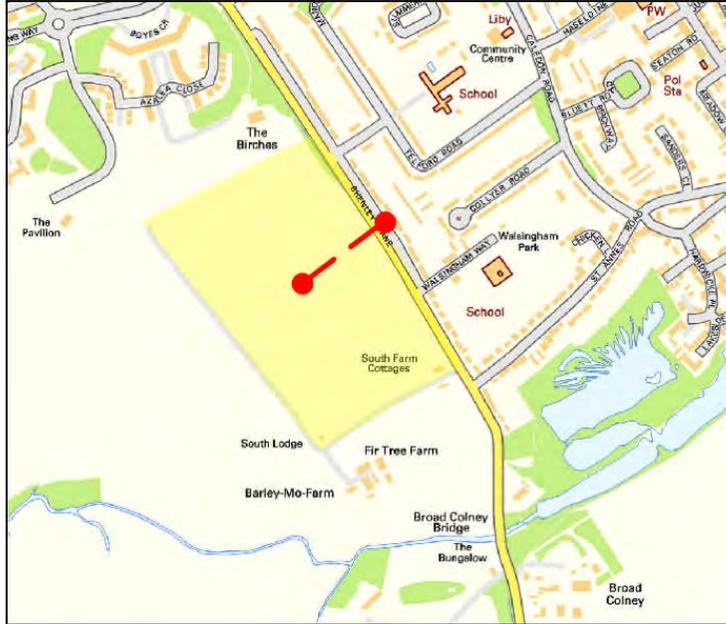
Edge of the site to the nearest railway station	Transport modes	Route
Distance: 4.5 km	<ol style="list-style-type: none"> 1. Car: 5 mins 2. Walk: 55 mins 3. Cycle: 16 mins 4. Public transport: 49 mins 	 <p>The map displays a route starting from a red 'B' marker at Park Street in Frogmore, heading north along Park Street, then east along N Orbital Rd (A414) through Napsbury, and finally south along Shearley Ln to a red 'A' marker at the railway station. The route is highlighted in yellow and blue. Key locations include Park Street, Napsbury, Frogmore, and Shearley Ln. Landmarks such as Napsbury Park, St Albans Centurians Rugby League Club, and Maidenhead Aquatics are also visible.</p>

Edge of the site to the nearest primary school	Transport modes	Route
Distance: 300 m	<ol style="list-style-type: none"> 1. Car: 1 mins 2. Walk: 4 mins 3. Cycle: 4 mins 4. Public transport: N/A 	

Edge of the site to the nearest secondary school	Transport modes	Route
Distance: 3.0 km	<ol style="list-style-type: none"> 1. Car: 6 mins 2. Walk: 38 mins 3. Cycle: 12 mins 4. Public transport: 20 mins 	 <p>The map displays a route from point A (the site) to point B (Samuel Ryder Academy). The route starts at point A, located near the intersection of the A414 and B5378, and proceeds north through Napsbury Park, Birklands Park, and Maidenhead Aquatics. It then turns east along Highfield Park Dr and London Rd, passing the Samuel Ryder Academy. The route continues north along London Rd and Highfield Park Dr, eventually turning east along Highfield Park Dr and London Rd to reach point B. The map also shows the A414, N Orbital Rd, and other local roads in the Napsbury and London Colney area.</p>

Central Point

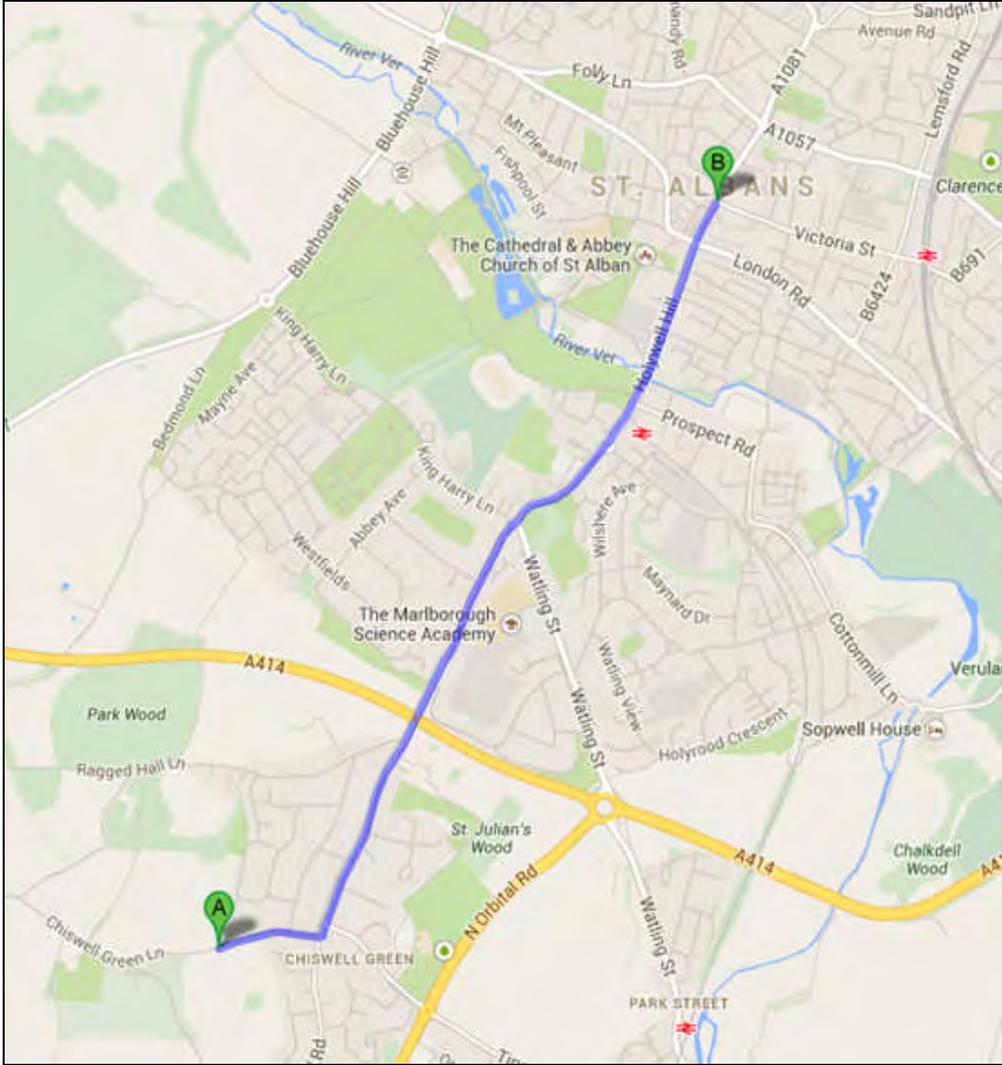
Distance from a central mapped point within the potential development site to the edge of the site as plotted above is 0.17 km.

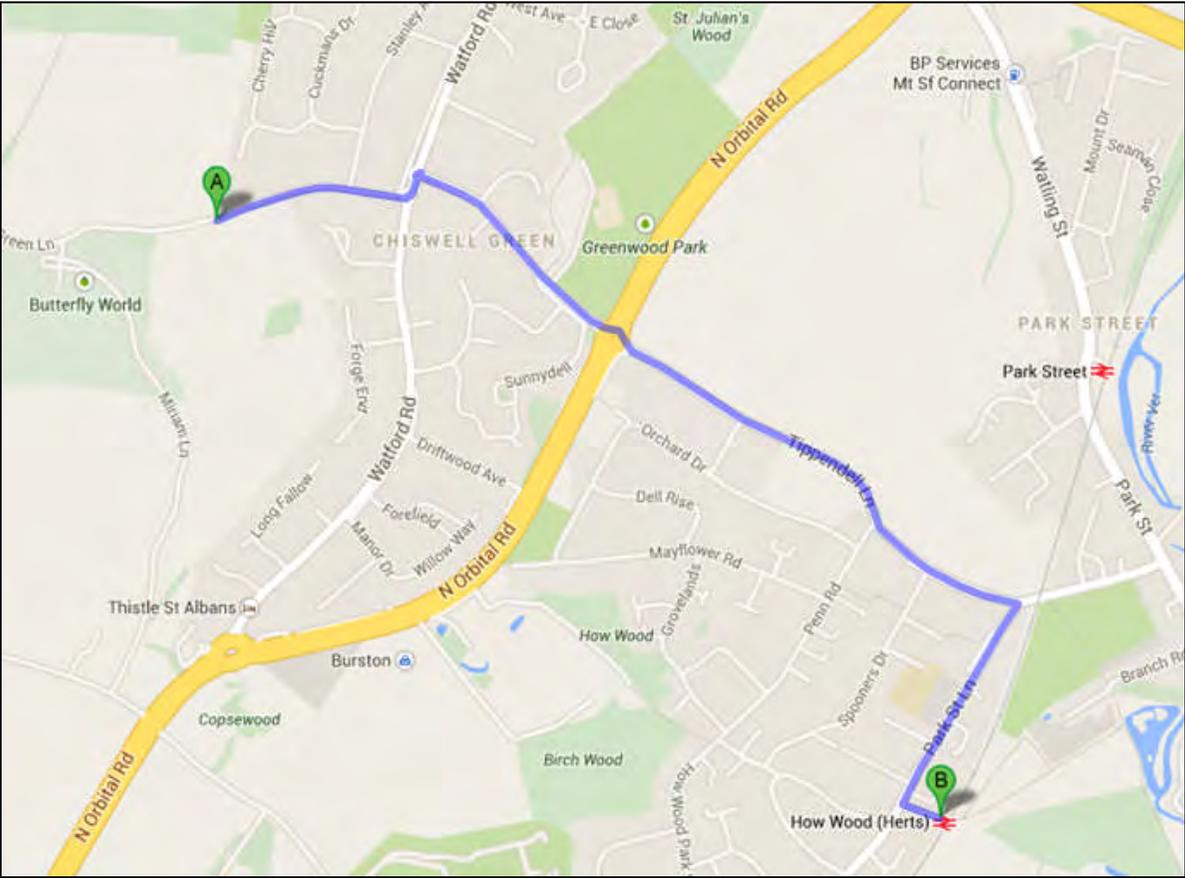


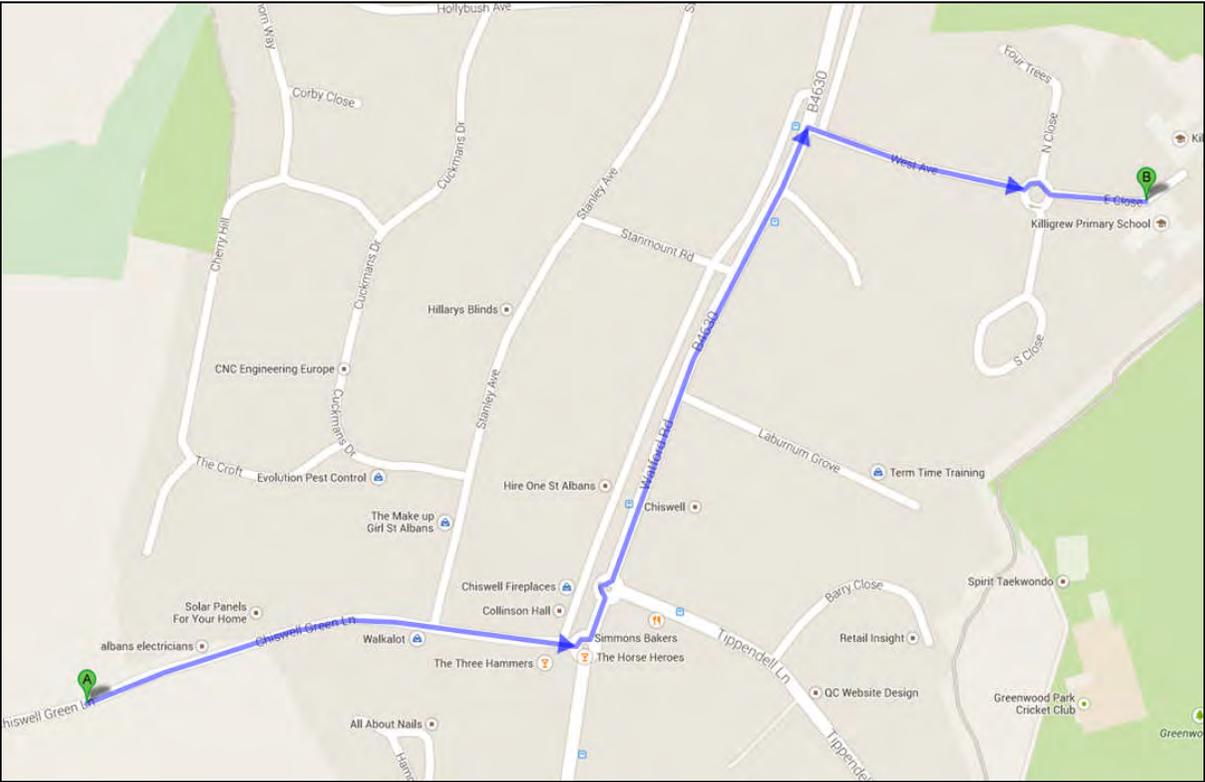
Maps

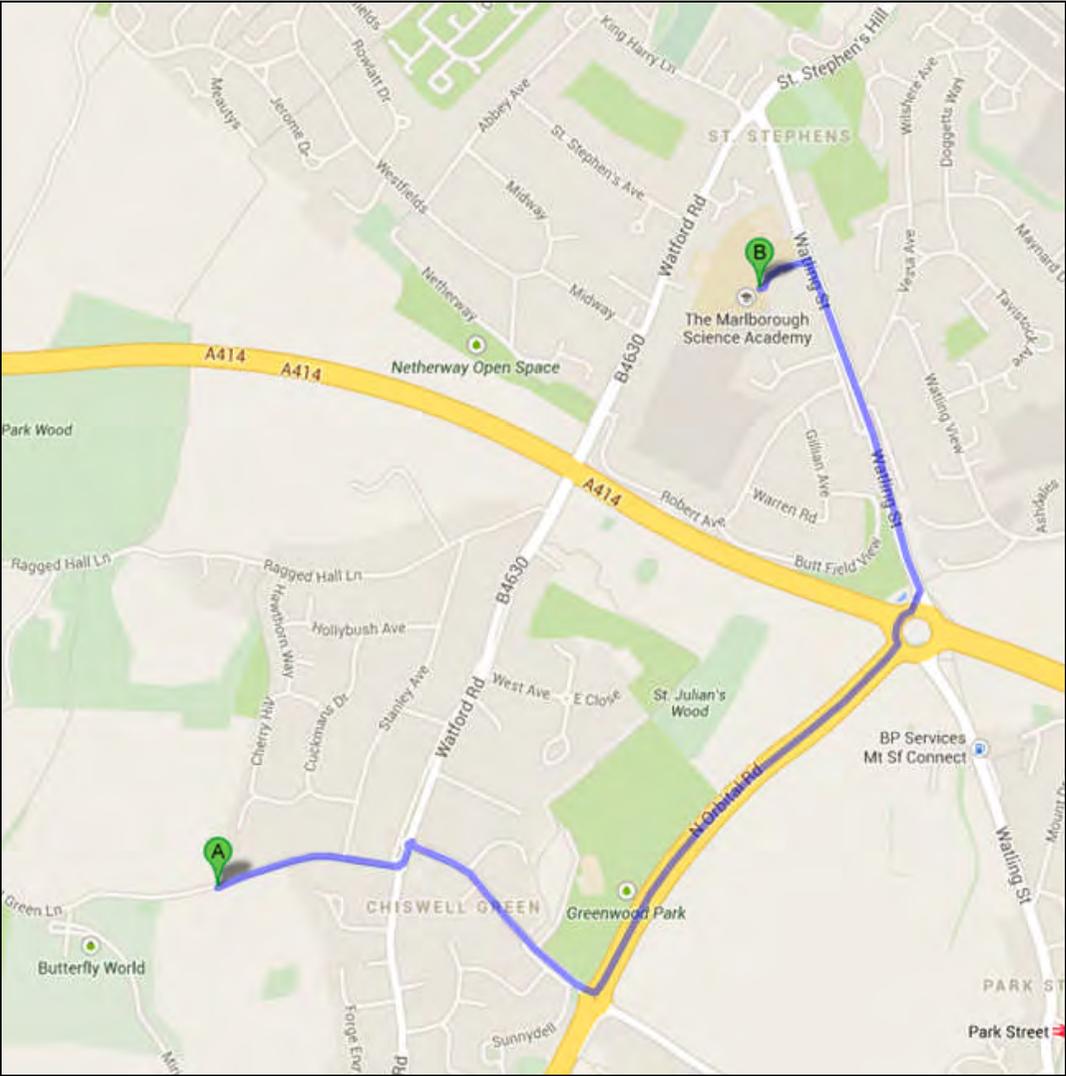


Site 8 – Chiswell Green

Edge of the site to town centre	Transport modes	Route
<p>Distance: 3.5 km</p> <p>Note: Edge of the site to neighbourhood centre, Watford Road: 400 m.</p> <p>Distance to King Harry local centre with Waitrose is 2.3km)</p>	<ol style="list-style-type: none"> 1. Car: 7 mins 2. Walk: 45 mins 3. Cycle: 16 mins 4. Public transport: 20 mins 	 <p>The map displays a blue route starting at point A in Chiswell Green and ending at point B in St Albans. The route follows Chiswell Green Ln, Watford Rd, King Harry Ln, and Prospect Rd. Key landmarks include The Marlborough Science Academy, The Cathedral & Abbey Church of St Alban, and the River Ver. Major roads like A414 and A1057 are also shown.</p>

Edge of the site to the nearest railway station	Transport modes	Route
<p>Distance:</p> <p>How Wood – 2.4km</p> <p>Park Street - 2.6km</p>	<ol style="list-style-type: none"> 1. Car: 4 mins 2. Walk: 29 mins 3. Cycle: 9 mins 4. Public transport: 28 mins 	 <p>The map displays a residential area with several roads. A yellow line highlights the 'N Orbital Rd' running through the center. A blue line indicates a route starting from a green pin labeled 'A' in the upper left, heading south through 'CHISWELL GREEN' and 'Greenwood Park', then east along 'Tippendell Ln' to 'Park St Ln', and finally south to a red pin labeled 'B' at 'How Wood (Herts)'. Another red pin is located at 'Park Street' on the right side of the map. Various other streets like 'Walford Rd', 'Driftwood Ave', and 'Mayflower Rd' are also visible.</p>

Edge of the site to the nearest primary school	Transport modes	Route
Distance: 1.1 km	<ol style="list-style-type: none"> 1. Car: 2 mins 2. Walk: 13 mins 3. Cycle: 4 mins 4. Public transport: 10 mins 	 <p>The map displays a blue route starting at point A on Chiswell Green Ln and ending at point B at Kalligrew Primary School. The route follows Chiswell Green Ln, then turns right onto Stanmount Rd, then right onto West Ave, and finally right onto F Close. Various landmarks and businesses are labeled on the map, including CNC Engineering Europe, The Make up Girl St Albans, Chiswell Fireplaces, and The Horse Heroes.</p>

Edge of the site to the nearest secondary school	Transport modes	Route
Distance: 2.5 km	<ol style="list-style-type: none"> 1. Car: 9 mins 2. Walk: 31 mins 3. Cycle: 9 mins 4. Public transport: 19 mins 	 <p>The map displays a route from point A (located near Butterfly World in Chiswell Green) to point B (located near The Marlborough Science Academy in St. Stephens). The route is highlighted in blue and follows a path that includes Watford Rd, A414, and Welling St. Key landmarks and roads shown include Park Wood, Ragged Hall Ln, Greenwood Park, and St. Julian's Wood. The map also shows major roads like Watford Rd, A414, and Welling St, along with various residential streets and public transport stops like BP Services and M1 St Connect.</p>

Central Point

Distance from a central mapped point within the potential development site to the edge of the site as plotted above is 0.28km.

Maps

