



Key

Existing Uses

- Farmland
- Woodland
- Field boundaries
- Housing (inc. roads and residential play space and private gardens + allows for some green infrastructure)
- Primary Schools
- Site boundary
- Young woodland plantation
- Existing contours
- Scattered Trees
- Scattered Scrub

Existing Connectivity

- Main roads
- Secondary roads
- Foot & cycle path
- Bridle path

Existing Infrastructure

- Water Courses
- Electric Cables

Proposed Levels

- Proposed contours
- + 93m** Proposed spot levels above AOD

APPLICATION 1 NORTH OF LORDS LANE - PROPOSED LEVELS AND TOPOGRAPHY

BIMPG 1068 NW BICESTER APPLICATION - PARAMETER PLAN

Rev B - 25/07/14



3.2.2 Trees & Hedgerows to be Removed

Existing field boundary pattern

The proposal seeks to respect the existing field pattern of hedges and trees. The concept is to produce a sensitive development in accordance with existing trees and the heritage of site with the existing pattern of field boundaries, acting as a development framework.

The design team have worked to maintain as much of the totality of field boundaries as possible; to maintain and improve the ecological corridors and views across the site by minimising hedgerow severance in areas known of value.

Where is it possible, proposed new routes – footpaths and tertiary roads, will be routed through existing gaps in hedges to minimise disturbance to hedges and wildlife corridors.

Locations of secondary and tertiary routes, footpaths and cycle ways are flexible to allow for suitable locations to be fixed at a more detailed level of design. Locations for the strategic and primary roads are fixed.



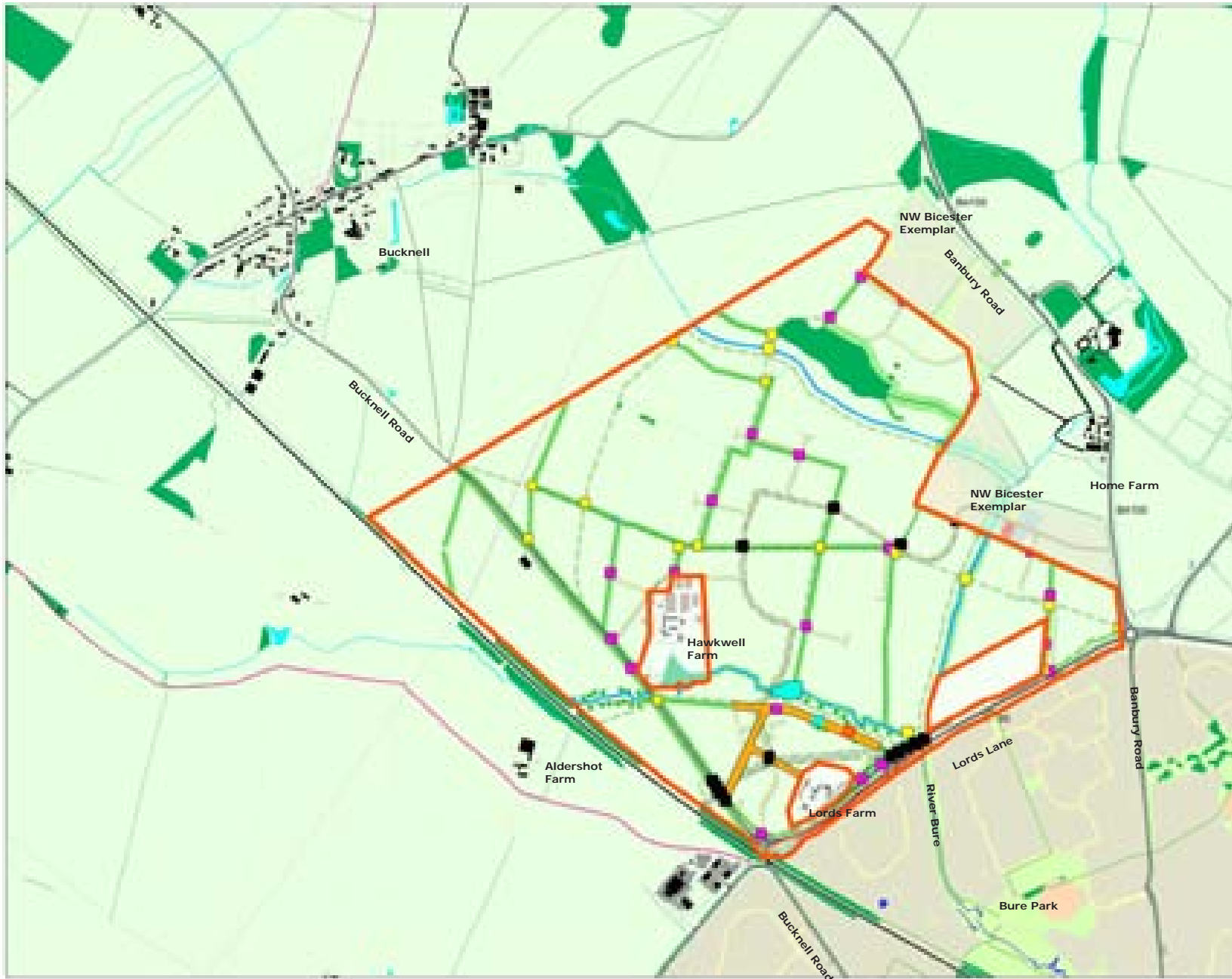
Looking towards Lords Farm from Bucknell Road



Looking from Lords Lane to Hawkwell Farm



Looking from Hawkwell Farm towards Lords Lane



Key

- Existing Uses**
- Farmland
 - Woodland
 - Field boundaries
 - Housing (inc. roads and essential play space and private gardens) - areas for some green infrastructure
 - Primary School
 - Site boundary
 - Young woodland plantation
 - Scattered Trees
 - Scattered forest
- Existing Connectivity**
- Main roads
 - Secondary roads
 - Foot & cycle path
 - Bridle path
- Existing Infrastructure**
- Water Courses
 - Electric Cables
- Planned Features**
- Hedges to be removed
 - Hedges to be broken by secondary roads - location is flexible and subject to detailed design (square does not represent true scale). Hedge breaks should be minimised where possible.
 - Hedges to be broken by footpaths and cycleways - location is flexible and subject to detailed design (square does not represent true scale). Hedge breaks should be minimised where possible.
 - Hedge buffer zones (dependent on hedge quality - see WMA/CA/2014/01-015/Amend 1 & 2)
 - Approximate trees to be removed (shape does not represent true scale, removals to be sensitively minimised where possible and are subject to a full detailed survey)
 - Hedge locations to be broken by fixed location of Strategic, Primary Road and Bucknell Road. Hedge breaks should be minimised where possible. (square does not represent true scale)

APPLICATION 1 NORTH OF LORDS LANE - EXISTING TREES AND HEDGEROWS SHOWING AREAS TO BE REMOVED OR BROKEN
 BIMP6 107C NW BICESTER APPLICATION - PARAMETER PLAN

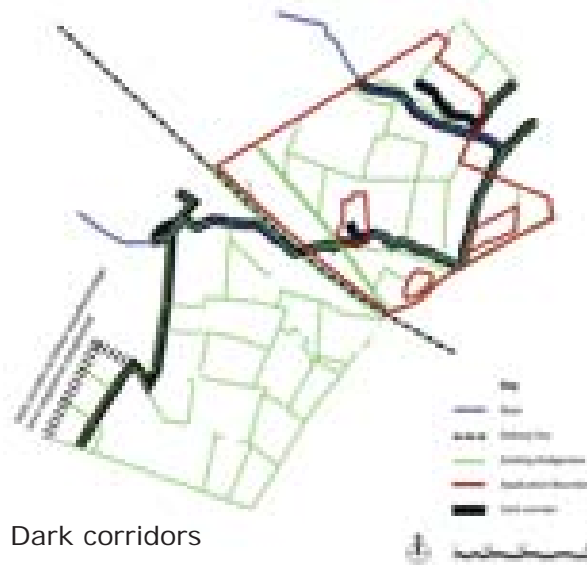
Rev C - 25/07/14



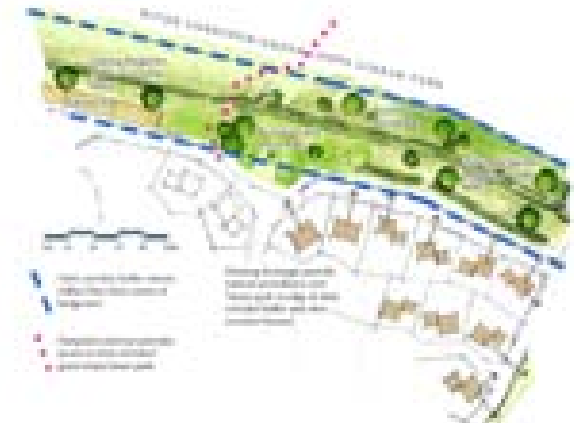
3.2.3 Landscape Buffers

The design team has strived to ensure that the development proposals recognise the importance of the landscape character and setting as well as respecting all areas of wildlife importance and sensitivity.

This has resulted in the creation of design principles which include allowing for generous green buffers, wildlife corridors, wildlife habitats and countryside access where possible, throughout the proposals. The design also strives to protect important views and establish sustainable green infrastructure whilst conserving existing countryside- with added agricultural amenity.



Dark corridors



Please read in conjunction with buffers text in the Green Infrastructure and Landscape Strategy

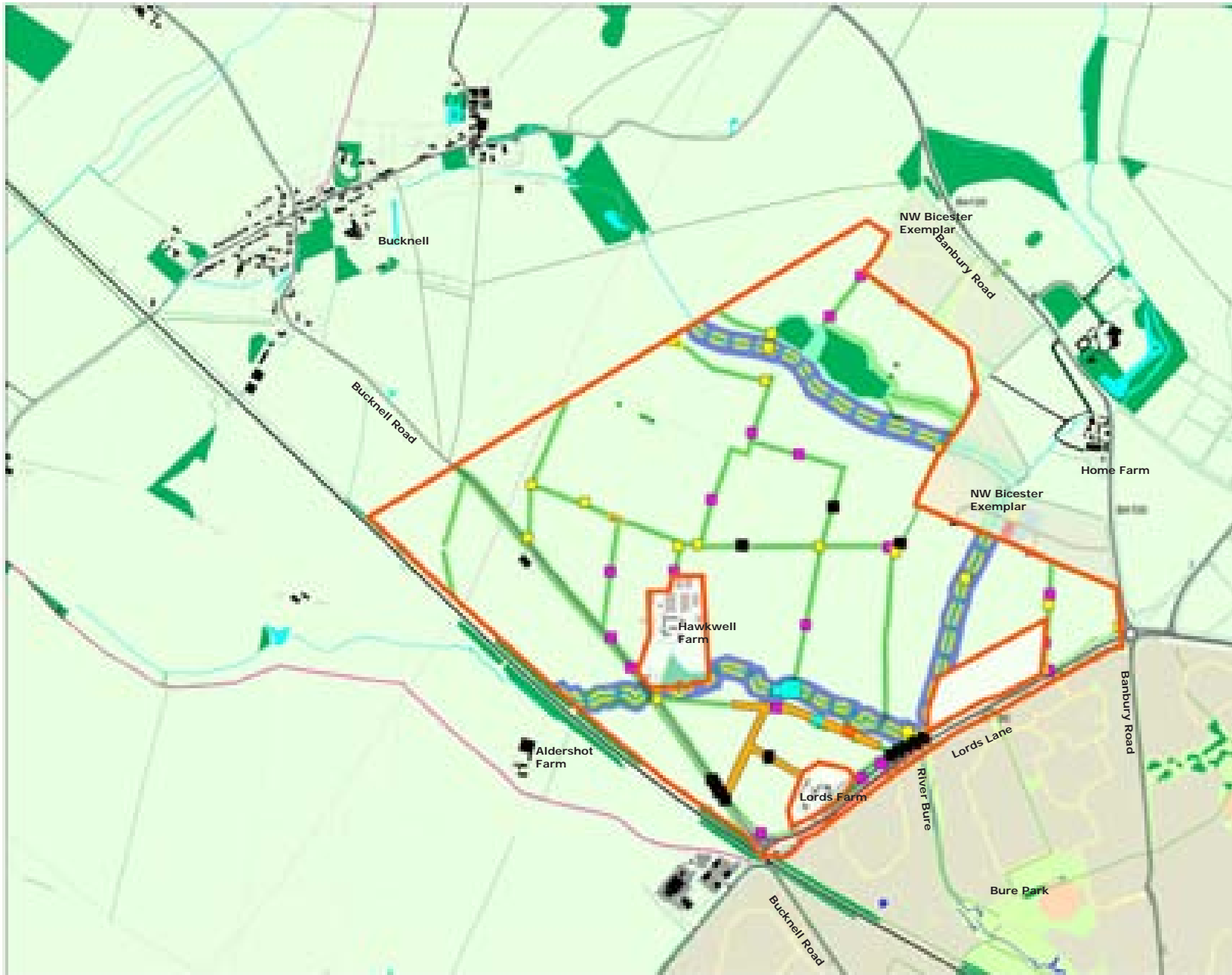


Woodland buffer design



Existing Bure stream

Please refer to the Green Infrastructure and Landscape Strategy for more detailed information regarding buffers



Key

- Planned features**
- Hedges to be removed
 - Hedges to be broken by secondary roads - location is flexible and subject to detailed design (square does not represent true scale). Hedge breaks should be minimised where possible.
 - Hedges to be broken by footpaths and cycleways - location is flexible and subject to detailed design (square does not represent true scale). Hedge breaks should be minimised where possible.
 - Approximate trees to be removed (shape does not represent true scale, removals to be sensitively minimised where possible and are subject to a full detailed survey)
 - Hedge locations to be broken by fixed location of Strategic, Primary Road and Bucknell Road. Hedge breaks should be minimised where possible. (square does not represent true scale)
- EXISTING WATERCOURSES**
with 30m buffer either side
- EXISTING BFT CORRIDOR**
with 20m buffer either side
- EXISTING HEDGEROWS**
with 10m buffer either side
- EXISTING WOODLAND**
with 10m buffer
- EXISTING PONDS**
with 50m buffer around
- EXISTING POND**
with 10m buffer around
- EXISTING BUILDINGS**
with outland
- EXISTING RAILWAY**
with 10m buffer

APPLICATION 1 NORTH OF LORDS LANE - LANDSCAPE BUFFERS

BIMPG 111C NW BICESTER APPLICATION - PARAMETER PLAN

Rev C - 25/07/14



3.2.4 Open Space Strategy

The layout responds positively to the underlying historic landscape pattern. The existing Bure streams running north- south and tributaries west- east were historic as routes to access the surrounding fields. The archaeological survey shows that this pattern has early origins and evidence of farming through the Bronze Age, Roman and Medieval periods. The existing fields running north south between streams have names such as 'long field' which suggests established use and the hedgerows follow this pattern. All of the above landscape patterns have informed the layout.

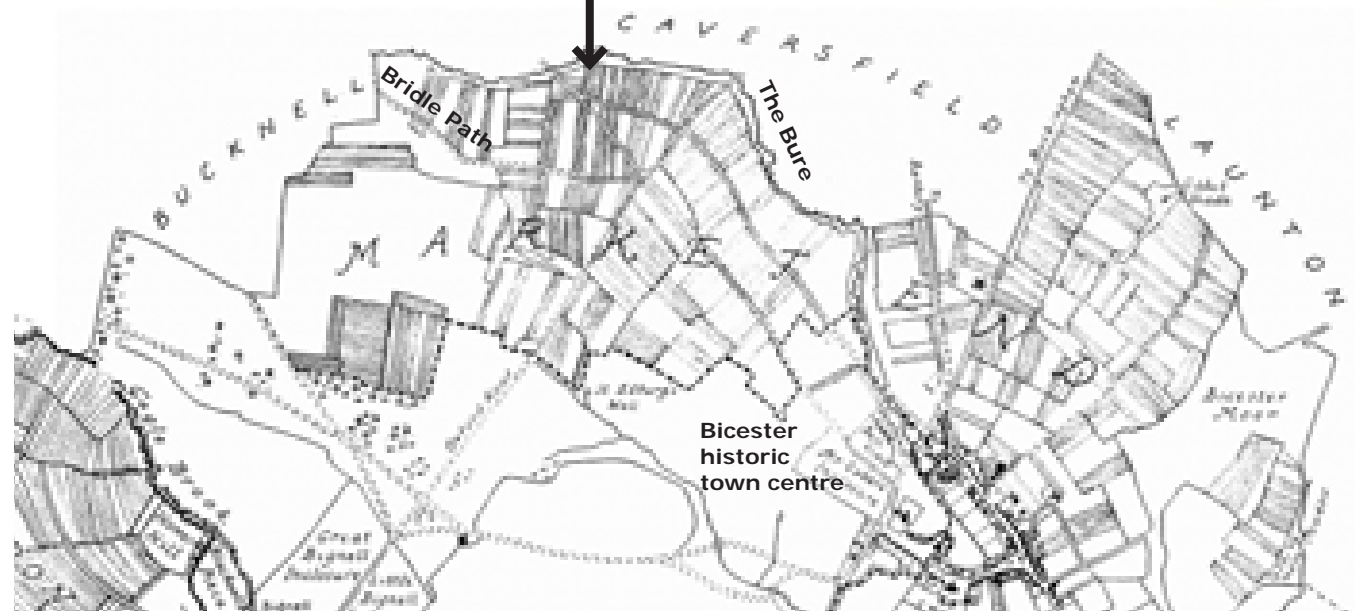
Archaeological surveys show potential evidence of ancient farming practice. The existing farms date from the 18th and 19th century and show evidence of continued settlement for farming. Existing farm buildings may have used materials from the previous age for construction.

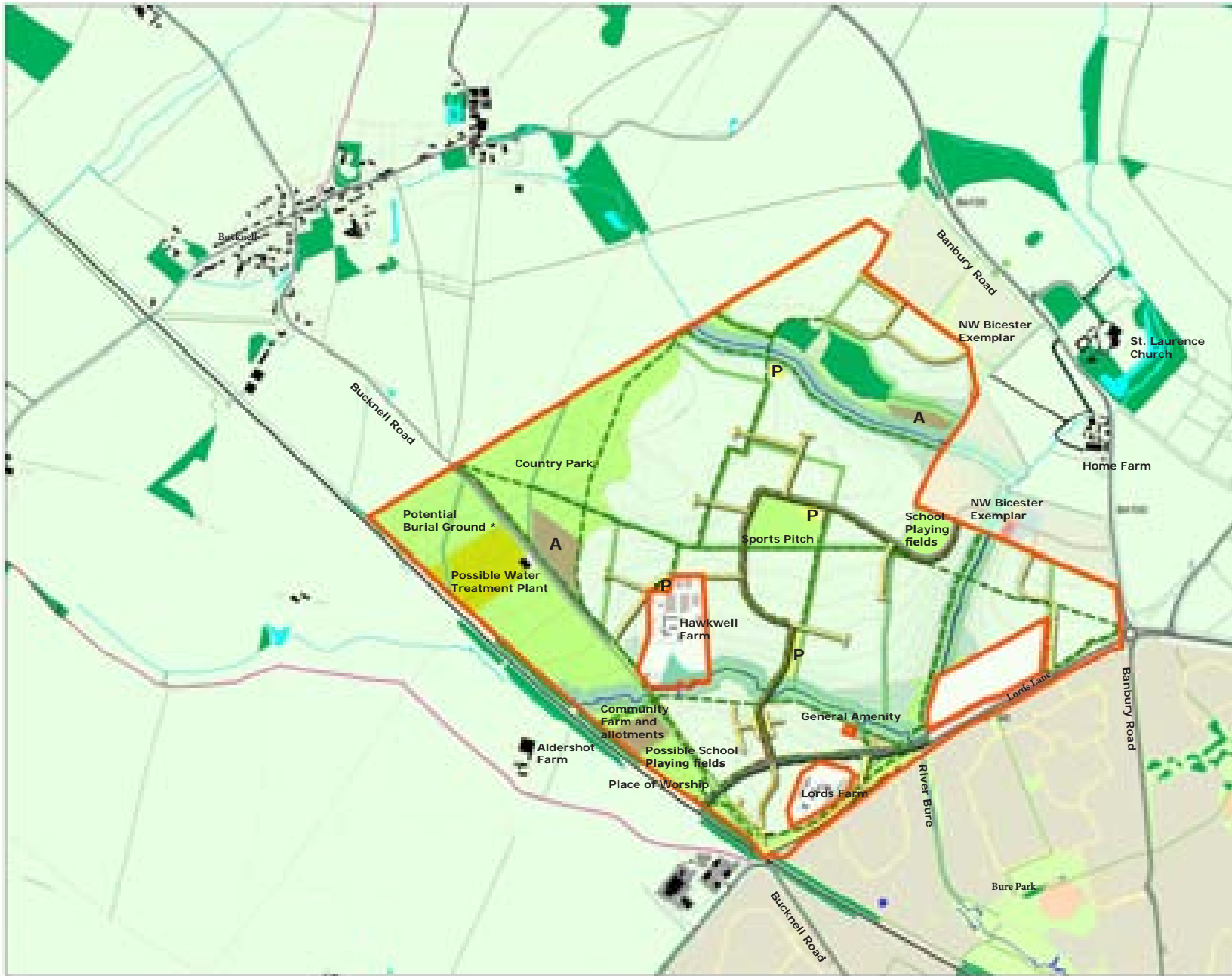
The landscape strategy will be based on the principle of retaining the narrative of the historic sequence. The stream corridors which would have acted as routes are retained, and the routes reinstated as pedestrian and cycle paths for leisure and access to the landscape. The rural countryside can be reached to the west, whilst the urban town can be reached to the east.

The stream corridors have generous landscape buffers with a minimum of 30m either side of the water course. The buffers widen to include existing woodland to the north near to Bucknell village, and increase to approximately a 100m width.

The landscape in the corridors and adjacent woodland will provide a variety of habitats and

a landscape designed to interpret the layers of historical agricultural settlements. Features found in surveys of adjacent fields would be used as inspiration for landscape design; enabling visitors and residents to understand the historic narrative.





Key

- BUCKNELL LANE SITE AREA
- Proposed NW Bicester Land Use**
 - GREEN INFRASTRUCTURE
 - EXISTING WOODLAND & WOODLANDS
 - EXISTING WATER CORRIDOR & PONDS
 - PROPOSED WOODLAND & WOODLANDS BUFFER ZONE
 - PROPOSED WATER CORRIDOR BUFFER ZONE
 - EXISTING BUSINESS (including open areas etc)
 - EXISTING FARM WOODS AND WOODLANDS (including open areas etc)
- P** PLANT
- A** ALLOTMENTS
- POSSIBLE WATER TREATMENT
- PROPOSED ATTENUATION PONDS
- PROPOSED SWALE
- EXISTING HERBAGE
- Proposed Corridor**
 - Strategic road corridor with predominantly segregated footpath and cycle route
 - Primary road corridor with predominantly segregated footpath and cycle route
 - Secondary road corridor
 - Bus only route with footpath and cycleway
- NB:** Strategic and Primary road locations are fixed whilst secondary road locations are flexible
- Boundary setbacks
- Utility paths
- POTENTIAL BURIAL GROUND -**
- subject to separate applications and consents

APPLICATION 1 NORTH OF LORDS LANE - LANDSCAPE PARAMETERS - OPEN SPACE STRATEGY
 BIMPG 108D NW BICESTER APPLICATION - PARAMETER PLAN

Rev D - 25/07/14



NW Bicester Application 1 GI habitat gains and loss areas V6_06-08-14
based on masterplan drawing BIMPS_116

	Areas in Ha			
	GI Existing	GI Lost	GI Gain	GI Total
GI existing uses and proposed buffers				
existing Arable Land	106.09	-106.09	0	0
existing Improved grassland	35.33	-35.33	0	0
existing broadleaved woodland	2.83	0	0	2.83
proposed broadleaved buffers excluding 4.5m footpath/cycle path	0	0	1.17	1.17
existing hedgerows	2.85	-0.4	0	2.45
proposed hedgerow buffers excluding 4.5m footpath/cycle path	0	0	14.2	14.2
existing ponds	0.01	0	0	0.01
proposed pond buffers	0	0	0.06	0.06
existing river corridor	1.72	0	0	1.72
proposed river corridor buffers excluding 4.5m footpath/cycle path	0	0	8.75	8.75
sub total	148.83	-141.82	24.18	31.19
% Total site area				21
GI proposed areas	GI Existing	GI Lost	GI Gain	GI Masterplan
* proposed footpath cycleway 4.5m wide in broad leaf wood buffer	0	0	0.03	0.03
* proposed footpath cycleway 4.5m wide in hedgerow buffer	0	0	1.8	1.8
* proposed footpath cycleway 4.5m wide in river corridor buffer	0	0	0.75	0.75
* proposed country park	0	0	10	10
* proposed wetland water treatment	0	0	6.08	6.08
* proposed suds	0	0	3	3
* proposed allotments	0	0	2	2
* proposed play in GI area	0	0	0.6	0.6
* potential burial ground	0	0	4	4
* proposed community farm	0	0	1	1
* proposed general amenity space - not in proposed buffers above	0	0	2.36	2.36
* proposed school playing	0	0	2.42	2.42
* proposed sports fields	0	0	1.4	1.4
Proposed play in housing	0	0	3.8	3.8
sub total	0	0	39.24	39.24
% Total site area				26
Totals	148.83	-141.82	63.42	70.43
% Total site area				47

* Note: GI proposed areas are net excluding adjacent proposed buffers listed above

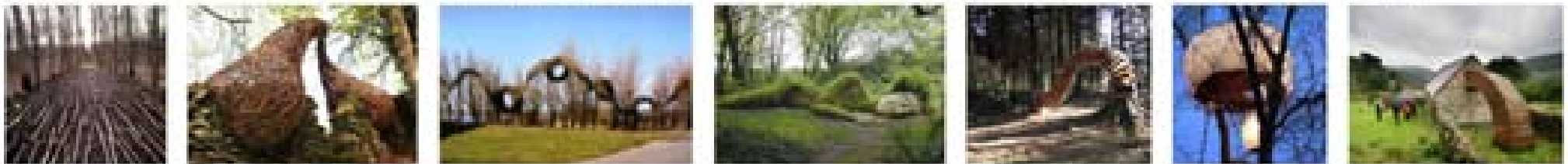
Activity - play - exercise - green gym - educate - get involved



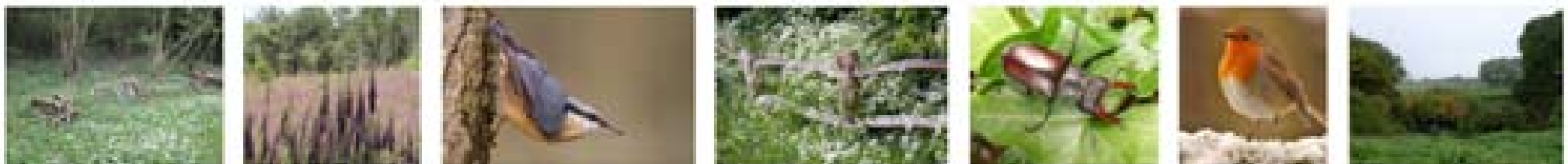
Productivity - food production - connection to agricultural landscape - water harvesting - energy production



Delight - public art - identity - connection to historic land use - legibility - entertain - educate - contemplate - surprise - engage - access to nature - inspire



Protect - biodiversity - wellbeing - views - landscape - natural surveillance - mitigate - enhance - shade - shelter



The proposed application creates a sensitive approach to the existing agricultural land use and aims to provide complimentary development and land uses that will benefit the local community as well as the visiting public.

This goes hand in hand with the open space strategy which integrates a number of key and complimentary uses within the green infrastructure. These include the following;

- A Water and Energy visitor centre, showcasing potential water treatment and the Energy Centre as well as water conservation and recycling facilities.

- A community farm facility producing organic food for the local farm shops. Residents benefit from the health and well-being aspects of the farm as well as the educational facilities.

- Junior sports pitches located in the centre of the village and linked to amenity and play space.

- Local play areas – The Green Loop and network of green spaces will support a variety of high quality accessible play areas for all ages, with an emphasis on natural play.

- The existing Bure River corridor will be preserved with a green buffer zone to protect flora and fauna. The existing and historic footpaths provides a vital pedestrian link to Bucknell, with a new connection to a pedestrian route under the railway

- The layout is informed by the topography, creating green open spaces along contours and introducing swales across the slope improving the SUDS strategy.

- new green open spaces created within the housing create improved amenity and distinctive landscape environment.

- The varied width of the perimeter to the development creates landscape green spaces which relate to proposed green corridors and topography

- Links between phases are created with lanes and footpaths that can continue into adjacent plots

- The provision of allotments and a community farm has also been integrated into the proposal to protect and enhance the existing landscape character and provide a platform for community engagement.

In terms of specific play spaces, the landscape strategy delivers:

- A formal play space in the form of a multi-use games area - this space is to be located on the village green, close to the proposed pub and within a green space framed with existing hedges to the south and east

- A semi-natural adventure play space Neighbourhood Equipped Area for Play (NEAP), suitable for junior and teenager play located within a publicly accessible landscape corridor between the central and eastern development areas. This will contain some fixed play equipment of a type which sits comfortably within a semi-natural play environment and could also incorporate natural play centered around the SUDS drainage channels.

- LEAPS and LAPS



Footpaths play ground



LEAP present image



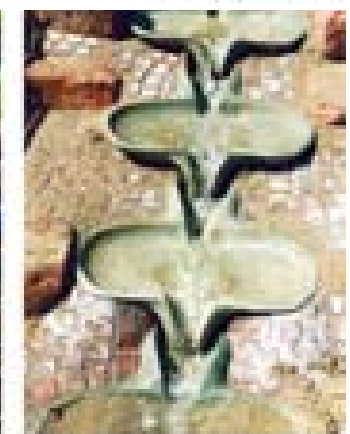
Timberplay slides



Timberplay cross walk



Forest school present image








Bure River Spontaneous Wetland Basin

Play Areas in Green Infrastructure

- Play spaces take advantage of the existing natural elements
- Play areas provide a wide range of experiences
- Play spaces meet CDC age provision requirements
- Natural play is incorporated to play experiences
- Play space allocation is in accordance with distance criteria
- Additional play areas (not shown on this plan) will be provided within housing areas, to meet required areas and distance criteria.

Proposed Key Information

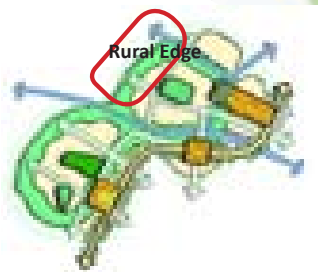
-  NEAP
Minimum size = **1000m²**
Including buffer = 8500m²
Within 15m - 1200m from homes
-  MUGA
-  LEAP
Minimum size = **400m²**
Including buffer = 3600m²
Within 5m - 400m from home
-  Sports Pitches
-  General Amenity



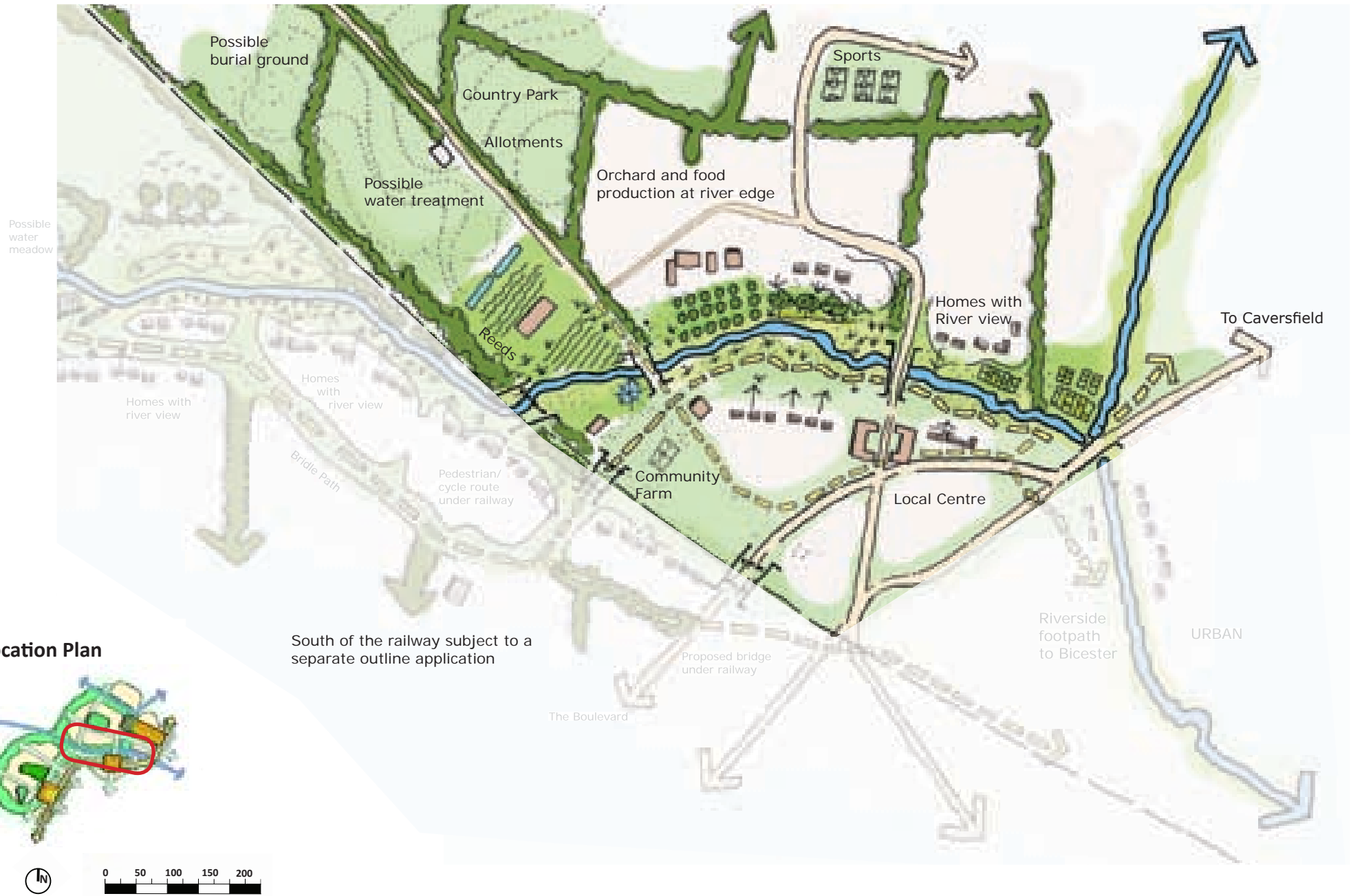
Rural Edge and its Context



Location Plan



The Bure Stream Corridor



3.2.5 SUDs

Proposed Drainage

Flood risk and topographical influence has had a major impact on the layout of the application with regards to infrastructure networks and access as well as positioning for the proposed clusters of development.

Sustainable Drainage Systems (SuDS) will be integral to the development, to ensure the surface run-off from the existing site is not increased; for the impacts of climate change for the design life of the development.

SuDS work by mimicking the natural drainage system and provide a method of surface water drainage which can decrease the quantity of water discharged, and hence reduce the risk of flooding. In addition to reducing the flood risk, these features can improve water quality and provide biodiversity and amenity benefits.

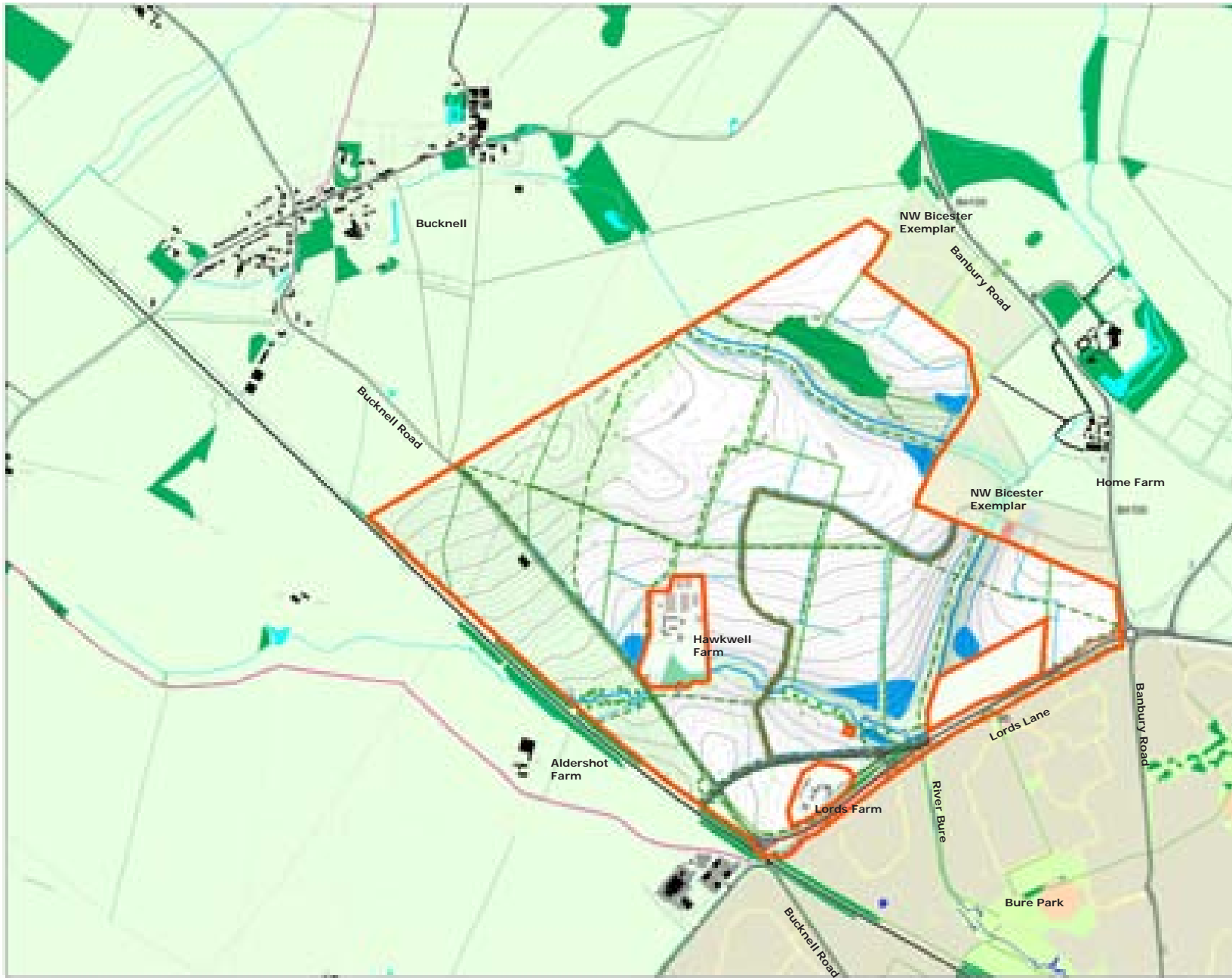
General SUDS Principles

Appropriately designed, constructed and maintained SuDS can mitigate many of the adverse effects of urban storm water run-off to the environment; through reducing runoff rates and reducing pollutant concentrations in storm water. They can also generate important habitats for wildlife in urban areas and opportunities for biodiversity enhancement as well as making a significant contribution to the enhanced amenity and aesthetic value of developed areas through the introduction of distinct visual textures and colours.

Attenuation / Conveyance Swales

Swales are linear vegetated drainage features in which surface water can be stored or conveyed. They should promote low flow velocities to allow suspended particulates in the runoff to settle out so as to potentially provide a form of pollutant removal. The channel is generally broad and shallow and covered by dense vegetation (typically grass) to slow down flows and trap particulate pollutants. A swale can have check dams or berms installed across the flow path to promote further settling. The positioning of such berms and the profiling of the swales would be carefully designed so as to integrate these features into the development landscape, making the most of the opportunity to create more permanently wet areas where relevant within the ecological mitigation strategy. In addition, consideration would be given to developing specific sections of the system of swales as informal play space in locations where this could be delivered safely. Roadside swales have the potential to replace conventional gullies and drainage pipes and, with the use of adjacent filter strips or flow spreaders, could remove the need for kerbs and gullies. Designed creatively, they present an opportunity to soften the visual impact of adjacent hard infrastructure such as roads and footpaths and can also assist in controlling vehicle and pedestrian movement through a site without having to resort to more visually prominent barriers such as fencing or bollards. The linear nature of swales means they can play a key role in achieving ecological connectivity through the site, particularly for invertebrates and amphibians, linking neighbouring key habitat areas of value.





Key

Existing Sites

- Fieldland
- Woodland
- Field boundaries
- Household inc. roads and residential play areas and private gardens + allow for some green infrastructure
- Primary School
- Site boundary
- Young woodland plantation
- Existing contours
- Existing Trees
- Existing SUDS

Existing Connectivity

- Main roads
- Secondary roads
- Foot & cycle path
- Bridle path

Existing Infrastructure

- Main Courses
- Electric Cables

Proposed SUDS

- Proposed swales
- Proposed open water
- Proposed attenuation ponds
- Proposed basins
- Bridge buffer zones - dependent on bridge quality - see 1001-1004 and 1011-1013 (Drawn 1-12)

Proposed Investment and Connectivity

- Strategic road corridor with predominantly segregated footpath and cycle route
- Primary road corridor with predominantly segregated footpath and cycle route
- Secondary road corridor
- Bus only route with footpath and cycleway

NB: Strategic and Primary road locations are fixed whilst secondary road locations are flexible

NB: Primary roads form part of the network which connects swales and attenuation ponds.

Footpath cycleway
Bridle path

APPLICATION 1 NORTH OF LORDS LANE - SUDS AND DRAINAGE
 BIMPG 1090 NW BICESTER APPLICATION - PARAMETER PLAN

Rev D - 25/07/14



3.2.6 Movement & Access

TRANSPORT

The design of the application and the provision of walking, cycling and public transport links is such that alternatives to car use are encouraged in the development. Many trips to the school, employment and local shops and services will be contained within the development as the 'local centres' are within walking distance of homes and schools.

The application will be accessed from a number of entry points. To the south, the new realigned Lords Lane strategic road, running west – east, will provide access to the development and the 'local centre'. To the east, this will connect to existing Lords Lane, giving access to the wider existing road network. From the 'Local Centre' there will also be a bus only link giving access from the south of the development, linking to the existing Bucknell Road. This will be a bus, cycle and emergency link only.

In addition, the development will also connect to the existing road network through the re-routing of Bucknell Road. Existing Bucknell Road will be terminated to the south of the entrance at Hawkwell Farm. This will be connected to a new secondary road which in turn connects to the primary road network within the development. This will discourage increased traffic numbers to pass through the village of Bucknell.

The whole of the development once accessed from the main road network will be designed to a speed of 20-30mph, with appropriate alignment to maintain low vehicle speeds. The 'boulevard' will be a 30mph speed limit zone. The central primary road will provide access

to the development from both the linking road which runs through the NW Bicester Exemplar site from Banbury Road and from the new strategic road.

In the centre of the development, the primary road will be the spine road to five secondary link roads which travel deeper into the central residential areas. A further network of tertiary roads will provide residential access to the extremities of the plan and rural edge. The strategic and primary road locations as shown, are fixed, whilst the secondary and tertiary route network and the footpaths and cycle ways can have some flexibility to meet localise constraints.

Tertiary roads will be more like a lane in character with passing places to discourage through trips and short journeys from houses to the village centre, putting an emphasis on the use of the direct cycle and pedestrian links.

The development is based on a permeable network of low traffic routes which will have priority for pedestrians and cyclists by virtue of speed, surfacing and layout. There are also a number of pedestrian/ cyclist only links proposed to provide direct connections leading to key destinations and open spaces and with a direct alignment to the school and 'local centre' to the south. Pedestrian routes will be surfaced and lit with directional and distance signing.

The primary spine road will form a bus route through the development, giving access to homes within 400 meters walking distance. Bus stops are proposed in the 'local centre' and in the northern residential area.



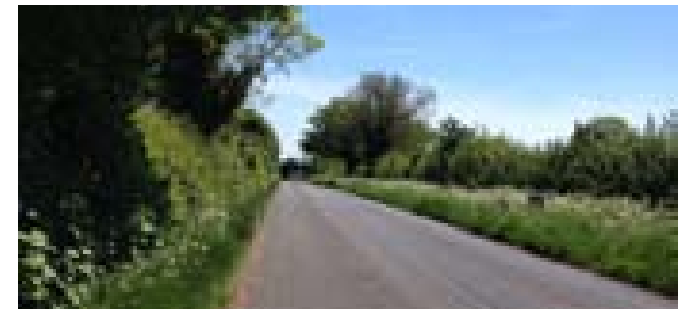
Howes Lane looking toward Lords Lane



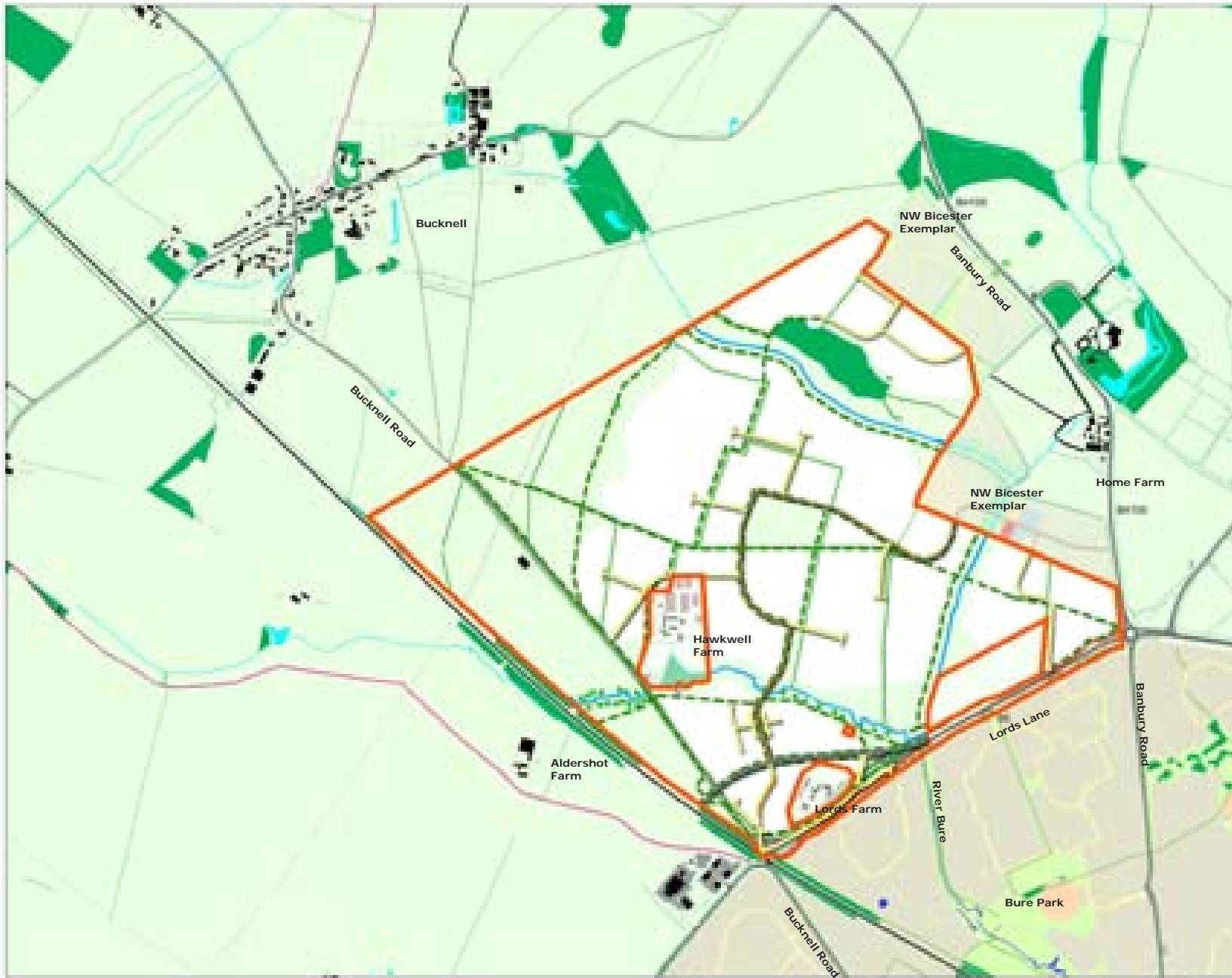
Existing roundabout on Lords Lane



Existing Lords Lane



Bucknell Road, looking south east



Key

- Existing Uses**
- Farmland
 - Woodland
 - Field boundaries
 - Housing (inc. roads and residential play space and private gardens + allows for some green infrastructure)
 - Primary Schools
 - Site boundary
 - Young woodland plantation
 - Scattered Trees
 - Scattered Scrub
- Existing Connectivity**
- Main roads
 - Secondary roads
 - Foot & cycle path
 - Bridle path
- Existing Infrastructure**
- Water Courses
 - Electric Cables
- Proposed movement and connectivity**
- Strategic road corridor with predominantly segregated footpath and cycle route
 - Primary road corridor with predominantly segregated footpath and cycle route
 - Secondary road corridor
 - Footpath/cycleways
 - Bridle path
 - Bus only route with footpath and cycleway
- NB: Strategic and Primary road locations are fixed whilst secondary road locations are flexible

APPLICATION 1 NORTH OF LORDS LANE - MOVEMENT AND ACCESS
 BIMPG 110C NW BICESTER APPLICATION - PARAMETER PLAN

Rev C - 25/07/14



ACCESS

A vehicular access strategy has been developed with the following key considerations:

- Meet OCC policy aspirations to increase the capacity of the Howes Lane/ Lord's Lane junctions and links, recognising the strategic importance of the corridor for movements on the north west of the town;
- The need to integrate NW Bicester into the town and thus to minimise the barrier presented by new road links to the development and ensure they can be easily crossed by walkers and cyclists;
- Addressing the constraints presented by the existing Howes Lane/ Lord's Lane corridor and in particular the rural lane character of Howes Lane and the skewed underpass of the railway with the junctions on either side;
- Minimise impacts of traffic in nearby existing residential areas and communities.

The access strategy should achieve the right balance between access to achieve local integration and cohesive communities along with wider access objectives. Urbanising the existing ring road for housing development on the west side of Bicester is an objective of the local plan which has to be combined with an improved strategic network on the east side providing accessibility for employment areas and the wider network. This is a key issue to be tackled in the wider Bicester masterplan to allow the application to integrate with existing Bicester with improved crossings and a safe pedestrian

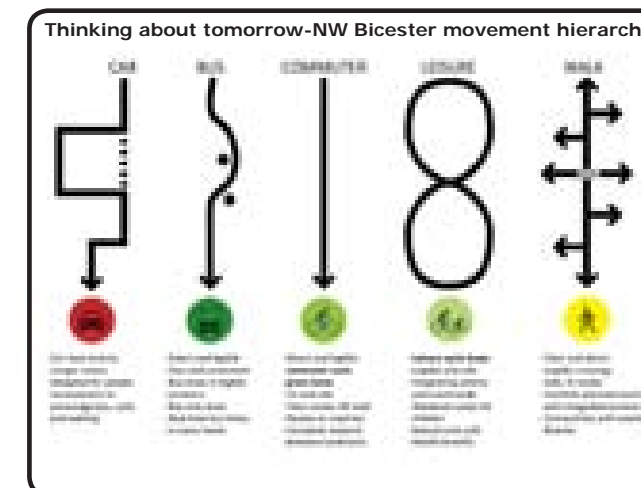
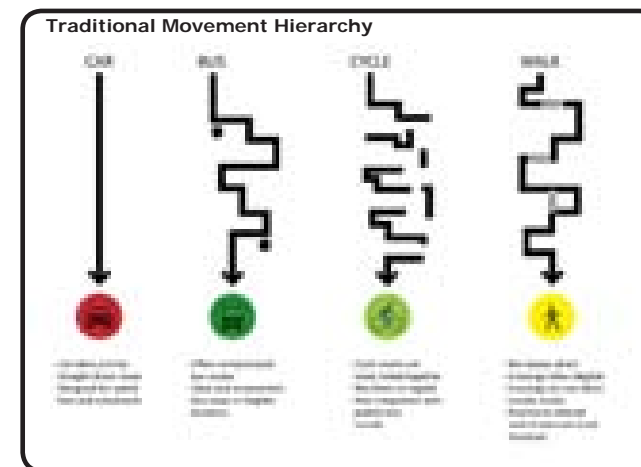
and cycle environment.

The preferred approach is to work with the existing roads and rather than create a new outer ring road, to urbanise the existing ring road by locating access to the new housing, schools, retail, community and commercial activity on the new realigned road. The junction with existing Howes Lane and Lords Lane and the railway crossing will be improved, with the balance of opportunity to improve connections between the existing town and extended settlement weighed. This detailed design is subject to a separate application.

The application proposes a bus loop for new access which offers a service which can be integrated with the existing town which also operates loops either side of the railway in the existing residential areas. A proposed integrated bus service layout is therefore possible with improved links to the town centre and railway stations. The railway has always been a barrier, however the two areas of land either side of the railway line will now be connected by a new tunnel underneath the railway for the proposed boulevard, as well as a pedestrian and cycle tunnel further north, close to the community farm and potential water treatment plant.

Modal shift to public transport, cycling and foot will be encouraged in the layout, however car use will continue and successful urban places require the car to be integrated into settlements rather than separated. Pedestrian only placemaking will not be as successful as mixed mode access. Bus only routes are challenging because routes designed for buses are the same spec and cost as for cars and control is an issue. The best urban and rural places are mixed mode

integrated access where the strong presence of pedestrians, residents and workers provides natural surveillance and places a responsibility on all access users to reduce speed and share spaces.



BIMP6 03 rev A
 NW Bicester Masterplan - Movement and Access Framework



3.2.7 Framework Plan

The framework plan proposes an integrated land use for development with the green infrastructure with a mix of uses which include:

- Residential
- Local convenience retail
- Leisure retail
- Business and employment
- Education
- Social and community
- 'Extra Care' residential facility

Land use layout with residential and mixed uses:

- The residential land use will provide approximately **2600 homes**

- A range of densities is proposed - averaging from 20 units per hectare up to 50 units per hectare with higher densities in closer relationship to the Local Centre and to public transport infrastructure. This is supporting modal travel shift away from private cars to more sustainable methods of transport.

- The Local Centre will comprise a community centre, a primary school, a convenience store and local shops such as take away restaurants and a grocery store etc.

- A business centre.

- 'Extra Care' apartments for the elderly - with amenities available to residents and the public including hairdressers, cafe, shops.

- An Energy centre providing true zero carbon

The landscape framework provides:

- 40% green infrastructure with a minimum of 20% public space.

- Sports pitches and general amenity space including play, parks and allotments

- A 'Community Farm', potential burial ground and place of worship.

- A 'Country Park', natural areas and wetland creating habitats adjacent to peripheral farmland.

- New habitats will be created with enriched grassland adjacent to existing hedges and woodlands, to achieve gains in biodiversity through green buffers within development areas

- A potential water treatment centre providing sustainable water solutions.

- A 'Green Loop' and 'network of linked green spaces' allows for a generous proportion of public amenity space.

- Allotments are a key part of this rural amenity and are strategically placed to be accessible to everyone, with strong links to the proposed Community Farm.

The access framework provides:

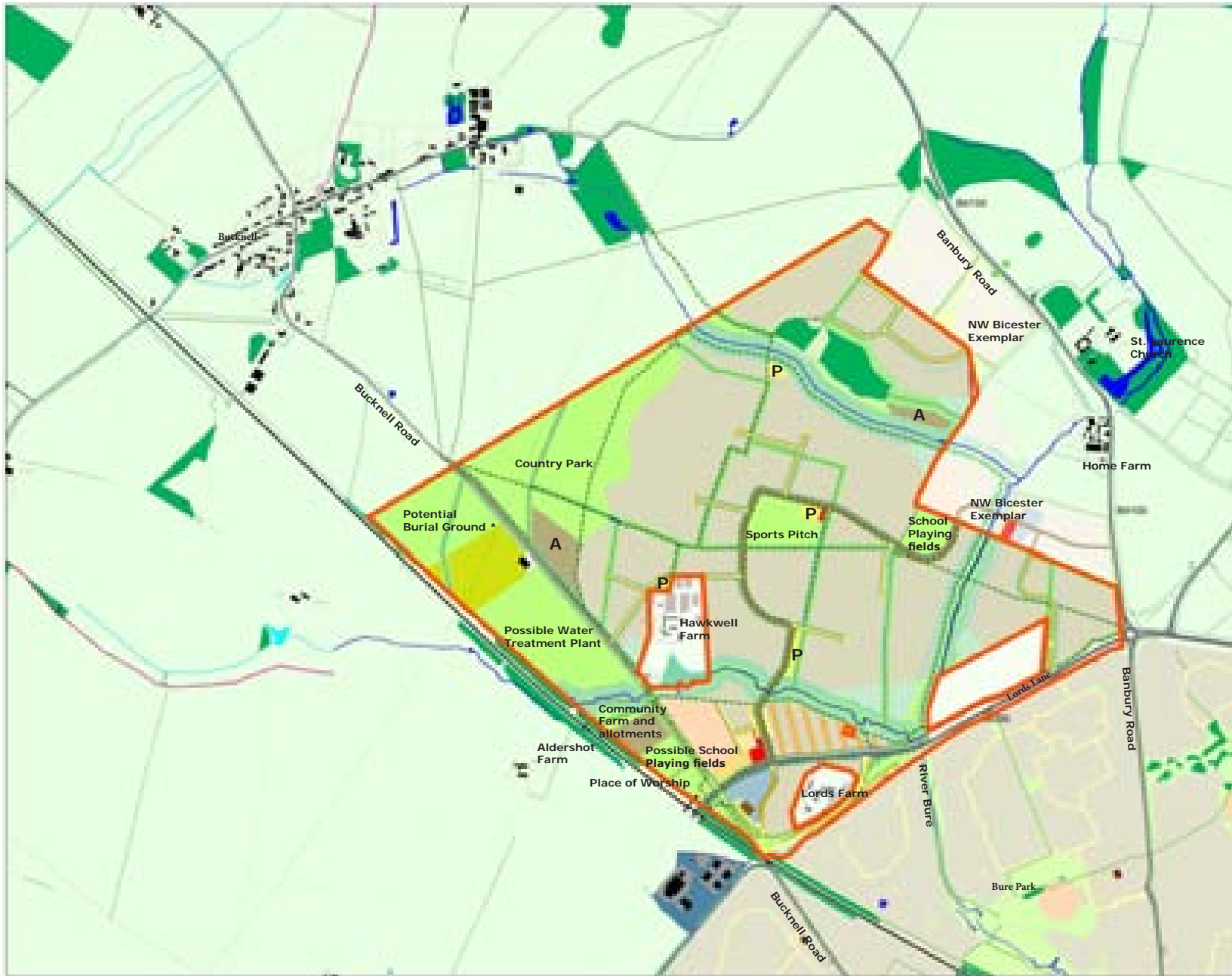
- The proposed strategic road realignment of Lords Lane and a new crossing under the railway. This will be a tree lined route with segregated pedestrian and cycle routes.

- A primary road loop which connects to the spine road in the Exemplar and to the realigned Lords Lane. This is supported by secondary road loops which create a network with the addition

of tertiary links into housing areas.

- Bus only links to key destinations, Bicester Town Centre and the existing train stations of Bicester North and Bicester Town. With sustainable transport a priority, the network of dedicated 'bus only routes' has been established to discourage car use and create direct and fast links to Bicester Town Centre and train stations.

- Segregated footpath and cycle paths creating connections across the development, to the town centre and via a footbridge and a cycle path under the railway. In addition, direct, well lit and safe 'every day' cycling routes between schools, local centres, hubs and gateways supports the sustainable transport infrastructure. And as a contrast to the direct walking and cycling routes, 'leisure' walking and cycle routes will take a more meandering route, taking in more of the green infrastructure, rural context and providing access to the countryside through links to existing public footpaths.



Key

Existing Conditions

- Main road
- Secondary road
- Foot & cycle path
- Water course

Existing Infrastructure

- Water course

Proposed Infrastructure

- Proposed road corridor
- Proposed water corridor & bridge
- Proposed water corridor & attenuation pond
- Proposed water corridor & attenuation pond
- Proposed water corridor & attenuation pond
- Proposed water corridor & attenuation pond
- Proposed water corridor & attenuation pond

POSSIBLE WATER TREATMENT

- Commercial / business
- Local community
- Other users
- P
- A
- Water course

ATTENUATION PONDS

- Retention ponds

Potential Burial Ground *

- subject to separate applications and consents
- Strategic road corridor with predominantly segregated footpath and cycle route
- Primary road corridor with predominantly segregated footpath and cycle route
- Secondary road corridor
- bus only route with footpath and cycleway

NB: Strategic and Primary road locations are fixed whilst secondary road locations are flexible

APPLICATION 1 NORTH OF LORDS LANE - APPLICATION FRAMEWORK PLAN
 BIMP6 1160 NW BICESTER APPLICATION - PARAMETER PLAN

3.3 Use

Proposed Uses

The proposed development will be a true mixed use scheme with a mix of uses located in and around the new 'local centre'. Proposed uses will include the following;

- A two form entry primary school expandable to three form entry with associated playing fields.
- An extended site for the exemplar primary school to increase to two form entry.
- A place of worship.
- A local convenience store.
- 4-6 small local shops – these could include takeaway restaurants, a drycleaners, a butchers or a bakers etc.
- The possibility for a café or restaurant as well as a proposed pub on the village green.
- Workshops or light industrial units sub-divided into spaces ranging in size
- Multiple occupancy offices, sub-divided into units
- Space for local business, for example a dentist, sub-divided into units ranging in size
- A large community hall and community rooms for neighbourhood police, early intervention centre, adult learning and a visitor centre.
- A nursery on the boulevard with associated green space
- An Energy Centre

Approx 70 hectares of Green infrastructure will include:

- Around 4.5 hectares of play space, NEAPS, LEAPS and LAPS including play within the housing.
- A place of worship with a landscape space of 0.5 hectares
- A village green in the centre of the development, providing around 1.4 hectares of amenity space to include a junior sports pitch.
- A network of allotments throughout the development totaling approximately 2 hectares in total.
- A community farm, for the growing of organic vegetable, of around 1 hectare.
- Around 4 hectares of much needed potential burial ground
- A 10 hectare country park providing space for walking, playing, dog walking, nature, habitats and relaxation.
- Approximately 6 hectares of potential water treatment infrastructure including reed beds
- Approximately 38.2 hectares of general amenity space. This includes SuDS, woodland, hedgerows, grassland, foot & cycle paths.
- 2.4 hectares of school playing fields

3.4 Amount



Proposed NW Biester Land Use

- GREEN INFRASTRUCTURE
- EXISTING WOODLANDS & HEDGEROWS
- EXISTING WATER CORRIDOR & PONDS
- PROPOSED WOODLANDS & HEDGEROWS BUFFER ZONE
- PROPOSED WATER CORRIDOR BUFFER ZONE
- HOUSING (INC. ROADS AND RESIDENTIAL PLAY SPACE AND PRIVATE GARDENS + ALLOWS FOR SOME GREEN INFRASTRUCTURE)
- PRIMARY SCHOOL (including green space too)
- PLAY
- ALLOTMENTS
- EXISTING FARM MIXED USE
- COMMERCIAL / BUSINESS
- SOCIAL / COMMUNITY
- RETAIL / LEISURE
- CARE HOME / HOTEL / OTHER
- EXTRA CARE HOUSING
- ENERGY CENTRE
- WATER TREATMENT
- PROPOSED DETENTION BASINS AND ATTENUATION PONDS
- PROPOSED SWALES



Land Use	inc. ^a	inc. ^a	hectares	% proposed development	Notes	Units	GSA m ²	GSA m ²	NSA m ²
Housing			44.87			2800			
Housing extra care			2.5			250			
Total Housing			44.87	40%		3050			
Green Infrastructure			68.01						
*excludes GI primary schools		2.42							
Total Green Infrastructure (including *)			68.01	68%	% ex schls				
Total Green Infrastructure (including *)			70.43	67%	% inc schls				
All business in hub eg dentist			0.04				396	360	288
B1 Commercial business			0.5				3850	3500	2800
B2 Commercial business			0.29				874.05	885.5	708.4
Total Commercial / Business (incl existing Authority)			0.77				5220.05	4745.5	3796.4
Nursery			0.1				550	500	350
Large Community hall on two floors			0.221				1897.825	1770.75	889.525
1 adult learning rooms			0.0125				68.25	57.5	48.25
2 neighbourhood police rooms			0.0185				300.75	92.5	64.75
1 early intervention centre storage rooms			0.0045				34.75	22.5	15.75
visitor centre rooms			0.115				682.5	575	482.5
Total social / Community			0.4795				3779.075	2518.25	1762.775
Retail and restaurant			0.25				1175	1250	1000
Total Retail/Leisure			0.25				1175	1250	1000
Care Home / Hotel			0						
Energy Production			0.2				440	400	320
Existing uses			0						
Proposed Infrastructure/Roads			0.22						
Proposed Primary School two form entry			1.47						
proposed primary school green infrastructure ^a		0.75		3.22	2 form				
Proposed additional playing fields ^a		0.79							
Total Primary School site			3.01		3 form				
Added site area for exemplar primary school ^a		0.88			2 form	1.34	3.22	inc total inc exemplar	
^a total green infrastructure primary schools		2.42						% (inc) OCC	
Total Primary Schools			3.89						
TOTAL Proposed development i			148.83						
^a existing highway Bucknell Road and Lords Lane			1.99						
TOTAL RPD LAND including existing above			150.82						

^a Note: exclude & include columns used if required so land areas are not counted twice.
Refers to masterplan BMAPS 116 land use, green infrastructure and Building areas schedules
Gross & net building areas subject to further detail and refer to employment strategy areas
Site area and use excludes Malins retained farms

3.5 Character Scale Density & Heights

3.5.1 Character Scale & Density

Proposed density in the context of existing Bicester

Excluding green infrastructure, the application housing area will have an average density of approximately 35 units per hectare with a range of densities from 20 units per hectare on the perimeter going up to 50 units per hectare in closer relationship to the 'local centre' and following public transport infrastructure along the boulevard and primary route. The average density is comparable to existing housing in surrounding areas in Bicester of around 30 units per hectare

Lower density housing character area

The housing character in the lower density areas is a mix of 2-3 storey detached, semi detached and short terrace house types predominantly perimeter facing to green lanes and wider open green spaces with a smaller number of street facing house types. The lower density character areas provide larger areas of green open space within the housing, creating either central spaces or open edges to fields and hedgerows and incorporates suds, natural play, allotments, amenity and habitats.

Medium density housing character area

The housing character in medium density area is a mix of 2-3 storey detached, semi detached and short terrace house type predominantly street facing house types with a smaller number of perimeter facing houses. The housing plots are sized to allow the creation of a sense of

place with either detached, semi or short terraces of houses or flats, providing an urban sense of enclosure fronting the spaces.

The plot size creates a flexible layout for a mix of houses in one block and a variety of solutions for car parking: rear parking in mews housing courtyards and discrete areas of frontage parking on street and in garages, avoiding rear court parking where possible.

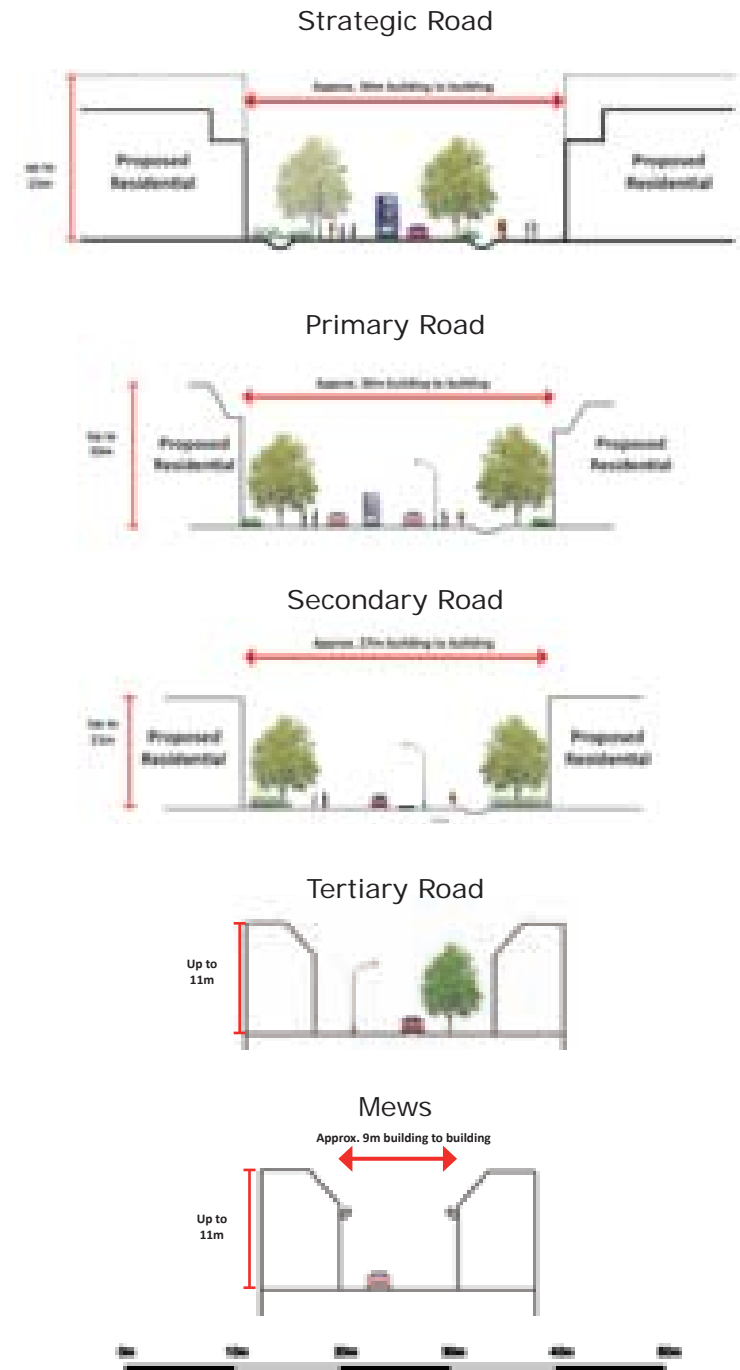
Higher density housing character area

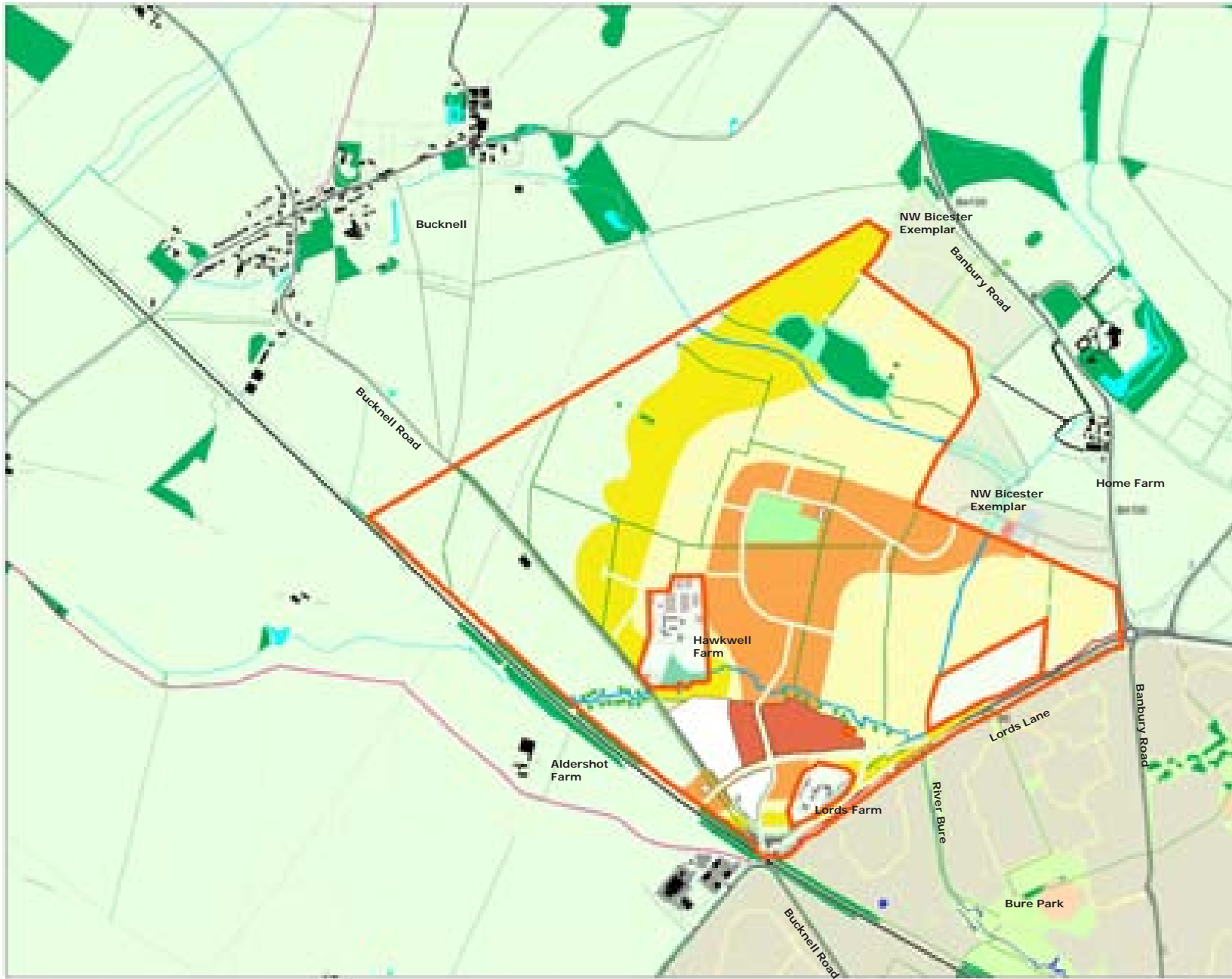
The housing character in higher density area is a mix of 3- 4 storey semi detached and short terrace house and 3-5 storey flats predominantly street facing houses with a smaller number of perimeter facing homes.

The 'local centre' and boulevard provides the opportunity for higher densities to create an urban scale with amenities in mixed use with flats in street fronting four to five storey buildings.

Street character

A hierarchy of street character and access creates a gradual hierarchy of street width, frontage, building scale and landscape detail to establish the primary road, secondary access streets, lanes fronting the wider green open spaces and a loose network of tertiary perimeter green lanes, and short cul-de-sacs linked by paths. The layout gradually changes from an urban to rural scale and character- from south to north.





Key

- Existing Uses**
 - Farmland
 - Woodland
 - Field boundaries
 - Housing (inc. roads and residential play space and private gardens + allows for some green infrastructure)
 - Primary Schools
 - Site boundary
 - Young woodland plantation
 - Scattered Trees
 - Scattered Scrub
- Existing Connectivity**
 - Map roads
 - Secondary roads
 - Foot & cycle path
 - Bridle path
- Existing Infrastructure**
 - Water Courses
 - Electric Cables
- Proposed housing character and density**
 - Mixed use - density outside of specified ranges
 - Medium to High = 40- 50 homes/ ha
 - Medium = 30- 40 homes/ ha
 - Medium to Low = 20- 30 homes/ ha

APPLICATION 1 NORTH OF LORDS LANE - HOUSING CHARACTER AND DENSITY
 BIMPG 112E NW BICESTER APPLICATION - SUPPORTING PLAN

Rev E - 06/08/14



Housing Layout

The housing layout is based upon the existing framework of green spaces and hedges and is characterised by a hierarchy of streets and lanes creating distinctive characters and a clear spatial framework.

- A loose network of secondary, tertiary streets lanes and paths to create connected neighbourhoods with housing fronting both sides of the street.

- Tertiary streets link together to create either dual frontage streets or short cul-de-sacs linked by pedestrian cycle routes.

- Housing fronts onto perimeter green streets from tertiary lanes, which have a limited number of homes, to reduce scale. They are linked by pedestrian and cycle paths.

- Housing fronts onto primary streets by using tertiary lanes with a limited number of homes linked by pedestrian cycle paths.

- Mews courts accommodate some rear parking; however mews have homes above garages to provide natural surveillance.

- Block sizes are flexible to provide a mix of homes, however a range of sizes from 50-80m to 80-120m have been studied to provide a balance of connectivity, layout flexibility and efficiency.

- Block layouts are ideally shaped with longer dimension west-east to provide a higher ratio of frontage with eaves on the south elevation rather than gables on the west-east, to maximise the effective roof area for solar PV.

- Streets and networks of paths should aim to

create a predominantly north-south network orientation with variation as well as a 15degree angle to allow effective roof area for solar PV.

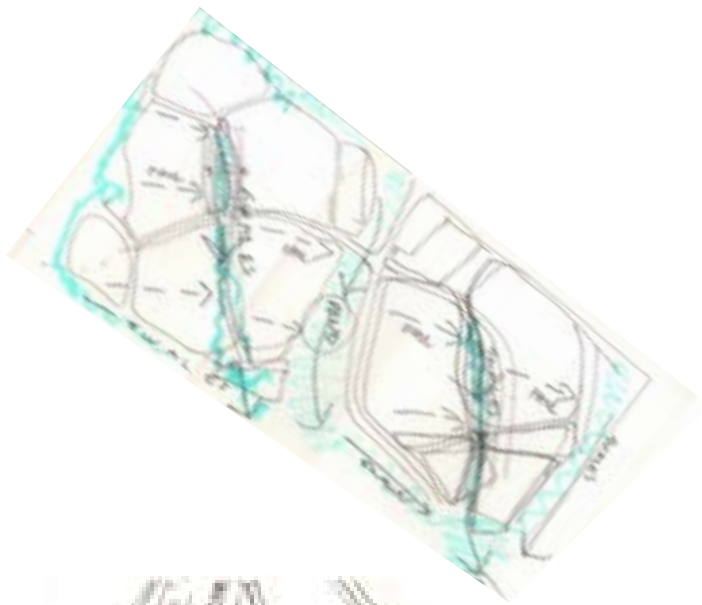
- Block layouts and street networks that fit into a field pattern that is not north-south orientation need to create a core area of north-south network connections. This is to maximise effective roof area for solar PV and then use a range of edge solutions accommodate perimeter houses and green space.

- Layouts take into account slopes and topography with a SuDS drainage strategy to use streets and lanes in the direction of the slope as conveyance swale. Green perimeter or central breaks between blocks act as collection swales.

- The varied combination of slopes and green spaces introduced as swales, curved streets to accommodate either of the above, or orientation of solar PV or perimeter hedgerows provide many variations of spaces within a reasonable framework principle.

- Fragmentation of block edges on the perimeter, varied field boundaries and specific topographic or physical features such as groups of trees or streams is actively encouraged, provided that the core principles of layout are met.





Housing Study Area:
25 units/ha



Housing Study Area:
35 units/ha



NW Bicester Masterplan - Exemplar

Cambourne, Cambridgeshire



Hampstead Garden Suburb, North London



Typical Low Density Layout Studies: 20 units/ha



NW Bicester Exemplar



Tomorrows Garden City, Letchworth



Typical Mid- Low Density Layout Studies: 30 units/ha



Poundbury, Dorset



Accordia, Cambridgeshire



Typical Mid Density Layout Studies: 35units/ha



NW Bicester Exemplar



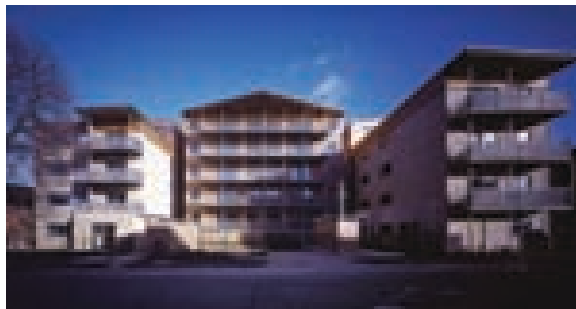
Hammarby, Sweden



Accordia, Cambridge



Oxford



Typical Mid-High Density Layout Studies: 35 units/ha



Typical High Density Layout Studies: 50 units/ha



3.5.2 Building Heights

The application site is subject to a range building heights within the building heights strategy; these have been categorised into 3 height ranges, to ensure that varying heights are specific and appropriate to their location. The categories are as follows and are illustrated by the diagrams to the right which shows the range of building types that could fit the category;

- Low/medium - up to 3 stories with a minimum height of 4m and a maximum height of 11m AOD.

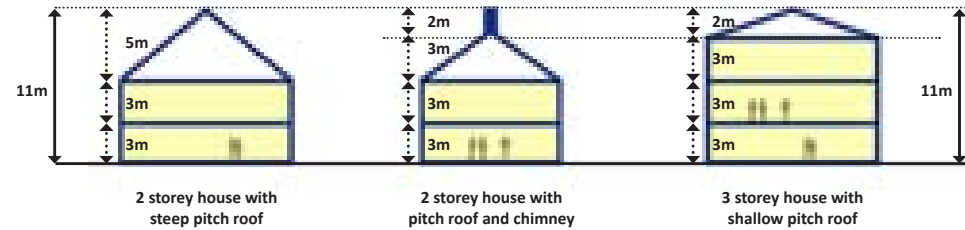
- Medium - up to 4 stories with a minimum height of 4m and a maximum height of 15m AOD

- Medium/high - up to 6 stories with a minimum height of 4m and a maximum height of 20m AOD

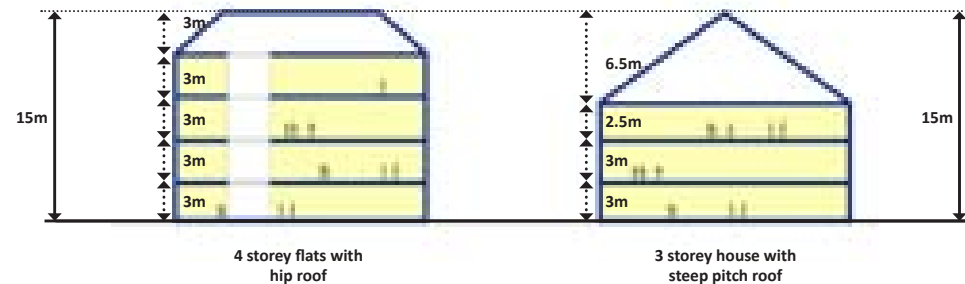
The pattern of height follows the strategic road with medium height buildings flanking the proposed boulevard and Lord Lane. The tallest height range is reserved for the high density cluster around 'the cross' local centre. This area of height includes the local centre itself with residential accommodation over retail, community etc as well as the proposed extra care housing to the east, which will make up amongst the tallest buildings in the application.

The remainder of the application site, largely north and east of the Bure stream is more sensitive and in closer proximity to the rural context and streams, hence this is categorised with the lowest height criteria. In addition, as the land rises to the north and toward Bucknell village, the visual impact of the development is lessened by placing all of the taller buildings on the lowest lying land, closest to existing Bicester to maintain long views.

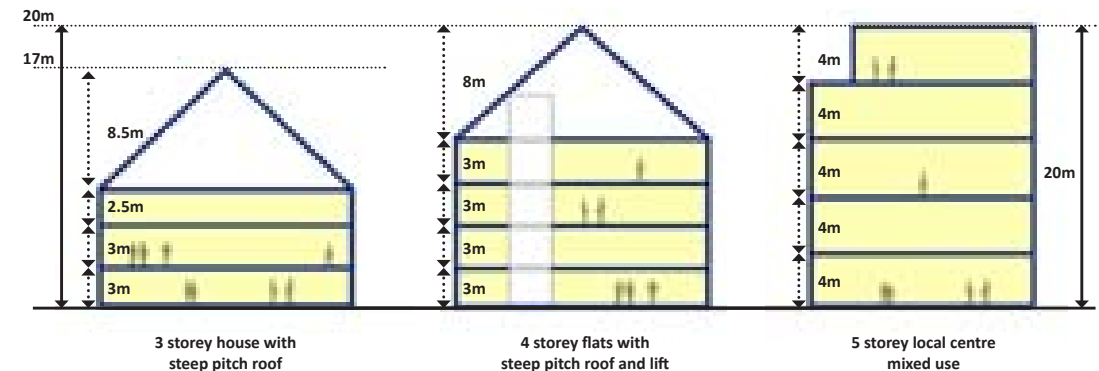
3 Stories up to 11m

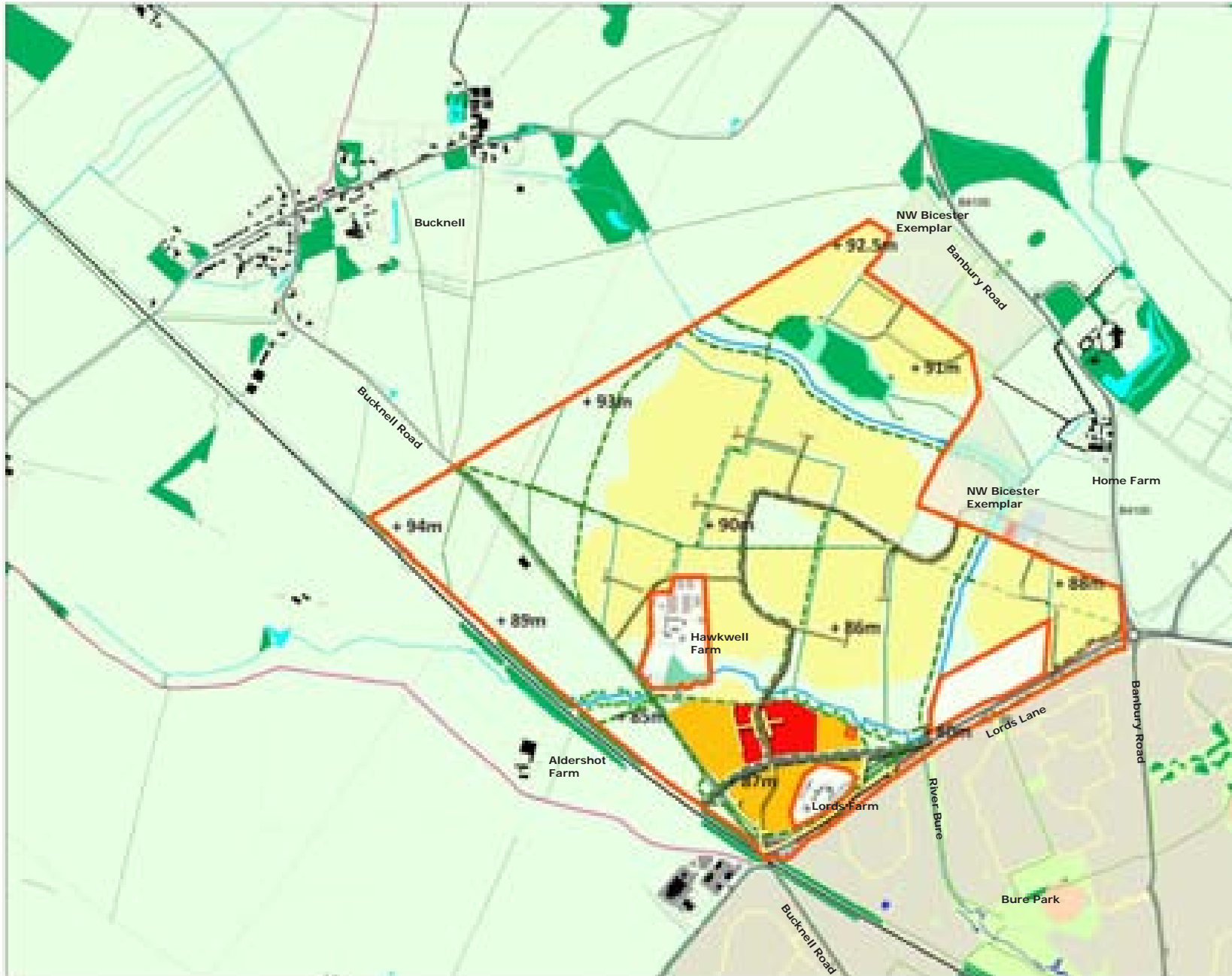


3-4 Stories up to 15m



4-6 Stories up to 20m





Key

- Existing Uses**
- Farmland
 - Woodland
 - Field boundaries
 - Housing (inc. roads and residential play space and private gardens + allows for some green infrastructure)
- Site boundary**
- Site boundary
 - Young woodland planter
 - Scattered Trees
 - Scattered Scrub
- Existing Connectivity**
- Main roads
 - Secondary roads
 - Foot & cycle path
 - Brick path
- Existing Infrastructure**
- Water Courses
 - Electric Cables
- Proposed**
- Strategic road corridor with predominantly segregated footpath and cycle route
 - Primary road corridor with predominantly segregated footpath and cycle route
 - Secondary road corridor
 - bus only route with rootpath and cycleway
- NB: Strategic and Primary road locations are fixed whilst secondary road locations are flexible
- Minimum height 8m
Maximum height 12m
 - Minimum height 8m
Maximum height 15m
 - Minimum height 4m
Maximum height 10m
- NB: All proposed heights are indicated in meters AOD (above ordnance datum)
- + 91m Proposed ground level spot heights
- All proposed heights are in meters above proposed ground level. Proposed ground levels are indicated in meters above ordnance datum AOD

APPLICATION 1 NORTH OF LORDS LANE - BUILDING HEIGHTS

BIMP6 113C NW BICESTER APPLICATION - PARAMETER PLAN

Rev C - 25/07/14



3.6 Design

3.6.1 The Local Centre

LOCAL CENTRE LAYOUT AND APPEARANCE

"The Cross" - is an important new place as a fulcrum which brings together the Urban Boulevard to the West and the Lords Lane to the East, as well as connecting Bucknell Road with the application site and onwards to Bicester.

"The Cross" will be a key connection between the site and Bicester town centre with bus stops, and traffic signal controlled crossings for pedestrians and cyclists. The 3-4 storey high street buildings at "The Cross" will support flats; above lively mixed use street frontages including local convenience shops, small businesses, community centre, nursery, extra care housing, hairdressers, cafe/bar and gym.

Visitor, training and education centres will be located near "The Cross" to showcase the unique credentials of the eco development close to pedestrian, cycle and bus links from the existing town and connections to the development.

'The Cross' will provide the focal points for the community. The location of this local centre is influenced by several factors;

- The number and location of residents and children requiring school and community provision.
- The proximity of new residential population to existing community and amenities; to generate footfall for viable

commercial uses.

- The proposed layouts for up to 2600 homes will support a viable hub.
- The 'local centre' is located towards the middle of the housing areas, creating shorter walking distances to proposed housing to assist containment of travel.
- Close proximity to the existing residents of Bicester, which assists social cohesion with existing housing and increasing footfall to assist viability of local convenience retail. Any increased walking distance to proposed housing would have to be offset by convenient public transport network

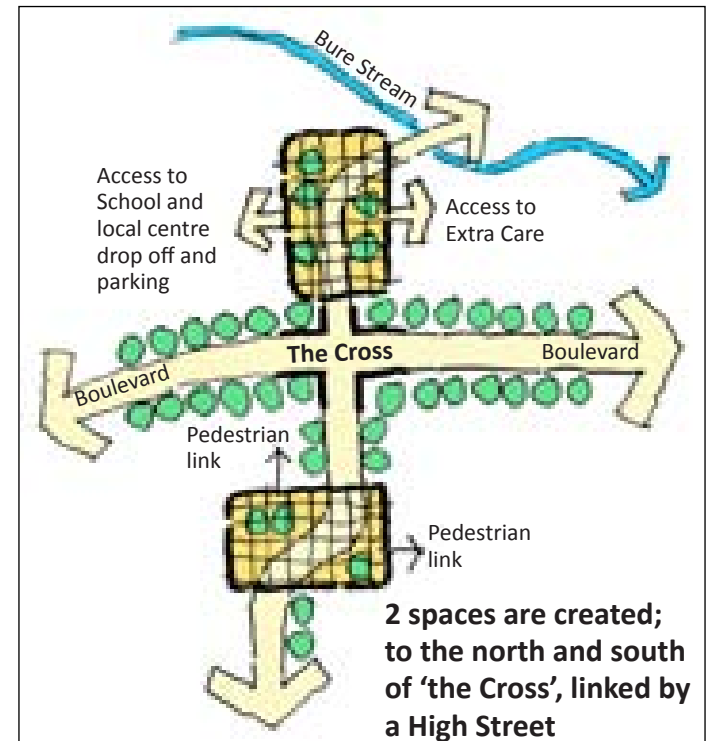
The key junction between the road linking the southern field with Lord's Lane and the proposed 'boulevard' is 'The Cross', it is marked by the formation of a space framed by trees and defined by three to four storey corner buildings. The space also marks the start of the community centre and the non-residential amenities that form the core of the 'local centre.'

The uses along the 'local centre high street' have been carefully considered. A convenience store would anchor the centre of 'the cross', with smaller retail units and a café/restaurant adjacent to the space near the river - enjoying views of the landscape feature.

The retail service yard's efficiency would be maximised by sharing its use between the convenience store and the energy centre. The 'local centre' facilities will share its parking/drop off provision with the nursery and community space and primary school to encourage shared

and efficient journey.

The Business centre is located to the south of the realigned Lords lane



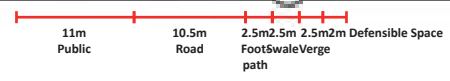
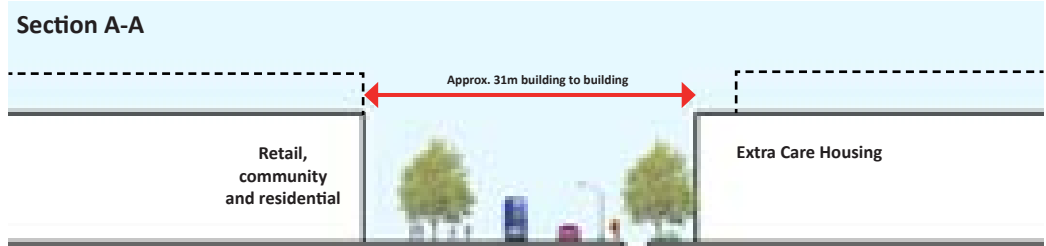
- HOUSING (INC. ROADS AND RESIDENTIAL PLAY SPACE AND PRIVATE GARDENS - ALLOWING FOR SOME GREEN INFRASTRUCTURE)
- PRIMARY SCHOOL (including green space etc)
- PLAY
- ALLOTMENTS
- EXISTING FARM BUILD USE
- COMMERCIAL / BUSINESS
- SOCIAL / COMMUNITY
- RETAIL / LEISURE
- CARE HOME / HOTEL / OTHER
- EXTRA CARE HOUSING
- ENERGY CENTRE



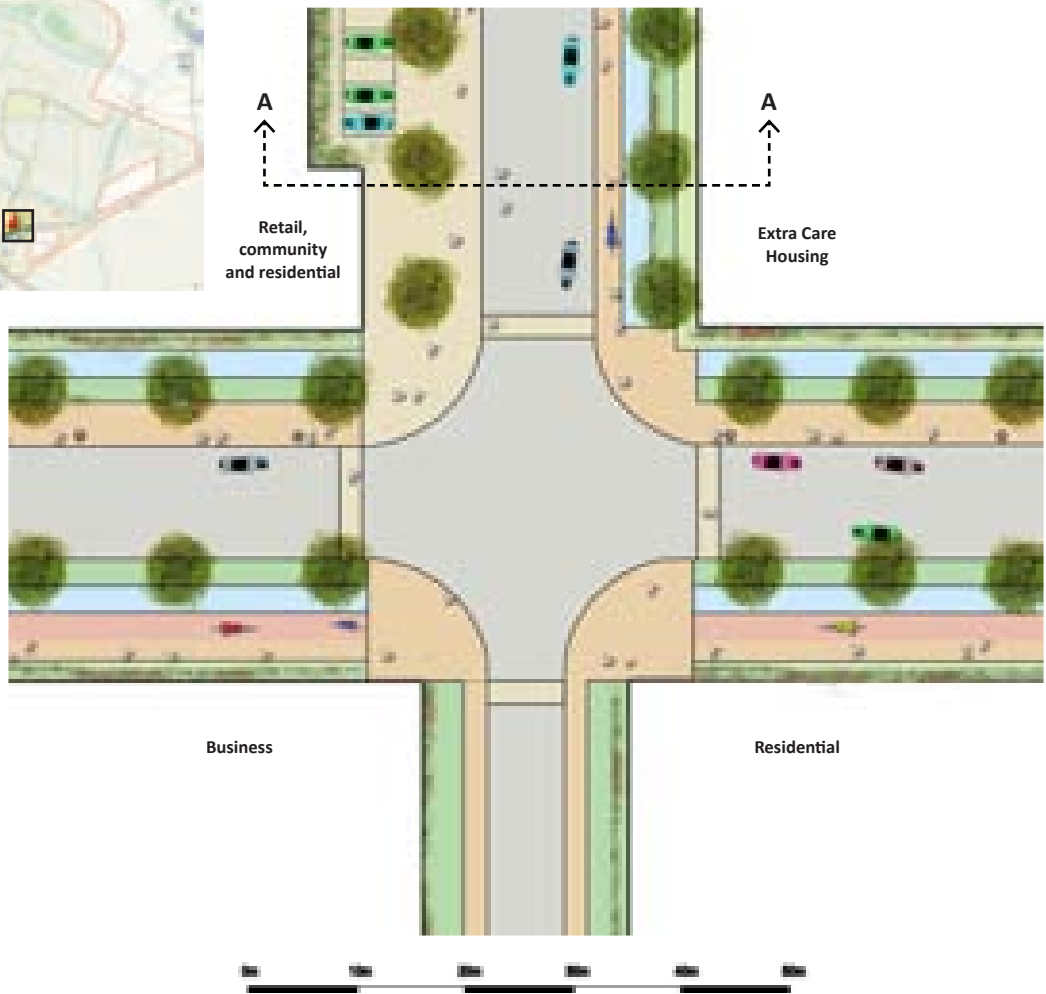
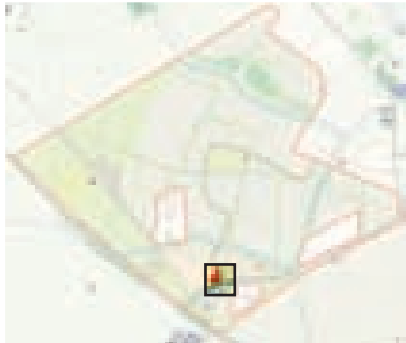
Illustration of the Local Centre - 'The Cross'



Local Centre- 'The Cross' and Extra Care Housing



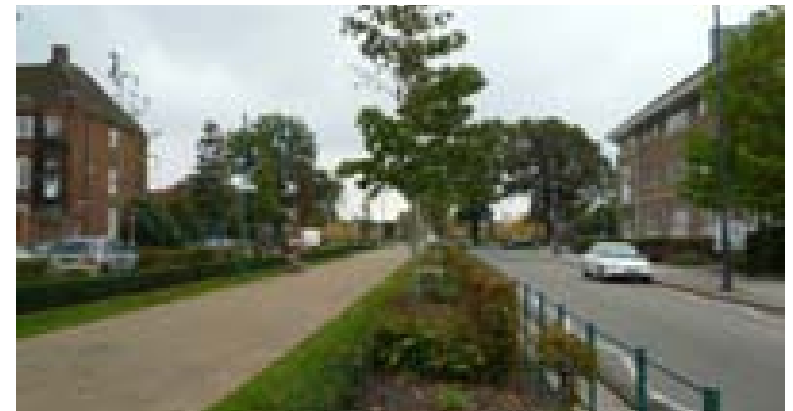
Location of sketch



Examples of Strategic and Primary Roads



Hammarby, Sweden



Letchworth Garden City, Hertfordshire



Tenterden, Kent

3.6.2 Streets

Streetscape

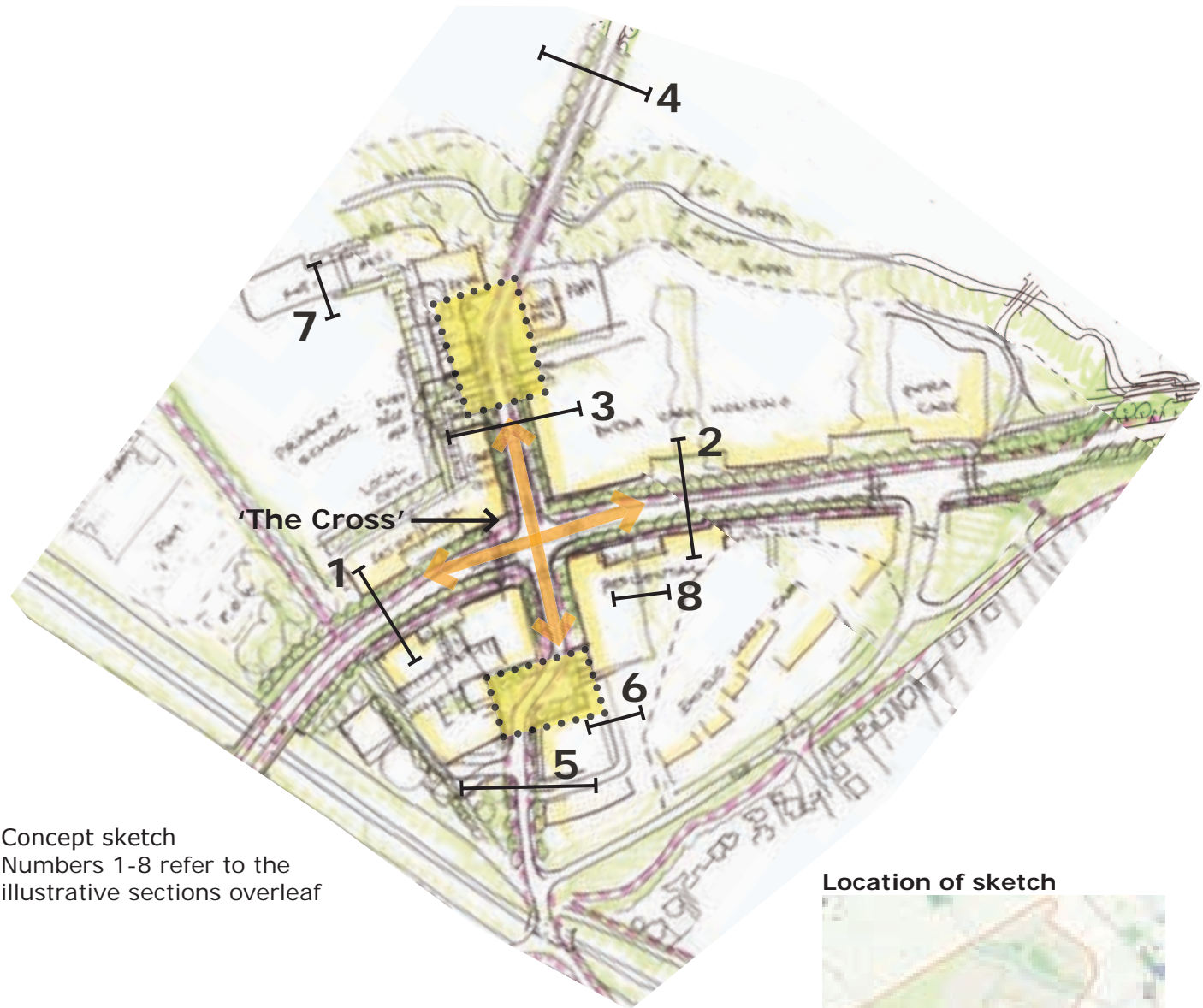
A fundamental part of the vision behind the landscape strategy is that it makes up a sequence of 'layers' of green space, each one operating at a spatial scale ranging from micro (individual gardens) to macro (locally valuable wildlife corridors and green infrastructure).

Delivering this vision requires the careful handling of the transition from private to public space and consequently there is to be a strong emphasis on creating a landscape framework to the general public realm which establishes a rich blend of spaces and places.

Much of the open space within the development site will be functional. It will provide attractive, safe sustainable transport routes, promote local biodiversity, form part of the comprehensive SuDS, be used for food production, support children's and adult play or actively encourage social interaction. What will not feature is bland, non-descript 'amenity space' which does not engage people and over which no-one feels any sense of responsibility.

Principal routes through the residential development will be lined by hedge planting (predominantly of native species) and a SuDS strategy will be delivered in a creative manner that softens the visual character of the developed spaces. To support this approach, many hard landscape elements (fencing, gates, access controls, seating etc.) will be detailed predominantly in timber to designs appropriate for an agricultural landscape setting.

Similarly, external lighting will be kept to minimum safe levels in the interests of reducing light pollution and minimising any adverse impact on bat commuting / feeding routes.



Concept sketch
Numbers 1-8 refer to the illustrative sections overleaf

Location of sketch



Primary Street

Precedents



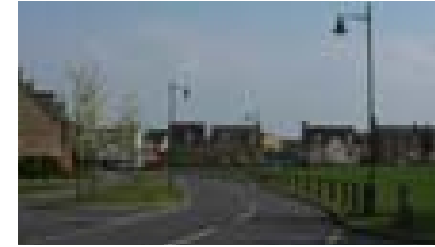
Thame, Oxon



Brill, Oxon



Wallingford, Oxon



Cambourne, Cambridgeshire

Secondary Street

Precedents



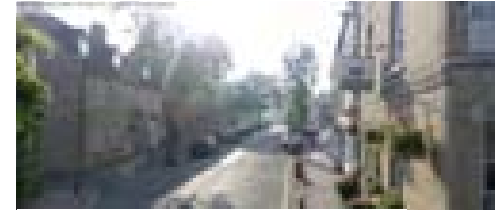
Cambourne, Cambridgeshire



Waddesdon, Bucks



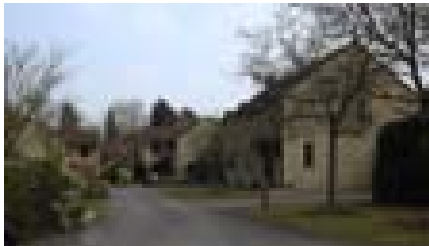
Woodstock, Oxon



Woodstock, Oxon

Tertiary Street

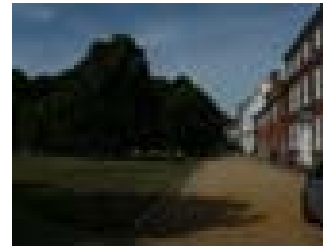
Precedents



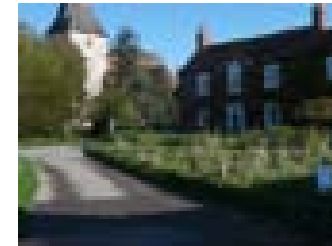
Middleton Stoney, Bicester



Cambourne, Cambridgeshire



Winchester, Hampshire



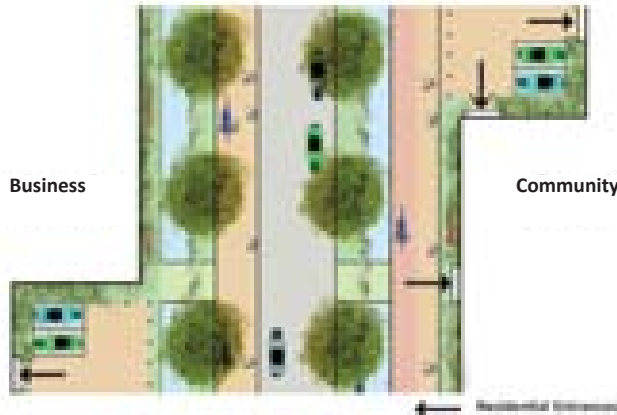
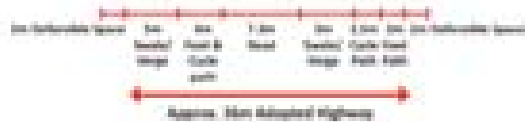
Bosham, West Sussex

1 Strategic Road Community to Business

All Dimensions Approximate

- 2 Way Road
- Footpath/Cycleway both sides adjacent to road
- Both Sides:
Footway/Cycleway, landscape strip with SUDs inside

Primary Street Dimensions:	
• Private Green	2-5m
• Swale	2.5m
• Footway	2m
• Green	3- 5m
• Two-way Road	5-7.3m
• Public Green	3m
• Cycleway	2.5
• Swale	3m
• Private Green	2m
Design Speed	20mph
Maximum of Units to be Served	No Restriction
Bus Access	Yes
On Street Parking	No
Traffic Calming	At 150m intervals

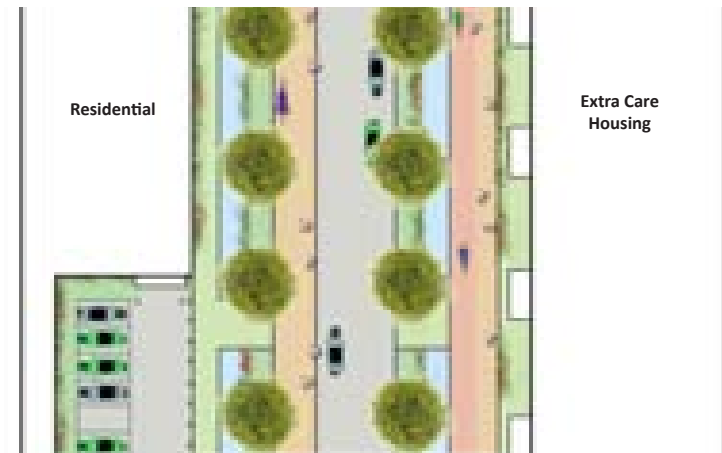
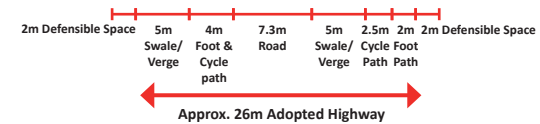
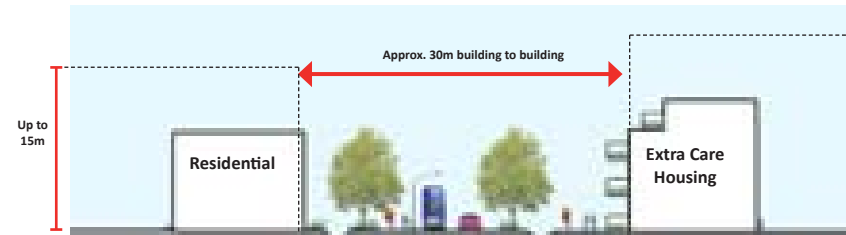


2 Strategic Road Residential to Extra Care Housing

All Dimensions Approximate

- 2 Way Road
- Footpath/Cycleway both sides adjacent to road
- Both Sides:
Footway/Cycleway, landscape strip with SUDs inside

Primary Street Dimensions:	
• Private Green	2m
• Swale	2.5m
• Footway	2m
• Green	3- 5m
• Two-way Road	5-7.3m
• Public Green	3m
• Cycleway	2.5
Design Speed	20mph
Maximum of Units to be Served	No Restriction
Bus Access	Yes
On Street Parking	No
Traffic Calming	At 150m intervals

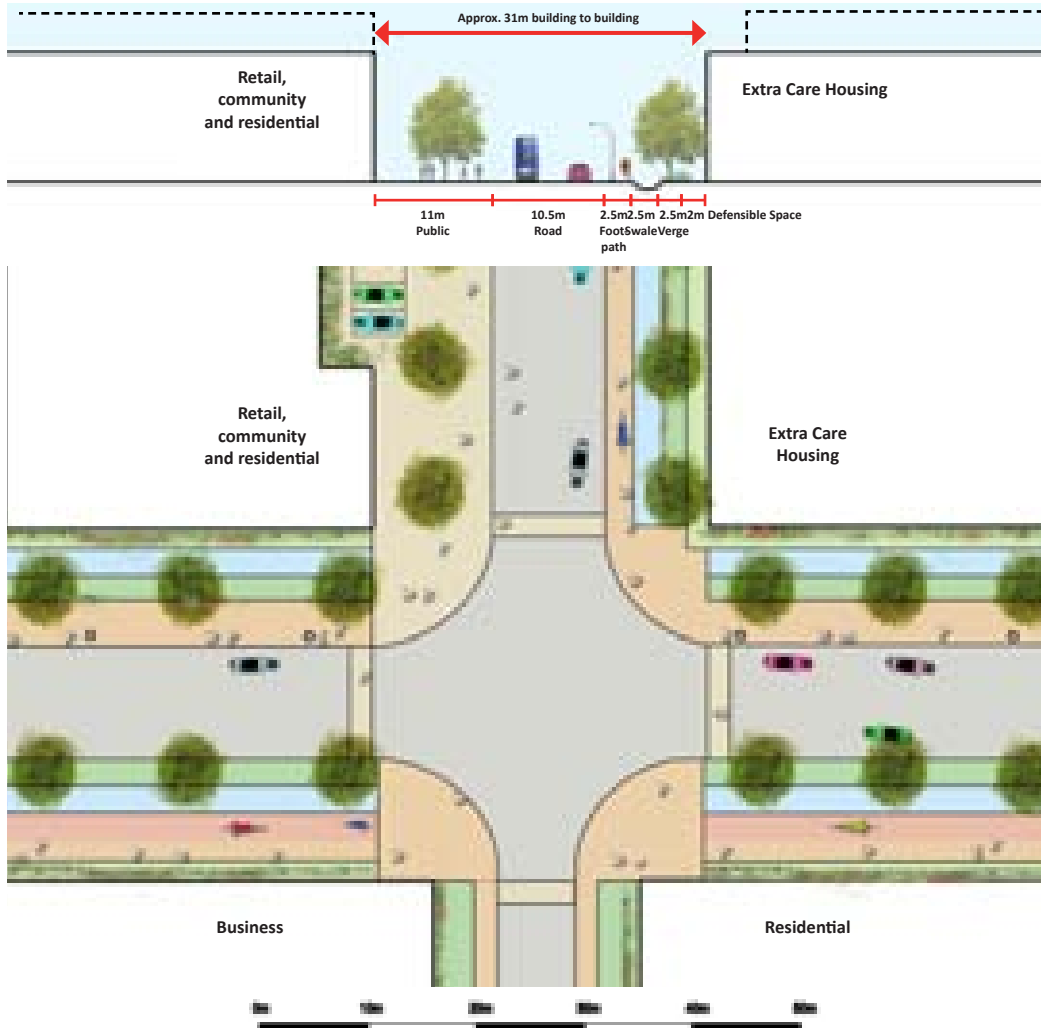


3 Strategic Road 'The Cross'

All Dimensions Approximate

- 2 Way Road
- Footpath/Cycleway both sides adjacent to road
- Both Sides:
Footway/Cycleway,
landscape strip with SUDs inside

Primary Street Dimensions:	
• Private Green	2m
• Swale	2.5m
• Footway	2m
• Green	3- 5m
• Two-way Road	5-7.3m
• Public Green	3m
• Cycleway	2.5
Design Speed	20mph
Maximum of Units to be Served	No Restriction
Bus Access	Yes
On Street Parking	No
Traffic Calming	At 150m intervals

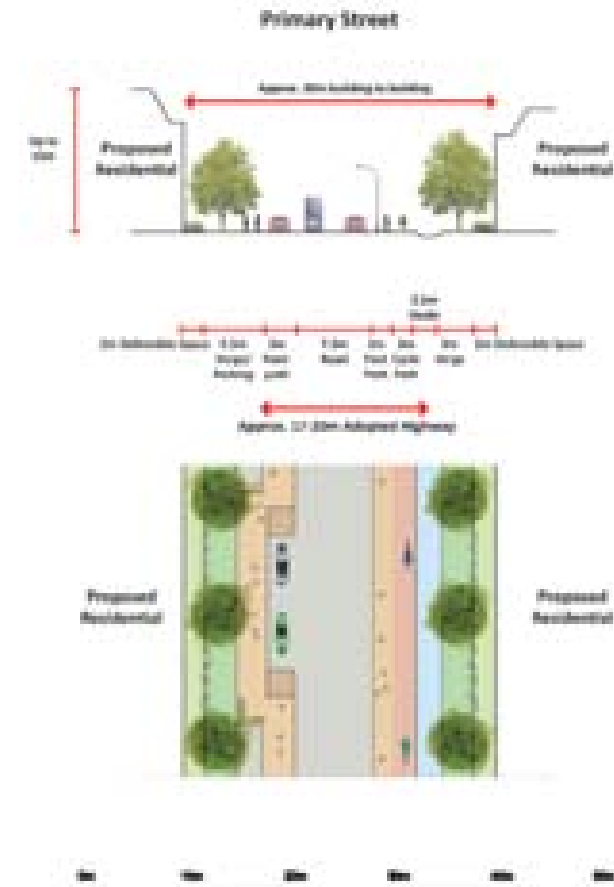


4 Primary Street Residential to residential

All Dimensions Approximate

- 2 Way Road
- Footpath/Cycleway both sides adjacent to road
- Both Sides:
Footway/Cycleway back of
landscape strip with SUDs outside

Primary Street Dimensions:	
• Private Green	2-5m
• Swale	2.5m
• Footway	2m
• Green	3m
• Two-way Road	5-7.3m
• Public Green	2.5- 3m
• Cycleway	2.5m
• Swale	2.5m
• Private Green	2-5m
Design Speed	20mph
Maximum of Units to be Served	No Restriction
Bus Access	Yes
On Street Parking	No
Traffic Calming	At 150m intervals

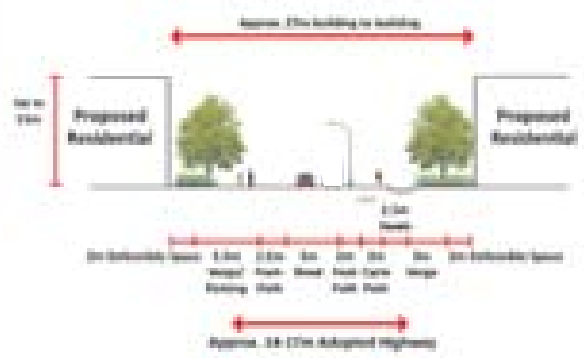


5 Secondary Street

All Dimensions Approximate

- 2 Way Road
- One Side: SUDs/
Footway and Footway/Cycleway

Secondary Street	
• Footway/ Parking	2.5m
• Two-way Road	5-6m
• Cycleway	2m
• Swale	2.5m
Design Speed	20mph
Maximum of Units to be Served	Up to 300
Bus Access	No
On Street Parking	Yes
Traffic Calming	60m intervals

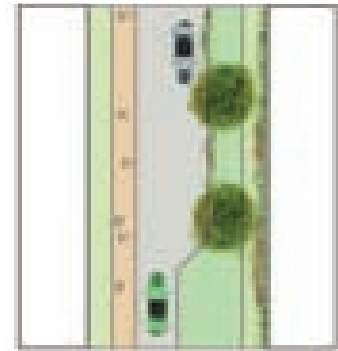
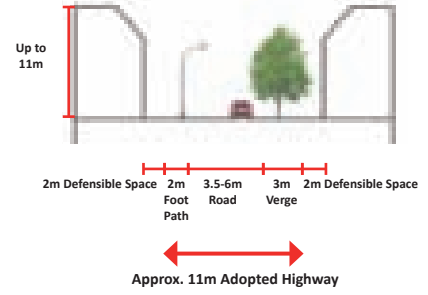


6 Tertiary Street: Green Lane

All Dimensions Approximate

- One Side: Public Green and Footway

Green Lane Dimensions:	
• Private Green	2-5m
• One-way/ two way road	3.5m-6m
• Green	3- 6.5m
• Footway	2m
• Private Green	2-5m
Design Speed	10mph
Maximum of Units to be Served	Up to 5
Bus Access	No
On Street Parking	No
Traffic Calming	N/A

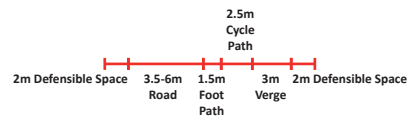


7 Tertiary Street: Minor Street

All Dimensions Approximate

- Shared Surface
- One Side: Public Green

Tertiary Minor Street Dimensions:	
House to House (min 10.5m)	
• Private Garden (with drive)	2-5m
• Footway/ cycleway	4m
• Public Green	3m
• Private Garden (with drive)	2-5m
Design Speed	10mph
Maximum of Units to be Served	Up to 25
Bus Access	No
On Street Parking	No
Traffic Calming	N/A



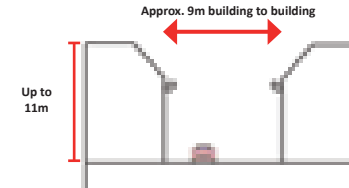
Approx. 13m Adopted Highway



8 Mews/Parking Courts

All Dimensions Approximate

Mews Dimensions:	
• Private	1.5m
• Two-way Road/Shared Surface	6m
• Private	1.5
Design Speed	10mph
Maximum of Units to be Served	Up to 25
Bus Access	No
On Street Parking	Yes
Traffic Calming	N/A



Approx. 9m Adopted Highway



3.6.3 Appearance

A palette of proposed materials would ensure consistency and quality is achieved throughout the application. The selection would be based on the Oxfordshire vernacular, deriving from its geological positioning and traditions. No assumptions are made as to the stylistic application of the materials but the selection would respond to the high standards of the previously approved exemplar scheme.

To achieve consistency and a statement of quality throughout the development, vernacular materials will be used. Alec Clifton-Taylor states in Pevsner's guide to Oxfordshire, "Whereas the sandstones play no part in the Oxfordshire picture, the limestone is paramount. The whole of the western and northern part of the county fall within the Jurassic belt."

In contrast, it is likely that, the facades to the sides or rear of the thoroughfare will deploy brick or render, signifying the importance of 'the boulevard' frontages and the hierarchical ordering of the side or back lanes. Brick is typical of the Bicester area as it is clay country, Pevsner's guide states, "In the C18 and C19 bricks were made in the Vale at, among other places, Bicester, Wheatley and Great Milton..."

The roofing material when pitched is proposed to be slate or stone. Historically Welsh slate was used extensively in the region as local slate production subsided and improved infrastructure allowed for its import from the west.

The proposed application has a range of housing character types within the development clusters.

Houses facing wider green spaces

Houses facing inner streets, through routes,

back to back gardens

Houses fronting non through routes, possible home zones

Houses fronting open landscape

Houses grouped fronting smaller green areas

Houses facing wider green spaces

These properties overlook the village greens. The greens are formed of green open space and also the green ribbons which follow the green loops.

Houses facing inner streets, through routes, back to back gardens

These properties are located along secondary and tertiary streets with front and rear gardens.

Houses fronting non through routes, possible home zones

Quieter non-through routes providing safe play street area for children and a peaceful inward looking neighbourhood for families. Only vehicle access will be for residents / servicing residents. These can include mews and cul-de-sacs.

Houses fronting open landscape.

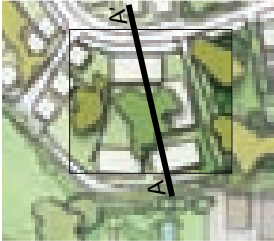
This character area is along the rural edge and river corridors, where there is a clear view over the landscape beyond. These properties have vehicular access via the perimeter tertiary routes (lanes) so have their front facades overlooking the landscape.

Houses grouped fronting smaller green areas

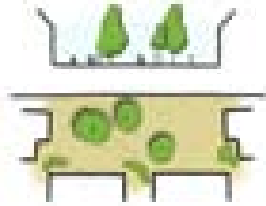
Green courtyards within the development clusters will inform the character of the properties overlooking.

Home zones - Urban courtyard

- Communal or private area surrounded by houses.
- Create continuous front around the courtyard.
- Few scattered trees in the courtyard.
- Consistent design of houses.
- L- shaped or elongated houses.



Section sample A



Section sketch A - A'



3D example of an Urban courtyard



Petersham houses, Surrey



Haddenham, Buckinghamshire



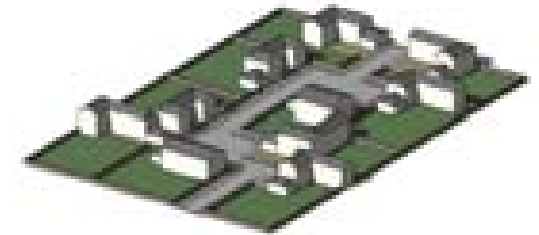
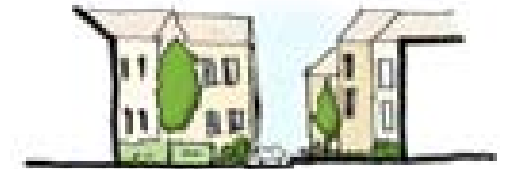
LYMM, Buckinghamshire

Home zones - Mews court

- Consistent scale of the houses.
- Varied materials on houses.
- Minimize traffic.
- No or small front gardens.
- Buildings built around a paved yard or court, or along a street.



Section sample B



Poundbury, Dorset



Mews court

Housing- Village Green

- Communal green in the centre.
- Scattered trees in the village green.
- Front gardens, open or low fence facing towards the village green.
- Varied character , scale and materials.



Section sample C

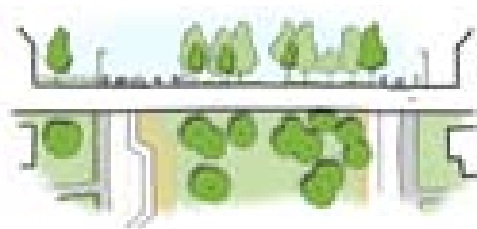


Figure 2.6.16 Section sketch



Cambourne, Cambridgeshire



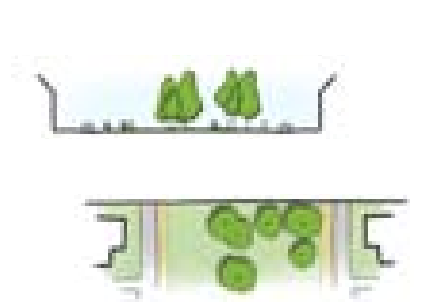
Traditional house overlooking green

Housing- Village Green - Green courtyard

- Communal or private green area in the middle.
- Consistent design.
- L- shaped elongated houses.
- A number of detached houses around the green area.
- Continuity on the housing facade.



Section sample D



Section sketch D - D'



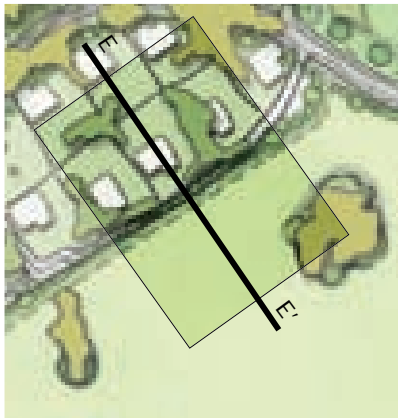
Hampstead Garden Suburb,
North London



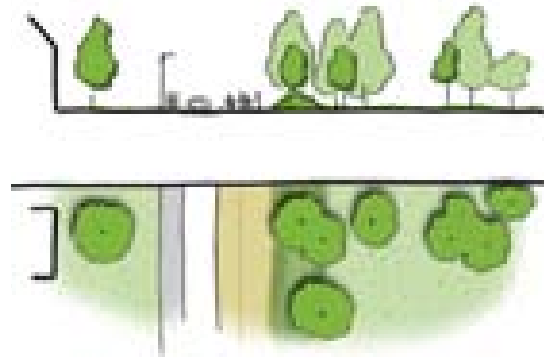
Cambourne, Cambridgeshire

Housing - Lanes - Open front to landscape

- Open front along the boundary.
- Continuity with the landscape.
- Consistent character and scale of the houses.
- Small front gardens face towards landscape.



Section sample E



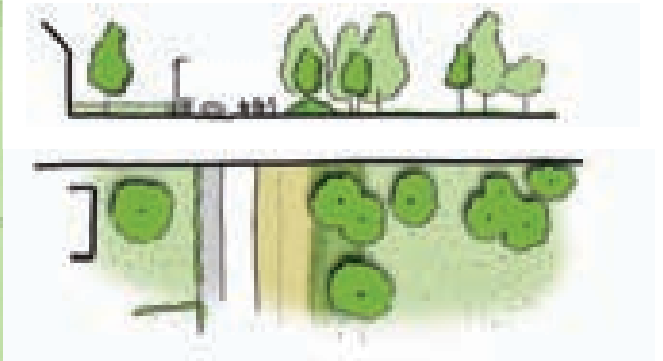
Section sketch E - E'

Housing - Lanes - Strong hedge enclosure to landscape

- Strong hedge enclosure along boundary.
- Hedge providing privacy and security.
- Hedge also completes landscape beyond.
- Varied character, materials and scale of the houses.



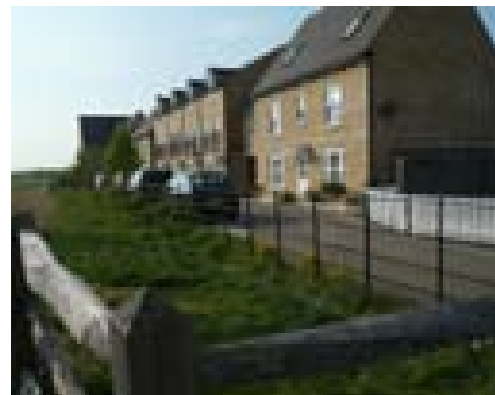
Section sample F



Section sketch F - F'



Cambourne, Cambridgeshire



Cambourne, Cambridgeshire



Strong hedge



High Callerton, Northumberland

Housing - Streets Open front within development clusters

- Consistent character.
- Consistent scale.
- Long or small green areas in front of the houses.

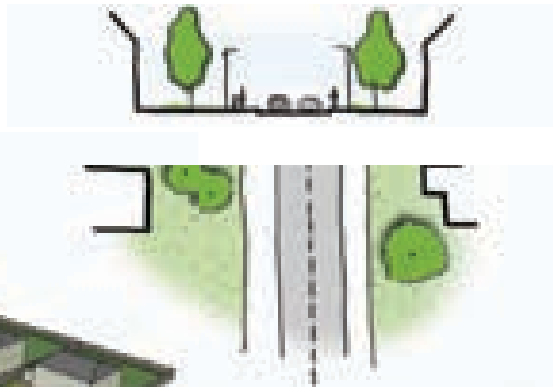


Figure 2.6.32 Section sketch G - G'

2.6.33 3D example of a street with an open front

Housing - Streets - Strong hedge enclosure within the development cluster

- Varied character of houses.
- Consistent scale of houses.



Figure 2.6.36 Section sample H

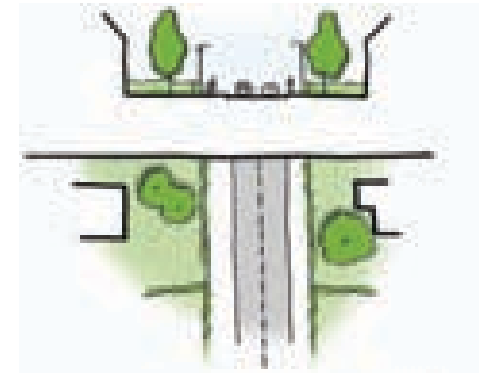


Figure 2.6.37 Section sketch H - H'



Figure 2.6.38 Letchworth, Hertfordshire



Figure 2.6.34 Letchworth, Hertfordshire



Figure 2.6.35 Accordia, Cambridgeshire

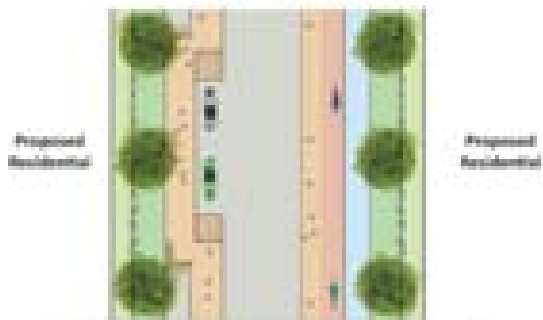


Figure 2.6.39 Letchworth, Hertfordshire



Figure 2.6.40 High Callerton, Northumberland

Housing High Street - Strong urban street Enclosure



NW Bicester Exemplar



3.6.4 Parking

The approach to parking in each aspect of the development has required a careful balance between meeting the needs of residents/ businesses and not unduly encouraging car use. Whilst Eco-town good practice recommends a much reduced provision of parking over standard developments, it is recognised that the application site is in a predominately rural County where car ownership levels are (often by necessity) high.

Residential Car Parking Provision

The parking strategy for residents recognises that the majority of households will own at least one car. It therefore seeks to ensure that the residential development does not significantly under-provide for parking and then suffer from problems of inappropriate/ overspill parking but does not encourage car use by providing parking immediately in front of every household's front door.

The Cherwell DC standards set a maximum level of providing 1 space per dwelling for 1 bed properties, 2 spaces for 2, 3 or 4 bed properties plus an optional garage. With the anticipated mix of properties, the maximum would give rise to an average of 2 spaces per property plus garages.

For the application site, it is proposed that there is an average of 1.59 spaces per property plus garages at a ratio of 0.47 per property. The parking for residential accommodation is as follows:

Private Accommodation:

1b housing: 1 parking space;

2b housing: 2 parking spaces;

3b housing: 2 parking spaces, or one space

and • a single garage;

4b detached housing: 1 parking spaces and
1 • single garage or 2 parking spaces;

5b detached housing: 2 parking spaces and
garage

Social Accommodation:

1 parking space to 1b and 2b flats;•

2b housing: 2 parking spaces;

3b housing: 2 parking spaces or one space
and • a single garage;

2 parking spaces to disabled bungalows. •
Bungalows to have on plot parking whilst
parking facilities to social houses provided
in parking courts;

4b detached housing: 1 parking spaces and
1 • single garage or 2 parking spaces;

Garages will be being provided for 5 bed detached units and some of the 3 and 4 bed units. The single garages will be of the standard size 6m x 3m to accommodate a car and bicycle storage. The size of the garages for the 5 bed units will be double sized, but with a single garage door, thus providing additional storage area for the property. External parking spaces are to be provided in accordance with Oxfordshire CC standards.

Visitor spaces are to be provided in parking bays within the street design.

Non Residential Car Parking Provision

Parking provision for other uses recognises the level of trips that will be on foot, cycle or by bus and the aim to discourage trips by car.

5 Bed Detached House



3 Bed Terrace House



3 Bed Terrace



3 Bed Terrace House



5 Bed Semi Detached/Terrace/Detached



3.6.5 Sustainability

The application is supported by a comprehensive sustainability statement. The statement sets out the targets and how the criteria in PPS 1 for a low carbon and resource efficient development can be achieved which includes:

- Housing to achieve level 5 code for sustainable Zero Carbon – we believe this will create the largest code 5 housing development and residential photovoltaic array in UK.

- Energy strategy to include CHP and district heating system to enable future use of waste heat from the Ardley energy from waste facility (this should become available) and other renewable energy sources or to export energy to other developments

- A significant shift away from private cars to sustainable travel – increasing from 45% at the outset to 50% on completion, and improved with introduction of a bus only link in the resubmission.

- Commitment to employment generation in the development with an economic strategy to support this.

- 40% of the site area to be green infrastructure achieving a net gain in biodiversity

- Super fast Broadband to all homes enabling smart metering, home working, live transport info, community bulletins etc

- Recycling/ reusing at least 70% of waste.

A full checklist of achievements against PPS1 criteria is appended

Checklist of PPS1 Eco town requirements provided

Zero Carbon

Design incorporates energy efficient, high performance buildings & efficient fixtures (ET 7.1).

Social and community uses located close to residents encourages low carbon living (ET 7.2).

Local sources of renewable energy are provided by on site PV solar on roofs (ET 7.3).

A site wide district heat network, to supply all hot water and heating, powered by on-site Energy Centre, utilising CHP which will allow other innovations such as energy from waste to be added through the masterplan (ET 7.3).

Climate Change

Buildings designed with insulation, shading and ventilation standards exceeding current minimum standards to allow a factor for future proofing (ET 8.1).

Green infrastructure site area provision exceeds minimum 40%, biodiversity net gain is achieved and place making and quality environment are integral to design (ET 8.2).

Homes

Homes are designed to code for sustainable homes level 5 higher than minimum code 4 (ET 9.1a).

Homes are designed to Life silver standard and lifetimes homes standards (ET 9.1b).

Homes incorporate High Speed broadband with access to and real time public transport information (ET 9.1c).

30% affordable housing (ET 9.1d).

All homes designed to achieve true zero carbon - 100% reduction related to regulated and unregulated energy(ET 9.1e).

Employment

The Economic strategy supports proposals for jobs reducing the need for commuter travel (ET 10.1).

Potential jobs will be created elsewhere in Bicester for manufacturing houses and through training and innovation (ET 10.1).

Transport

The Transport strategy supports 45% shift away from car travel increasing to 50% (ET 11.2a).

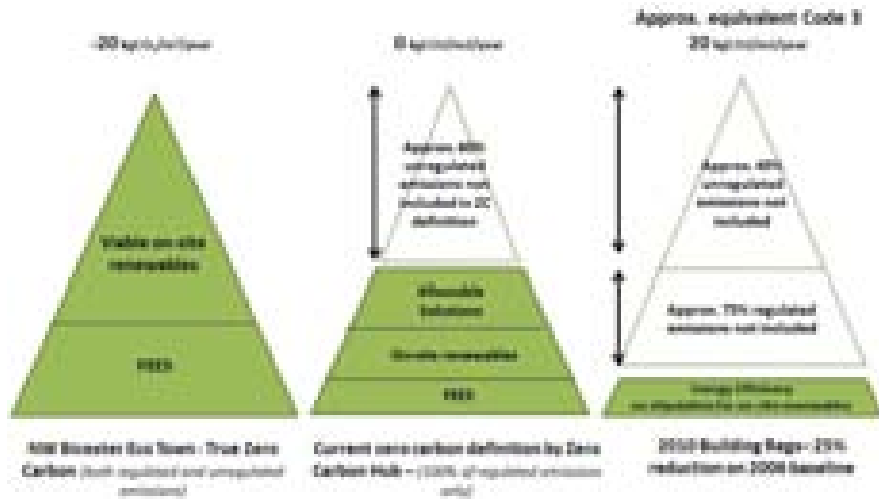
A 15 minute frequency bus service provided frequency as the masterplan progresses. (ET 11.2a).

Site roads are designed using the manual for streets giving priority to walkers, cyclists and bus use(ET 11.2b).

A community travel plan and coordinator will provide sustainable travel choices (ET 11.2c).

Traffic surveys will demonstrate carbon impact of transport choices (ET 11.2d).

Definition of True Zero Carbon



FEES= Fabric Energy Efficiency Standard

Real Time Information



The Shimmy is a piece of technology, like an iPad that will be in every home in the Eco-Town and provides residents with live, real-time information.

This is new, ground breaking technology – designed to make it easier for people moving into a new home & community and enable them to make lifestyle changes by providing them with real-life, everyday information.

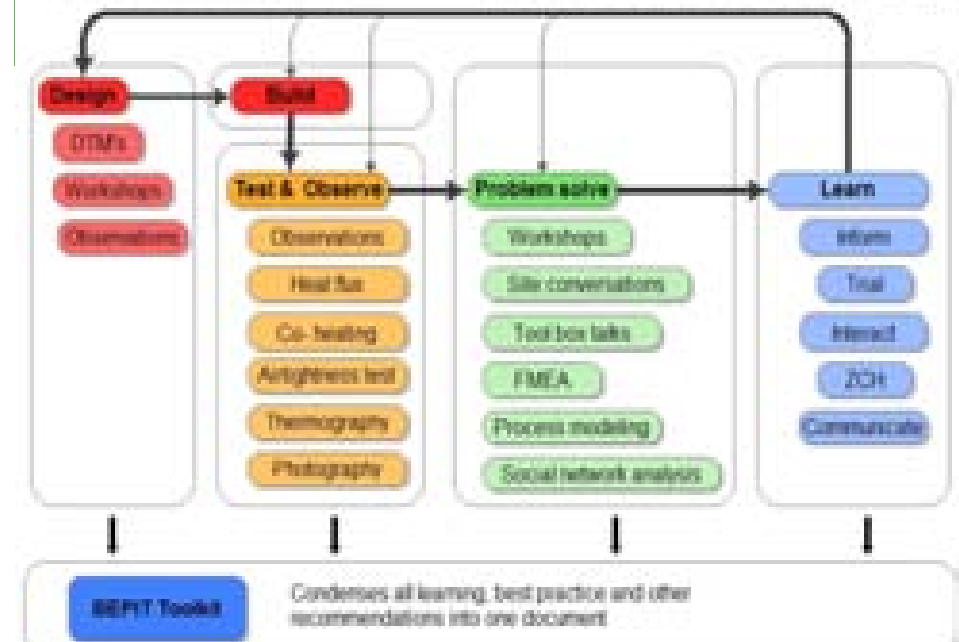
Mind the gap - BEPIT

- Full monitoring programme
- 4-year £1.3M TSB research project
- Continuous learning over many build phases
- Checking that we actually deliver what it says on the tin:
 - Zero carbon
 - No overheating
 - Embodied CO₂ savings



The BEPIT Process

REPEAT (Carried out iteratively over phases 1,2,3,4)



The 15 min bus services provided will be a direct service to the town centre bus & railway stations and town centre which will improve the public transport services to the town (ET 11.3a).

Electric car clubs with renewable energy supply will be promoted and parking and road layout will serve to limit the private vehicle use (ET 11.4).

All parts of the development are within 800m walking distance of the primary school.

Healthy Lifestyles

The design promotes healthy lifestyles with attractive and safe walking and cycling routes,

control of traffic speeds, the provision of social and community uses within close walking

distance, accessibility of open space, play spaces encouraging interaction with the landscape

and allotments (ET 12.1).

Social Services

Leisure, health, care, education, retail, cultural and sport facilities in the Application

provide a range of facilities which will be added to throughout the masterplan

(ET 13.1).

Green Infrastructure

The design includes 40% green infrastructure with 20% public linked to the wider

Countryside. Green infrastructure includes existing hedgerows and stream corridors

augmented with new habitat.

Soil resources are reused and allotments created and local food production. (ET 14.1).

Landscape and Historic Environment

The landscape assessment identifies the key feature in the field system and

hedgerows which are used as the inspiration for the site layout and provides

definition of the housing neighbourhoods (ET 15.1)

The heritage assets adjacent to the site are identified as listed buildings are the Grade II listed Home Farm and the grade II * listed St Lawrence's church. The approved exemplar layout preserves the setting of Home Farm with open space retained for farming between the farm buildings and the development and is designed not to interrupt the sightlines from St Lawrence's church. (ET 15.1).

Biodiversity

The design provides a net gain in biodiversity, retaining hedgerows, stream corridors with wide buffers of semi-natural vegetation and new habitats created of value wildlife: meadow grassland, wildflower rich grassland, woodland planting, SUDS wet, damp marshy and dry habitats, long grass. Non residential buildings and trees will incorporate bird nesting boxes and bat roosts. (ET 16.1)

A biodiversity strategy will provide a biodiversity action plan to provide mitigation (ET 16.3)

The site does not impact on any internationally designated nature conservation sites or SSSIs. There are 3 SSSIs within 5km of the site: Ardley

Cutting and Quarry, Ardley Trackways and Stratton Ardley Quarries. The ES has determined that the development will not impact any of these. (ET16.1)

Water

All buildings will have water efficient devices with metering and either local rainwater harvesting or connected to strategic green water supply for non-potable uses to reduce water demand to CSH 5 (80 litres / person per day) (ET 17.1).

A water cycle strategy prepared with Thames Water and EA details improvements to the supply infrastructure (ET 17.2& 17.5).

Potential water treatment at source and SUDS to improve quality of runoff and will ensure that the development will not deteriorate the status of surface or ground water. (ET 17.2b).

SUDS designed to improve quality and quantity of runoff will ensure that the development will not create any additional flood risk of surface water flooding. (ET 17.3 & 18.1).

All built development to take place in Flood Zone 1 and open space only in Flood zone 2 to manage flood risk (ET 18,2)

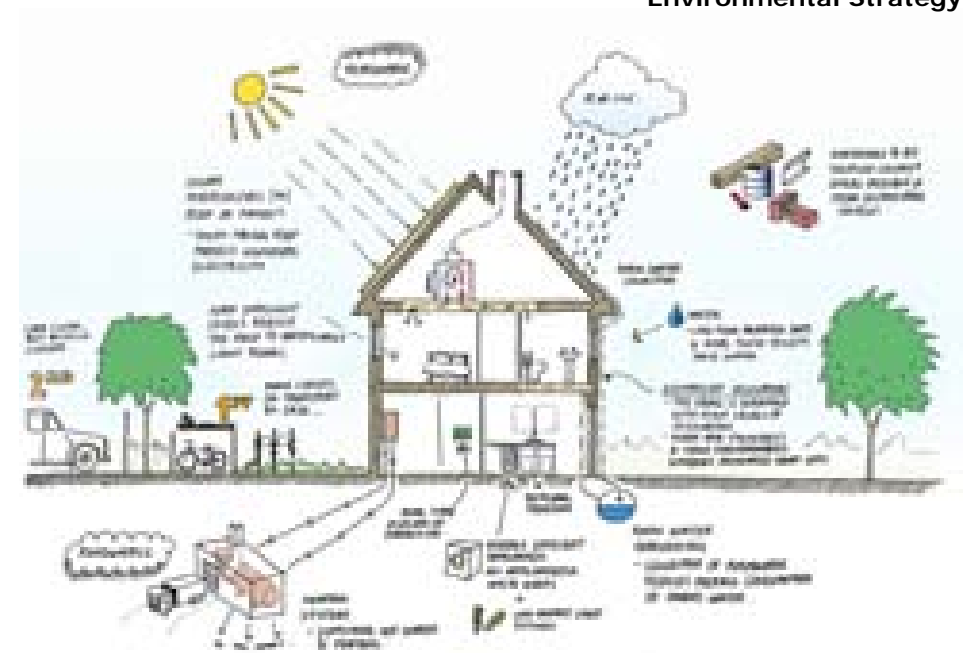
Waste

The Sustainable Waste Resource Plan adopts a reduction strategy of low residual waste and high recycling targets of 70% rising to 80% which exceeds the 2007 national Waste Strategy targets. (ET19.1a,b).

The Sustainable Waste Resource Plan and Energy Strategy has considered the use of waste for potential energy generation and has made provision for potential connect of waste heat from Ardley EfW (if available) in the future (ET



Environmental Strategy



19.1c).

The site waste management plan will demonstrate that zero construction waste is to landfill, waste minimisation is used in design and materials selection, local materials and high recycled content will be used and provide reports against these targets. (ET 19.1d)

Masterplan

The masterplan will support all phases of the development (ET 20.1)

Design guidelines will be considered to achieve high quality design (ET 20.1)

A High level of engagement and consultation will be carried out with prospective and neighbouring communities with workstreams covering design and sustainable construction, green infrastructure, transport and access, energy water and waste, employment training and local community facilities. (ET 20.1)

Transition

An assimilation strategy and implementation brief demonstrate that the scheme can be delivered in a phased way with:

Adequate provision of employment community and services (ET 21a)

Low carbon emissions for core services and transport infrastructure (ET 21b)

Adequate provision of health and social care (ET 21c)

A Governance strategy document will provide structure for governance organisation(ET 21d)

A sustainability charter will be provided to provide information and resources to encourage

environmentally responsible behaviour (ET 21e)

Energy waste and water service providers will monitor low carbon performance with real time metrics (ET 21f&h).

Community and Governance

A Governance strategy will be provided with structure for governance organisation and metrics to monitor low carbon performance (ET 22.1abcd)

4.0 Glossary of Terms

Application 1 Glossary of Terms

Masterplan Glossary of Terms and definitions	
Title of Application	Application 1
Client	The applicant should be referred to as A2Dominion in the application documents, however, please note that the applicant is A2Dominion South Ltd, a subsidiary of A2Dominion.
Address	Land to the north of the railway line and A4095 Lord's Lane and west of B4100 Banbury Road, surrounding Lord's Farm and Hawkwell Farm, Bicester, Oxfordshire
Description of Development	Development to provide up to 2600 residential dwellings (Class C3), commercial floorspace (Class A1 – A5, B1 and B2), social and community facilities (Class D1), land to accommodate one energy centre, land to accommodate one new primary school (up to 2FE) (Class D1) and land to accommodate the extension of the primary school permitted pursuant to application (reference 10/O1780/HYBRID). Such development to include provision of strategic landscape, provision of new vehicular, cycle and pedestrian access routes, infrastructure, ancillary engineering and other operations.
Proposals for the wider Bicester Town	'Eco Bicester'
Local Planning Authority	Cherwell District Council or CDC
County Council	Oxfordshire County Council or OCC
Application 1 Site Area	Approximately 154.82 hectares
PPS1 Supplement	Planning Policy Statement: Eco-Towns A Supplement to Planning Policy Statement 1 (July 2009)
Cherwell Development Plan	Cherwell Local Plan (1996)

Town Wide Masterplan	WYG document dated August 2012 entitled Bicester Masterplan Supplementary Planning Document (Consultation Draft) Yet to be adopted by CDC.
Emerging Local Planning Policy	Cherwell Local Plan 2006 - 2031
Exemplar	Exemplar Phase of the NW Bicester Master Plan
Application South of the Railway	Application 2
Strategic Infrastructure Application (previously referred to as Application 3)	It is proposed that the NW Bicester development will deliver a new A4095 NW Strategic Link Road for Bicester which will address the traffic movement and highways constraints issued which have long been an issue for the town. The link road will provide a new, straight underpass of the railway line, removing the constraint of the skewed bridge and junctions on each side. It will connect to the B4030 Vendee Drive, providing a continuous good standard link from the A41 to the B4100 Banbury Road.
Job provision	Approximately 233 jobs in multi-occupied office units, based mainly in the local centre. Approximately 20 jobs in local business units, providing workshop space for light industry or small scale storage A further 201 jobs in a variety of retail and local service activities, including a nursery, community facilities and extra care housing 33 jobs at the primary school Approximately 420 jobs undertaken wholly or primarily from home 140 construction jobs throughout the construction period, estimated for this application to be approximately 10 years.
Green Infrastructure	Provision of 67.26 hectares of green infrastructure (excluding schools) (circa 45% of the total site area). General green infrastructure provision includes a Country Park, Wetland Waste Water Treatment Facility, Village Green, Green Loops Linear Park (including riparian corridor), area for a Burial Ground, Sustainable Drainage features including swales and attenuation ponds, allotments, a community farm, street trees, informal recreational sports fields and play areas
Water Neutrality Target	Aspiring towards water neutrality
Carbon Target	True zero carbon as defined in the Supplement to Planning Policy Statement One. This takes into account regulated and unregulated energy as defined in the PPS1 Supplement. This will be achieved through a range of measures including high performance building fabric, reduced energy consumption, renewable and low carbon energy generation

BREEAM Target	Aspiring to achieve BREEAM Excellent
Code for Sustainable Homes Target	Aspiring to achieve Code for Sustainable Homes Level 5. All homes will be designed to Lifetime Homes standards.
New Homes Provision	Up to 2,600 new homes, including extra care units.
Affordable Housing Provision on Site	30 percent subject to viability
Education Provision	1 x 2FE primary schools Extension to exemplar phase primary school
Commercial Provision	1.02 hectares of land to accommodate commercial uses (falling within Use Classes A1-A5, B1 and B2) within a new local centre.
Social and Community Facilities	0.47 hectares of land to accommodate social and community facilities (Use Class D1) including a community hall
Energy Centre	1 x energy centre where on-site energy will be generated through low carbon technology such as a biomass boiler and/ or biomass or gas Combined Heat and Power plant ('CHP').
Water treatment	Water Treatment Works to be provided on-site subject to technical considerations.
Land Use	Please refer to attached schedule prepared by Farrells.

north
west
bicester



Godstow Court, 5 West Way, Oxford. OX2 0GE

THINKING ABOUT TOMORROW