

Himley Farm – Greenspace

PURPOSE

5.14 This is a central green space surrounding the existing retained Himley Farm. The space has a number of purposes, including providing a buffer between the existing Himley Farm and the development, providing space to enhance the existing hedgerow to allow it to thrive, the provision of areas of edible landscape in the form of orchard planting and the inclusion of a play space encouraging naturalistic play.

VALUE

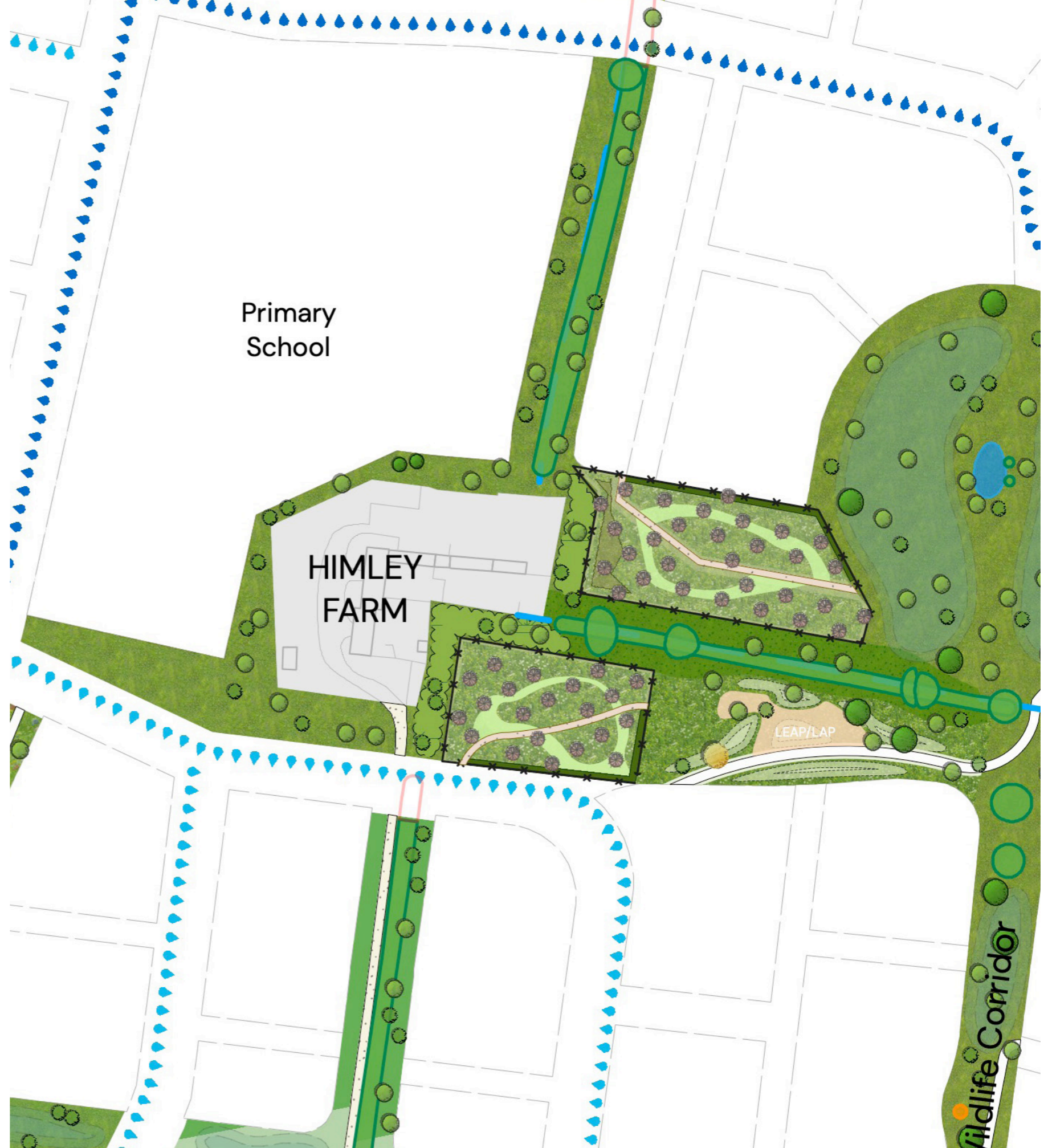
5.15 Himley Farm will provide a verdant space allowing the valueable retention and enhancement of the retained hedgerow. Additional planting of numerous different types, including native trees, edible fruit trees, shrub/scrub, wildflower and meadow grass, each offering various habitat creation and biodiversity enhancements.

5.16 Visitors will find value in the diverse landscape types/uses, encouraging people to experience different kinds of nature to support their mental and physical well being.

5.17 The inclusion of a play space will allow children (and their carers) to experience the value of physical and social benefits.

USES

- **Play** - stimulating natural play within the creatively designed play space
- **Edible Landscape** - allowing self-harvesting for home use, such as jams, baking or just to eat fresh
- **Informal recreation** - walking, cycling, jogging, playing etc
- **Rest and relaxation** - within a green and pleasant space
- **Biodiversity enhancements** - through reinforcement planting and ongoing management and maintenance



Character Plan Area Extract





Key Design Principles

- Larger scale contemporary buildings
- More varied materials pallet (incl metal detailing)
- Urban squares, piazzas and urban pocket parks in a ribbon through the centre
- Formal plating trees in paving
- Feature street furniture

CODE CATEGORY	DEFINITION
URBAN FORM	<ul style="list-style-type: none"> • Built form overlooking Middleton Stoney Road, spine road access points and internal pocket parks. • Public pocket parks to provide multi-functional hard landscaped urban space, • Development on corners will be dual frontage to increase natural surveillance. • Formal arrangement of buildings will enhance the contemporary character.
BUILDING TYPOLOGY	<ul style="list-style-type: none"> • Commercial units with potential (if residential apartments are provided to upper storeys only, these will be served by separate segregated entrance to retail or business uses).
BUILDING LINES	<ul style="list-style-type: none"> • Buildings to be set back from building lines of the main residential phase. • Consistent building lines and set backs to ensure clear building lines are achieved.
HEIGHT/ ENCLOSURE	<ul style="list-style-type: none"> • Up to 3 storey.
ROOFSCAPE	<ul style="list-style-type: none"> • Consistency in eaves and ridge line required. • Roof pitches should vary depending on the building typology.
SCALE/ PROPORTION	<ul style="list-style-type: none"> • Large scale buildings with increased sense of massing . • Unified and regular massing creating formal frontage. • Street composition to provide repetition and cohesion. • Proportional buildings with simple volumes encouraged, with the overall scale and massing being consistent.
BUILDING DETAIL	<ul style="list-style-type: none"> • Simple contemporary detailing. • Commercial door canopies to be contemporary flat roof (cantilevered or suspended). • Formal door styles.
BUILDING MATERIALS	<ul style="list-style-type: none"> • Roof - standing seam roofing, slate effect tiles - dark grey. • Barge boards and fascias - black. • Walls - long format brown multi brick, long format brown brick, perforated metal cladding, metal rain screen cladding. • Windows - anthracite grey. • Doors - black.
PARKING	<ul style="list-style-type: none"> • Residential - parking provided in secure and well-designed private courtyards to the rear of buildings. • Commercial - should comply with OCC Parking Standards. • Parking areas to be landscaped to screen parking and provide a verdant setting



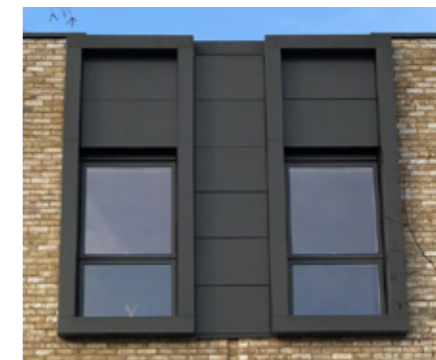
Proposed Colour Palette

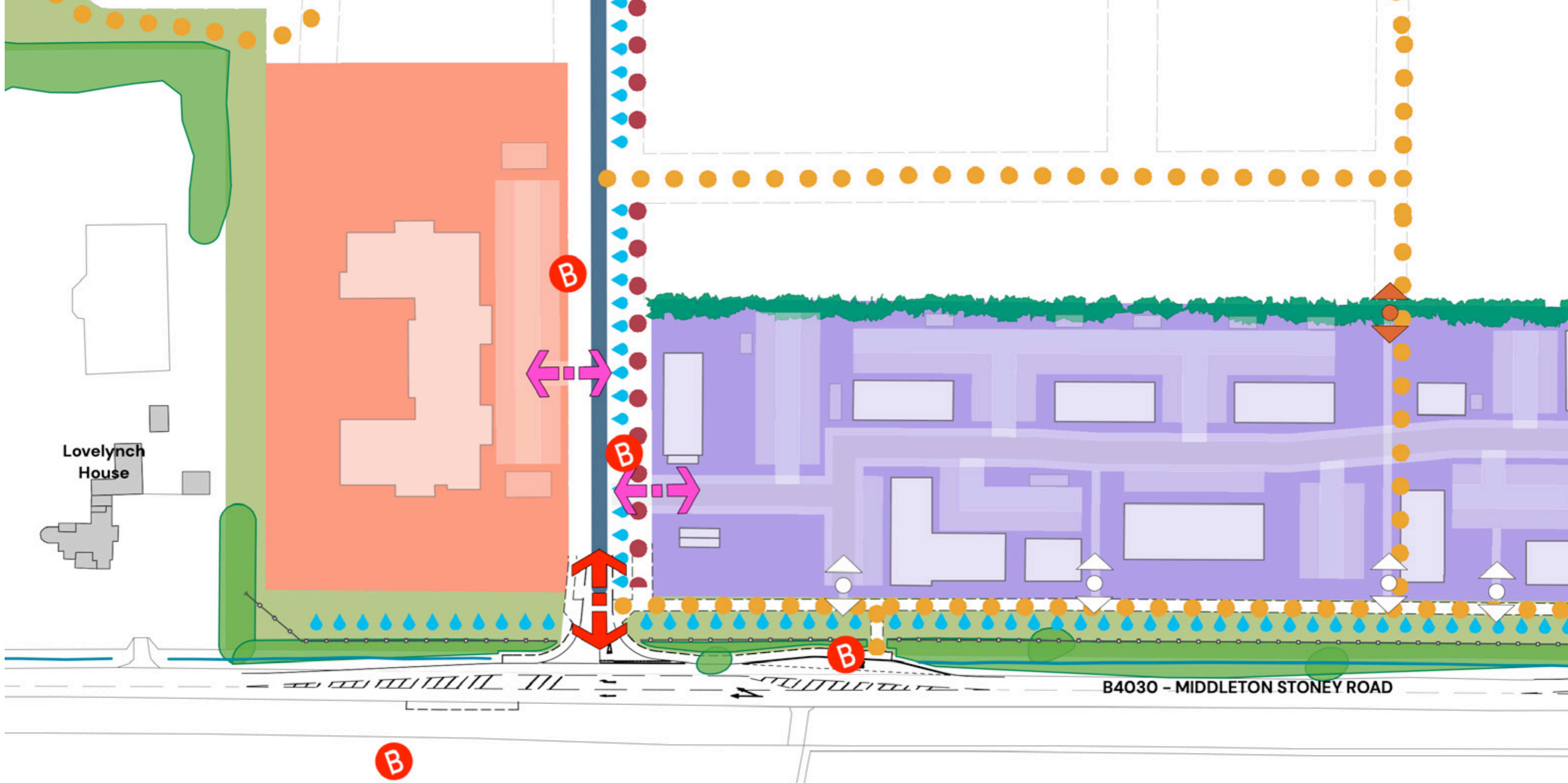


Proposed Materials Palette



Architectural Influences





B4030 - MIDDLETON STONEY ROAD

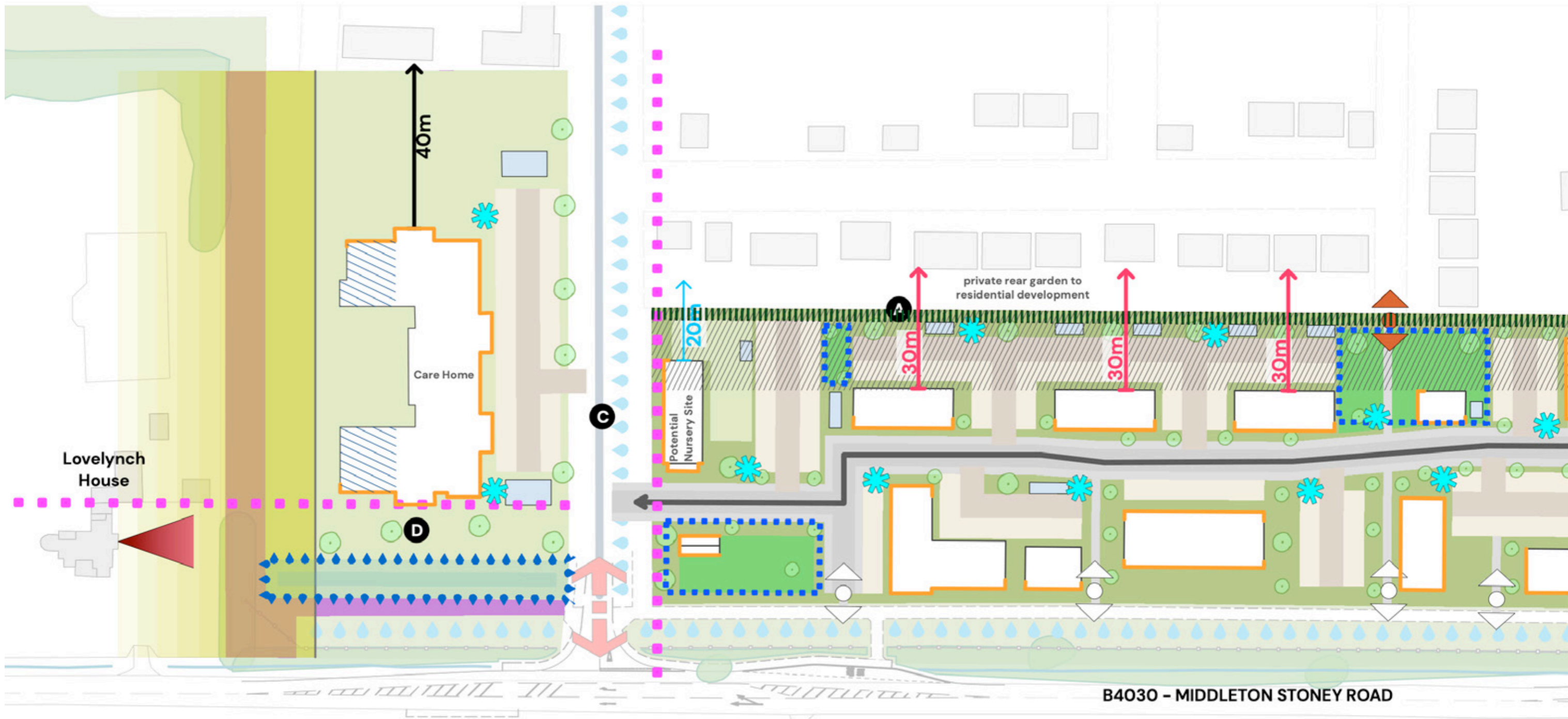
B

KEY

- | | | |
|--|---|---|
| 3m landscape mounding and associated landscape planting (within mixed use land area) | Secondary vehicular, ped and cycle access point | Proposed bus stop |
| Proposed structural planting | Proposed access to mixed use area / care home (vegetation removal to be agreed at design stage) | Primary movement route with associated pedestrian / cycleway routes |
| Existing tree/hedgerow planting (from arb survey) | Spine road | Mixed use neighbourhood centre |
| Proposed pedestrian / cycleway access to residential development | Strategic Secondary Street | Care home |
| Potential pedestrian / cycleway access from mixed use to new footpath / cycleway along Middleton Stoney Road | Potential swales | Proposed acoustic fence and bund |
| Proposed ped cycle access point | Indicative two way cycle only link | |
| Primary vehicular, bus, ped and cycle access point | Indicative pedestrian / cycleway movement | |

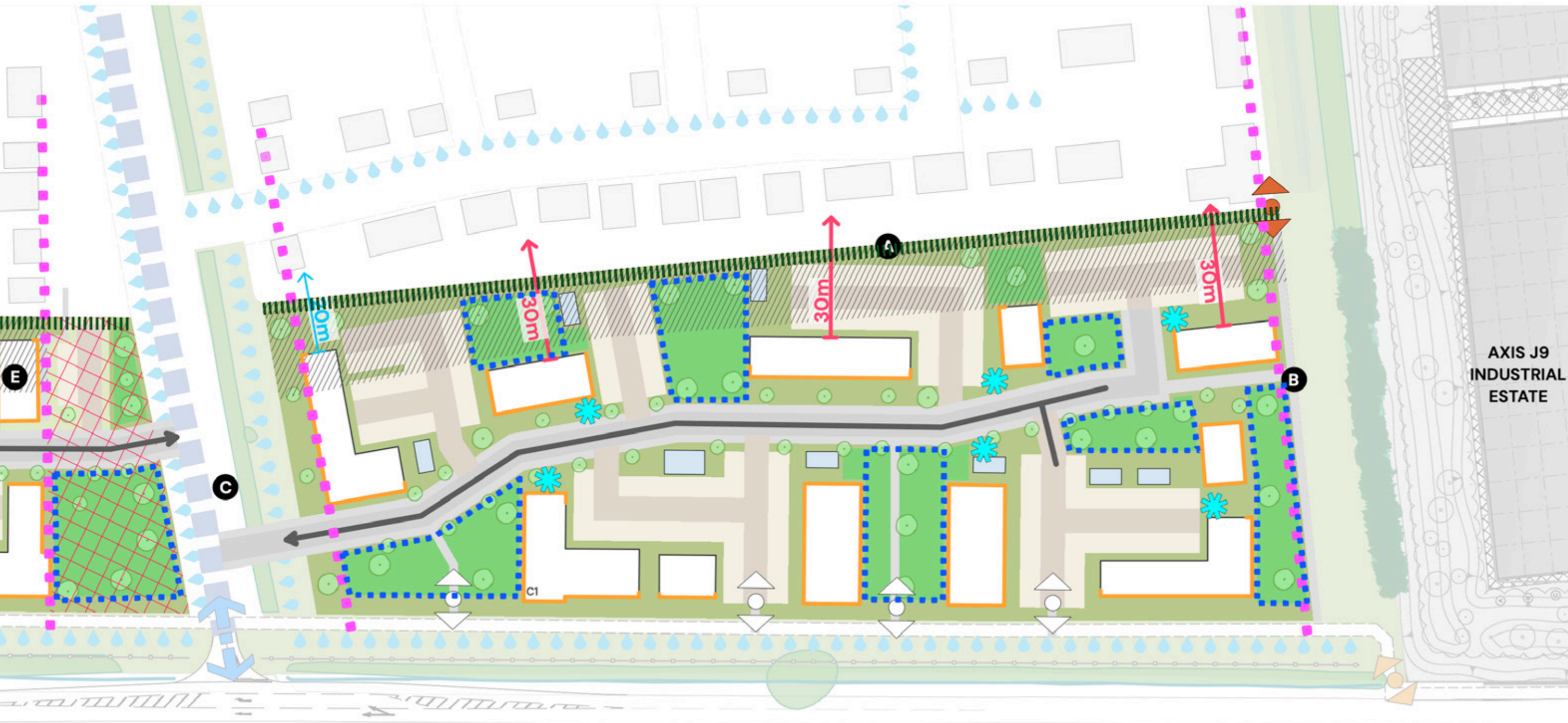


Mixed Use Framework Plan



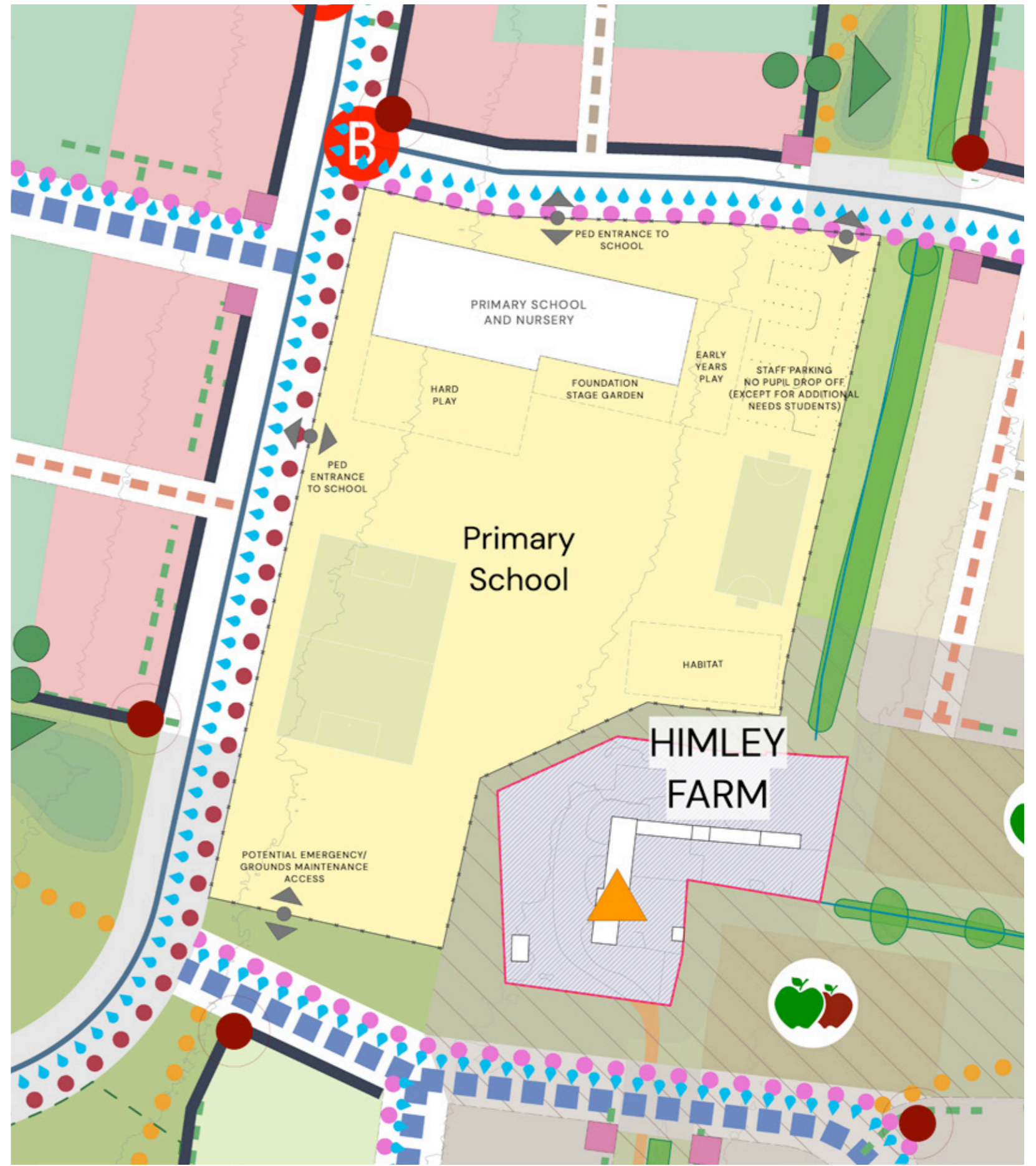
KEY

				<p>Notes:</p> <p>Unless noted, Use classes are assumed to be class E - Commercial, Business, Service.</p> <p>Bins and bike storage to all areas where required.</p> <p>Storage containers 10-12ft for localised mixed use items.</p> <p>Parking provision to be in line with current local design policy. All parking shown on plan is illustrative.</p> <p>See approved parameter plan Penoyre & Prasad, 'Building Heights - Parameter Plan 5', drawing number: 592-PL-104 H, for minimum and maximum heights.</p>



Mixed Use Development Principles





2.4-3m high weldmesh fence



Covered cycle stand

Primary School Indicative Layout

PRIMARY SCHOOL

- 5.18 The education facilities should provide a safe and welcoming environment for children, providing a flexible space where pupils can learn, socialise and support each other. The primary school will be located in to the centre of the site within easy walking distance of the new residents. With a segregated cycleway and footways provided alongside the entire length of the primary street and drop off in private vehicles discouraged, the development will focus on travel to school by sustainable modes of transport.
- 5.19 Specific architectural guidelines are not set out for the educational facilities, however, it is expected that the buildings will be high-quality and sustainable, reflecting the principles of the wider residential development. It is anticipated that the school will be delivered by OCC as the Local Education Authority.

Unique and defining characteristics

- The proposed primary school will be prominently located in the centre of the development, adjacent to the Primary Street, and the main school building will front the strategic secondary street to the north of the school site;
- The school and site should be designed to meet OCC requirements and early engagement with officers is encouraged; and
- Contemporary architectural approach to accentuate the key nature of the building;
- Integration of sustainable building techniques, and inclusion of energy generation/monitoring stations in the final detailed design encouraged, to enhance education and student interaction with the eco-town and zero carbon design principles;
- No drop off spaces for pupils to be provided within the school site (except for special needs students), encouraging travel by sustainable modes. Pedestrian and cycle routes will encourage use by residents ensuring that the routes are green, safe and legible. The boundary of the school site should be secure (in line with the school specific brief / OCC standards) with suitable landscaping to help reinforce it's presence to the Primary Street and define it's boundaries from the adjacent land uses. In particular the edge with Himley Farm should be verdant to help provide a clear separation between the land uses and provide screening.
- The activity zones within the school site (as required by Building Bulletin 103: Area guidelines for mainstream schools, the school specific brief and OCC guidelines) should ensure that the adjacencies of activity zones within the school site reflect the site's constraints and opportunities to reinforce good place making and uphold the vision and policy requirements. For example connections into the green infrastructure and movement network should be considered for the school's pedestrian and cycle links in terms of the links to the Village Green, adjacent green corridors and the edge with Himley Farm were a habitat area would complement the buffer to the retained building.



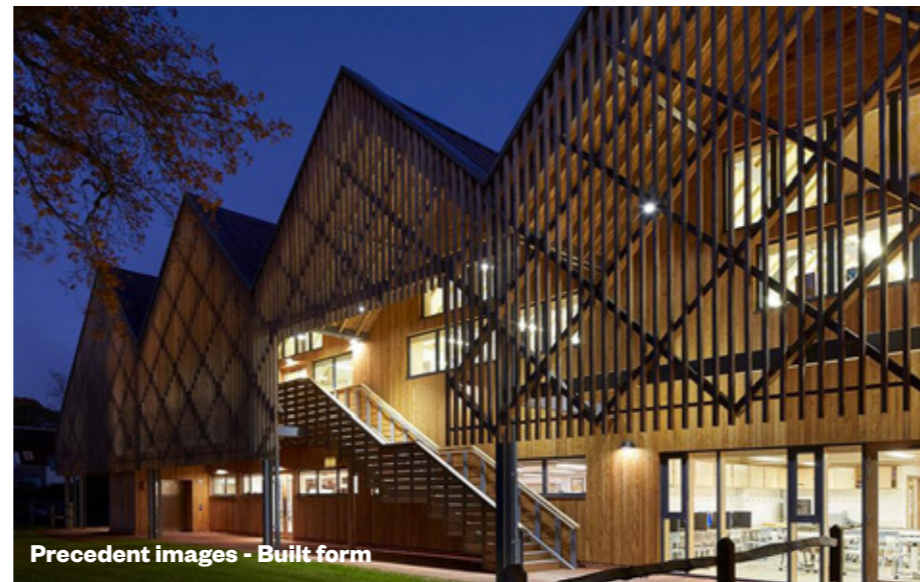
Precedent images - materials



Precedent images - Built form



Precedent images - materials/Built form



Precedent images - Built form



Precedent images - Built form

06

Access & Movement Codes

06

Access & Movement Codes

- 6.1 The proposals should encourage transport via sustainable modes, with the provision of safe and secure routes for both pedestrians and cyclists integrated into the proposals;
- 6.2 High quality leisure routes should be provided throughout the site, encouraging healthy and active lifestyle choices close to dwellings;
- 6.3 The internal street network should provide a series of connected “loops” within the site, providing a choice of routes and access options wherever possible;
- 6.4 Streets and spaces should positively address existing elements of green infrastructure, with existing tree and hedgerow planting incorporated into public open space wherever possible.

EXISTING CONTEXT AND ACCESS TO FACILITIES

- 6.5 Existing facilities in Bicester and the wider surrounding area should be easily accessible, and the preference should be for journeys to be made by sustainable modes wherever possible. Routes should be designed with pedestrian and cycle priority.
- 6.6 The proposed development should be easily accessible, by direct, safe and legible routes, minimising vehicular movements, and encouraging cycle and pedestrian priority across the site.
- 6.7 Existing local sustainable connections surrounding the site are shown in the plan opposite.



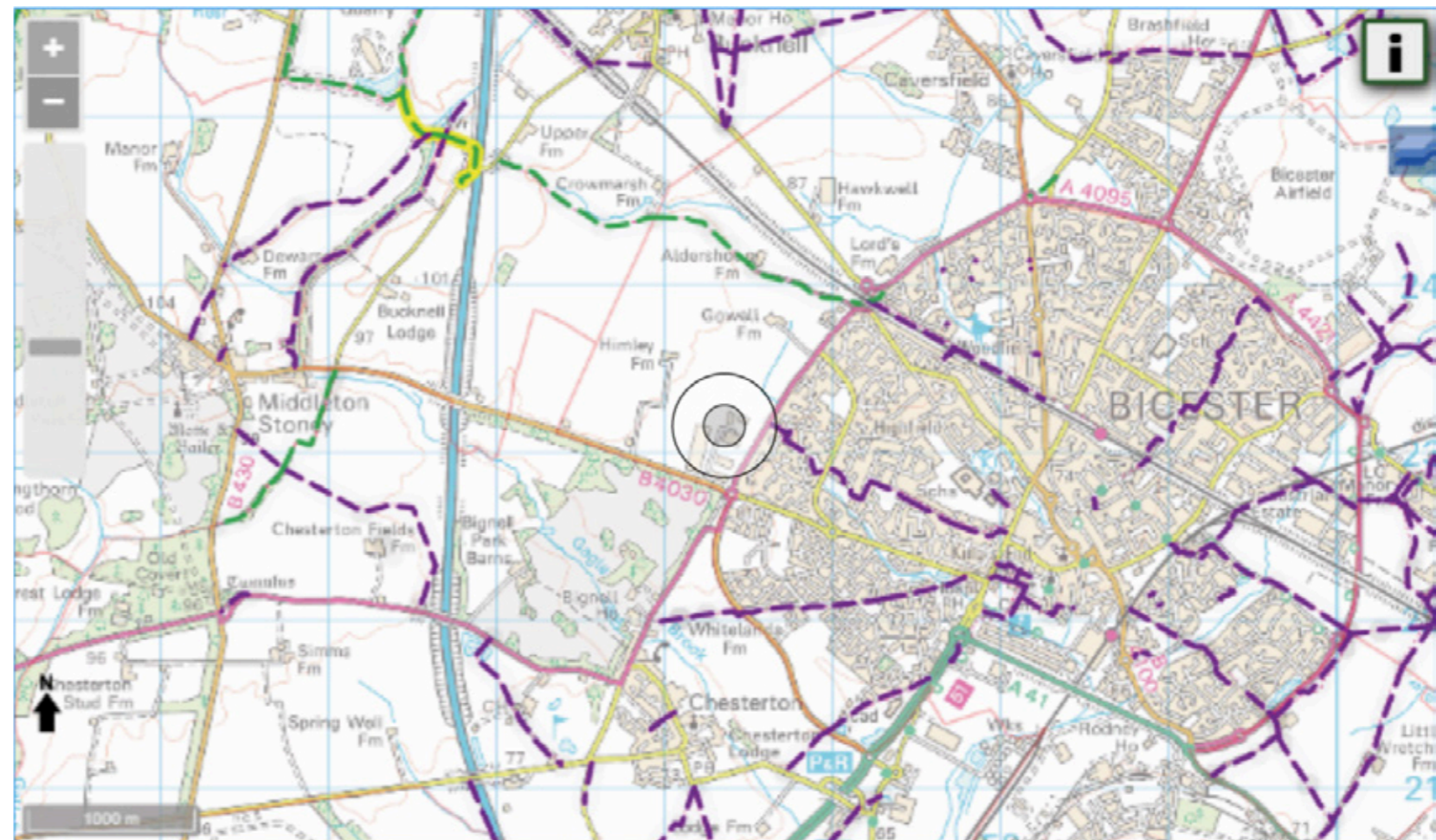
Existing Local Access Plan

ACCESS STRATEGY

- 6.8 Opportunities for links to existing Public Rights of Way (PRoW) within the vicinity of the site should be maximised wherever possible.
- 6.9 Existing PRoW surrounding the site are shown in the plan bottom right.
- 6.10 The existing track from Middleton Stoney Road to Himley Farm will remain an access and landscaped route within the green infrastructure network.
- 6.11 New pedestrian and cycle access points into the development will be provided at the main vehicular access points, and complimented by two new ped/cycle access points onto Middleton Stoney Road.
- 6.12 A clear, legible hierarchy of cycle and pedestrian movement routes should be developed across the site.
- 6.13 New connections will provide key links to community destinations, as well as facilitate links to the existing PRoW network in the wider allocation area and off-site destinations, and all routes will be:
- Integrated into the public open space proposals;
 - Well overlooked by surrounding development;
 - Provide clearly defined pedestrian and cycle routes to key links; and
 - Accessible to all users and abilities.
- 6.14 In addition to the provision of dedicated pedestrian and cycle routes, users can also utilise the street network. Streets should be well overlooked by dwellings and have appropriately located public realm elements, such as street furniture and signage, to help facilitate journeys.
- 6.15 The proposed access arrangements are intended to be compliant with the core design principles of LTN 1/20, helping to maximise the uptake of active travel and promote healthy lifestyle choices.

- 6.16 Access for Non-Motorised Users (NMU's) has been prioritised within the Framework Plan with a coherent on-site network included, offering pedestrians and cyclists direct routes to key community destinations and services.
- 6.17 The key principles set out within the guidance (Coherent, Direct, Safe Comfortable, and Attractive) are fully embedded within the masterplan and the proposed non-vehicular routes have been carefully selected to align with key desire lines within the site and towards existing off-site facilities.

- 6.18 The intention is to provide a high-quality network that is comfortable and attractive so appropriate widths have been selected for the new routes, in accordance with the guidance, and also embracing the principles of Gear Change policy which advocates doubling the uptake of active modes of travel in comparison with 2011 census mode shares.
- 6.19 A Mobility Hub will also be provided at the Local Centre in the south of the site, placing a higher quality local interchange with frequent bus services, taxis, cycles and e-scooters close to the shops and services.



Oxfordshire County Council – Public Right of Way Map

PROPOSED VEHICULAR ACCESS POINTS

6.20 The proposed development will be accessed via a series of new vehicular access points:

- 1) Middleton Stoney Road West;
- 2) Middleton Stoney Road East;
- 3) Axis J9 industrial estate (potential future access to wider allocation area);
- 4) Eastern site boundary (potential future access to wider allocation area);
- 5) Northern site boundary (potential future access to wider allocation area);
- 6) North-western site boundary (potential future access to wider allocation area);

6.21 The above proposed vehicular access points are shown in **Figure 3**.

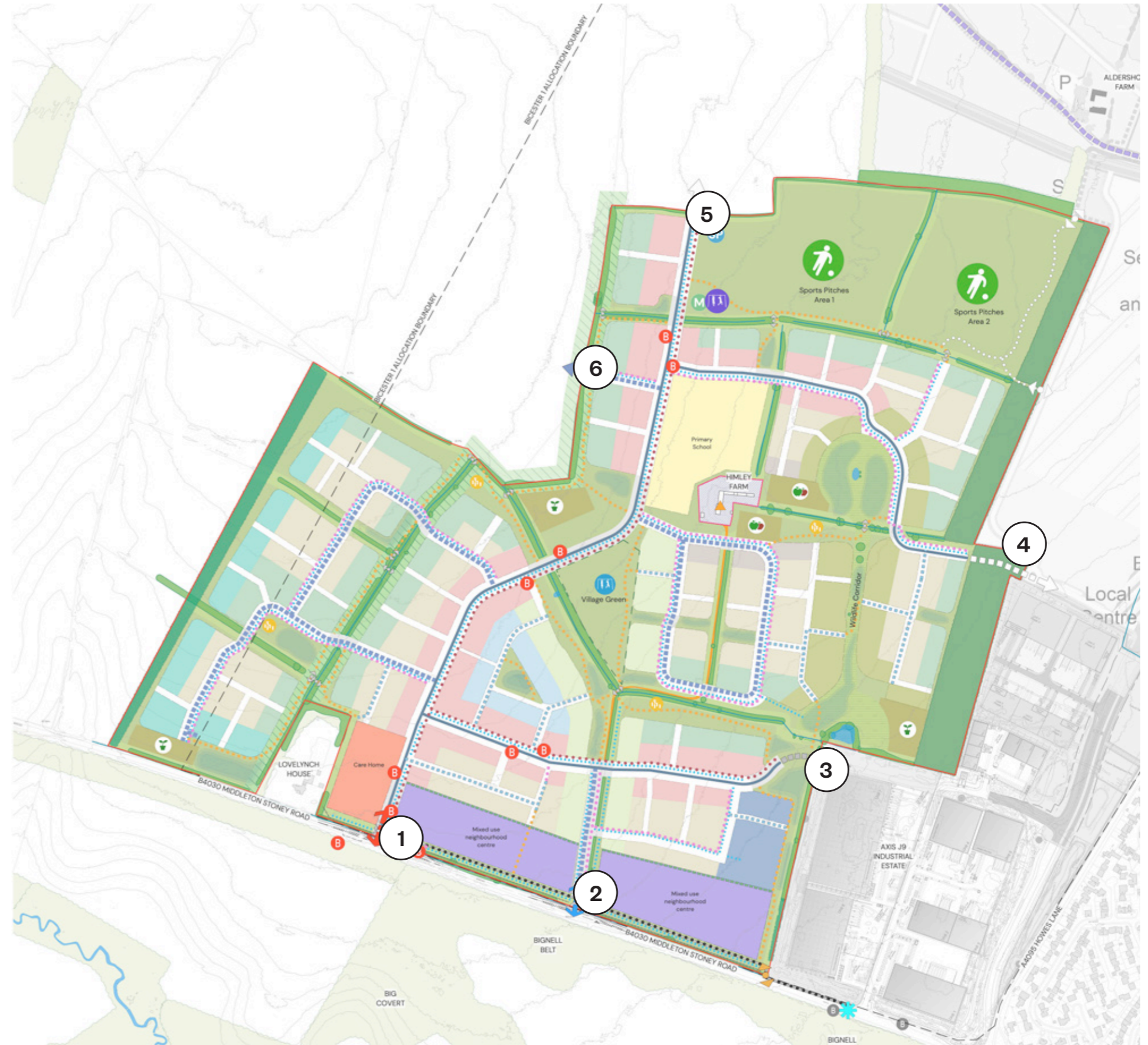


Figure 3 - Proposed Vehicular Access Points

1 Middleton Stoney Road West - The proposed access provides a carriageway width of 6.5m, with 12m radii, and 3m wide shared pedestrian / cycle footway on both sides of the carriageway. There is also a 2.5m wide grass verge separating the carriageway and the shared footway. The proposed access road connects with the B4030, to the south, operating as a priority junction, with a 50m long ghost island right turn lane for inbound vehicles travelling from the south east.

2 Middleton Stoney Road East - The proposed access provides a carriageway width of 5.5m, with 12m radii, and 3m wide shared pedestrian / cycle footway on both sides of the carriageway. There is also a 2.5m wide grass verge separating the carriageway and the shared footway. The proposed access road connects with the B4030, to the south, operating as a priority junction, with a 50m long ghost island right turn lane for inbound vehicles travelling from the south-east.

3 Axis J9 industrial estate (potential future access) - The proposed access provides a carriageway width of 6.5m, with 12m radii, and 3m wide shared pedestrian / cycle footway on both sides of the carriageway. There is also a 2.5m wide grass verge separating the carriageway and the shared footway. The proposed access road connects with Empire Road, to the east, operating as a priority junction.

4 Eastern site boundary (potential future access) - The proposed access provides a carriageway width of 6.5m, with 12m radii, and 3m wide shared pedestrian / cycle footway on both sides of the carriageway. There is also a 2.5m wide grass verge separating the carriageway and the shared footway. The proposed access road connects with Empire Road, to the east, operating as a priority junction.

5 Northern site boundary (potential future access) - The proposed access provides a carriageway width of 6.5m, with 12m radii, and 3m wide shared pedestrian / cycle footway on both sides of the carriageway. There is also a 2.5m wide grass verge separating the carriageway and the shared footway.

6 North-western site boundary (potential future access) - The proposed access provides a carriageway width of 6.5m, with 12m radii, and 3m wide shared pedestrian / cycle footway on both sides of the carriageway. There is also a 2.5m wide grass verge separating the carriageway and the shared footway.

PROPOSED PEDESTRIAN AND CYCLE, AND EMERGENCY ACCESS POINTS

- 6.22 The proposed development will provide a range of safe and sufficient new pedestrian and cycle access points into and within the development.
- 6.23 The main accesses provide 3m wide shared pedestrian / cycle footway on both sides of the carriageway, with a 2.5m wide grass verge separating the carriageway and the shared footway. Internally, the side roads of the main access roads provide 2m wide footways on both sides of the carriageway, with cyclists expected to join the carriageway (given the low number of dwellings and associated vehicle trips).
- 6.24 There is also a 4m wide shared pedestrian / cycle footway connection along the southern boundary of the site, running parallel to the B4030, and connecting to existing shared pedestrian/cycle footway infrastructure to the east at Empire Road. To the west the shared pedestrian/cycle footway connects to the Middleton Stoney Road/Howes Lane roundabout and provides links east into central Biicester.
- 6.25 In terms of emergency access points – given the proposed development has two main access points from the B4030, in addition to a number of future additional access points, there is no further requirement for an additional / independent emergency access.

CYCLE ACCESS STRATEGY AND LTN 1/20 COMPLIANCE

- 6.26 Key cycle links through the development will complement the existing National Cycle Network in Bicester. Reflecting desire lines to local facilities and services the proposed routes will provide clearly sign posted sustainable transport links and provide access to key destinations both on and off-site.
- 6.27 Both north-south and east-west cycle routes should be provided across the development. The network of cycle routes provided will enable the site to be LTN1/20 compliant.
- North-south cycle route – the main accesses into the site is taken from the south (off the B4030) providing 3m wide shared pedestrian / cycle footway on both sides of the carriageway, with a 2.5m wide grass verge separating the carriageway and the shared footway, linking all the way up to the northern boundary.
 - East-west cycle route – the proposed east-west connections are taken from multiple points, however the main two ‘east-west’ cycle routes are:
 - Cycle link adjacent to the B4030 – providing a 4m wide shared pedestrian / cycle footway link from the site accesses to the southern part of Empire Road in the east. This is compliant with LTN 1/20 for peak hour 2-way cycle flow of over 1000+, as per Table 5.2 in LTN 1/20 (shown in the table below).
 - Internal route - providing a 3m wide shared pedestrian / cycle footway on both sides of the carriageway, with a 2.5m wide grass verge separating the carriageway and the shared footway, linking from the main access road to the eastern boundary of the site and connecting to the northern part of Empire Road in the east. This is compliant with LTN 1/20 for peak hour 2-way cycle flow of 300-1000 cyclists as per Table 5.2 in LTN 1/20 (shown in the table below).
- 6.28 The above cycle routes will link / connect to existing local and national cycle routes connecting to the site to Bicester town centre.
- 6.29 As well as the routes identified here, cycle access will also be provided at all vehicular access points, and other cycle routes through the development will be available through the network of proposed streets (with provision for on carriageway cycling).

Cycle Route Type	Direction	Peak hour cycle flow (either one way or two-way depending on cycle route type)	Desirable minimum width* (m)	Absolute minimum at constraints (m)
Protected space for cycling (including light segregation, stepped cycle track, kerbed cycle track)	1 way	<200	2.0	1.5
		200-800	2.2	2.0
		>800	2.5	2.0
	2 way	<300	3.0	2.0
		>300-1000	3.0	2.5
		>1000	4.0	3.0
Cycle lane	1 way	All – cyclists able to use carriageway to overtake	2.0	1.5

*based on a saturation flow of 1 cyclist per second per metre of space. For user comfort a lower density is generally desirable.

LTN 1/20: cycle land and track widths



KEY

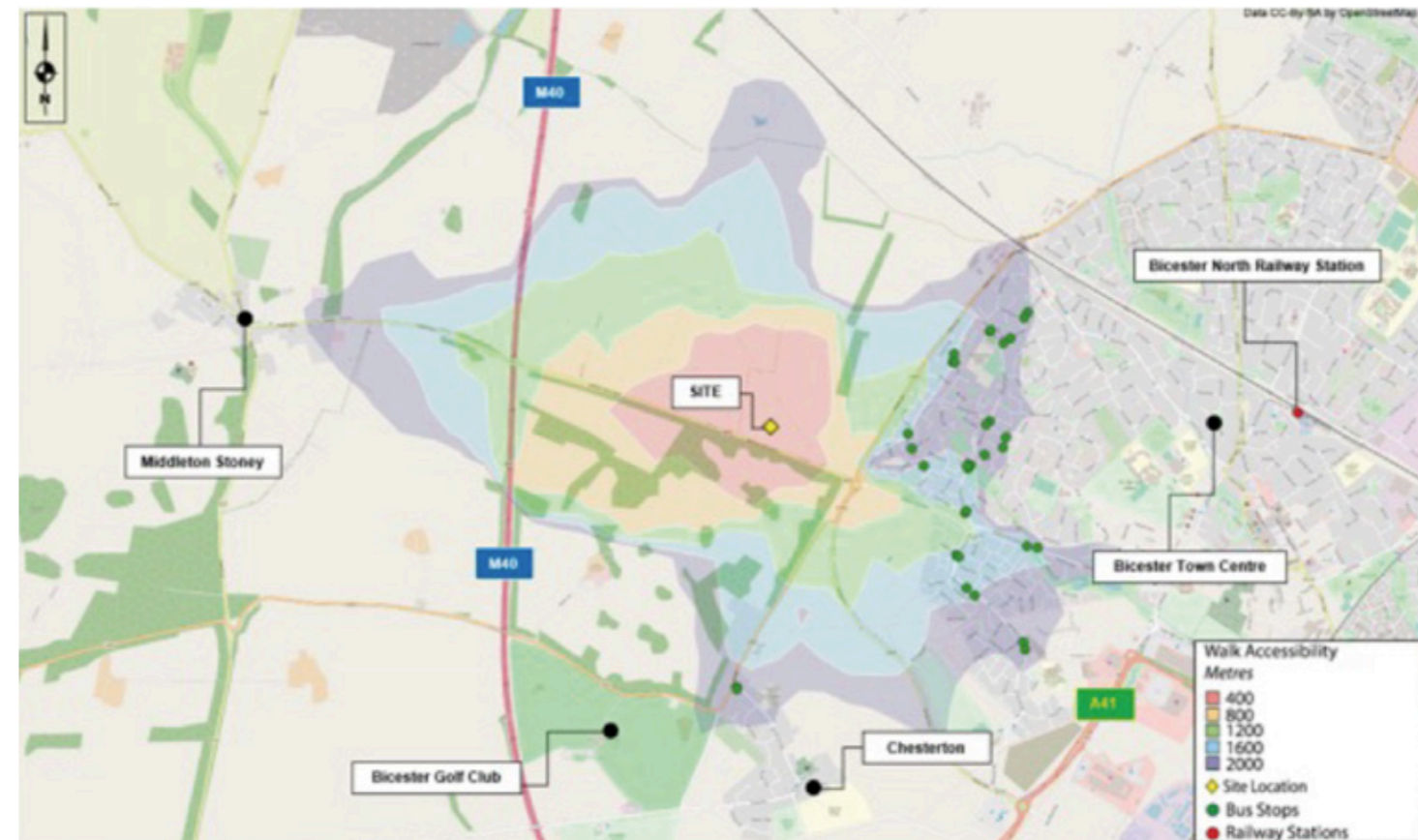
	Existing uncontrolled crossing point
	Existing field accesses retained in-situ to provide ped/cycle access through POS
	Existing PRoW - bridleway (off site)
	Primary vehicular, bus, ped and cycle access point
	Secondary vehicular, ped and cycle access point
	Potential future bus, vehicular, ped and cycle link to wider Bicester 1 allocation site
	Potential vehicular, ped and cycle only link to wider Bicester 1 allocation site
	Potential future bus, emergency vehicular, ped and cycle only link to wider Bicester 1 allocation site
	Proposed ped cycle access point
	3m two-way segregated cycle route
	3m shared use ped/cycleway
	3m shared use ped/cycleway through open space
	4m shared use ped/cycleway
	Indicative on street cycle link
	Potential future ped/cycle link

Strategic Cycle Access Strategy Plan

PEDESTRIAN ACCESS STRATEGY

- 6.30 Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly those under 2km. The guidance on the preferred maximum walking distances to amenities is given in the Chartered Institution of Highways and Transportation [CIHT] document “Providing for Journeys on Foot” (2000).
- 6.31 In terms of commuting journeys by foot, the desirable distance is 500m, the acceptable distance is 1km and the preferred maximum is 2km. However, the distance that people are prepared to walk depends upon many factors; there are obvious physical factors such as age, health and disabilities, along with factors concerning the quality of the route and the environment.
- 6.32 Paragraph 2.3 of TA91/05 Provision for Non-Motorised Users states that ‘Walking is used to access a wide variety of destinations including educational facilities, shops, and places of work, normally within a range of up to 2 miles’ (3.2km).
- 6.33 Paragraph 2.2 of TA91/05 states that 2 miles is ‘a distance that could easily be walked by the majority of people’ and (at paragraph 2.3) that ‘Walking and rambling can also be undertaken as a leisure activity, often over longer distances’.
- 6.34 In relation to shorter trips in particular, the CIHT publication Planning for Walking (section 2.1) states that across Britain about ‘80% of journeys shorter than 1 mile are made wholly on foot’.
- 6.35 The Design Code shows connectivity in line with the cycle access principles set out in LTNI/20.
- 6.36 Final details of adoption and route formation are to be resolved at the Reserved Matters and/or detailed stage. A balanced approach will be required with consideration for place making alongside the needs of connectivity.

- 6.37 Walking catchment plans can easily assess the approximate distances available by foot. Figure 5 below shows the 2km walking catchment from the development, which illustrates the areas which lie within a reasonable walking distance.
- 6.38 Manual for Streets [MfS] emphasises this advice, stating that “walkable neighbourhoods” should have a range of facilities available within 800m. However, this distance is not regarded as the upper limit for walking journeys, and MfS uses the principle that walking offers the greatest potential to replace short car trips, particularly those under 2km in length.



2km Walking Catchment

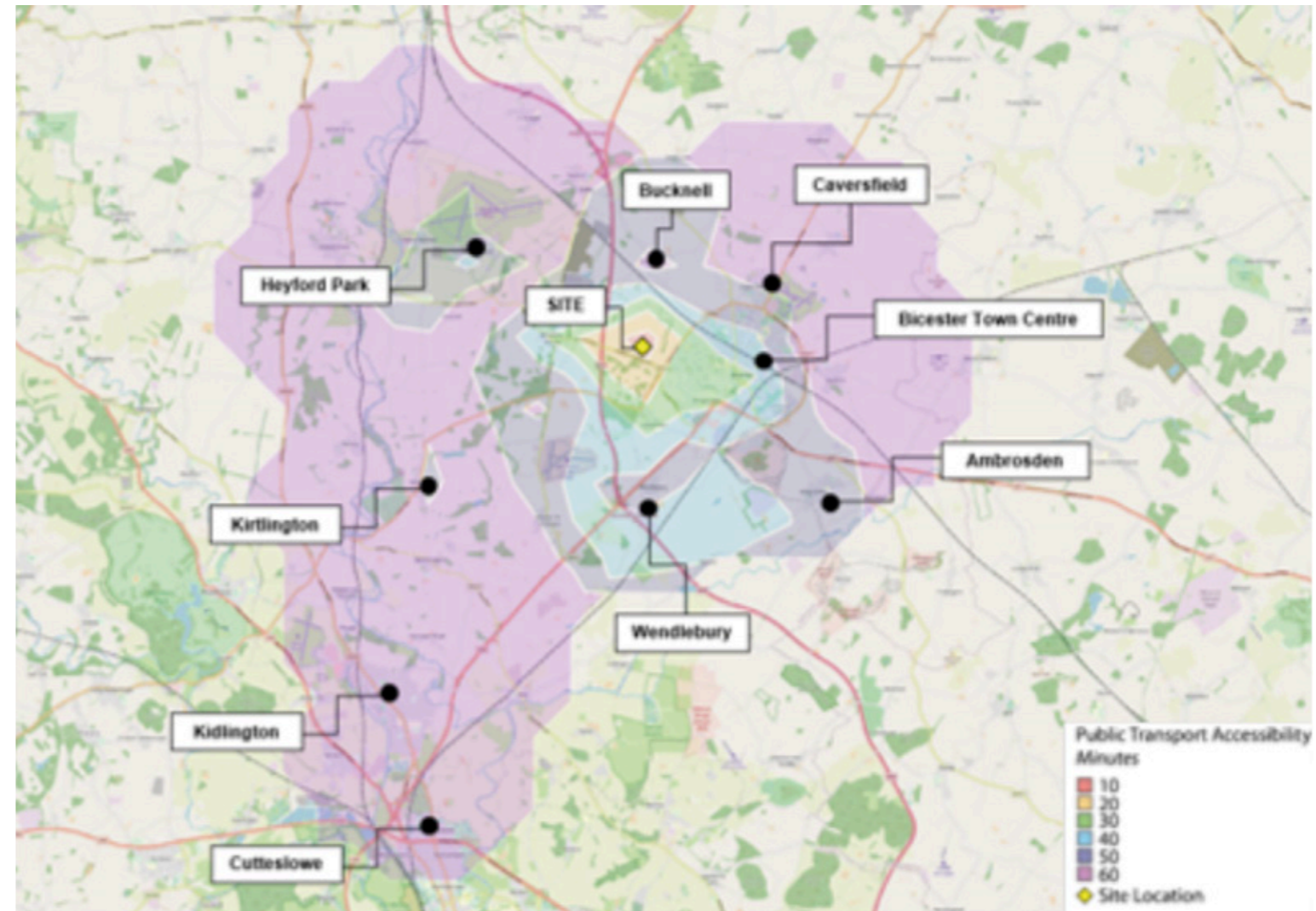
- 6.39 The tertiary streets will be a single level surface with footways on both sides and will be designed to constrain vehicle speeds to 15mph to create an environment cyclists can mix safely with vehicles on the carriageway. Home zones will be designed as shared surfaces creating a comfortable and safe environment for pedestrian, cyclists and slow-moving vehicles (approximately 5mph) to mix.
- 6.40 To ensure pedestrian and cycle routes within the street network are well used and fit for purpose it is proposed they are well lit, use high quality surface materials and ensure natural surveillance. Safety of pedestrians and cyclists will be ensured by providing routes of adequate widths and with numerous crossing points. Additionally, traffic calming measures will be implemented along the primary and secondary streets to reduce vehicle speeds and maximise pedestrian cycle safety across the Himley Village development.
- 6.41 It is important to create continuous, clear, well-lit and attractive walking routes with good sightlines which will aid wayfinding, as people feel safer on streets and in spaces where there are other people around.
- 6.42 The way that streets join to each other and the way that people are able to cross streets and access points all have an important influence on walking and cycling. The choice of junctions also influences where built form may be positioned and so the quality of the street as a public space.
- 6.43 As can be seen from Figure 5 there are bus stops available within the 2km catchment which is still considered to be within the upper limit of reasonable walking distance (from Manual for Streets [MfS] Guidance). The proximity to this local bus network provides opportunities for pedestrians to travel further afield which enables access to be gained to a variety of local destinations.



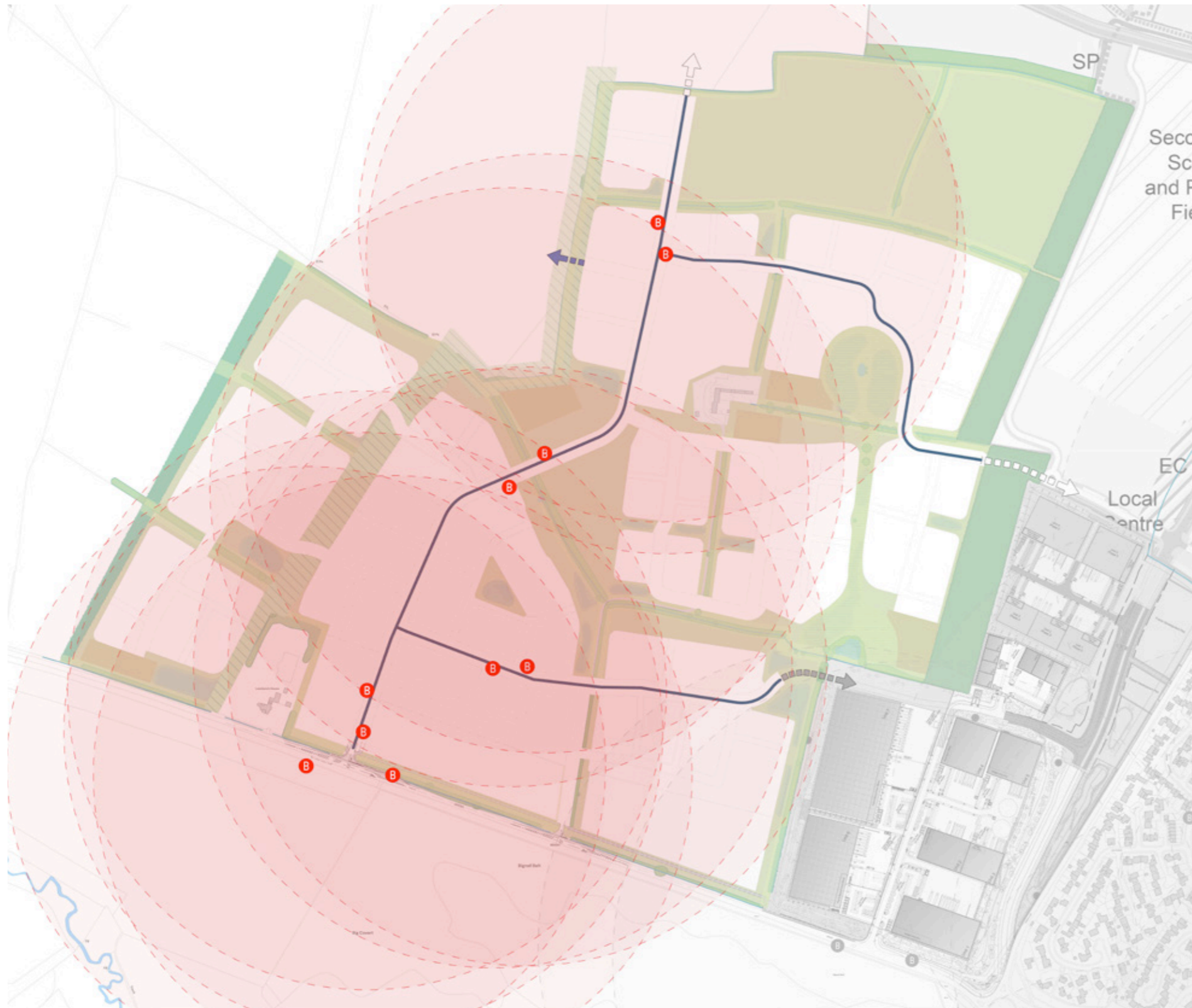
Strategic Pedestrian Access Strategy Plan

PUBLIC TRANSPORT STRATEGY

- 6.44 Access to public transport is key to providing people with choice for everyday journeys beyond the immediate neighbourhood, such as to town centres, schools and employment locations. Good access to public transport helps reduce reliance on the private car.
- 6.45 A site or location has good public transport accessibility when dwellings have a public transport stop within walking distance. The distances that people are prepared to walk from their dwelling to reach public transport are determined by the nature and quality of the public transport service, how attractive and safe the walk feels, and the total length of their journey. Generally, people are prepared to walk further to a railway station or tram stop (10 minutes) than to a bus stop (5 minutes).
- 6.46 There are a number of bus stops available within the 2km catchment which is still considered to be within the upper limit of reasonable walking distance (from Manual for Streets [MfS] Guidance).
- 6.47 The nearest bus stop is located to the south of the site on the B4030, approximately circa 750m from the primary access and 400m from the secondary access.
- 6.48 The future build out of the development includes provision of a bus link outside of the Himley Village development from the new strategic link road into the development to provide a priority route for bus services. The means of designing and enforcing the bus links will be determined through agreement with OCC.
- 6.49 Public Transport catchment plans can easily assess the approximate distances available by public transport. The plan opposite shows the 60-minute public transport catchment from the development.



60minute Public Transport Catchment (extracted from supporting transport reports)



KEY

- Existing bus stop adjacent to allocation area
- Existing bus stop 400m catchment
- Proposed primary movement route
- Potential future bus, vehicular, ped and cycle link to wider Bicester 1 allocation site
- Potential vehicular, ped and cycle only link to wider Bicester 1 allocation site
- Potential future bus, emergency vehicular, ped and cycle only link to wider Bicester 1 allocation site
- Proposed bus stop
- Proposed bus stop 400m catchment

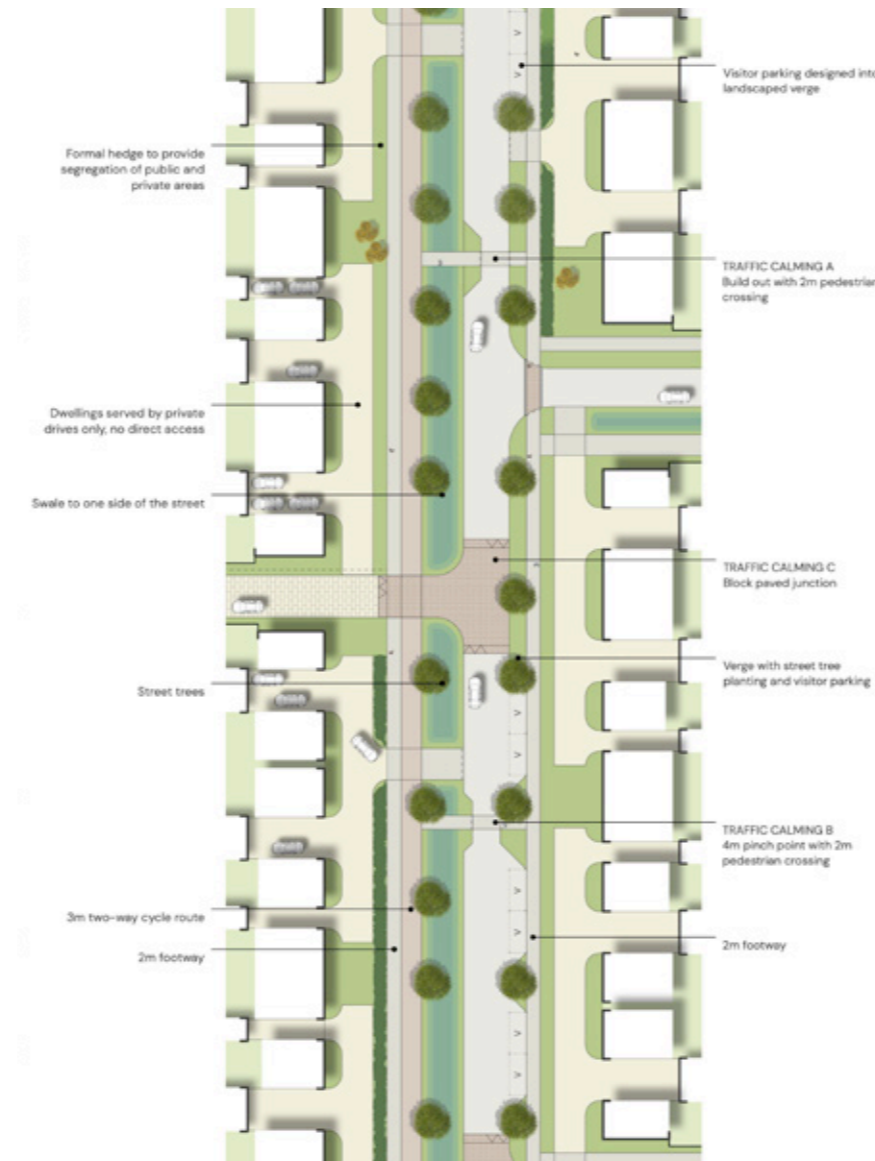
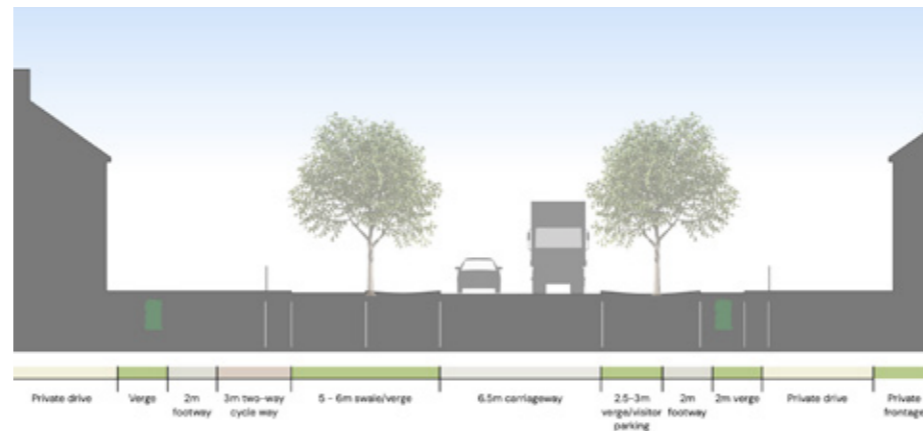
Proposed Public Transport Strategy Plan

STREET HIERARCHY AND TYPOLOGY CODE

6.50 The following is to be designed as per the detailed street design table below.

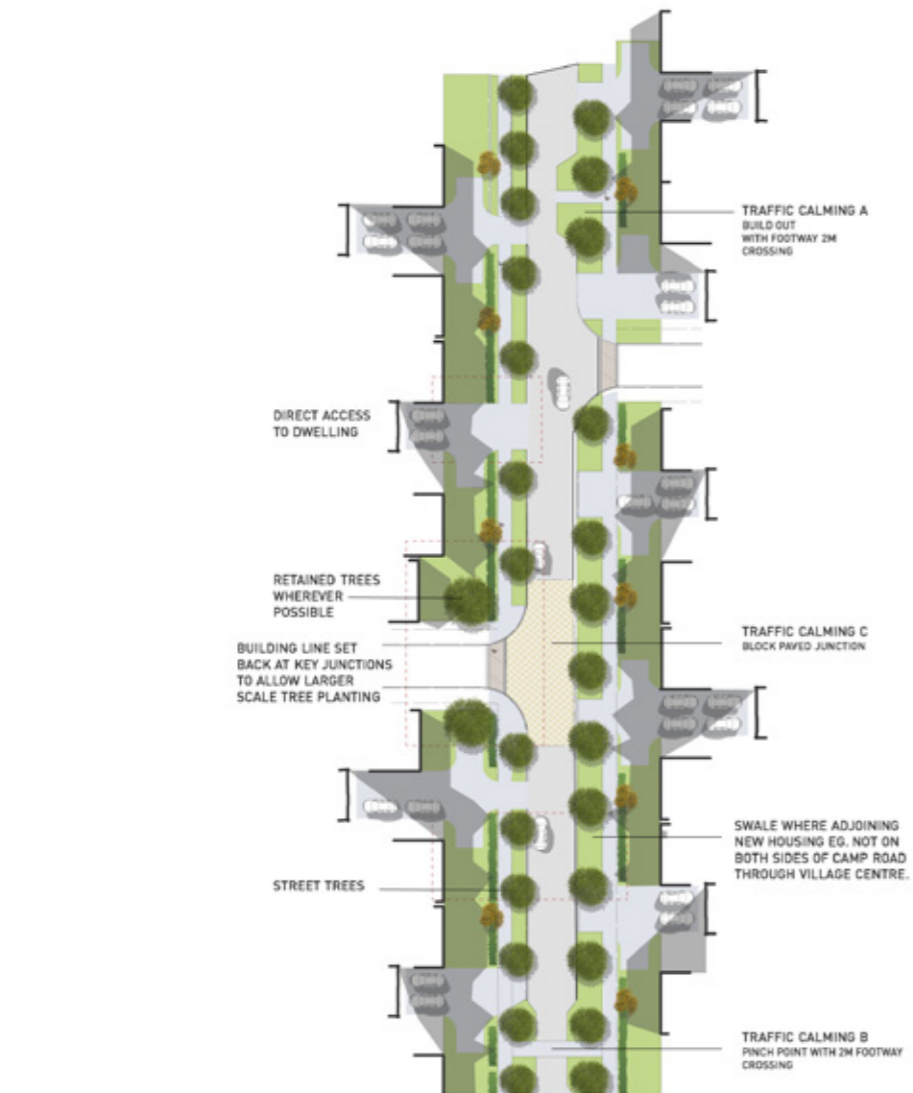
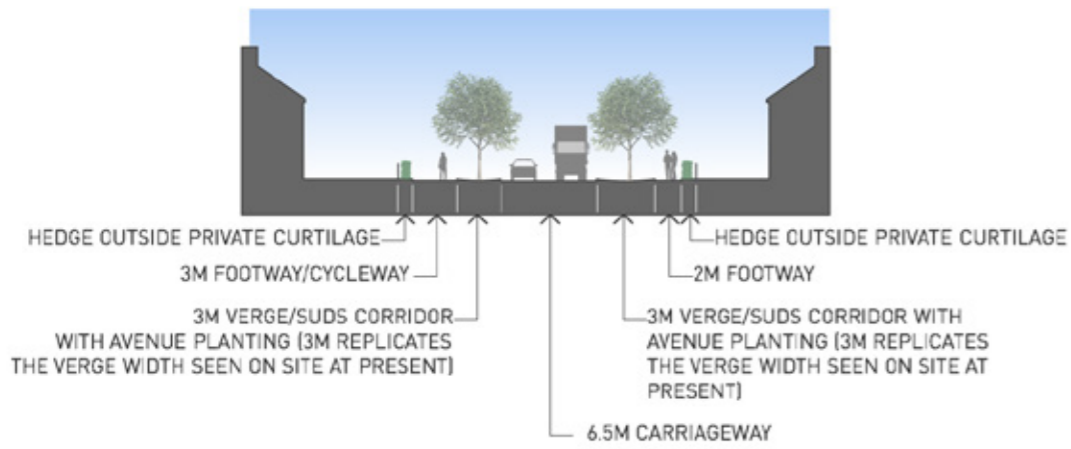
SPINE ROAD

DIMENSIONS AND CHARACTER	
Design speed	20 Mph
Bus route	Yes
Carriageway width	6.5m
Footway/cycleway (width and occurrence)	2 X 2m footway 1 X 3m two-way route
Verge	5-6m swale/verge to one side,
On street visitor parking	3m verge/parking to the other
Direct access to properties	V1 = no. Egress in forward gear only. Dwellings to be served from shared private drives or mews streets, behind V2 = limited direct access on east west movement, otherwise as per v1 above
Maximum number of properties served	N/a
TECHNICAL DESIGN CRITERIA	
Swept paths requirements	Bus and 4-axle refuse vehicle
Junction radii	8m
Forward visibility	43m
Traffic calming options	A - left or right hand build out - horizontal deflection B - pinch points, horizontal deflection C - raised table, gentle approach ramp
Street lighting (to be agreed with occ at detailed stage)	Column mounted
Swept paths	Bus and 4-axle refuse vehicle
Forward visibility	45m
Junction sightlines	2.4 X 45m
Junction spacing	Site specific
Junction radii	10m
Street lighting (to be agreed with occ at detailed stage)	Column mounted
Statutory services	In shared footway / cycleway surfaces
Drainage	Over edge into swale predominantly
Carriageway surfacing	Asphalt (HRA)
Verge surfacing	Grass and or shrub planting in accordance with landscape detail
Footway surfacing	As carriageway
Kerbing	Flush
Landscape/tree planting	Tree lined avenue, supplemented by hedge planting in public realm



STRATEGIC SECONDARY STREETS

DIMENSIONS AND CHARACTER	
Design speed	20 mph
Bus route	No
Carriageway width	5.5m
Footway/cycleway (width and occurrence)	1 x 2m footway 1 x 3m shared use foot/cycleway
Verge	Min. 4m swale/verge to one side
On street visitor parking	3m verge/parking to the other
Direct access to properties	Mixed access, shared group and direct access
Maximum number of properties served	N/A
TECHNICAL DESIGN CRITERIA	
Swept paths requirements	4-axle refuse vehicle and large car
Junction radii	6m
Forward visibility	25m
Traffic calming options	A - Left or right hand build out traffic calming at 100 - 150mm - horizontal deflection B - Pinch points, horizontal deflection C - Raised table, gentle approach ramp
Street lighting (to be agreed with occ at detailed stage)	Column mounted
Swept paths	4-axle refuse vehicle and large car
Forward visibility	10m
Junction sightlines	2.4 x 25m
Junction spacing	Site specific
Junction radii	6m
Street lighting (to be agreed with occ at detailed stage)	Column mounted
Statutory services	In footway
Drainage	Over edge into swale predominantly
Carriageway surfacing	Asphalt (HRA)
Verge surfacing	Grass
Footway surfacing	As carriageway
Kerbing	Flush
Landscape/tree planting	Tree planting and swales



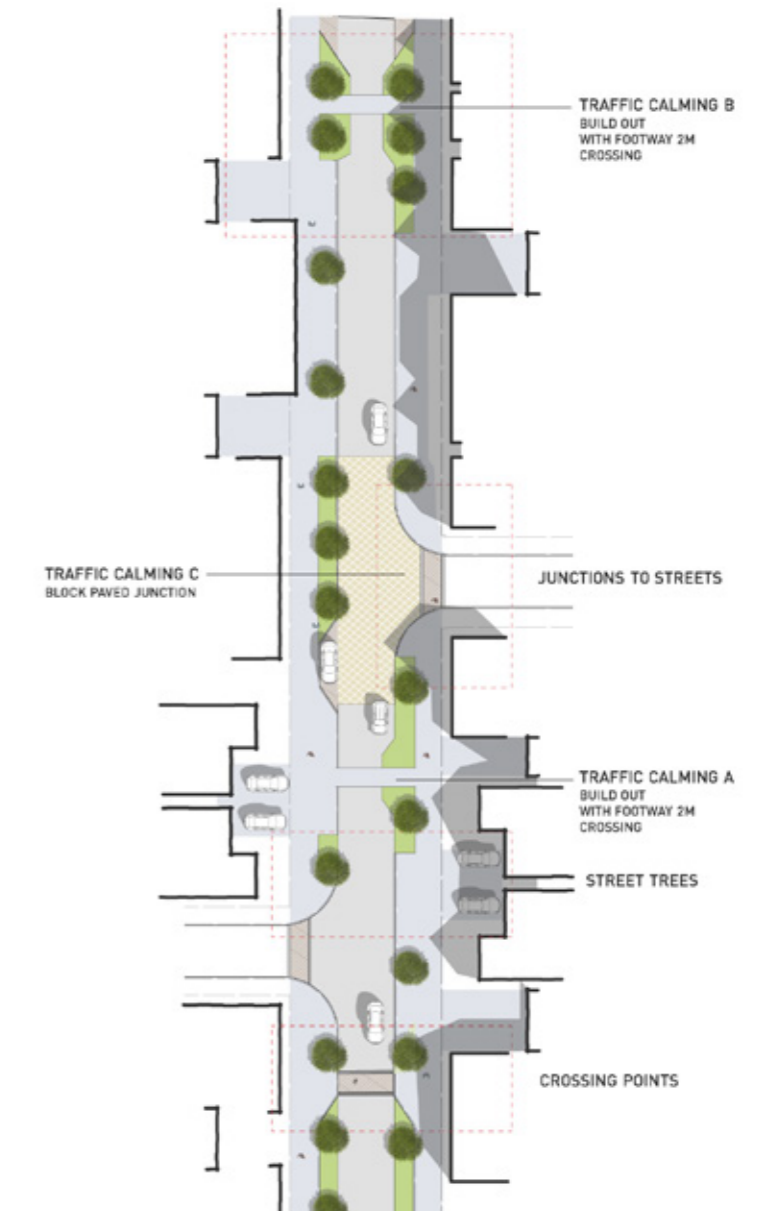
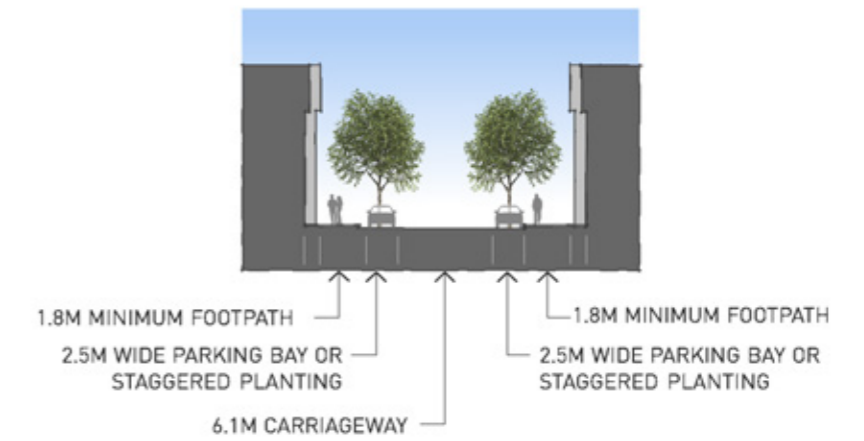
SECONDARY STREETS

DIMENSIONS AND CHARACTER

Design speed	15 mph
Bus route	No
Carriageway width	5.5m
Footway/cycleway (width and occurrence)	2 x 2m footway
Verge	3m verge to one side
On street visitor parking	Lay-bys integrated with street tree planting and verge
Direct access to properties	Yes
Maximum number of properties served	150

TECHNICAL DESIGN CRITERIA

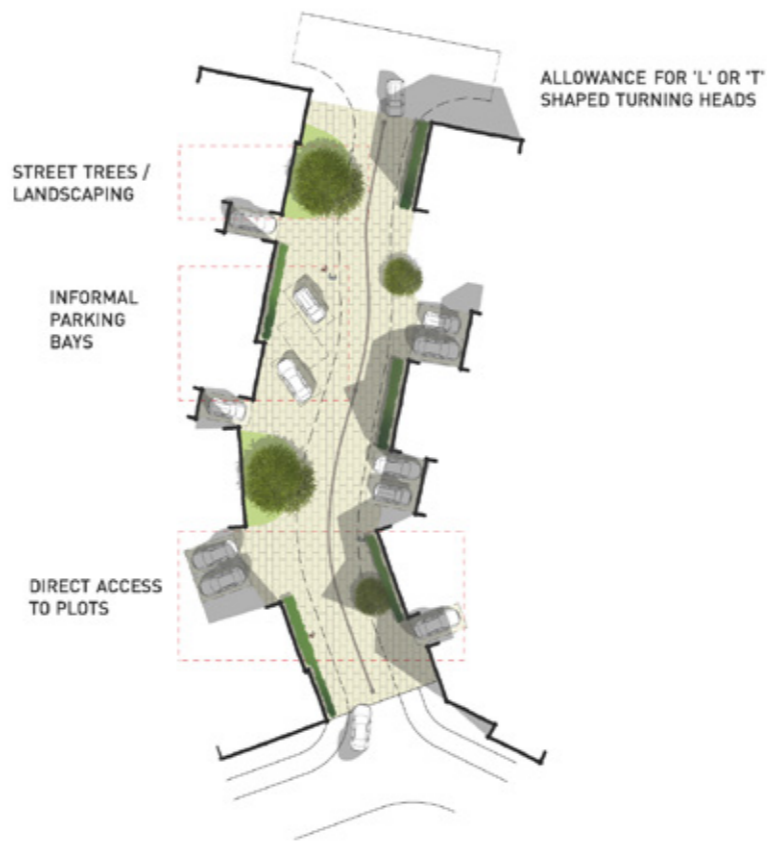
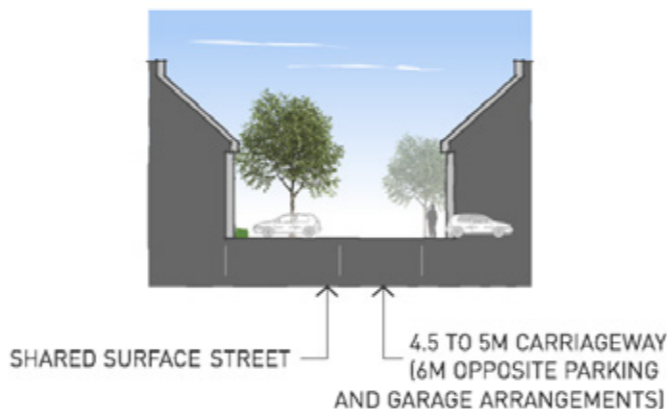
Swept paths requirements	4-axle refuse vehicle and large car
Junction radii	4m
Forward visibility	17m
Traffic calming options	A - Left or right hand build out traffic calming at 100 - 150mm - horizontal deflection
	B - Left or right hand build out - horizontal deflection
	C - Pinch points, horizontal deflection
	D - Raised table, gentle approach ramp
Street lighting (to be agreed with occ at detailed stage)	Column mounted
Swept paths	4-axle refuse vehicle and large car
Forward visibility	10m
Junction sightlines	2.4 x 25m
Junction spacing	Site specific
Junction radii	4m
Street lighting (to be agreed with occ at detailed stage)	Column mounted
Statutory services	In footway
Drainage	-
Carriageway surfacing	Asphalt (HRA) with block paved junctions
Verge surfacing	Grass
Footway surfacing	As carriageway
Kerbing	PCC half batter kerb 125mm upstand
Landscape/tree planting	Tree planting



SHARED SURFACE / MEWS STREET

DIMENSIONS AND CHARACTER	
Design speed	10 mph
Bus route	No
Carriageway width	Minimum 6m.
	7m where perpendicular parking to one side, 8m where perpendicular parking to both sides
	Localised narrowing where appropriate (minimum 4.8m)
Footway/cycleway (width and occurrence)	Accommodated within shared surface
Verge	0.8m required where street lighting is present (green verge or continuation of shared surface)
On street visitor parking	On street visitor parking
Direct access to properties	Yes
Maximum number of properties served	50

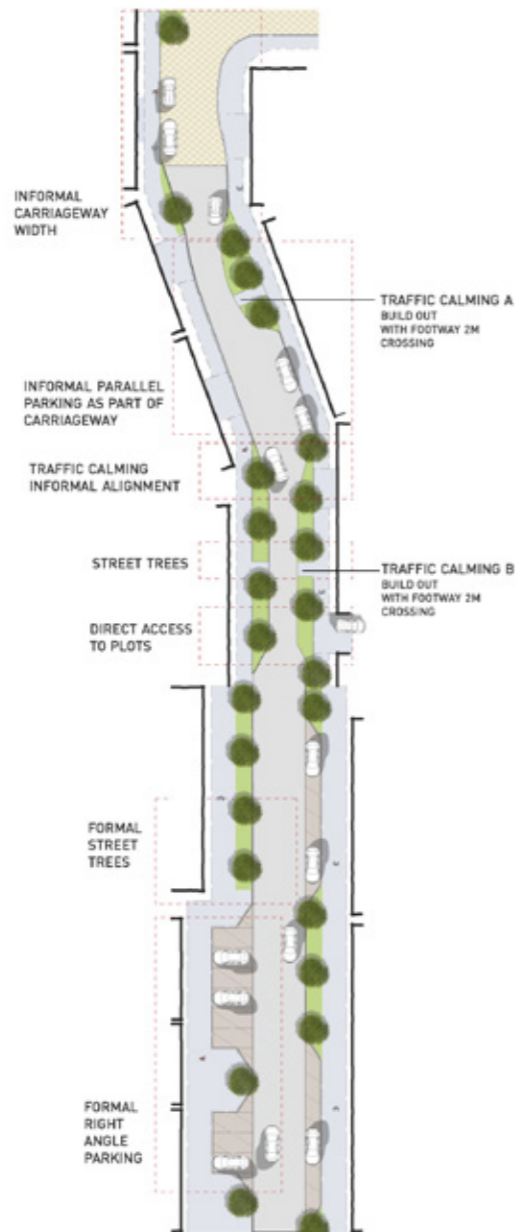
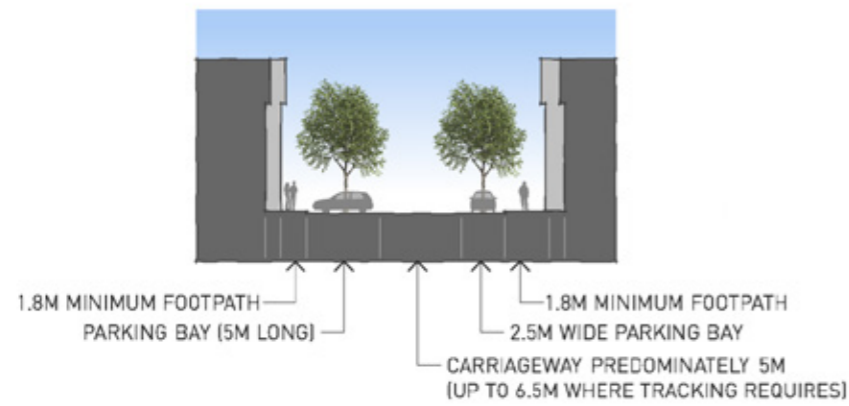
TECHNICAL DESIGN CRITERIA	
Swept paths requirements	4-axle refuse vehicle and large car
Junction radii	4m
Forward visibility	11m
Traffic calming options	A - Left or right hand build out traffic calming at 100 - 150mm - horizontal deflection
	B - Left or right hand build out - horizontal deflection
	C - Pinch points, horizontal deflection
	D - Raised table, gentle approach ramp
Street lighting (to be agreed with occ at detailed stage)	Column mounted
Swept paths	4-axle refuse vehicle and large car
Forward visibility	10m
Junction sightlines	2.4 x 25m
Junction spacing	Site specific
Junction radii	4m
Street lighting (to be agreed with occ at detailed stage)	Column mounted
Statutory services	In carriageway
Drainage	Gully or permeable paving
Carriageway surfacing	Block paving
Verge surfacing	Shrub planting
Footway surfacing	
Kerbing	Flush kerb and/or PCC bull nosed kerb 25mm upstand where drainage required
Landscape/tree planting	Intermittent tree planting



TERTIARY STREETS

DIMENSIONS AND CHARACTER	
Design speed	10 mph
Bus route	No
Carriageway width	4.8 - 5.5m
Footway/cycleway (width and occurrence)	Accommodated within shared surface
Verge	-
On street visitor parking	On street visitor parking
Direct access to properties	Yes
Maximum number of properties served	50

TECHNICAL DESIGN CRITERIA	
Swept paths requirements	4-axle refuse vehicle and large car
Junction radii	4m
Forward visibility	11m
Traffic calming options	A - Left or right hand build out traffic calming at 100 - 150mm - horizontal deflection
	B - Left or right hand build out - horizontal deflection
	C - Pinch points, horizontal deflection
	D - Raised table, gentle approach ramp
Street lighting (to be agreed with occ at detailed stage)	Column mounted
Swept paths	4-axle refuse vehicle and large car
Forward visibility	10m
Junction sightlines	2.4 x 25m
Junction spacing	Driveway crossovers
Junction radii	4m
Street lighting (to be agreed with occ at detailed stage)	Column mounted
Statutory services	In carriageway
Drainage	Gully or permeable paving / over edge
Carriageway surfacing	Ashphalt (HRA) / Block Paving
Verge surfacing	Shrub planting
Footway surfacing	
Kerbing	PCC bull nosed kerb 25mm upstand
Landscape/tree planting	Intermittent tree planting



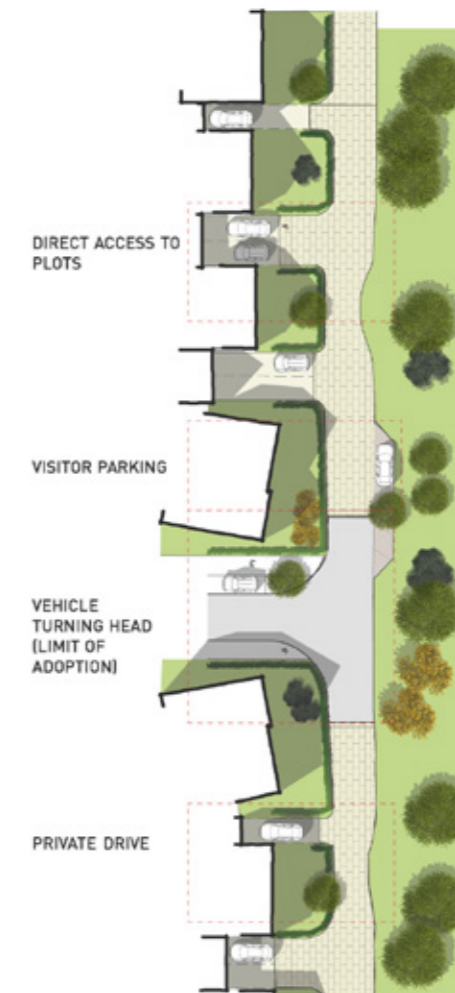
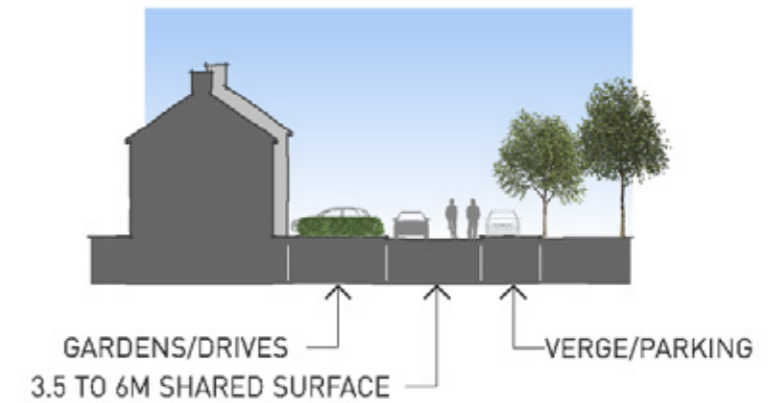
TERTIARY STREETS

DIMENSIONS AND CHARACTER

Design speed	5 mph
Bus route	No
Carriageway width	3.5-6m
Footway/cycleway (width and occurrence)	0-
Verge	-
On street visitor parking	Lay-bys integrated with street tree planting and verge, adjacent to POS
Direct access to properties	Yes
Maximum number of properties served	Up to 5

TECHNICAL DESIGN CRITERIA

Swept paths requirements	-
Junction radii	-
Forward visibility	
Traffic calming options	-
Street lighting (to be agreed with occ at detailed stage)	None
Swept paths	-
Forward visibility	
Junction sightlines	
Junction spacing	Driveway crossovers
Junction radii	
Street lighting (to be agreed with occ at detailed stage)	None
Statutory services	In carriageway
Drainage	Gully or permeable paving / over edge
Carriageway surfacing	Permeable surface
Verge surfacing	Site specific
Footway surfacing	
Kerbing	PCC bull nosed kerb 25mm upstand
Landscape/tree planting	Intermittent tree planting



STREET TREE PLANTING AND LANDSCAPING

6.51 The overarching objectives are to be considered for Street tree planting:

- Avenues of trees along the Spine Road and Strategic Secondary Streets to highlight its status as a key route, to provide a sense of rhythm, regular form and pattern and mark gateways in the development. Adjacent to public open space tree planting may be switched from the verge into the POS in order to provide a larger tree species with a grander scale of canopy in line with the aspirations of the NW Bicester SPD.
- Swales to attenuate the Spine Road and Strategic Secondary Streets should be incorporated into verges wherever possible with areas of grassland, planting and street tree planting to provide a verdant verge.
- Tree species are to be chosen to represent the scale of the streetscape and location within the street hierarchy. As the street hierarchy changes from its different arrangement the street tree planting shall also change in scale to suit the streetscape. Primary and secondary routes shall be more formal, and regular in an avenue style, with the regularity, spacing, form and size of tree planting changing in tertiary streets, shared surfaces, mews and private drives. This will help to mark the transition from main routes to smaller scale streets within the residential areas which have their own character.
- The size of species chosen for tertiary streets, shared surfaces, mews street and private drives will be smaller, with informal spacings. Here species which flower will have priority to ensure colour is provided throughout the street hierarchy.
- To plan for sustainability, risk of tree disease and longevity, species should be mixed, ensuring chances of mass tree failure/loss are reduced, however, tree species shall be chosen to replicate form and shape to ensure the design intent is achieved.

- Accent trees, whether existing or new, to be used along all street types to denote key locations and help to define key land uses and destinations such as the Village Green. A change in tree species and form may also help to define key points along the streets to break long vistas, aid wayfinding and legibility, or help slow the pace of the street. These accent and feature trees will typically be larger specimens in a different form to those used regularly along the streets.
- Clear stem trees should be specified to ensure visibility is afforded, all trees to have 2m minimum clear stem to ensure sightlines are respected. The canopy form and shape of street trees shall be considered to ensure safety and reduce the opportunity for overhanging branches affecting vehicles.
- Tree positions must be coordinated to avoid conflict with parking courts, driveways and junctions, lighting columns and utilities, with adequate unobstructed soil volume.
- Trees along the primary and secondary routes will be semi-mature in size with a minimum 2m clear stem.
- Herbaceous grasses planting can be used within rain gardens and SuDs features within the streetscape - use within verges is to be confirmed with the detailed drainage strategy to ensure suitability in high footfall areas.
- Utilities and services should be planned outside of the highways verges wherever possible, to minimise disturbance to street trees.



	SPINE ROAD	STRATEGIC SECONDARY STREETS/ SECONDARY STREETS	SHARED SURFACE/MEWS STREETS	TERTIARY STREETS	PRIVATE DRIVES
Overarching aesthetic attribute / form to define street tree planting	Large to medium species to provide regular and striking avenue style. V3 only Tree planting adjacent to neighbourhood centre to compliment urban tree planting within public realm.	Large to medium species to provide regular structure as avenue style	Medium sized trees with floral attributes with high percentage of native species	Small to medium species to highlight change in street scale Trees to have seasonal colour with flowers and foliage colour to provide striking feature within the streetscape	Small to medium species to highlight change in street scale Trees to have seasonal colour with flowers and foliage colour with some specimen shrubs
Form	Formal, upright fastigiate tree species and conical shaped trees	Semi-formal, upright fastigiate tree species and conical shaped trees	Mixed tree species with rounded, conical and oval form.	Mixed tree species with rounded, conical and oval form, with use of multi-stems where appropriate.	Mixed tree species with rounded, conical and oval form, with use of multi-stems to add interest.
Spacing	12-15m within verge	10-15m within verge	Varied and irregular	Irregular	Irregular
Tree arrangement and pattern	Regular & symmetrical spacing with single species planted in groups with change in species to highlight junction / crossing	Semi-formal arrangement ie. non symmetrical pattern with regular spacing providing a visible contrast to primary street aiding legibility	Irregular tree planting on single sided streets, alternating in a staggered or zig-zag pattern between verges along the route. To be used to create varied scale with small groups of 2-3 trees of the same species to add small sections of repetition	Informal tree planting with variety of species to maximise diversity. Trees to be provided between front parking bays or within grass verge to be located between development and adoptable highway. These will be maintained by Management Company.	Informal tree planting will be located on outward edges of private drives, and will compliment trees located within adjacent public open spaces. Species will vary with a high percentage use of native species. Where private drives have inherited views of mature tree planting additional street tree planting will not be required, if trees are provided within private frontages.
Verge Treatment	Amenity Grass with planting and bulbs at junctions / key frontage where tree planting is restricted To include swales for Primary Street.		Amenity grass	Amenity grass	n/a
Indicative species	Acer platanoides 'Columnare' Acer campestre Acer Campestre 'Lienco' Acer campestre 'Elsrijk' Liriodendron tulipifera Sorbus torminalis Tilia cordata 'Rancho' Tilia cordata 'Greenspire' Tilia tomentosa 'Brabant'	Carpinus betulus Carpinus betulus 'Frans Fontaine' Liquidambar styraciflua 'Slender Silhouette' Pyrus calleryana 'Chanticleer' Ulmus 'New Horizon' Ulmus 'Americana Princeton' Zelkova serrata 'Green Vase' Gleditsia sp.	Amelanchier 'Robin Hill' Betula pendula Crataegus monogyna 'Stricta' Gleditsia triacanthos Malus trilobata Malus tschonoskii Prunus avium Prunus padus Sorbus aucuparia Sorbus aria 'Lutescens'	Amelanchier 'Ballerina' Cornus controversa 'Variegata' Cornus kousa 'Stella Pink' Crataegus monogyna 'Paul Scarlett' Cornus avellana (multi-stem) Malus trilobata Paulownia tomentosa	Amelanchier lamarokii Cercis siliquastrum Cotoneaster 'Cornubia' Cornus avellana (multi-stem) Euonymus europaeus 'Red Cascade' Ilex aquifolium Ilex sp.
Specification	Semi-mature size to provide instant impact Min 15m ³ available soil volume for tree planting, tree cells to be used below adjacent to provide optimum growing conditions where constrained.		16-18cm girth	12-14cm / 16-18cm girth dependent on location To include multi-stems species for visual interest	
Management	Trees located within main highway verge are to be offered for adoption by OCC. Trees/hedgerow in verge (non-adoptable) to be covered by ManCo.	Trees located within main highway verge are to be offered for adoption by OCC.	Trees located within main highway verge are to be offered for adoption by OCC.	Trees within verges between adoptable highway and development to be covered by Management Company.	Trees within public open space to be covered by Management Company.

TRAFFIC CALMING

- 6.52 Traffic calming and pedestrian crossings locations will be provided in the form of a raised table top.
- 6.53 The detailed design of traffic calming and pedestrian/cycle crossing points is to be developed at the detailed design stage

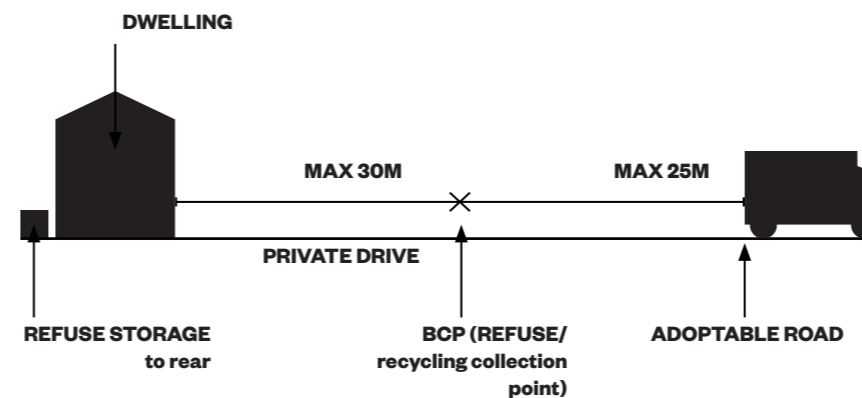
RECYCLING AND REFUSE COLLECTION STRATEGY

Dwelling Refuse

- 6.54 Cherwell District Council currently has a weekly kerbside collection of food and garden waste, and an alternating weekly kerbside collection of recyclable and non-recyclable waste from all residential premises.
- 6.55 Detailed design proposals should provide rear access to all dwellings, allowing residents to store waste bins away from dwelling frontages and within the dwelling curtilage.
- 6.56 Where dwellings are not served from an adoptable road, shared bin collection points (BCPs) should be provided. These will be positioned at a maximum distance of 25m from the nearest adoptable road, ensuring any future bin collection operates within the maximum bin carry distances. In the case of terraced houses, bin collection points or access should be provided to the rear of properties rather than storage facilities located at the front of the dwelling.

Apartment Refuse

- 6.57 Residents of apartments will require access to communal bin stores. The number of bins required will depend on the number of dwellings within an apartment building.
- 6.58 The bins are collected from the bin store, and are not generally moved to kerbside. Communal bins stores should be located no more than 5m from the nearest adoptable road.
- 6.59 Communal bin stores will require screening, constructed in either brick or timber.



Dwelling Refuse & Recycling Collection Diagram

PARKING STRATEGIES

- 6.60 Parking will be well designed and should be provided in locations that are both convenient and well overlooked. It should be designed to be as unobtrusive to the street scene as possible, with screening provided by the use of hedges and planting, where appropriate.
- 6.61 Both allocated and un-allocated visitor parking should be set out in accordance with the types and requirements set out here.

ALLOCATED CYCLE PARKING

- 6.62 Secure and covered cycle parking spaces for individual dwellings should be provided within the curtilage of individual dwellings, at the rates set out below:

DWELLING SIZE	RATE OF PROVISION
1 bed	1 cycle space per dwelling
2 bed or larger	2 cycle spaces per dwelling

- 6.63 Where cycle parking is to be accommodated within garages then these should be of an appropriate size to ensure that there is room for both car and cycle parking.
- 6.64 If cycle parking is included in front gardens it should be visually attractive. If it is placed at the side or rear of a dwelling access to the street should be direct and sufficiently wide.
- 6.65 For apartments secure cycle parking will be provided in a communal facility.
- 6.66 The above is compliant with LTN 1/20 which states (at paragraph 11.2.5) that:
“cycle parking in dwellings must be convenient, either in the home, within the building or in the immediate vicinity.”
- 6.67 Additionally, LTN 1/20 also states (at paragraph 11.8.1) that:
“It is good practice to provide dedicated cycle parking within new development as outlined in the NPPF in the same way as car parking is provided.”

VISITOR CYCLE PARKING

- 6.68 Visitor cycle parking should be provided at a rate of 1 Sheffield stand per 2 residential units (rounded up).
- 6.69 It should be grouped and delivered as communal parking areas, in locations that is both convenient and appropriate across the development.

ALLOCATED CAR PARKING

- 6.70 Allocated parking will predominantly be provided on plot, within the curtilage, either to the front or side of dwellings, with individual bays and/or garages set back from the building line, to allow ease of access to dwellings, and should be designed to be tenure blind.
- 6.71 Allocated residential parking will be provided at a minimum rate as set out below:

DWELLING SIZE	RATE OF PROVISION
1 bed	1 car space per dwelling
2 bed house or larger	2 car spaces per dwelling

- 6.72 Vehicle/pedestrian visibility splays of 2 x 2m (from the back of highway to the side of driveway, assuming a 2.4m car width) should be incorporated where parking spaces abut the back edge of the footway, or the highway boundary.
- 6.73 Perpendicular parking spaces should be 2.5m (w) x 5.5m (l), if located next to another parking space or open space. If the space is constrained along one edge then the width should increase to 2.7m. If constrained on both sides the width needs to increase to 2.9m.
- 6.74 Parallel parking spaces should be a minimum of 2.5m (w) x 6.0m (l). If adjacent to a cycle route then an extra 0.5m width is required to avoid conflict with cycles.
- 6.75 Disabled parking will be provided in accordance with the appropriate CDC/OCC adopted standards.

Electric Vehicle Charging

- 6.76 All dwellings will have at least one parking space served by a smart electric vehicle (EV) charging point, as per Building Regulations Part S.

Rear Parking Courts

6.77 If rear parking courts are utilised, they should be designed as proper new streets wherever possible, providing high-quality spaces that are attractive to users. They should adhere to the following key design principles:

- Provide opportunities for informal amenity with feature tree planting to provide a key focal point to the space;
- Use hard and soft landscaping treatments providing a verdant setting within the communal landscapes complimenting the built form;
- Landscaping should provide year round structure and visual interest to the courtyard to create a pleasant space for users with seating; and
- Residential dwellings should be carefully design to ensure that with opportunities for active overlooking are maximised, ensuring good levels of natural surveillance.

Garages

6.78 Where garages count towards the provision of allocated parking these should be designed to a minimum internal size of 3m wide x 6m in length.

VISITOR CAR PARKING

6.79 Unallocated visitor car parking will be provided at the rate set out in the table below, as shown in the CDC Residential Design Guide:

DWELLING SIZE	RATE OF PROVISION
1 bed flat	0.4 spaces per dwelling
2 bed flat	0.6 spaces per dwelling
2 bed house	0.3 spaces per dwelling
3 bed house	0.3 spaces per dwelling
4 bed house or larger	0.5 spaces per dwelling

6.80 Where visitor parking is provided on street (via parallel bays) it should be carefully designed with areas of landscaping and/or planting should be used to break up the appearance.

Electric Vehicle Charging

6.81 A minimum of 25% of unallocated visitor spaces will have EV chargers in accordance with OCC standards.

NON-RESIDENTIAL CAR PARKING

6.82 Car and cycle parking for the non-residential land uses will be provided at the rates set out in the CDC Residential Design Guide

Electric Vehicle Charging

6.83 A minimum of 25% of non-residential parking (e.g. commercial): min 25% of spaces A minimum of 25% of car parking spaces will have EV chargers in accordance with OCC standards

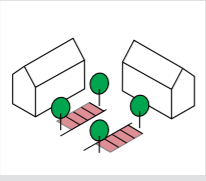
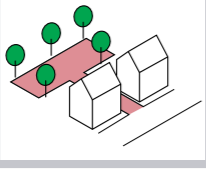
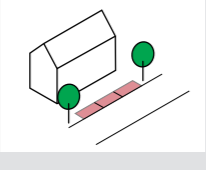
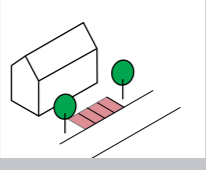
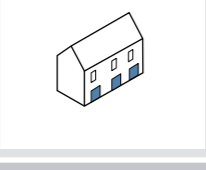
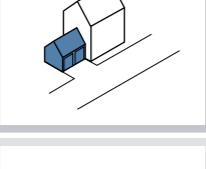
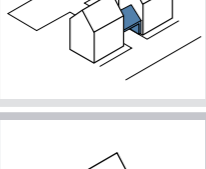
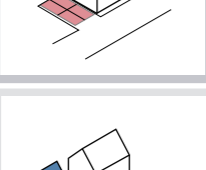

LANDSCAPING AROUND PARKING

6.84 High quality landscaping shall help to screen and reduce the visual impact of parking within the street scape and within off-plot/on-plot scenarios as well as non-residential areas to ensure it does not dominate the street scape.

6.85 Tree, hedgerow and shrub planting will soften parking bays whilst ensuring safety for visibility with breaks afforded between runs of parking.

6.86 Small areas should be appropriately planted to avoid poor grass coverage, with low ground cover and shrub planting used where visibility splays are respected. Hedgerows (medium to low in height) should be used central to the landscape break space along the lengths of bays to ensure access to vehicles is maintained.

6.87 Robust species should be used to help ensure establishment, screening whilst maximising visual interest and year-round coverage.

	NAME		TYPE	ALLOCATED?	DESCRIPTION	COMMENTS	LANDSCAPING REQUIREMENTS
1	Parking Square		Off-plot	Allocated and visitor	Group(s) of parking bays typically located adjoining the main carriageway providing convenient access to dwellings.	Convenient access to parking. Good surveillance from neighbouring properties.	Tree planting to be integrated around parking square with boundary shrub/hedgerow planting to soften space. Planting bays to be suitable width to ensure longevity of the planting.
2	Parking Court		Off-plot	Allocated and visitor	Group(s) of parking bays and/or garages located within a shared courtyard.	Good surveillance from neighbouring properties required No tandem parking allowed.	Tree planting to be integrated between parking bays with hedgerow/shrub planting to screen parking. Planting bays to be minimum 1.2m wide to ensure longevity of the trees with landscaping provided every 4 spaces.
3	Parallel		On-street	Visitor only	Parking located adjacent to the carriageway Accessed directly off the road.	Can be marked or unmarked. Easily accessible. Maximum row of 4 bays without a landscaped break.	Tree planting required every 4 spaces and between rows of parallel bays - to be clear stem to ensure visibility. Verges to be grassed or include low ground cover planting/bulbs in areas of low footfall.
4	Perpendicular		On-plot/Off-street	Allocated and visitor	Parking located perpendicular to the carriageway Accessed directly off the road. Parking to be located directly outside the dwellings it serves.	Can be marked or unmarked. Easily accessible. Generally suited to streets where speeds are kept to a minimum. Maximum row of 4 bays without a landscaped break.	Hedgerow and shrub planting will provide a break in the between runs of bays. Planting bays to be minimum 1.2m wide to ensure longevity of the trees ,with landscaping and/or tree planting provided every 4 spaces.
5	Mews Courthouse/ Covered Parking		On/off-plot	Allocated	Terraced garages with residential uses above. Serving dwellings in the vicinity. To be utilised adjacent to mews street entrances and/or within mews street only	Allows enhanced natural surveillance over parking and offers efficient use of land.	High quality landscaping to help screen parking arrangement to minimise visual intrusion of parking areas.
6	Attached/Integral Garage		On-plot	Allocated	Private garage adjoining the dwelling, often allowing access directly to house..	To be set back from public domain to allow parking in front. Convenient access to dwelling. Could be attached to neighbouring property and allows for room above.	Defensible shrub/hedgerow planting to define boundaries between garages.
7	Drive Through		On-plot	Allocated	Parking bay and/or garage access through a covered arch on the street.	Helps avoid car dominated street scene whilst providing secure on-plot parking.	Landscape boundary treatments to mitigate parking through the use of hedgerows and shrub planting.
8	Hard Standing		On-plot	Allocated	Parking bays located next to dwelling, including tandem bays.	Can be located against the back edge of public domain or set back to allow additional parking in front. Maximum of 2 bays deep. Can be joined to neighbouring parking bay.	Landscape boundary treatments to mitigate parking through the use of hedgerows and shrub planting.
9	Detached Garage		On-plot	Allocated	Private garage often located next to dwelling. Garages to be set back from prominent frontages	Must be set back to allow parking in front (allowance for tandem parking for up to 2 parking spaces in front of garages). Can be joined to neighbouring garage.	Landscape boundary treatments shall help to mitigate the visual intrusion of parking, through the use of hedgerows and shrub planting.

07

Sustainability Strategy

HIMLEY VILLAGE SUSTAINABILITY STRATEGY

“A holistically sustainable, futureproofed, resilient, net zero carbon development that will achieve the highest levels of building performance. This will include buildings designed utilising passive design principles and low/zero carbon heating and power, on-site generation and storage of electricity, and the wide spread use of electric vehicle charging. This framework has been developed to ensure the masterplan is designed in line with the Eco-Town requirements as outlined in the Eco-Town Planning Policy Statement.”

7.1 As set on the following pages the development will aspire to meet the Eco-Town principles.

ET 7 ZERO CARBON IN ECO-TOWNS.

7.2 All plots will take a hierarchal approach to the reduction of carbon emissions as follows:

1. Be lean – reducing the demand for energy use through passive design
2. Be clean – supply energy efficiently through efficient building services, or heat networks (where powered by renewable or low carbon sources)
3. Be green – use renewable energy

7.3 Each plot developer will follow the operational energy routemap to net zero as outlined right.



The route map to operational net zero for Himley Village

- 7.4 All plot developers should work to the guidelines provided by LETI (London Energy Transformation Initiative) and UKGBC (UK Green Building Council) to achieve operational net zero balance:
- This includes the use of low carbon heating systems from the outset of the design;
 - » Individual heat pumps and/or communal energy centres (powered from renewable and/or low carbon technology not CHP);
 - Maximise on-site renewable electricity generation;
 - » All development plots should utilise extensive roof or ground mounted PV
 - Explore the use of site wide power infrastructure (microgrid)
 - » Including energy (battery) storage to provide demand side response and power resilience.

7.5 To achieve net zero operational carbon, and to align itself with future Government policy, the development will be all-electric to benefit from the future renewables market and rapid decarbonisation of the national grid.

7.6 No new gas connections shall be provided as part of the site.

Building Design Standards for Achieving 'Net Zero'

- 7.7 All buildings on site should aim to achieve a 'net zero carbon' development, in order to achieve this, the following design standard should be adhered to. Aligning the residential parts of the development with the guidelines from LETI will also provide alignment with the UK Governments Future Homes Standard and help meet the requirements of Building Regs Part L 2021.

Small scale housing

Operational energy

Implement the following indicative design measures:

Fabric U-values (W/m².K)

Walls	0.13 - 0.15
Floor	0.08 - 0.10
Roof	0.10 - 0.12
Exposed ceilings/floors	0.13 - 0.18
Windows	0.80 (triple glazing)
Doors	1.00

Efficiency measures

Air tightness	<1 (m ³ /h, m ² @50Pa)
Thermal bridging	0.04 (y-value)
G-value of glass	0.6 - 0.5
MVHR	90% (efficiency) ≤2m (duct length from unit to external wall)

Window areas guide (% of wall area)

North	10-15%
East	10-15%
South	20-25%
West	10-15%

Balance daylight and overheating

Include external shading

Include openable windows and cross ventilation

Reduce energy consumption to:

Energy Use Intensity (EUI) in GIA, excluding renewable energy contribution

35 kWh/m².yr

Reduce space heating demand to:

15 kWh/m².yr

- Maximise renewables so that 100% of annual energy requirement is generated on-site
- Form factor of 1.7 - 2.5



Residential development - Indicative design principles

Commercial offices

Operational energy

Implement the following indicative design measures:

Fabric U-values (W/m².K)

Walls	0.12 - 0.15
Floor	0.10 - 0.12
Roof	0.10 - 0.12
Windows	1.0 (triple glazing) - 1.2 (double glazing)
Doors	1.2

Fabric efficiency measures

Air tightness	<1 (m ³ /h, m ² @50Pa)
Thermal bridging	0.04 (y-value)
G-value of glass	0.4 - 0.3

Power efficiency measures

Lighting power density	4.5 (W/m ² peak NIA)
Lighting out of hours	0.5 (W/m ² peak NIA)
Tenant power density	8 (W/m ² peak NIA)
ICT loads	0.5 (W/m ² peak NIA)
Small power out of hours 2	(W/m ² peak NIA)

System efficiency measures

MVHR	90% (efficiency)
Heat pump SCoP	≥ 2.8
Chiller SEER	≥ 5.5
Central AHU SFP	1.5 - 1.2 W/l/s
A/C set points	20-26°C

Window areas guide (% of wall area)

North	25-40%
East	25-40%
South	25-40%
West	25-40%

Balance daylight and overheating

Include external shading

Include openable windows and cross ventilation

Maximise renewables to generate the annual energy requirement for at least two floors of the development on-site

Form factor of 1 - 2

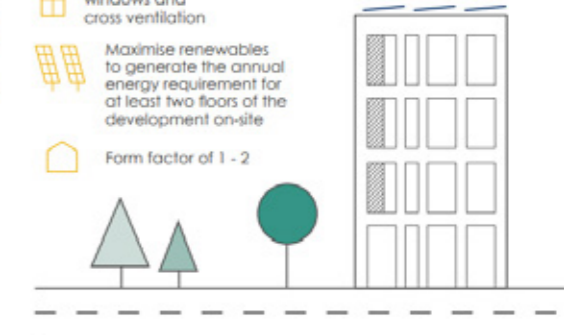
Reduce energy consumption to:

Energy Use Intensity (EUI) in GIA, excluding renewable energy contribution

55 kWh/m².yr

Reduce space heating demand to:

15 kWh/m².yr



Commercial office - Indicative design principles

Passive Design Strategies

- 7.8 Passive design strategies are those which utilise building form, massing and glazing ratios to exploit the natural surroundings of the site to help reduce energy demand. The following should be implemented where possible:
- 7.9 Plot developers shall explore the following and aim to reduce the site energy demand by 15% from energy efficiency and passive design alone:
- Optimising daylight through higher floor to ceiling heights or dual aspect buildings;
 - Control of solar gain to benefit from heat when required without causing overheating in summer via the size and depth of windows on different elevations (See table below);
 - Increased efficiency of building fabric, particularly the roof and walls to reduce heat loss;
 - Maximising air tightness to minimise the impacts of uncontrolled air infiltration; and
 - Strategic planting of trees to shelter lower level buildings from high winds and provide shading from the sun.
- 7.10 Building fabric should seek to be in line with the Future Homes Standard or better as shown in the table below:

Fabric Elements	Future Homes Standard (W/m ² k)	Himley Village Bicester Target (W/m ² k)	Improved fabric
Roof	0.11	0.10	0.1
Wall	0.18	0.15	0.16
Floor	0.13	0.13	
Party wall	0	0	
Window	1.20	1.20	
Rooflight	1.70	1.70	
Door	0.55	0.55	
Air Permeability	5.00	3.00	

Himley Village building fabric

Heating and Power Infrastructure

- 7.11 As the development is to be all-electric, a site wide district heating system is not proposed and the heating strategy will be developed at an individual plot level to promote innovative design solutions.
- 7.12 Plot developers should consider the following:
- Air source heat pumps (ASHPs);
 - Ground source heat pumps (boreholes or slinky);
 - Direct electric heating powered by renewable sources;
 - Localised (dwelling level) or communal systems; and
 - Fifth generation ambient loop systems.
- 7.13 Where ASHPs are proposed, space should be allocated for these to be sited externally. Dwellings with pitched roofs will require designated space to the rear or side of the property to install the external heat pump units. This will need to provide sufficient space to allow air flow to the units. Acoustic shrouding can be included if required, however this should be designed in accordance with a specialist to ensure the performance of the heat pump is retained.
- 7.14 An Energy Storage and Generation centre is proposed to be included within the employment area of the masterplan. This should include battery storage linked to roof mounted PV panels to provide smart active network management, ensuring cost and carbon savings and a resilient power supply. This should be positioned within the Employment area and should incorporate green walls where possible to reduce visual impact. This could be incorporated to form part of one of the larger buildings within the employment use if necessary.
- 7.15 Electric vehicle (EV) charging points are to be included to all dwellings that have on-plot parking and garages. Residential parking spaces within parking courts and basement car parks are to include provision for 40% active charging spaces, with the remainder provided with passive provision for installation at a future date.
- 7.16 The car parks within the employment centre are to be provided with 'charging hubs' where EV charging can be connected to PV panels. EV charging centres will be equipped with demand side response such as 'turn down' and vehicle to grid capability.

Renewable Energy Infrastructure

- 7.17 Unless justified as part of a reserved matters application, roof mounted PV panels are to be maximised across the site. The following should be included:
- Flat roof PV target of at least 70% of their area;
 - Pitched roofs oriented southeast/south/southwest and fully covered in PV;
 - Garage and parking structures to also be included where structure allows; and
 - Consideration given to ground mounted PV where space allows.
- 7.18 To facilitate the installation of PV panels across the site, pitched roofs should have a pitch of 35 degrees to maximise electricity generation. Pitched roofs should be oriented within 90 degrees of due South (i.e South, Southwest or Southeast facing slopes). Flat roofs shall be designed with minimum parapet heights to reduce overshading and maximise suitable area for panel installation. Any deviation from the above will result in reduced PV output in line with the below:
- 7.19 Whilst roofs that are south, southeast and southwest facing should be given preference, PV panels should also be installed on east and west facing slopes where these cannot be avoided.



EV charging hub collocating battery storage and PV

ENERGY INFRASTRUCTURE



EMBODIED CARBON

7.20 The embodied carbon of construction materials and processes should be considered at the outset of development to ensure a low embodied carbon development. Throughout the design process, consideration should be given to the following to reduce embodied carbon:

- Material efficiency review – are all materials that are proposed necessary and can the amount of materials used be rationalised;
- Reducing the weight of dead loads and reducing long spans to reduce material use;
- Minimising slab depths where possible;
- Identify highest contributor to embodied carbon (i.e. structure and envelope) and seek to make improvements rather than focusing on 'quick wins'
- Give consideration to modern methods of construction (MMC) and off-site, pre-fabricated elements;
- Consider reuse of existing structures where feasible;
- Use recycled aggregate and hardcore within hard landscaping and infrastructure where feasible; and
- Use locally sourced materials where possible to reduce emissions associated with transport and stimulate local economy.

7.21 Each building archetype should target the LETI 2020 target for embodied carbon emissions (a 40% improvement over the 'business as usual' case):

	Business as usual	2020 target
Residential	800 kgCO ₂ e/m ²	400-500 kgCO ₂ e/m ²
Commercial office	1000 kgCO ₂ e/m ²	500-600 kgCO ₂ e/m ²
School	1000 kgCO ₂ e/m ²	500-600 kgCO ₂ e/m ²

LETI target embodied carbon emissions

ET 8 CLIMATE CHANGE ADAPTATION

- 7.22 Whilst many aspects of climate change resilience must be considered as part of the detailed design process of individual neighbourhoods and buildings, spatial arrangements, green infrastructure, water resources, and other supporting infrastructure can all make positive contributions in enabling adaptation to future climate change.
- 7.23 The development will be designed to be resilient to and appropriate for climate change. The design will seek to minimise future vulnerability in a changing climate, and with both mitigation and adaptation in mind. Each phase of the development will produce a site specific Future Climate Report.
- 7.24 Using the Met Office UK Climate Projection 18 (UKCP18) data, the following impacts of climate change are anticipated for the site:
- A 5.8°C increase in summer mean temperature;
 - An increase in frequency of warm temperature extremes (number of degree days exceeding CIBSE TM52/59 comfort criteria);
 - A 41% overall decrease in summer precipitation increasing the frequency of droughts;
 - A 26% increase in winter precipitation;
 - An expected increase in near surface wind speeds (unquantified at this stage);
 - A reduction in soil moisture; (unquantified at this stage);=

Increase in Summer Temperature - Overheating Risk

- 7.25 To mitigate the risk of overheating, all residential buildings should be designed to meet the requirements of CIBSE TM59: Design Methodology for the Assessment of Overheating in Homes, including future climate scenarios. Overheating modelling for both domestic and non-domestic developments will be tested using the Design Summer Year weather file for 2020s, high emissions, 50% percentile scenario.
- 7.26 Overheating should first be addressed via passive design solutions such as the use of external shading, enhanced ventilation (MVHR with summer bypass) and finally active cooling as a last resort. Where active cooling is required, this should be selected to be as energy efficient as possible, with consideration given to ambient loop systems which can provide both heating and cooling.

- 7.27 Where the requirements of CIBSE TM59 and TM52 cannot be achieved for future climate scenarios, detailed information should be provided to show how dwellings and non-residential premises can be easily adapted and retrofitted to result in a comfortable internal environment.
- 7.28 Whilst building level overheating strategies will be developed by each plot developer, dwellings should be designed in line with the glazing ratios recommended by LETI and Passivhaus to minimise overheating risk whilst also reducing energy demand. These are shown in the table below.

	South West	North West	North East	South West
Passivhaus	20-30%	10-20%	10-20%	10-20%
LETI	15-25%	10-20%	10-20%	10-15%

Passivhaus and LETI glazing ratio guidance

- 7.29 Where large expanses of glazing are proposed on facades that face within 90 degrees of due south, the following strategies shall be implemented unless reasonable justification is provided:
- Brise soleil to reduce summer time solar gains; and
 - Enhanced G-value glazing.

Food Growing and Food Security

- 7.30 The increasing global temperatures, changing precipitation patterns and increased frequency of extreme weather events are already affecting food security. The changing climate will affect crop yields making some crops difficult to grow. Socio-economic impacts will also be felt particularly by lower income consumers as food prices can be expected to increase (IPCC, 2018).
- 7.31 The availability of fruit and vegetables will be highly impacted as in the U.K we are used to consuming a non-seasonal diet throughout the year. Furthermore, large scale agriculture and the transportation of food from field to plate contribute between 21-35% of global greenhouse gas emissions.
- 7.32 To help combat the issue of food security from an environmental and socio-economic perspective, areas for food growing will be provided within the development. These would be in the form of small scale, community managed projects and allotments, The masterplan currently allows for allotments, plot developers should look to further increase the food growing capabilities of the site including the provision of urban farming within the employment areas.

Water Use and Sustainable Drainage

- 7.33 These are covered in more detail by Eco-Town principles ET 17 and ET 18.

ET 9 HOMES

- 7.34 All homes within the development will be built to high levels of fabric efficiency using the guidance set out previously.

ET 10 EMPLOYMENT

- 7.35 To ensure that the Himley Village development is a holistically sustainable development in terms of the local economy, each land parcel should produce an economic strategy that demonstrates how this will be achieved. This should set out:
- a. Strategies for job creation;
 - b. The numbers of employment opportunities per dwelling.
 - c. How residents can reach local employment (sustainable transport modes should be given preference).
- 7.36 To promote equality, affordability and stimulate the local economy a number of initiatives should be given consideration for inclusion within each land parcel.
- 7.37 Following the covid-19 pandemic, one potential initiative would be to prioritise key workers for the affordable housing is provided as part of the site. These homes would be provided at a discounted cost to key workers who meet certain eligibility criteria. Key workers are classified as those frontline workers in the following professions:
- Health and social care;
 - Education and childcare;
 - Key public services (such as workers within the justice system);
 - Local and national government;
 - Food and essential goods;
 - Transport; and
 - Utilities, communication and financial services.

- 7.38 In addition to the potential for key worker housing, the development will champion 'local homes for local people'.
- 7.39 To enhance resilience to future shocks such as the Covid-19 pandemic, the site will be provided with good broadband connectivity to facilitate flexible and home working. All dwellings will be provided with high quality broadband. Plot developers should also look at providing dedicated home office space within dwellings to further facilitate home working.
- 7.40 The provision of the new local centre will provide premises for local businesses and stimulate the local economy. Good transport links will be embedded within the development to allow for easy access to local town Centres such as Bicester. This includes dedicate bus services, provision of data and real time updates will further facilitate this,
- 7.41 Plot developers will be responsible for the materials specification, however these are encouraged to source materials locally where possible to further contribute to the local economy and reduce embodied carbon within the development.

ET 10 TRANSPORT AND MOBILITY

- 7.42 The development will contribute to the modal shift in behaviour change by promoting the use of sustainable transport. Electric vehicle charging points will be widely deployed throughout the site (See Energy and Carbon section for further details). Electric vehicle (EV) charging points are to be included to all dwellings that have on-plot parking and garages. Residential parking spaces within parking courts and basement car parks are to include provision for 40% active charging spaces, with the remainder provided with passive provision for installation at a future date.
- 7.43 Plots which include non-residential uses are to investigate the implementation of car clubs to reduce trips by private car. The development will link into the wider public transport network within Bicester and the wider Eco Town, bus stops within the site should be provided with live updates to encourage public transport use.
- 7.44 The masterplan shows a number of off-road footpaths, plot developers should look to incorporate these into fitness trails or running loops to promote an active lifestyle. The incorporation of multifunctional green infrastructure throughout the site will provide connectivity and the promote active travel in terms of walking and cycling.
- 7.45 Plot developers will provide cycle storage facilities within the houses and apartment blocks to promote the use of sustainable modes of transport. The non-residential uses should be designed to meet BREEAM criteria for cycle storage and cyclist facilities (Tra O2).

ET 12 HEALTHY LIFESTYLES AND WELLBEING

7.46 The built and natural environments are an important component in improving the health and well-being of people. Well designed development and good urban planning can also contribute to promoting and supporting healthier and more active living and reduce health inequalities. Eco-towns should be designed and planned to support healthy and sustainable environments and enable residents to make healthy choices easily.

7.47 The health and happiness of residents and site users will be prioritised throughout the site. Access to green space and biophilic design will provide wellness benefits throughout the site, whilst also providing climate resilience through the provision of green infrastructure.

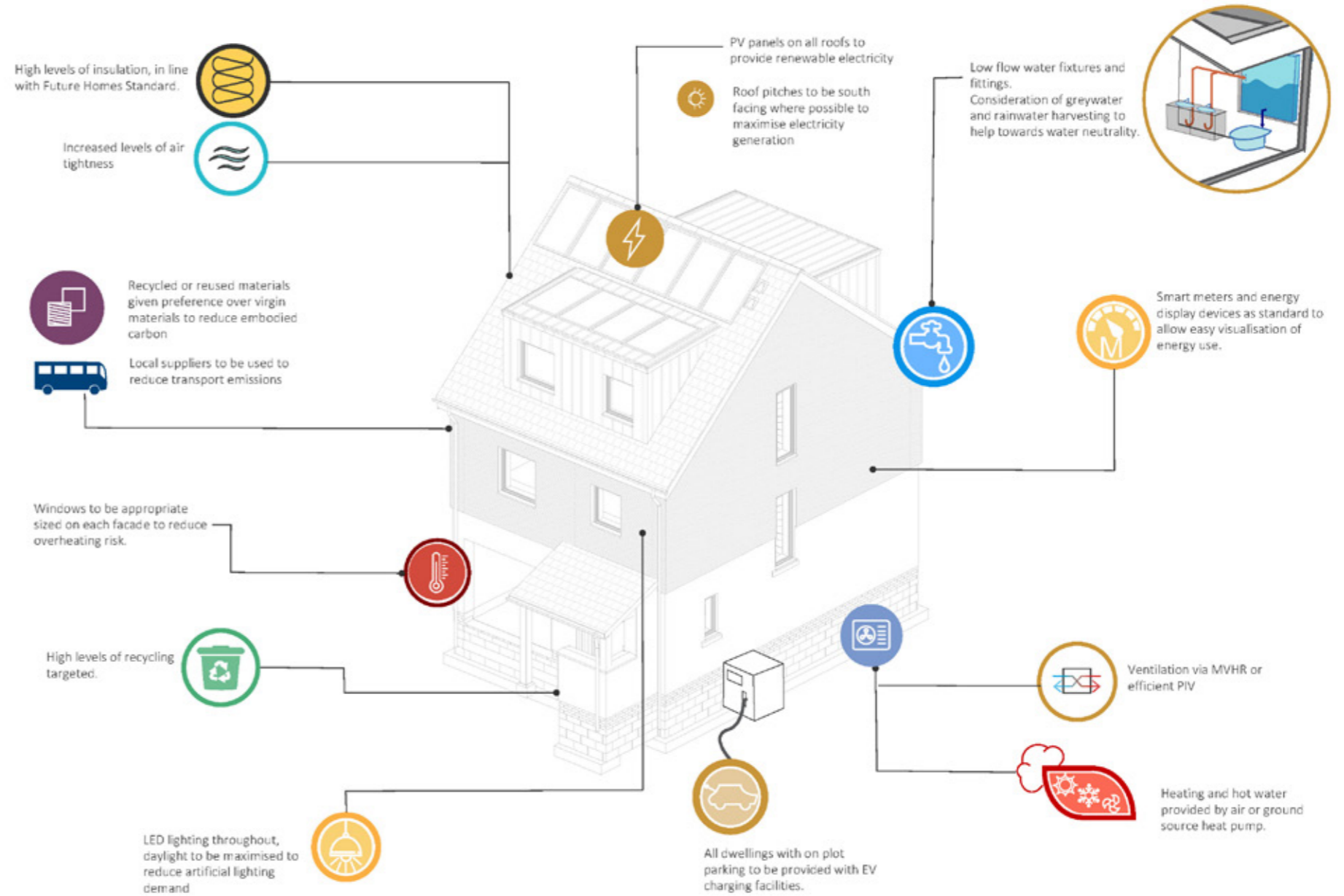
7.48 During design development, plot developers shall ensure that good health and wellbeing is prioritised particularly within dwellings. This will include:

- Good access to daylight (in line with BRE guidelines)
- Adequate levels of thermal comfort, to ensure this all dwellings should be designed to meet the requirements of CIBSE TM59, Overheating in Residential Buildings.
- Comfortable acoustic conditions within homes, particularly bedrooms.
- Good levels of air quality, on-site NOx emissions will be minimal due to zero on-site combustion.

7.49 At the detailed design stage, plot developers should consider low Volatile Organic Compounds (VOC) finishing materials to further enhance internal air quality.

7.50 Storage for bicycles should be provided on-plot to promote active travel and sustainable transport use.

7.51 The employment area is expected to provide community/commercial premises in a range of uses which will provide a strong sense of place, helping to increase wellbeing and happiness of residents. The illustrative masterplan also includes for strategic areas of both formal and informal play.



Sustainability strategy - house types



Waste Hierarchy

ET 13 LOCAL SERVICES

- 7.52 The site is located close to both existing and proposed local facilities and set out earlier in this Site Wide Design Code.
- 7.53 Reference should be made to the Transport Assessment submitted in support of the approved Outline planning permission.

ET 14 GREEN INFRASTRUCTURE

- 7.54 The site is currently greenfield agricultural land and where possible features of value will be preserved. Through the provision of multifunctional green infrastructure within the site, residents and site users will be provided with a direct connection to nature providing both wellbeing and environmental benefits.
- 7.55 The masterplan shows significant green infrastructure across the site. This should be retained and enhanced by plot developers during detailed design including the addition of street trees, and green walls/roofs.
- 7.56 The availability of fruit and vegetables will be highly impacted as in the U.K we are used to consuming a non-seasonal diet throughout the year. Furthermore, large scale agriculture and the transportation of food from field to plate contribute between 21-35% of global greenhouse gas emissions.
- 7.57 To help combat the issue of food security from an environmental and socio-economic perspective, areas for food growing in the form of community growing spaces have been provided within the illustrative masterplan.
- 7.58 The implementation of local food growing practices provides the potential to connect with the local centre and sell locally sourced food within the site. This could be in the form of a farmers' market, or supply any on-site food outlets/shops. Whilst providing economic and environmental benefits this would also enhance community involvement.

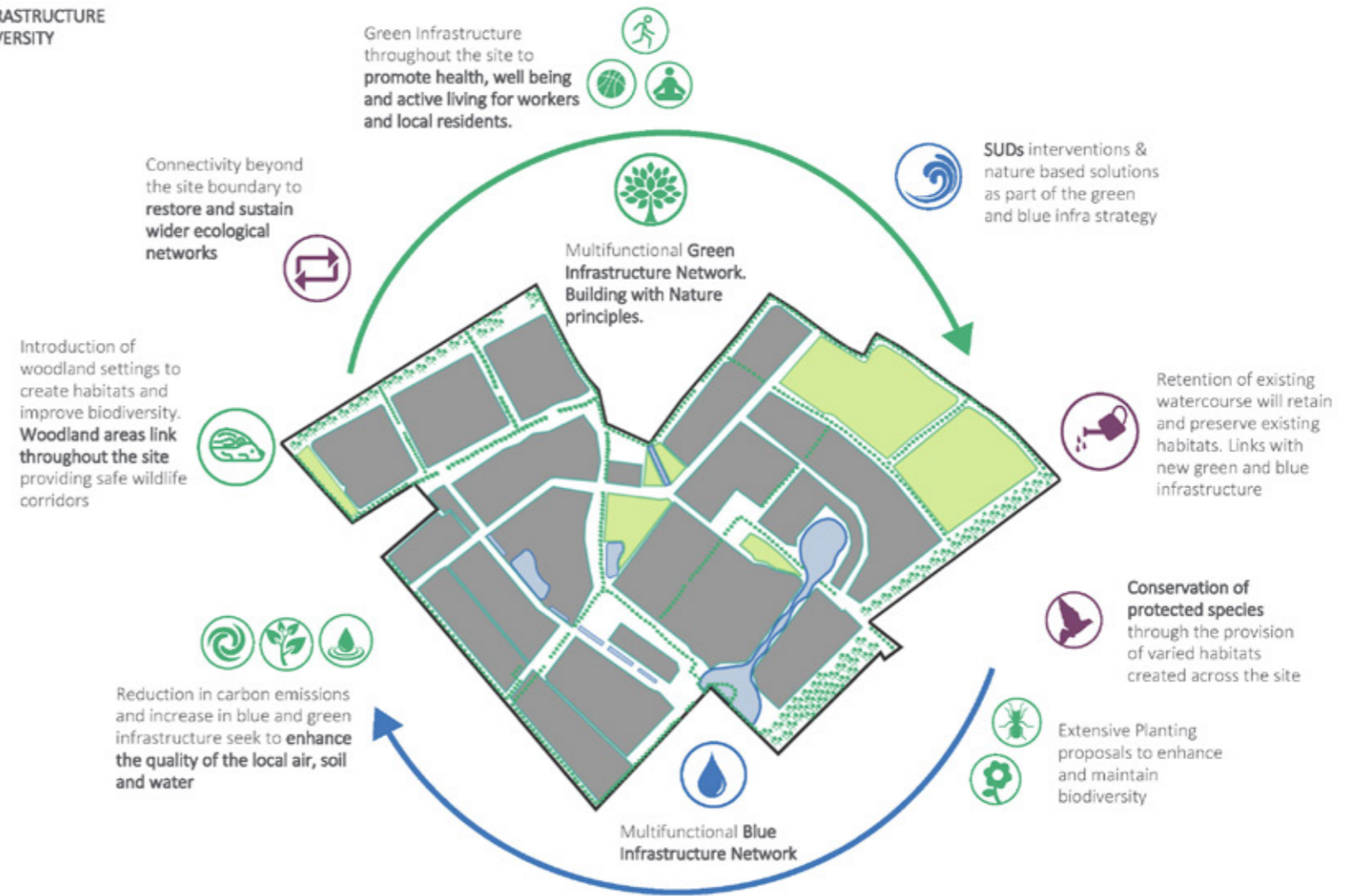
ET 15 LANDSCAPE AND HISTORIC ENVIRONMENT

- 7.59 The landscape strategy considers the green and blue infrastructure and sustainable principles, as set out previously in this Site Wide Design Code.

ET 16 BIODIVERSITY

- 7.60 Green and blue infrastructure provides many sustainability benefits - for full details of the Green Infrastructure and Biodiversity strategy see specific chapter.
- 7.61 To enhance the biodiversity of the site and ensure good species diversity, a range of habitats will be included within the site. The current design proposals include multiple green and blue infrastructure such as woodland, diverse tree planting, ponds and swales. To further preserve and protect existing and potential habitats at the site, light pollution will be avoided through careful design and specification of external lighting.
- 7.62 The landscape design should incorporate a variety of planting with rich species diversity. Details to be developed by site specific landscape architects.

GREEN INFRASTRUCTURE AND BIODIVERSITY



Green Infrastructure and Biodiversity Principles

ET 17 WATER

- 7.63 The development should be ambitious in terms of water efficiency across the whole development, particularly in areas of serious water stress, and should contribute, where existing water quality leaves scope for further improvement, towards improving water quality in their localities.
- 7.64 To promote the sustainable use of water and provide resilience to future climates, all dwellings on site shall be designed to achieve a potable water use of no more than 105 litres/person/day. This will be achieved through the specification of low flow fixtures and fittings such as dual flush WCs and aerated shower heads/taps.
- 7.65 All dwellings with private external amenity space should be provided with rainwater butts to collect water for irrigation purposes. During development of the non-residential areas of the development, consideration will be given to drought resistant plant species to reduce the need for irrigation.
- 7.66 The development includes extensive Sustainable Urban Drainage (SUDS) and blue infrastructure, these should be enhanced within plot development. These will be integral to providing mitigation against the increased risk of surface water flooding associated with heavy rainfall events. SUDs and blue infrastructure will provide storage for surface water runoff, reducing the impact on local surface water drainage systems. To further enhance this, green roofs should be given consideration.

ET 18 FLOOD RISK MANAGEMENT

Flood Risk

- 7.67 The site is located in Environment Agency (EA) Flood Zone 1 – land and property that has a low probability of flooding (less than 1 in 1,000 annual probability of river or sea flooding).
- 7.68 However, the site will be subject to changes in average rainfall levels and experience more frequent intense rainfall events which will increase surface water runoff. This will increase the probability of localised flood events caused by overwhelmed local surface water drainage systems.
- 7.69 The widespread use of Sustainable Drainage Systems (SUDS) in the form of swales, wetlands and attenuation ponds will provide sustainable storm water management and create a sustainable resource from rainfall, whilst ensuring that flood risk is reduced for areas downstream and benefitting the local area. These are shown on the masterplan and plot developers will be required to retain these features or provide the same level of natural attenuation by other methods.
- 7.70 In addition to providing biodiversity and wellbeing benefits, the provision of blue and green infrastructure throughout the site will provide some degree of protection against the effects of climate change. Green and blue infrastructure will provide shading and passive cooling to mitigate increased temperatures, along with providing storage for rainwater during storm events to alleviate the pressure on local drainage systems and reduce the risk of surface water flooding.

ET 19 WASTE

- 7.71 To reduce the waste arising from the development, circular economy principles should be embedded throughout and be key to decision making.
- 7.72 Plot developers should make the waste hierarchy key in decision making during the construction process to reduce the amount of waste sent to landfill. Any waste products should be reused where possible, then recycled and finally (least preferred) sent to landfill. These principles will be taken into the operational phase of the development.
- 7.73 Whilst the reduction of operational waste will be largely dependent on behaviour, recycling and reuse will be promoted throughout the site to reduce waste sent to landfill.
- 7.74 Dedicated storage for recyclables will be provided throughout the development via public bins to encourage recycling. Dwellings will be provided with storage for recycling, food waste and general waste in line with the requirements of the local authority.
- 7.75 Consideration will also be given to ways in which waste can be reduced first, such as plastic free produce within the local centre shops, and providing a discount for providing reusable containers for takeaway products. Consideration could also be given to the inclusion of a 'refill centre' within the site, where residents can take glass jars to refill household products to reduce packaging waste. Food waste to be reduced in line with Government targets via on-site composting.

ET 21 TRANSITION

- 7.76 To minimise carbon emissions from the construction of the development, a Construction Environmental Management Plan will be produced for each Phase of the development. This will detail the site specific measures to reduce construction stage emissions.

ET 22 COMMUNITY AND GOVERNANCE

- 7.77 The promotion of community involvement in decisions affecting the design, operation and long-term stewardship of the development is a key consideration to developing a sustainable site.
- 7.78 The site shall have a strong sense of identity whilst respecting the local character and settlement setting. Materials and landscaping elements shall be chosen in keeping with the local vernacular.

A

Appendices

POLICY BIC ESTER 1: NORTH WEST BICESTER ECO-TOWN**Development Area: 390 hectares**

Development Description: A new zero carbon⁽ⁱ⁾ mixed use development including 6,000 homes will be developed on land identified at North West Bicester.

Planning permission will only be granted for development at North West Bicester in accordance with a comprehensive masterplan for the whole area to be approved by the Council as part of a North West Bicester Supplementary Planning Document. The Council will expect the Masterplan and applications for planning permission to meet the following requirements:”

Employment

- *Land Area – a minimum of 10 ha, comprising business premises focused at Howes Lane and Middleton Stoney Road, employment space in the local centre hubs and as part of mixed used development*
- *Jobs created – At least 3,000 jobs (approximately 1,000 jobs on B use class land on the site) within the plan period*
- *Use classes – B1, with limited B2 and B8 uses*
- *It is anticipated that the business park at the South East corner of the*
- *Allocation will generate between 700 and 1,000 jobs in use classes B1, B2 and B8 early in the Plan period*
- *A Carbon Management Plan shall be produced to support all applications for employment developments*
- *An economic strategy to be produced to support the planning applications for eco-town proposals demonstrating how access to work will be achieved and to deliver a minimum of one employment opportunity per new dwelling that is easily reached by walking, cycling and/or public transport*
- *Mixed use local centre hubs to include employment (B1(a), A1, A2, A3, A4, A5, C1, D1 and D2)*
- *New non-residential buildings will be BREEAM Very Good with the capability of achieving BREEAM Excellent.*

Housing

- *Number of homes – Up to 6,000 (3,293 to be delivered within the plan period)*
- *Affordable Housing – 30%*
- *Layout to achieve Building for Life 12 and Lifetime Homes standards Homes to be constructed to be capable of achieving a minimum of Level 5 of the Code for Sustainable Homes on completion of each phase of development, including being equipped to meet the water consumption requirement of Code Level 5*
- *The provision of extra care housing*
- *Have real time energy monitoring systems, real time public transport information and Superfast Broadband access, including next generation broadband where possible. Consideration should also be given to digital access to support assisted living and smart energy management systems.*

Infrastructure Needs

- *Education – Sufficient secondary, primary and nursery school provision on site to meet projected needs. It is expected that four 2 Forms of Entry primary schools and one secondary school will be required. There should be a maximum walking distance of 800 metres from homes to the nearest primary school.*
- *Health – to provide for a 7 GP surgery to the south of the site and a dental surgery*
- *Burial Ground – to provide a site of a minimum of 4 ha for a burial ground which does not pose risks to water quality (this may contribute to the Green Infrastructure requirements)*
- *Green infrastructure – 40% of the total gross site area will comprise green space of which at least half will be publicly accessible and consist of a network of well managed, high quality green/open spaces which are linked to the open countryside. This should include sports pitches, parks and recreation areas, play spaces, allotments, the required burial ground (possibly a woodland cemetery) and SUDS.*
- *Planning applications shall include a range of types of green space and meet the requirements of Policy BSC11*
- *Access and Movement – proposals to include appropriate crossings of the railway line to provide access and integration across the North West Bicester site. Changes and improvements to Howes Lane and Lords Lane to facilitate integration of new development with the town.*
- *Community facilities – to include facilities for leisure, health, social care, education, retail, arts, culture, library services, indoor and outdoor sport, play and voluntary services. The local centre hubs shall provide for a mix of uses that will include retail, employment, community and residential provision. Education, health care, community and indoor sports facilities will be encouraged to locate in local centres and opportunities for co-location will be welcomed. Provision will be proportionate to the size of the community they serve. Each neighbourhood of approximately*
- *1,000 houses to include provision for community meeting space suitable for a range of community activities including provision for older people and young people. A site of 0.5 ha for a place of worship to be reserved for future use.*
- *The submission of proposals to support the setting up and operation of a financially viable Local Management Organisation by the new community to allow locally based long term ownership and management of facilities in perpetuity*
- *Utilities – Utilities and infrastructure which allow for zero carbon and water neutrality on the site and the consideration of sourcing waste heat from the Ardley Energy recovery facility. The approach shall be set out in an Energy Strategy and a Water Cycle Study. The Water Cycle Study shall cover water efficiency and demand management, water quality and how it will be protected and improved, WFD compliance, surface water management to avoid increasing flood risk and water services infrastructure improvement requirements and their delivery, having regard to the Environment Agency’s guidance on Water Cycle Studies. Zero Carbon (see PPS definition) water neutral development is sought. Development proposals will demonstrate how these requirements will be met.*
- *Waste Infrastructure – The provision of facilities to reduce waste to include at least 1 bring site per 1,000 dwellings positioned in accessible locations. Provision for sustainable management of waste both during construction and in occupation shall be provided. A waste strategy with targets above national standards and which facilitates waste reduction shall accompany planning applications.”*

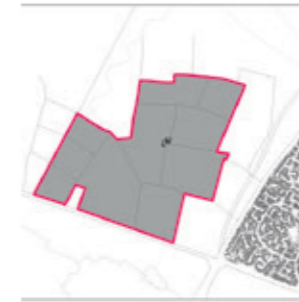
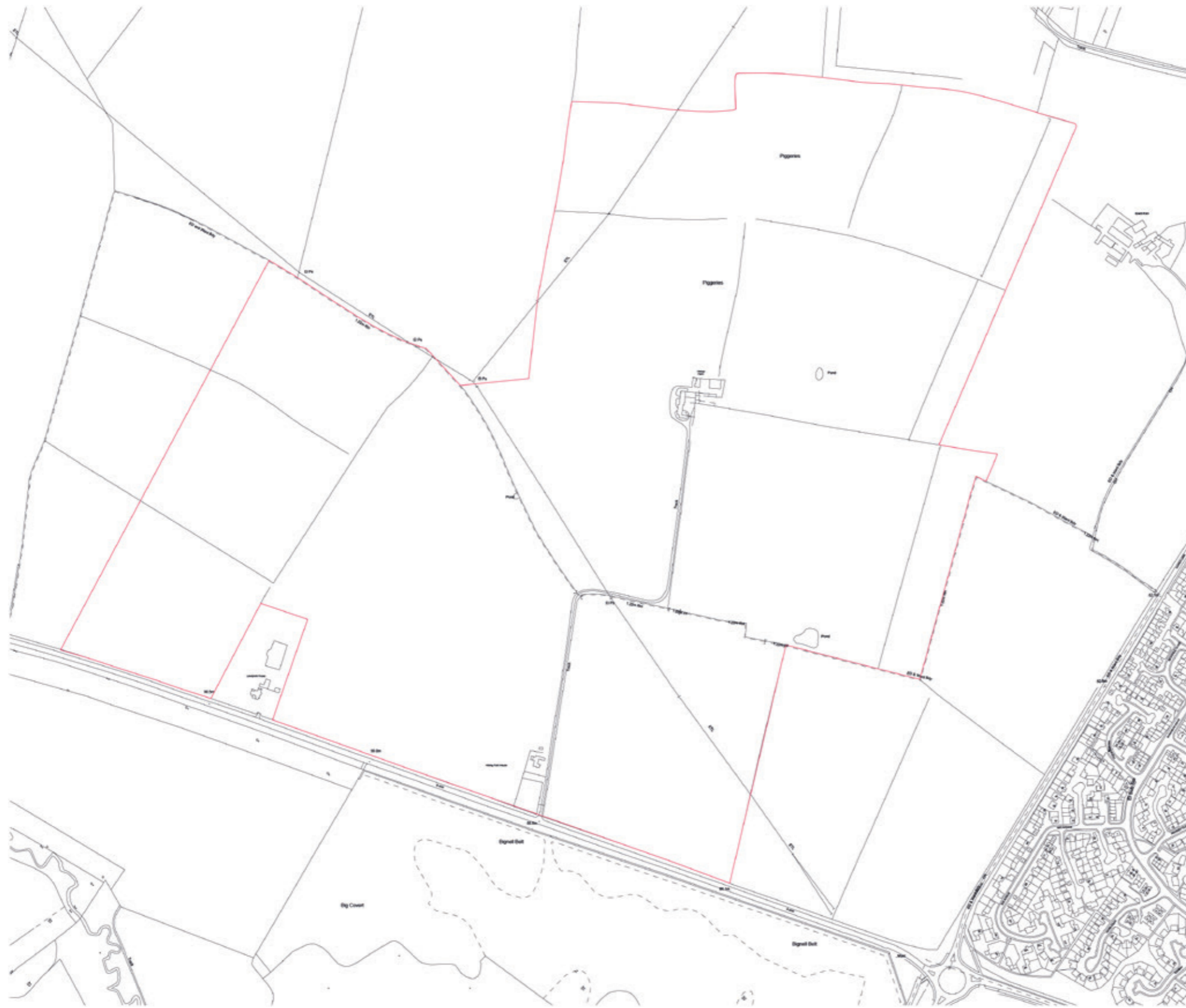
Monitoring

- Embodied impacts of construction to be monitored, managed and minimised (ET21)
- Sustainability metrics, including those on zero carbon, transport, water and waste to be agreed and monitored for learning, good governance and dissemination (ET22).”

Key site specific design and place shaping principles

- Proposals should comply with Policy ESD15.
- High quality exemplary development and design standards including zero carbon development, Code Level 5 for dwellings at a minimum and the use of low embodied carbon in construction materials, as well as promoting the use of locally sourced materials.
- All new buildings designed to incorporate best practice on tackling overheating, taking account of the latest UKCIP climate predictions.
- Proposals should enable residents to easily reduce their carbon footprint to a low level and live low carbon lifestyles.
- Layout of development that enables a high degree of integration and connectivity between new and existing communities.
- A layout that maximises the potential for walkable neighbourhoods. New footpaths and cycleways should be provided that link with existing networks, the wider urban area and community facilities with a legible hierarchy of routes to encourage sustainable modes of travel
- A layout which makes provision for and prioritises non-car modes and encourages a modal shift from car use to other forms of travel.
- Infrastructure to support sustainable modes of transport will be required including enhancement of footpath and cyclepath connectivity with the town centre, employment and rail stations. Measures to ensure the integration of the development with the remainder of the town including measures to address movement across Howes Lane and Lords Lane
- A well designed approach to the urban edge, which relates development at the periphery to its rural setting and affords good access to the countryside, minimising the impact of development when viewed from the surrounding countryside
- Development that respects the landscape setting and that demonstrates enhancement, restoration or creation of wildlife corridors to achieve a net gain in biodiversity
- Consideration should be given to maintaining visual separation with outlying settlements. Connections with the wider landscape should be reinforced and opportunities for recreational use of the open countryside identified. Development proposals to be accompanied and influenced by a landscape/visual and heritage impact assessment
- Careful consideration of open space and structural planting around the site to achieve an overall improvement in the landscape and visual impact of the site
- No development in areas of flood risk and development set back from watercourses which would provide opportunity for green buffers.
- Proposals should include a Flood Risk Assessment.

- Maximisation of the sustainable transport connectivity in and around the site
- Consideration and mitigation of any noise impacts of the railway line. Good accessibility to public transport services should be provided for, including the provision of a bus route through the site with buses stopping at the railway stations and at new bus stops on the site
- Contributions to improvements to the surrounding road networks, including mitigation measures for the local and strategic highway network, consistent with the requirement of the Eco-Towns PPS to reduce reliance on the private car, and to achieve a high level of accessibility to public transport services, improvements to facilities for pedestrians and cyclists and the provision and implementation of a Travel Plan to maximise connectivity with existing development
- Provision of a Transport Assessment
- Measures to prevent vehicular traffic adversely affecting surrounding communities.
- Significant green infrastructure provision, including new footpaths and cycleways, enhancing green modal accessibility beyond the site to the town centre and Bicester Village Railway Station, and adjoining developments. Public open space to form a well connected network of green areas suitable for formal and informal recreation
- Preservation and enhancement of habitats and species on site, particularly protected species and habitats and creation and management of new habitats to achieve an overall net gain in biodiversity including the creation of a local nature reserve and linkages with existing BAP habitats Sensitive management of open space provision to secure recreation and health benefits alongside biodiversity gains.
- A Landscape and Habitats Management Plan to be provided to manage habitats on site and to ensure this is integral to wider landscape management.
- Careful design of employment units on site to limit adverse visual impact and ensure compatibility with surrounding development
- The provision of public art to enhance the quality of the place, legibility and identity
- The retention and respect for important existing buildings and heritage assets with a layout to incorporate these and consideration of Grade II listed buildings outside the site
- Take account of the Council's Strategic Flood Risk Assessment for the site
- Provision of sustainable drainage in accordance with Policy ESD 7: Sustainable Drainage Systems (SuDS), taking account of the recommendations of the Council's Strategic Flood Risk Assessment
- Demonstration of climate change mitigation and adaptation measures including exemplary demonstration of compliance with the requirements of policies ESD 1 – 5
- An assessment of whether the site contains best and most versatile agricultural land, including a detailed survey where necessary.
- A soil management plan may be required to be submitted with planning applications.
- Undertake a staged programme of archaeological investigation.”



© Penoyre & Prasad LLP
 Do not scale from this drawing.
 Dimensions are to be verified on site prior to construction.
 Ordnance Survey Data reproduced by permission of Ordnance Survey, on behalf of Her Majesty's Stationary Office. © Crown copyright and database rights 2019. OS Licence 100035439. All rights reserved.

N
 |
 Boundary Line

Rev	Date	Prep/Check	Description
1	24.04.2015	FRS	Drawing title update
2	24.11.2014	FRS	Drawing title update

Penoyre & Prasad
 28-42 Banner Street
 London EC1Y 9QE
 020 7250 3477
 penoyrepsasad.com

Client
P3Eco

Project
592 - Himley Village

Drawing Title
Site Boundary - Parameter Plan 1

Drawing Status
Outline Planning Application

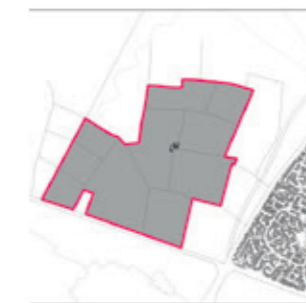
Date
 18.11.2014

Scale
 1:2500 @ A1

Drawing Number
592-PL-101

Revision
B

Site Boundary Parameter Plan 1 (drawing number 592-PL-101 Rev B)



© Penoyre & Prasad LLP
 Do not scale from this drawing.
 Dimensions are to be verified on site prior to construction.
 Ordnance Survey Data reproduced by permission of Ordnance Survey, on behalf of Her Majesty's Stationery Office. © Crown copyright and database rights 2015 OS Licence 10003403. All rights reserved.

N

- woodland
- sports fields
- hedgerow/ hedgerow buffer
- new protection area
- SuDS (indicative location)
- allotments
- ponds
- public green space
- play area (indicative location)
- school playing fields (indicative location)
- Playing Field Boundary Line

No.	Date	By	Check	Description
H	20.06.2015	SS/BS		Playing Field Boundary Line identified - incorporating agreed changes
G	09.05.2015	SS/BS		Final - incorporating agreed changes
F	J	J		Supervised
E	J	J		Supervised
D	J	J		Supervised
C	11.08.2015	FR/AB		Area updated
B	01.07.2015	FR/AB		Area updated
A	01.06.2015	FR/AB		Final Issue

Penoyre & Prasad
 28-42 Banner Street
 London EC1Y 8QE
 020 7250 3477
 penoyrepsad.com

Client
P3Eco

Project
592 - Himley Village

Drawing Title
Landscape - Parameter Plan 3

Drawing Status
 Outline Planning Application

Date
 01.06.2015

Scale
 1:2500 @ A1

Drawing Number
592-PL-106

Revision
H

Landscape Parameter Plan 3 (drawing number 592-PL-106 Rev H)