Cherwell LPPR, Proposed Main Modifications Site capacity sense check Prepared for Cherwell District Council September 2019

Alan Baxter Ltd



Cherwell Local Plan Partial Review, Proposed Main Modifications Site capacity sense check

1 Introduction

Alan Baxter Ltd (ABA) has been asked to provide further support to Cherwell District Council (CDC) on site housing yields in response to the Inspector's advice note. Support has previously been provided to CDC on strategy development and with the peer review of site capacities.

CDC's methodology for calculating site capacity is set out in <u>HEAR 2 - CDC Housing Figures Note</u>. The Inspector has described the Council's approach as a 'broadly sensible balance'.

The Inspector has invited CDC to propose Main Modifications for the redistribution of 410 homes arising from the suggested deletion of site PR10.

In the context of the Inspector's preliminary conclusion that a broadly sensible balance has been achieved, CDC has asked ABA to support its work in examining any changes in circumstances that might justify modification of its original proposals in the interest of accommodating 410 homes.

2 PR6a – Land East of Oxford Road

2.1 Proposed Submission Plan, July 2017

CDC's initial site capacity calculation of 650 dwellings assumed a net residential density of approximately 39 dwellings per hectare (dph) and a net residential area of 16.8 hectares (ha). Policy PR6a's place shaping principles note the intended development character as "a contemporary urban extension to Oxford City that responds to the 'gateway' location...".

2.2 New information and changes of circumstance

Oxfordshire County Council has previously advised (representation PR-C-0832) that a two Forms of Entry (2FE) Primary School was required on the site rather than a 3FE school, thereby reducing the land area requirement from 3.2 ha to 2.2 ha. This change was not reflected in CDC's original capacity assessment. CDC advises that it has re-engaged with the County Council on this issue in the context of Main Modifications and that it remains the case that a 2.2 ha school site is needed.

2.2.1 Constraints information

The site presents a number of east-west constraints relating to farm access routes, species-rich hedgerows and drainage corridors. It is expected that these linear features will be reflected in the eventual site layout, but are unlikely to significantly affect the site capacity at the densities proposed. They do not preclude housing development on the additional hectare of land. Key constraints are indicated on figure 1 below.

2.3 Conclusion on CDC's initial working figure for proposed Main Modifications

CDC has suggested that the 1 ha of land no longer required for primary school use, could be reallocated to residential use at a density consistent with the rest of the site, delivering 40 homes (690 in total). This would appear to be an appropriate response to the change in circumstances.

There are no other known significant changes in circumstance that would warrant a wider reconsideration of the 'balance' struck by CDC. A number of linear constraints across the site will reduce the efficiency of layout. Therefore a density of 39-40 dph would appear to be appropriate to both the constraints of the site and the proposed character in line with Policy PR6a place shaping principles.

It is understood that at the Local Plan hearings CDC advised that it was content to introduce a modification which would allow for minor variation in the location of specific uses where evidence is available. This would provide for some flexibility around the location of community and school uses within the developable area and the consideration of an integrated approach to sites PR6a and PR6b. It might also optimize the viability of local facilities.

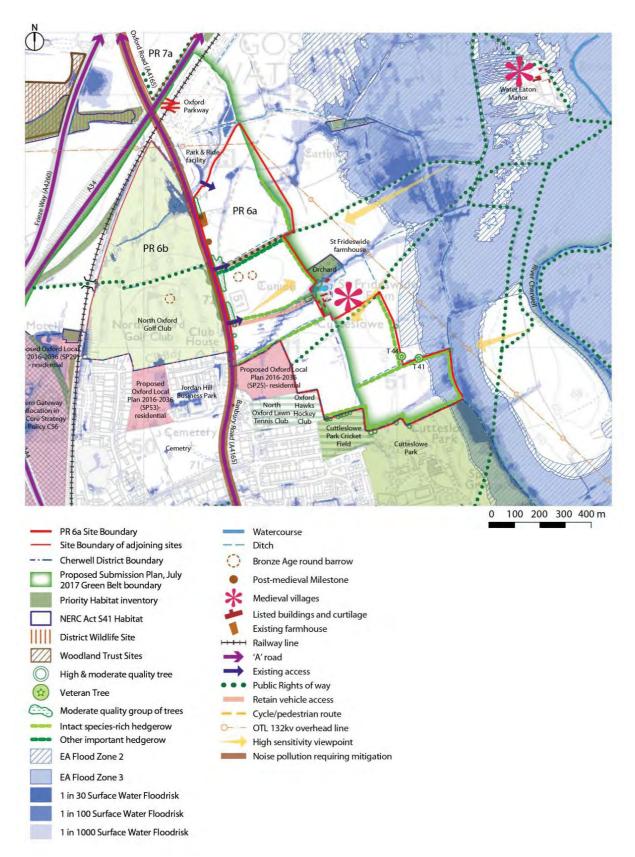


Figure 1: PR6a constraints, Cherwell District Council



3 PR6b – Land West of Oxford Road

3.1 Proposed Submission Plan, July 2017

CDC's initial site capacity calculation of 530 dwellings assumed a net residential density of 24 dph and net residential area of 22.4 ha. This relatively low density is a response to the heavily treed landscape within the area identified for residential development, reflecting its current use as a golf course. The low density allows for larger plots / wider streets to retain the majority of trees, creating a mature landscape character as the setting for development. The proposed well-treed character, within a gateway location is reflected in Policy PR6b place shaping principle 25.

3.2 New information and changes of circumstance

The Council's landscape and tree officers visited the site and carried out an assessment of the significance of the trees on this site which resulted in the identification of important and moderate groups of trees shown in figure 2. This identifies that the majority of the trees on the site are of moderate quality and could potentially be removed (subject to appropriate compensatory planting). However there are native and ornamental trees which should be retained and incorporated within the landscape structure. The latter have been identified as 'important groups of trees'.

3.2.1 Constraints information

There are a number of key constraints to be considered in re-examining the capacity of the site (as shown in figure 2):

- additional information on the significance of trees
- Surface water drainage: west north east corridors to be incorporated within the site wide SuDS strategy

3.2.2 Savills Submission of 30 August 2019 on behalf of the North Oxford Consortium

Savills' submission compares the extent of net developable land assuming all trees are retained, with the extent of net developable land if only the 'important groups of trees' are retained. In the latter scenario, around 1.1 ha of additional land is developable, giving an overall net residential area of 18.5ha (58% of the total site area). (See figure 3). The constrained areas identified broadly accord with CDC's constraints plan, although it omits some smaller constraints such as TPOs and an intact species-rich hedgerow.

Savills note that "the retention of *(only the important groups of trees)* provides a mature setting whilst not compromising the size of potential development parcels to deliver efficient, well designed development blocks..."

The latter point highlights that in addition to the release of 1.1 hectares of developable land, the overall layout efficiency and therefore site density could reasonably be expected to increase, resulting in a further increase in the site capacity. To that end, Savills proposes a net density of 40dph across 18.5ha, which would generate 740 dwellings.

3.3 Conclusion on CDC's initial working figure for proposed Main Modifications

CDC has suggested that approximately 600 homes might now be deliverable; an increase in residential density. This responds to:

- An understanding of the significance of trees which provide flexibility for the potential removal of a number of linear tree bands. This has the potential to increase the gross to net efficiency of the site, and the efficiency of the site layout.
- Support for a higher density scheme in this gateway location.



The delivery of 600 homes would involve an increase in the net residential density from 24 to 27 dph. This remains a relatively low density, enabling delivery of the character envisaged under place shaping principle 25.

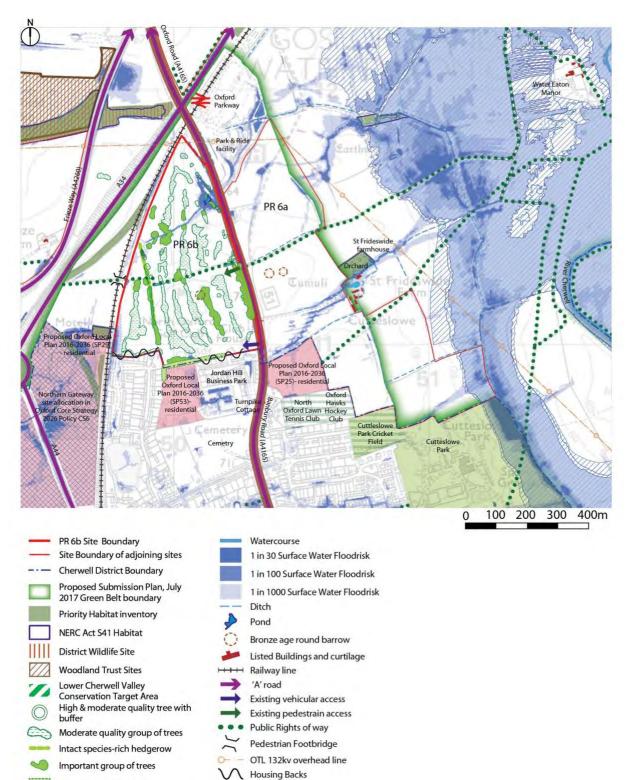
However, considering the site's integration with adjacent sites and having regard to the additional information now available, CDC may wish to consider a further increase in density to approximately 30 dph, resulting in 672 homes. Taking the 18.5 ha 'net, net' developable area indicated by Savills, the density would be 36 dph.

As the density increases, the character of the development would begin to shift away from large individual detached / semi-detached housing plots, to include higher density typologies including terrace blocks and apartment buildings. The latter could work well, with blocks set within a generous, green landscape incorporating the tree belts, and would therefore remain in keeping with the principle established in place shaping principle 25.

Updated CDC position

We understand that following receipt of draft consultant advice on a range of topics, CDC is proposing an updated housing allocation for PR6b of 670 homes, at a net density of 30 dph. This is in line with the findings of the capacity sense check.





Noise pollution requiring

mitigation

- Tree Preservation Order
- EA Flood Zone 2
- 1
- EA Flood Zone 3
- Figure 2: PR6b constraints, Cherwell District Council





Figure 3: Extract from Savills submission, August 2019, showing the potential development areas assuming only important groups of trees are retained.



4 PR7a – Land South East of Kidlington

4.1 Proposed Submission Plan, July 2017

CDC's initial site capacity calculation of 230 dwellings assumed a net residential density of 30 dph and net residential area of 7.7 ha. The development is to function as an extension to the existing built up area of Kidlington/Gosford and Water Eaton.

4.2 New information and changes of circumstance

There are no known significant changes in circumstances but CDC has suggested the inclusion of additional land for testing.

4.2.1 Constraints information

The County Council has indicated that there will be a need to take account of the emerging Oxfordshire Growth Deal public transport corridor improvements to Kidlington Roundabout, which may affect the western boundary of the site.

Although not a recent change, it is noted that the need for strategic sports provision was defined with the publication of CDC's Playing Pitch Strategy in November 2018. Approximately 4.4 hectares of land is needed for sports use (the Council's wider objectives relating to green infrastructure and maintaining separation from development to the south are noted).

To help inform the preparation of proposed Modifications, further information has been received from the site promoter including a noise and vibration assessment and transport assessment. It is noted that there is medium to high risk in relation to noise levels but that this can be mitigated by good acoustic design.

4.2.2 Pegasus and Hill Submissions of August 2019

Submissions on behalf of the landowners promote the southward extension of the residential development area of PR7a, proposing a revised draft boundary following a strong existing field boundary in part, and a historic hedge-line which is proposed to be restored.

The historic hedge-line does not appear to be evident on aerial photographs, and further west has been entirely lost as Kidlington has been developed. The Pegasus/Hill boundary broadly aligns with the southern boundary of the Sainsbury's development and it is worth noting that it is further north than the proposed residential development area on adjacent site PR7b.

The gross residential area which is promoted, as shown on figure 4, is approximately 20.55 ha (our measurement). The net residential area noted on their concept masterplan (figure 5) is approximately 11.4 ha and they propose approximately 430 dwellings at a density of 37.5 dph.

4.3 Conclusion on CDC's initial working figure for proposed Main Modifications

A working proposal was suggested by CDC for testing. CDC suggested an increase in the gross residential area to 20 ha (20.08 ha our measurement based on Figure 4) by incorporating the additional field to the south bordered by the existing hedgerow and land adjacent to Bicester Road (an additional 9ha of land). The proposed boundary in the western part does not extend as far south as the boundary promoted by Pegasus/Hill. The difference is approximately 0.47 ha (our measurement).

4.3.1 Density and overall number

The proposed net residential area is increased to 14 ha, with a net density of 31 dph (30.59dph) to deliver 430 dwellings.

The proposed net density of 31 dph appears to be appropriate to the site's location and the level of detail currently available in relation to site constraints.

If the additional expansion promoted by Pegasus / Hill was adopted, the net density to deliver 430 homes using the same gross to net assumption would be marginally decreased to 29.9 dph.

At these densities it would be reasonable to expect building heights of 2-3 storeys, with mix of predominantly houses and a small element of apartments.

4.3.2 Southern boundary considerations:

In determining the appropriate southern boundary in the western part of the site, urban design considerations include the impact/ benefits of an extended development frontage to Bicester Road in terms of physical and visual connectivity with the existing built up area of Kidlington / Gosford and Water Eaton; the potential to create a frontage to Bicester Road while retaining existing hedgerows and trees; retention of the Kidlington/Oxford green gap; and opportunities to improve the design and efficiency of the overall site layout.

Connectivity

There is an existing signalised pedestrian crossing on Bicester Road close to Sainsbury's, which connects to a footpath linking with Oxford Road and the local retail centre. The site promoters have emphasised the importance of connecting the site with this crossing and footpath to provide a good walking link to local shops on Oxford Road.

In either boundary scenario the routeing of a footpath within the site towards this crossing point, could be run within the development area, enabling passive surveillance from development frontage.

Visibility

Much of the western boundary is bordered by a hedgerow and trees limiting visibility into the site. However towards Kidlington roundabout, south of the pedestrian crossing, the vegetation appears to thin and there could be a greater opportunity to provide development fronting Bicester Road. This opportunity would be increased if the Pegasus / Hill boundary were taken. This would be positive in marking the entrance to Kidlington, and visually connecting the site towards the west. With regards to the sense of openness and the Green Gap in this area, the development of this parcel would not extend the built form further south than the existing edge of Kidlington.

Layout

In either boundary scenario, the western parcel of land is triangular, which will lead to some inefficiency in the layout. CDC's proposed boundary meets Bicester Road at nearly 90 degrees, while the site promoter's boundary is angled and this may lead to further inefficiency in the site layout.

In conclusion, the increase in numbers appears to be appropriate. Either southern boundary could result in an acceptable design, subject to detailed masterplanning. The southern boundary should therefore be determined by other considerations such as the appropriate Green Belt boundary.

Updated CDC position

We understand that following receipt of draft consultant advice on a range of topics, CDC is proposing to revise the boundary to reflect the former field boundary. This increases the site area to approximately 21 ha resulting in a reduction in net density to 29 dph. This is in line with the findings of the capacity sense check.

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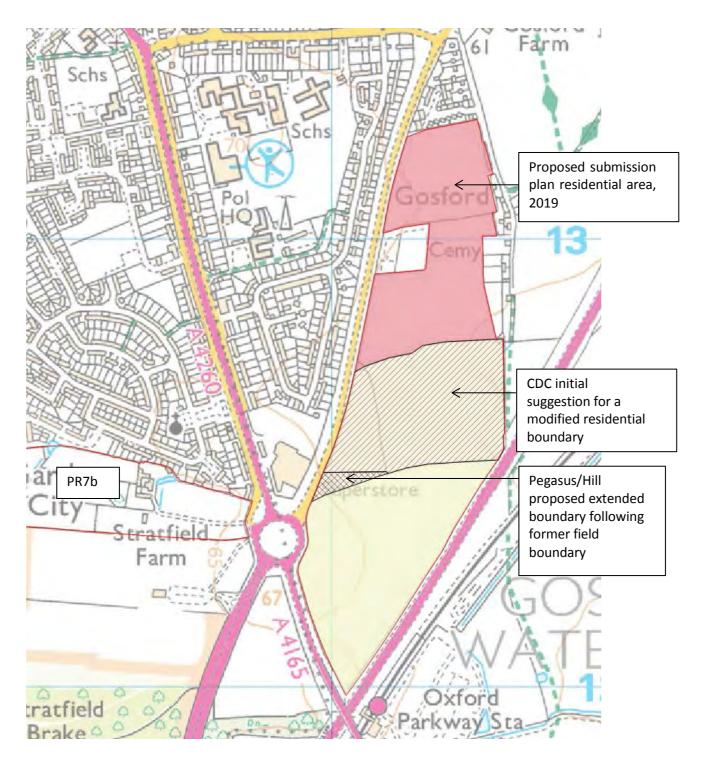


Figure 4 Map showing CDC's initial suggestion for a modified boundary and the Pegasus / Hill proposed boundary





Figure 5 Concept Masterplan by CSA Environment, extract from Pegasus submission on behalf of Barwood Development Securities, January 2019.

Alan Baxter

5 PR7b – Land at Stratfield Farm

5.1 Proposed Submission Plan, July 2017

CDC's initial site capacity calculation of 100 dwellings assumed a net residential density of 36 dph and net residential area of 2.8 ha. The development is to be an extension to the existing built up area of Kidlington.

5.2 New information and changes of circumstance

CDC advises that further discussions have taken place with the County Council as Highway Authority on the capacity of the site from a highway perspective (the number of homes that could be served from Kidlington roundabout). Highway officers had originally advised that 100 homes could be served. The advice now is that there is some further tolerance but the option (already proposed) of a secondary access from the north (Croxford Gardens) to a limited number of homes should be kept open to help mitigate traffic impact.

CDC is considering whether an additional field parcel to the south west of the proposed development area could be allocated should this be necessary.

5.2.1 Constraints information

There are a number of key constraints to be considered in re-examining the capacity of the site in the context of the additional information and CDC's consideration of an additional field parcel. The key constraints are indicated on figure 6.

- High and moderate value woodlands and trees and the presence of hedgerows.
- The need to consider the relationship to Stratfield Brake in the site layout.
- Curtilage listed buildings associated with Grade II Stratfield Farmhouse, and the need to retain the relationship between the farmhouse and adjacent orchards, in particular the traditional orchard to the west. This has a potential impact on the location of east-west site access for vehicles with the conservation preference being to follow the existing track alignment between the farmhouse and the modern orchard.
- The likelihood of changes to the eastern boundary of the site to facilitate vehicular access.

5.2.2 Manor Oak Homes submission, August 2019

A capacity testing layout has been prepared by the site promoter illustrating that around 158 homes could be delivered on an expanded site (see figure 7). Their written comments promote a figure of 165 homes.

The development area shown by the promoter's site layout is greater than the extension which CDC is currently testing and takes development to the southern boundary with Stratfield Brake, on the western part of the site. Two east-west vehicle accesses are proposed, to the north of the farmhouse and on the southern boundary. The layout assumes the existing curtilage listed farm outbuildings will be demolished and the existing track serving the farmhouse will be realigned in response to OCC's potential site access location. This may not be acceptable on Conservation grounds. One of the two hedgerows crossing the western part of the site has been removed.

Counting only those houses which fall within CDC's proposed modified development boundary, and excluding 3 homes which are located on the site of the existing outbuildings, a total of 119 units appear to be shown.

The layout is based on a mix of semi-detached, detached and terrace houses.

5.3 Conclusion on CDC's initial working figure for proposed Main Modifications

CDC suggested a total of 130 homes for testing; an increase in the residential development area through the inclusion of an additional field in the western part of the site. The proposed modified net residential area is 3.5ha which at a net density of 37 dph equates to 130 homes.

To test the capacity assumptions, we have prepared a high level sketch plan based on standard block depths for 3-4 bed houses of a range of typologies and 3 storey apartments (see figure 8). Although it takes a different design approach, it broadly supports the conclusions of the Manor Oak Homes capacity testing.

- The layout shown would deliver in the region of 125-130 homes, assuming 24 flats in three storey blocks at the site entrance (or around 115 homes, assuming all houses).
- The layout assumes access to the site is via OCC's preferred site access location, which serves the entirety of the site (with potential for a secondary access via Croxford Gardens). The farmhouse track alignment is retained in part, to maintain the historic approach to the farmhouse.
- Vehicle access to the western part of the site is via a lane to the south of the farmhouse (and potentially also Croxford Gardens). This aligns with the southern edge of the western part of the development, and enables an unbroken green corridor to extend into the centre of the farmhouse from the canal.
- Discussions between the site promoter and conservation officers are yet to take place to establish the use of the Farmhouse and its outbuildings and we have assumed that renovation of the Farmhouse and curtilage listed barns for residential use is outside the site capacity calculation.

Testing the layout has confirmed that the narrow north-south dimension of the site is challenging to the delivery of an efficient block structure in the eastern part of the site. In the western part of the site, there will need to be a balanced view on the retention of hedgerows, in order to maximise development potential.

The site capacity could be increased further with the introduction of additional apartments in the eastern part of the site.

A small further increase could (in principle) be assumed if play facilities were located in the proposed open space to the west of the modern orchard, rather than within the residential area boundary.

Capacity testing supports the increase in housing numbers within the site to around 130 units. However, given the constraints of the site it reveals that to achieve this density of development it is likely that some apartment units will be required. Located at the entrance to the site, 3 storey blocks could in our view be an appropriate scale to mark the entrance to Kidlington (subject to their detailed design).

It is worth noting that around 50 units are located in the western part of the site, therefore requiring access from the east in addition to (or potentially instead of) access from Croxford Gardens.

CDC may wish to allow flexibility within the revised PR7b policy for the required play space to be provided outside the residential development area to assist in creating an efficient layout.

Updated CDC position

We understand that following receipt of draft consultant advice on a range of topics, CDC is proposing an updated housing allocation for PR7b of 120 dwellings, at a net density of 34 dph. This slight reduction allows greater flexibility to accommodate known site constraints fully, and create a layout which is appropriate to the historic farmhouse and its setting.

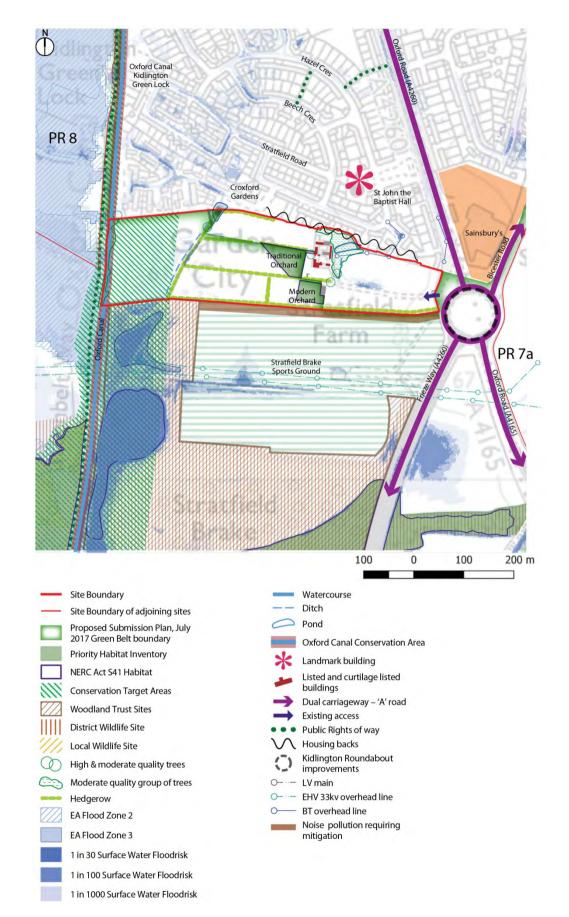


Figure 6: PR7b constraints, Cherwell District Council





Figure 7: Marked-up extract from Manor Oak Homes (RG+P) PR7b Presentation Site Layout, 29.08.19. Area in blue shows housing within the Council's proposed modified residential development area (Alan Baxter).

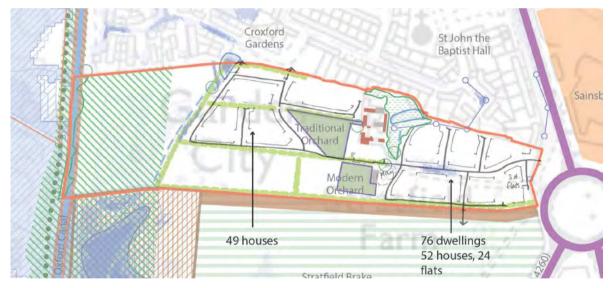


Figure 8: High level capacity test sketch, Alan Baxter (not to scale)

6 PR9 – Land West of Yarnton

6.1 Proposed Submission Plan, July 2017

CDC's initial site capacity calculation of 530 dwellings assumed a net residential density of 47 dph and net residential area of 11.2 ha. The development is intended to be an extension to Yarnton Village with frontage to the A44.

6.2 New information and changes of circumstance

CDC advises that the Inspector's preliminary findings prompt a review of the site's developable area "there is scope for the developable area to extend westward and this might well provide the scope for a development more interesting in its design and layout."

CDC is considering whether additional land to the west of the proposed development area could be allocated, should this be necessary, subject to a review of overall site capacity.

CDC advises that further discussions have taken place with the County Council as Education Authority, regarding the allocation of playing fields for William Fletcher School. The County Council has advised that the allocation for primary school use should accommodate a playing field of 110m x 76 m within a 1.6 hectare area. In response, CDC is considering an amendment to the boundary of the school allocation site.

6.2.1 Constraints information

There are a number of key constraints to be considered in re-examining the capacity of the site in the context of additional information and CDC's consideration of amendment to the development boundary. The key constraints are indicated on figure 9:

- High and moderate value trees including veteran trees and the presence of important hedgerows situated along field boundaries, which divide the site into smaller parcels.
- The need for an appropriate design response in relation to the A44.
- Surface water drainage catchments falling towards the low lying land in the eastern part of the site and the associated land take for sustainable drainage features (SuDS).
- Landform rising westwards from the A44 creating level changes to a high point north west of Begbroke. Higher ground parcels form part of the ring of hills forming a key element of Oxford's historic setting and special character.
- Absence of field boundaries in the centre of the site
- Historic landscape features

6.2.2 Gerald Eve/Define on behalf of Merton College submission, August 2019

A series of capacity testing options have been prepared by the site promoter, which consider revised development boundaries incorporating land to the west. See figure 10. Three options are presented:

- 536 dwellings at 35 dph with development extended to the west.
- 690 dwellings at 40 dph on a larger, extended site.
- 760 dwellings at 40 dph on a larger, extended site.
- A separate development parcel is promoted off Cassington Road for a further 30 homes.

An accompanying Landscape Appraisal Addendum compares the impact on viewpoints.



6.3 Conclusion on CDC's initial working figure for proposed Main Modifications

CDC has previously proposed an amendment to the number of dwellings on the site from 530 to 440 (Focused Change FC64, <u>Focused Changes and Minor Modifications, February 2018</u>). The proposed reduction in density was in response to new information relating to drainage and landscape constraints, but did not look to alter the development boundary. In this scenario, the net density is 39 dph based on a net residential area of 11.2 ha.

In response to the Inspector's preliminary findings CDC is now re-examining the western boundary of the developable area, and re-examining the residential density in response to site constraints.

A working proposal was suggested by CDC for testing. This comprises an increase in the residential area to around 26 ha, giving a net residential area of 18.2 ha, and a new housing total of 600 dwellings. This gives a net residential density of 33 dph, which we note is a reduction in density from both the Proposed Submission Plan, 2017 and the proposed Focused Change, 2018.

Boundary

CDC's is proposing a revised development boundary which broadly follows the 75m AOD contour, in response to landscape and Green Belt advice to minimise general visual impact on the countryside, but has a more geometric alignment in keeping with nearby field boundaries.

CDC's approach to the boundary revision is generally consistent with the extent of development proposed by the site promoter for 536 units, but we understand it will incorporate the revised land area for school playing fields in line with OCC's advice.

We understand that the suggested extension will be wide enough (approximately 85-200m from the hedge line) to accommodate a range of typical residential block dimensions and supporting drainage and access.

Net residential area

CDC's proposed net residential area is 18.2 ha, based on a 70:30 gross to net ratio.

The site promoter, working broadly to the same gross residential area, identifies a smaller residential area of 15.3 ha. This highlights the potentially significant land take associated with constraints including hedgelines and buffers, and drainage attenuation on the site.

Density

CDC's proposed reduction in density is a response to the known site constraints which have an impact on the efficiency of the layout and divide the site into a number of smaller parcels.

The extended portion of the site will be separated from the parcels of land to the east by an established hedge line which is to be retained. The site promoter's layout suggests the western parcels will be served by additional SuDS infrastructure and access roads. As a result there is a limited cumulative benefit to the site layout efficiency as a result of extending the site to the west.

In contrast to PR8, which is of a scale to develop its own distinctive character incorporating innovative and higher density typologies, the character of PR9 is to be complementary to the scale of the existing village of Yarnton while addressing both the frontage onto the A44 and the rural edge. The appropriate overall density should allow for a mix of character areas across the site responding to the varied edge relationships.

A reduction in density and increase in developable area would therefore appear to be an appropriate response to both constraints and character considerations. However, given the

potentially significant land take associated with the site's constraints CDC may wish to consider a further reduction in density to around 30 dph.

Updated CDC position

We understand that following receipt of draft consultant advice on a range of topics, CDC is proposing a refinement to the residential development boundary for PR9 giving a gross residential area of 25 ha and a net area of 17.5ha. An updated housing allocation of 540 dwellings, at a density of 31 dph is proposed. This slight reduction in density allows greater flexibility to accommodate known site constraints fully.

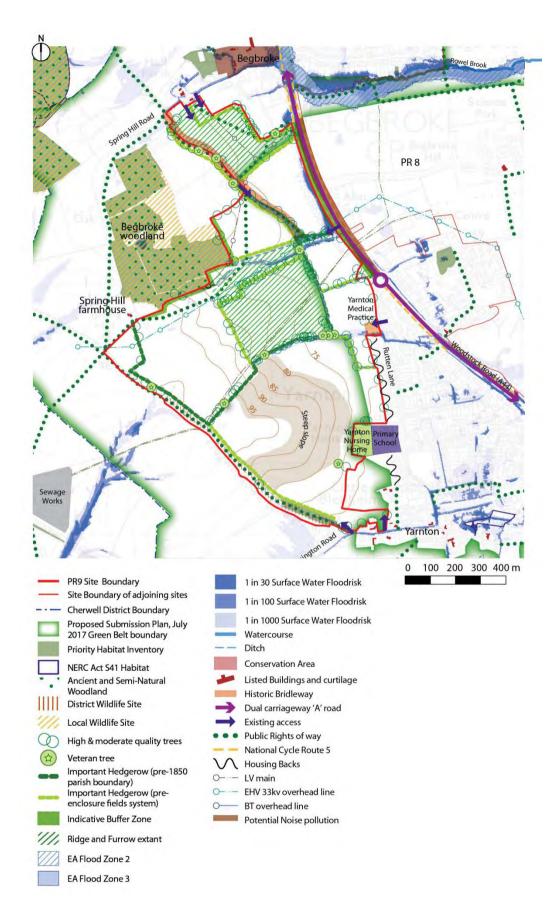


Figure 9: PR9 constraints, Cherwell District Council



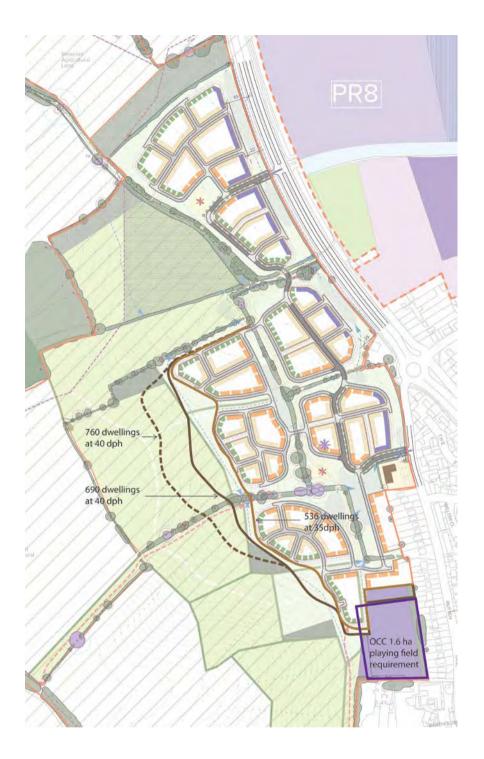


Figure 10: Mark-up based on Site Framework Plan, by Define on behalf of Merton College, showing land take for site promoter's three extended site options and OCC required play field land take.



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