

NORTH KEYNSHAM

Strategic Planning Framework

Bath & North East
Somerset Council





Prepared by Arup on behalf of Bath & North East Somerset Council

Job number: 252227-00

June 2017 | Revision: Issue 02

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NORTH KEYNSHAM

Strategic Planning Framework

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1 INTRODUCTION

Arup has produced a strategic planning framework for the North Keynsham site at Broadmead Peninsula, Keynsham on behalf of Bath and North East Somerset Council (B&NES).

This framework demonstrates an urban extension for the town of Keynsham which responds to the strong landscape setting. The development includes residential-led development of apartments and family housing focused around a new marina with supporting neighbourhood centre and primary school. Mixed employment development is included at the western end of the site with extensive green infrastructure across the site.

The scope of this framework is a layout for the site itself with consideration given to the off-site improvements required.



RIGHT: SITE LOCATION

BITTON



BROADMEAD LANE INDUSTRIAL ESTATE

RIVER AVON

BRISTOL & BATH RAILWAY PATH

AVON VALLEY ADVENTURE & WILDLIFE PARK

BROADMEAD LN

ASHMEAD INDUSTRIAL ESTATE

AVON VALLEY FARM

PIXASH WASTE SITE

WORLD'S END LN

BROADLEAZE NURSERY

GREAT WESTERN MAIN LINE

A4

SALTFORD

2 CONTEXT ANALYSIS

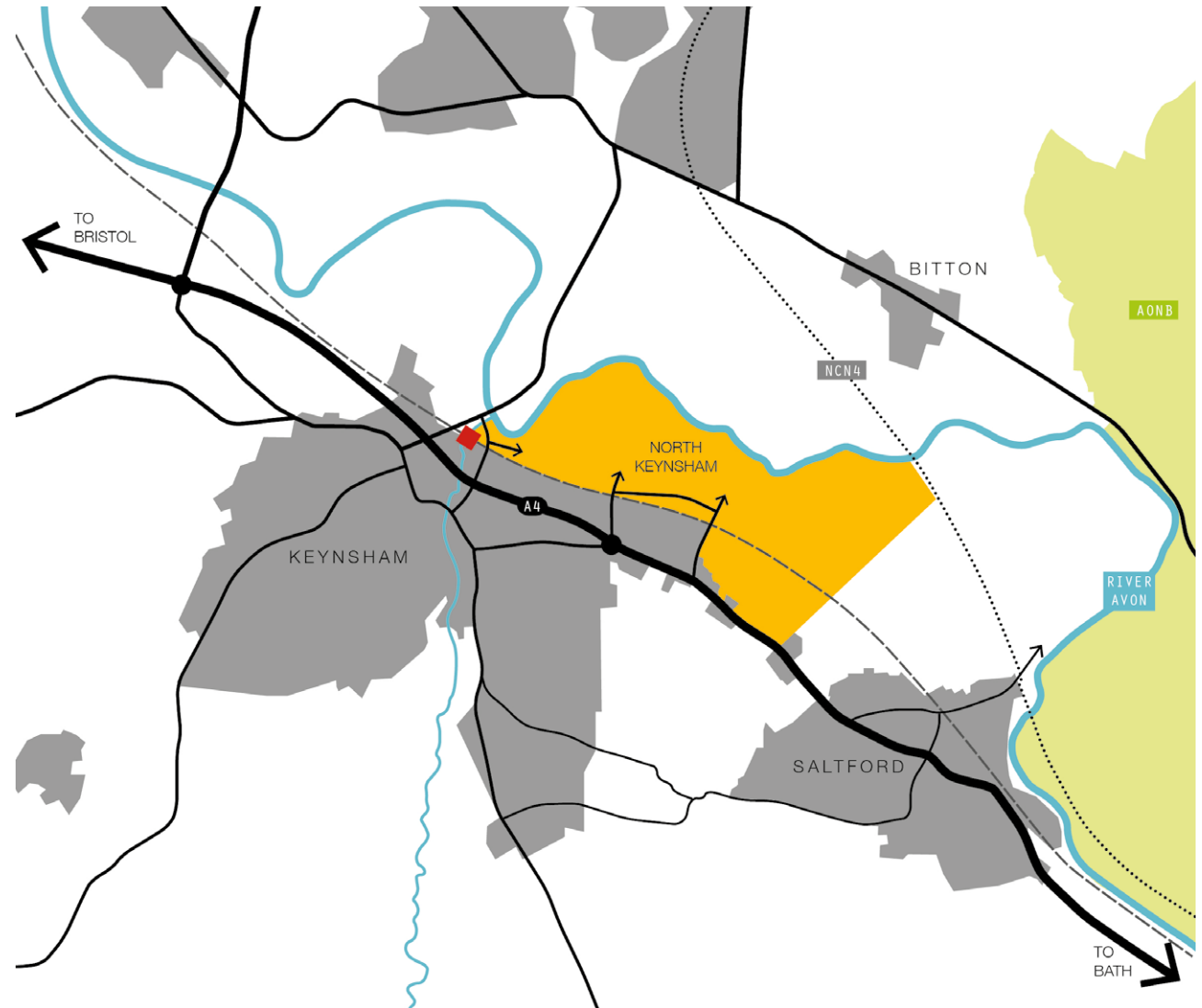
LOCATION

The site lies to the north-east of Keynsham, between the town and the River Avon. The majority of the site lies between the river and the Great Western Railway Line with a smaller section between the railway and the A4. The western end of the site lies within 500m of the town centre and railway station and the site extends for 2km eastwards towards Salford. The site lies close to the urban fringe but is isolated due to severance caused by the railway line.

The site is largely level, sloping downwards to the floodplain and river. The area is largely undeveloped but includes a wide range of uses including Broadmead Lane Industrial Estate, Wessex Water Sewage Treatment Works, DS Smith paper mill, Broadleaze Nursery the Avon Valley Adventure & Wildlife Park, Avon Valley Farm and the Pixash Household Waste site, with several residential holdings.

The site lies in close proximity to the A4 providing direct access to Bath and Bristol by car and bus. The site also has potential to connect into the Bristol & Bath Railway Cycle Path and other long distance pedestrian and cycle routes.

DEVELOPABLE AREA



SITE CHARACTERISTICS

The site is largely characterised by open, flat arable and pasture fields of varied sizes around a mix of industrial, agricultural and residential buildings accessed by narrow lanes. Field boundaries and lanes are marked by strong hedge and treelines with stronger boundaries along the riverside and railway. Broadmead Brook runs south-north close to Broadmead Lane before heading east and discharging into the river.

The site lies within the green belt and, although outside the Cotswolds AONB, is visible from several viewpoints and seen against the backdrop of the existing settlement. The site also sits within the context of the River Avon corridor, which in this area is flanked by large, open, flat fields and ribbons of woodland.

The Avon Valley Adventure & Wildlife Park includes a mix of maintained open spaces and parkland set around a small group of buildings. The Avon Valley Farm is relatively isolated at the end of a narrow lane with a cluster of older and more recent buildings around a yard and set within large gardens.

At the western end of the site, the Wessex Water Sewage Treatment Works and DS Smith site are of industrial character but are largely shielded by vegetation and distance from public routes.

The site has a boundary to the River Avon of around 2.5km though limited public accessibility. There is currently little development on the riverside apart from a limited number of moorings to the east of Broadmead Lane Industrial Estate and private riverside park at the Avon Valley Park.

SURROUNDING DEVELOPMENT

The surrounding area is mixed in use with residential, industrial and employment development in close proximity to the south. The residential areas of eastern Keynsham have a mix of detached and semi-detached mid to late C20th family housing, largely arranged around cul-de-sacs.

The Ashmead Industrial Estate has a mix of large industrial sheds and warehouses which have a strong negative impact on views from the Cotswolds. The floodplain to the north of the river remains largely undeveloped with small hamlets and clusters of dwellings.

The Somerdale residential site is under development 1km to the north-west while the East Keynsham residential allocation site lies to the south of the A4.

The proximity to the railway has a negative impact on the site by significantly restricting access and contributing to the site's isolation while also providing periodic noise pollution. The site is also in close proximity to the Avon Valley Railway which has a tourist halt at the north-eastern corner of the site.

ACCESS & CONNECTIVITY

Access to the site is significantly constrained by the railway, the River Avon and by associated capacity constraints on the A4 and connecting roads. Existing lanes through the site are narrow and have constrained crossings of the railway.

At present there are four vehicle access points: at the far western end via Keynsham Road or Avon Mill Lane, providing access to the town centre and railway station; in the centre via the Broadmead Lane underbridge; and in the east via the Pixash Lane overbridge (Listed structure limiting opportunity to improve capacity). There are two additional minor links at Unity Road (connecting the DS Smith site, under the A4, towards Bath Road) and east of World's End Lane.

The North Keynsham Link Road is proposed to relieve congestion in the centre from traffic heading east on the A4. The proposed route takes traffic from Keynsham Road to Broadmead Lane, then east along the alignment of Pixash Lane and south to the A4 over a new railway bridge. This route would assist the town centre but does not provide the optimum alignment if the site is to be developed.

A series of Public Rights of Way run through the eastern end of the site and provide access towards the long distance routes provided by the River Avon Trail, Monarch's Way and the Bristol and Bath Railway Path (NCN4), which provides opportunity to connect towards Bath. There is currently no direct pedestrian/cycle route from the site across the river.

SITE CONTEXT



AVON VALLEY FARM



LOOKING EASTWARDS FROM BROADMEAD LANE TOWARDS THE COTSWOLDS AONB

At present there is no public transport connectivity to the site with the nearest services running along the A4 and Keynsham Road. While the site is close to Keynsham Station, pedestrian and cycle access from the site is poor and indirect.

ENVIRONMENT & ECOLOGY

There are a number of environmental designations affecting the site. Stidham Farm Site of Special Scientific Interest (SSSI) is located to the east of the site and currently managed as an arable field. This SSSI is designated for its geological features.

There are three Sites of Nature Conservation Interest on site: Stidham Farm SNCI, Broad Mead Field SNCI in the centre (designated for its marshy grassland and botanical interest), and the River Chew SNCI (designated for its running water and associated marginal habitats, including protected fauna, which use the site in part as a wildlife corridor). The River Avon SNCI runs adjacent to the northern site boundary and is designated for its running water and associated marginal habitats, including protected fauna, botanical and invertebrate interest.

Stidham Farm SSSI should be retained on site in its current form, given its designation. The SSSI margins could be enhanced with native species. Retention, expansion and enhancement of all hedges should be maintained across the site. Mature trees should be retained. Broad Mead Field SNCI should be retained and expanded as a marshy grassland in order to improve its biodiversity and to mitigate the loss of habitat elsewhere. Other SNCIs on site and adjacent should also be retained and enhanced. In conjunction

with the landscape assessment the site should incorporate priority habitats into the design, such as hedgerows, orchards, ponds, lowland meadows, reedbeds, lowland mixed deciduous woodland, wet woodland, wood-pasture and parkland. These habitats can be used to alleviate flood risk, increase biodiversity and provide foraging, breeding and commuting habitat for a range of protected species, including badgers, bats, amphibians, reptiles and riparian mammals.

LANDSCAPE

The area contains a number of landscape character area with woodland at the western end, around the DS Smith site and open fields in the centre and east. The main (northern) area of the site has a relatively open and tranquil character due to its physical and visual separation from the built settlement of Keynsham and the mid to long distance views of the Cotswolds. At the east, the railway lies in a cutting and provides less visual severance. South of the railway is urban fringe, merging into open countryside.

Due to the flat topography, views within the site are relatively short, constrained by trees and hedgerows, but are set against a backdrop of the hills of the Cotswolds and Kelston Roundhill. Land slopes are more pronounced at the north-eastern corner close to the railway river crossing making the land here more visible and exposed.

The buildings at the DS Smith site, Avon Valley Park and Avon Valley Farm are well screened by existing vegetation though many of the buildings are of a poor or negative architectural quality.

At present, there is a notable landscape 'gap' between the settlements of Keynsham and Saltford with only a small cluster of housing on the A4. This gap is considered to be an important factor in the setting of the two settlements and is highly desirable to retain.

The site is visible from the Cotswolds and, in Landscape and Visual Assessment work by B&NES, is considered to be part of a continuous swathe of open countryside from the Avon Valley towards the hills. The eastern and riverside areas of the site are considered to be the most visible and least appropriate for development. The town of Keynsham is also visible though its visual impact is lessened by the relatively flat topography on which it sits. The existing Ashmead Industrial Estate to the south of the railway is considered to be highly visible with a negative impact on views due to the scale and massing of the buildings - it is considered that structural planting is required to mitigate views of the industrial buildings, in line with the prevailing bands of woodland in the surrounding area.

FLOOD RISK

Significant areas of the site lie within Flood Zone 3 (functional floodplain and areas with high probability of flooding). This primarily affects the northern area of the peninsula, around Broadmead Lane Industrial Estate, and up to the Wessex Water site, and a corridor along the River Avon, including the access from Avon Mill Lane / Keynsham Road. There are areas at risk from surface water flooding around the Broadmead Brook. Flood Zone 2 (medium probability - 1:100 to 1:1000yr

SITE CONTEXT



VIEW ALONG GREAT WESTERN MAIN LINE



AVON VALLEY FARM



VIEW TOWARDS COTSWOLDS



LAKE WITHIN AVON VALLEY PARK



VIEW FROM BRISTOL & BATH RAILWAY PATH LOOKING SOUTH-WEST TOWARDS SITE

annual risk) affects further areas around the Wessex Water and DS Smith sites. The B&NES Strategic Flood Risk Assessment demonstrates that further areas of the site will fall within Flood Zone 3 following climate change.

Initial work suggests there could be opportunity to re-route Broadmead Brook to provide improved outfall from upstream, reducing flood risk around the railway line, while improvements to levels within the functional floodplain could ease floodwater flows. The alignment of the North Keynsham Link Road could assist in providing current and future flood protection.

Relocation of the Broadmead Lane Industrial Estate to an area outside of the flood plain would assist in easing floodwater flows but would come at cost to the project and result in loss of developable land.

The majority of the existing dwellings north of the railway discharge into the River Avon unattenuated. Significant improvements will be required to attenuate flows from the redeveloped site.

ARCHAEOLOGY AND HERITAGE

The site includes a small number of listed buildings around Avon Mill Lane, two Listed bridges (Pixash Lane and pedestrian bridge to the east) and a number of heritage sites with HER records, notably some Roman finds at Avon Valley Park. There are a small number of buildings with notable character at Broadmead Lane Industrial Estate and Avon Valley Farm.

UTILITIES

The site is highly constrained by the presence of the Wessex Water sewage treatment works at Broadmead Lane. Anecdotal evidence suggests that the site has odour nuisance issues which could limit the attractiveness for more sensitive development such as residential. Wessex Water odour risk assessment would be triggered within a 400m consultation zone around the works site.

The site is crossed by a number of utilities, many associated with the Wessex Water site. Most notable is the gas pipeline (Feeder 14) which passes south-west to north-east at the eastern end of the type. The pipeline was not constructed to allow new roads above so would require upgrading or diverting if it were crossed. A National Grid easement of 10m exists either side with further HSE consultation zones around the alignment (inner zone: 40m, middle zone: 125m, outer zone: 155m).

A sludge pumping main crosses east-west through the centre of the site towards the Wessex Water site with a second route running north from the works. The western end of the site is crossed by a number of high- and low-voltage Western Power lines. Many of these routes would require easement or diversion to facilitate development.

PLANNING

The site sits within the existing green belt allocation. North of the Wessex Water site is a former landfill site which has been included in the West of England Joint Waste Core Strategy as a residual waste treatment facility.

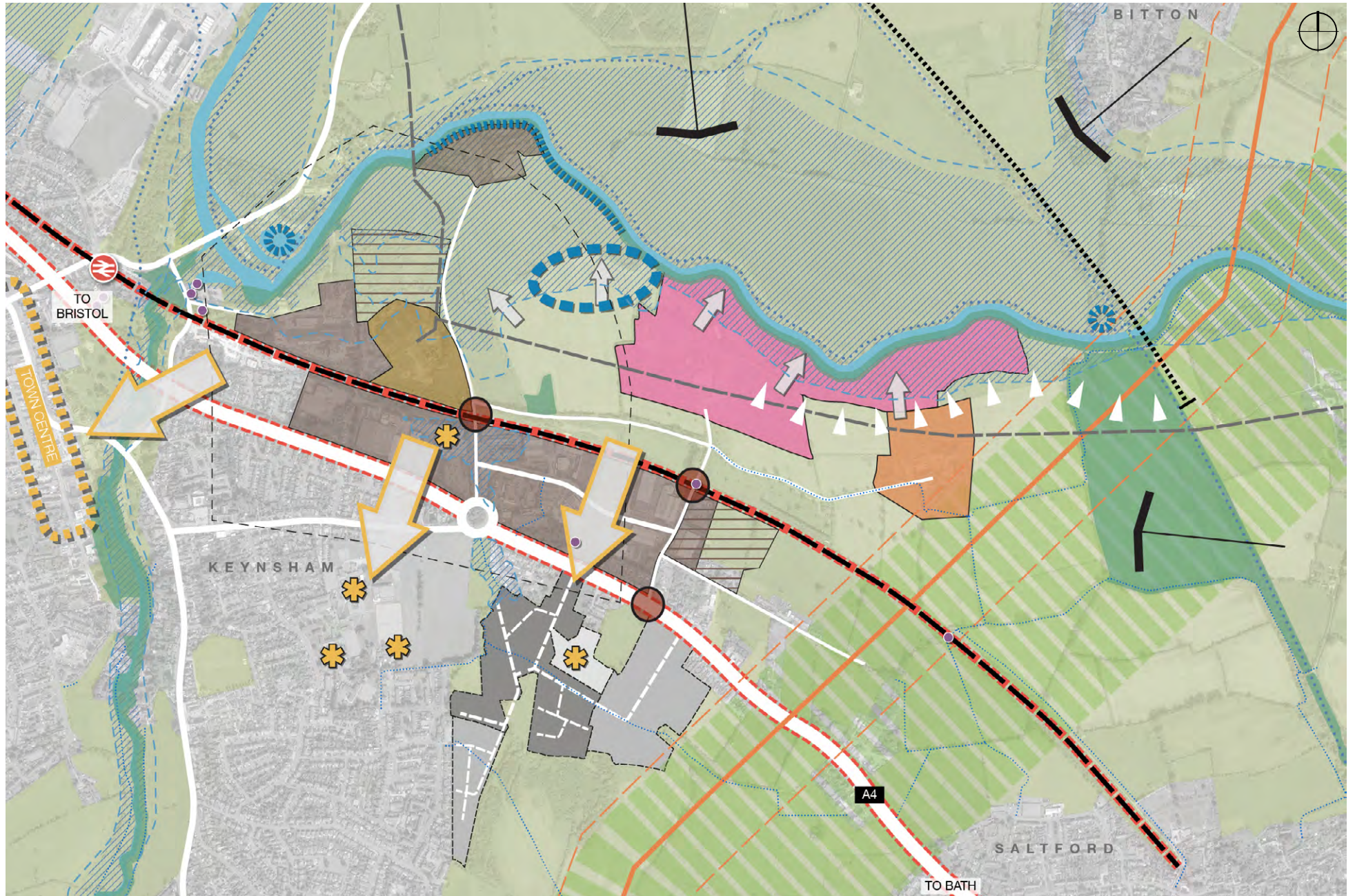
Within the site, land around World's End Lane is allocated in the B&NES Local Plan as a Strategic Site Allocation for employment (30,000sqm of B1 and B2). B&NES are in the process of acquiring land in this area for a waste services and recycling centre (4 hectares). Land south of the A4 has been allocated for residential development and granted outline planning consent for 250 dwellings. Further land adjacent has been safeguarded for additional development of approximately 250 dwellings.

GROUND CONDITIONS

The site gently slopes down towards the River Avon with a more prominent slope at the eastern end close to the railway path.

The site includes some areas of artificial ground and historic landfill. This and the existing industrial uses could pose contamination issues for development. The ground conditions are generally not expected to pose constraints for foundations however further investigation would be required.

OPPORTUNITIES AND CONSTRAINTS



AERIAL IMAGERY © GOOGLE 2016

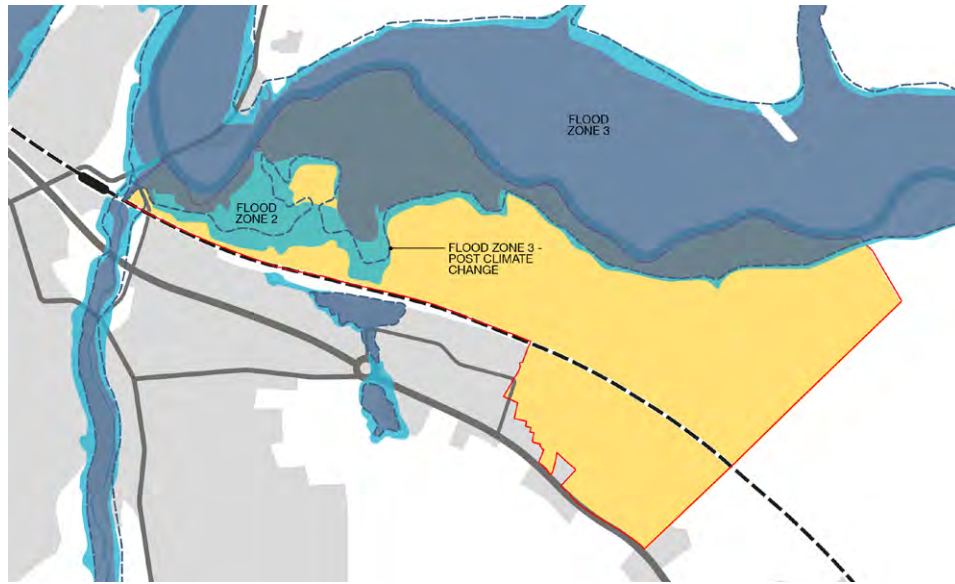
OPPORTUNITIES AND CONSTRAINTS

An initial assessment of the opportunities and constraints relating to residential-led development has been made and is summarised right:

	GREEN INFRASTRUCTURE NETWORK - OPEN SPACE, FIELDS, RECREATION		AVON VALLEY FARM
	KEYNSHAM RAILWAY STATION		SLUDGE PUMPING MAIN
	STRONG VIEWS TOWARDS SITE		SEVERANCE BY ROAD/ RAIL INFRASTRUCTURE
	ROAD INFRASTRUCTURE		DESIRABLE PHYSICAL / SOCIAL CONNECTIONS
	LONG DISTANCE WALKING / CYCLING ROUTE		STEEP TOPOGRAPHY
	PUBLIC RIGHT OF WAY		LISTED BUILDING (IN / AROUND SITE)
	TOWN CENTRE		AVON VALLEY RAILWAY
	KEY SOCIAL INFRASTRUCTURE (EXISTING / PROPOSED)		ACCESS CONSTRAINT - RESTRICTED CAPACITY FOR ADDITIONAL TRAFFIC
	EMPLOYMENT / INDUSTRIAL SITES		SETTLEMENT GAP
	PROPOSED WASTE SITE		POTENTIAL FRONTAGE TOWARDS RIVER
	SEWAGE TREATMENT WORKS (WITH 400M CONSULTATION ZONE)		FLOOD ZONE 3 - CURRENT
	RIVERSIDE INFRASTRUCTURE - EXISTING MARINA / RIVER TAXI / MOORINGS		FLOOD ZONE 3 - POST-CLIMATE CHANGE
	MARINA - POTENTIAL LOCATION		GAS PIPELINE (WITH HSE CONSULTATION ZONE)
	ENVIRONMENTAL DESIGNATION (SSSI, SNCI)		EAST KEYNSHAM HOUSING SITE
	AVON VALLEY ADVENTURE & WILDLIFE PARK		EAST KEYNSHAM SAFEGUARDED LAND

OPPORTUNITIES	CONSTRAINTS
<p>Upgrade the riverside area to provide an enhanced public experience alongside ecological improvements. Opportunity to link into the marina proposals, provision of public open space and pedestrian/cycle links.</p>	<p>Landscape is highly sensitive and has limited capacity for accommodate new development, particularly at the eastern end. Buffer planting and/or setbacks will be required along these edges.</p>
<p>Frontage and outlook onto the River Avon, providing a high-quality living and recreation environment. Strong opportunity around a new marina for high-density residential development.</p>	<p>Proximity to active industrial sites: potential environmental health concerns, strong impact on views from and to the site and likely poor frontage along proposed North Keynsham Link Road route.</p>
<p>Provide a strong neighbourhood centre which acts as a focus to the site, serving residents and employees. Opportunity to cluster retail, service and education uses around key open space and marina frontage.</p>	<p>Severance from existing communities due to the railway means this development will need to be carefully designed to establish a community and ensure desirability. It will need to provide for day-to-day social and retail functions with potential loss of residential land.</p>
<p>Opportunity to create strategic pedestrian and cycle connections to Keynsham town centre and railway station and the local schools. Connections across the river towards the long distance recreational walks should be explored.</p>	<p>Limited public transport services constrain amenity for commuter and amenity journeys. Poor connectivity to the existing railway station.</p>
<p>Consider realignment of the proposed North Keynsham Link Road and users of the site. Appropriate street environment to be used to provide traffic calming.</p>	<p>Limited opportunity for new vehicle and pedestrian/cycle routes due to topography and neighbouring land holdings. Routes may be considered undesirable due to perceived lack of safety and surveillance.</p>
<p>Create green corridors between the riverside area and the railway corridor, providing a range of ecological, connection and recreation opportunities and accommodating surface water attenuation.</p>	<p>Poor access to the site using existing routes and congestion on connections to the A4. Improvements would require new bridge access and new road provision at a cost to the project.</p>
<p>Opportunity to provide a new, enhanced facility at the Avon Valley Park which caters for an increased number of visitors and has a wider range of attractions.</p>	<p>Existing location of the Avon Valley Park divides the site and limits public access to the riverside. Relocating or removing the facility could considerably improve amenity of the development and open spaces and give a more centralised community.</p>
<p>Development provides the opportunity to improve the functionality of the floodplain and ease flows in connecting watercourses.</p>	<p>Large areas of the site lie within Flood Zones 2 and 3 and are unsuitable for development.</p>
	<p>Existing infrastructure considerably constrains the layout of the site unless relocated which will have an associated cost to the project.</p>

FLOOD RISK



EXISTING OR PROPOSED CONSTRAINTS - FIXED LOCATION



CONSTRAINTS - POTENTIAL TO MOVE / RELOCATE



LANDSCAPE SENSITIVITY









DEVELOPABLE AREA

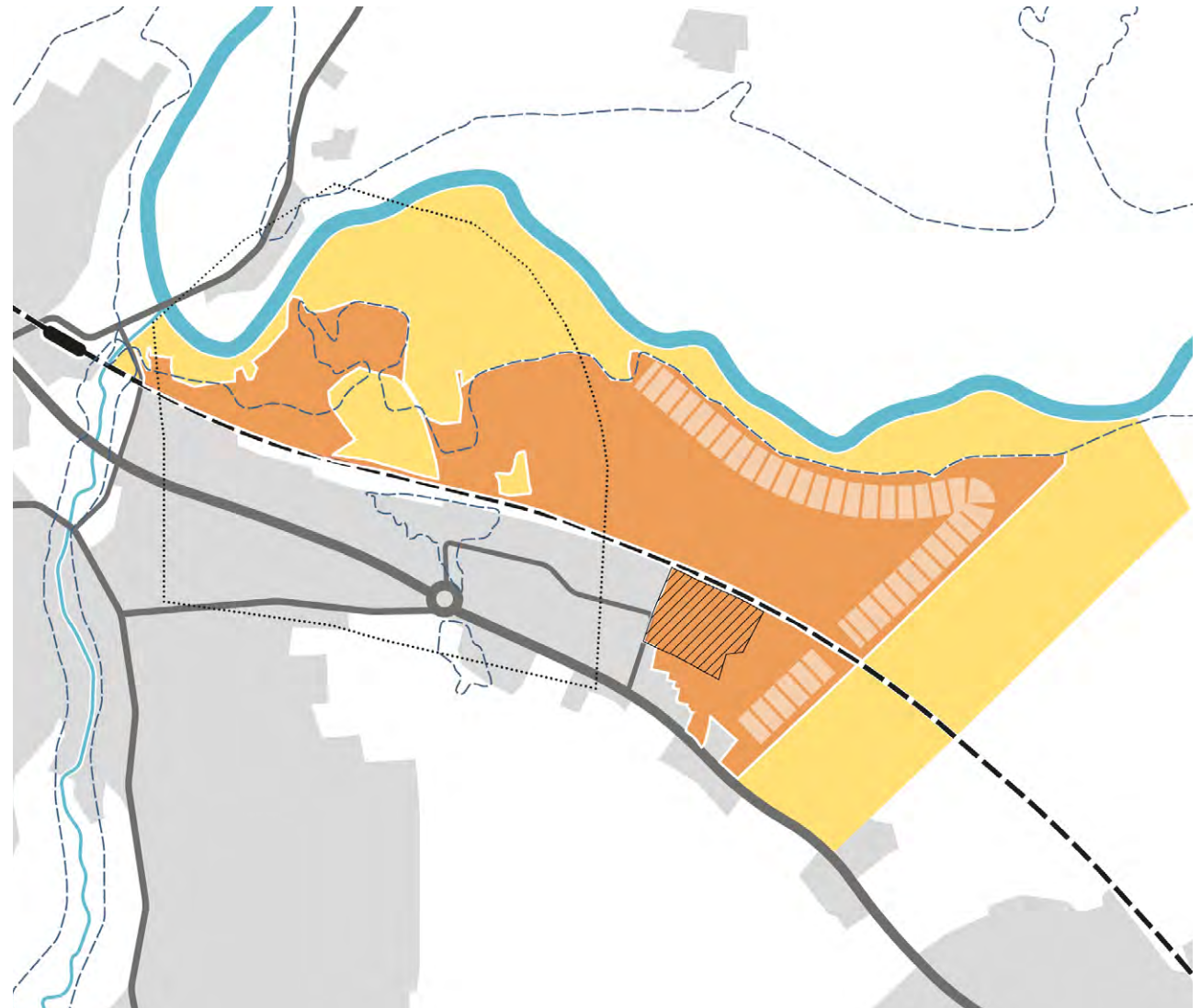
Taking into account the site context, a maximum development envelope has been defined for built development. This takes into account the fixed land uses, protected sites and current floodplain. Access routes, public open space and landscaping may lie outside this area.

Within this area there are additional sensitivities that will affect the site layout:

- High landscape sensitivity at northern and eastern edges
- Proximity to Wessex Water sewage treatment works (400m consultation zone)
- Proposed waste services and recycling centre
- Future extent of floodplain following impact of climate change.

-  SITE EXTENT
-  DEVELOPABLE EXTENT - 70HA (47%)
-  PROPOSED WASTE SERVICES AND RECYCLING CENTRE
-  FLOOD ZONE 3 - POST-CLIMATE CHANGE
-  WESSEX WATER ODOUR RISK ASSESSMENT CONSULTATION ZONE (400M)
-  AREA WITH INCREASED LANDSCAPE SENSITIVITY

DEVELOPABLE AREA



3 VISION + OBJECTIVES

VISION

To open up this currently isolated area to its environs in a sensitive way, creating a new sustainable urban neighbourhood with increased access to the River Avon and connecting Keynsham to strategic walking and cycle routes.

This will be a lively, safe, sustainable and healthy place which reinforces the distinctive character of Keynsham, improves connectivity, enhances our understanding and respect of nature and creates spaces around which a new community can start to form.

The community will thrive and develop within a well-integrated and multifunctional green infrastructure network of new wetland features, restored floodplain meadows and new woodland.

OBJECTIVES

A LIVELY PLACE

1. In order to create and reinforce public life, people will be invited to walk and cycle within the new neighbourhood with a high quality public realm and cycle infrastructure.
2. The neighbourhood will accommodate a critical mass of people to sustain local services such as a primary school and a local centre.

A SAFE PLACE

3. To increase activity, the neighbourhood will be permeable, compact and walkable, with attractive public spaces and a mix of uses.

A CONNECTED PLACE

4. The neighbourhood will be integrated with the existing built up area of Keynsham as far as possible.
5. High-quality walking and cycle routes will be provided to the Bristol to Bath cycle route, the train station and to new and existing development to the south of the A4. Public access will be provided to the riverside area.
6. A new highway link will be delivered between Avon Mill Lane and the A4 through the development. This will become a new street, considering the needs of pedestrians, cyclists, public transport and vehicles, in that order. Development will front onto and define this new street.

A SUSTAINABLE PLACE

7. Site layout and infrastructure will ensure a high number of trips take place by foot, bike or public transport.
8. Development will be expected to incorporate energy efficient buildings and include renewable energy generation. The aspiration will be to deliver a zero carbon development.

A HEALTHY PLACE

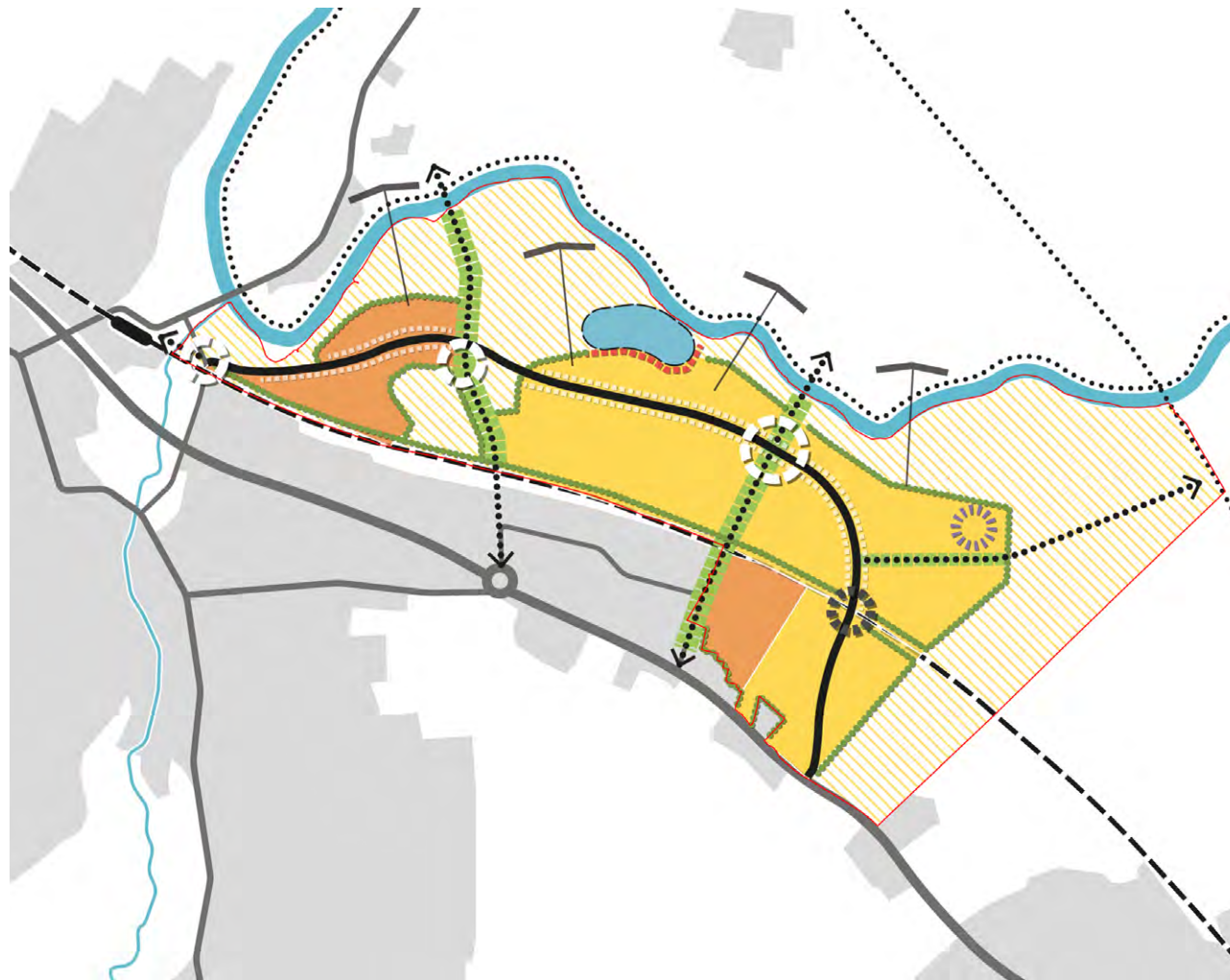
9. To combat sedentary lifestyles, walking and cycling will be a natural part of the pattern of daily activities.

A DISTINCTIVE AND RICH PLACE

10. The new neighbourhood will contribute positively to local character and distinctiveness. It will take clues and cues from Keynsham's distinctive character as inspiration but will form a contemporary new quarter with its own character and qualities.
11. Development should work with the landscape structure and contribute positively to the characteristics of the river corridor.
12. Green Infrastructure will be incorporated to improve environmental quality, to mitigate landscape impact and to promote connectivity for people and wildlife.

DEVELOPMENT STRATEGIES

PLACEMAKING



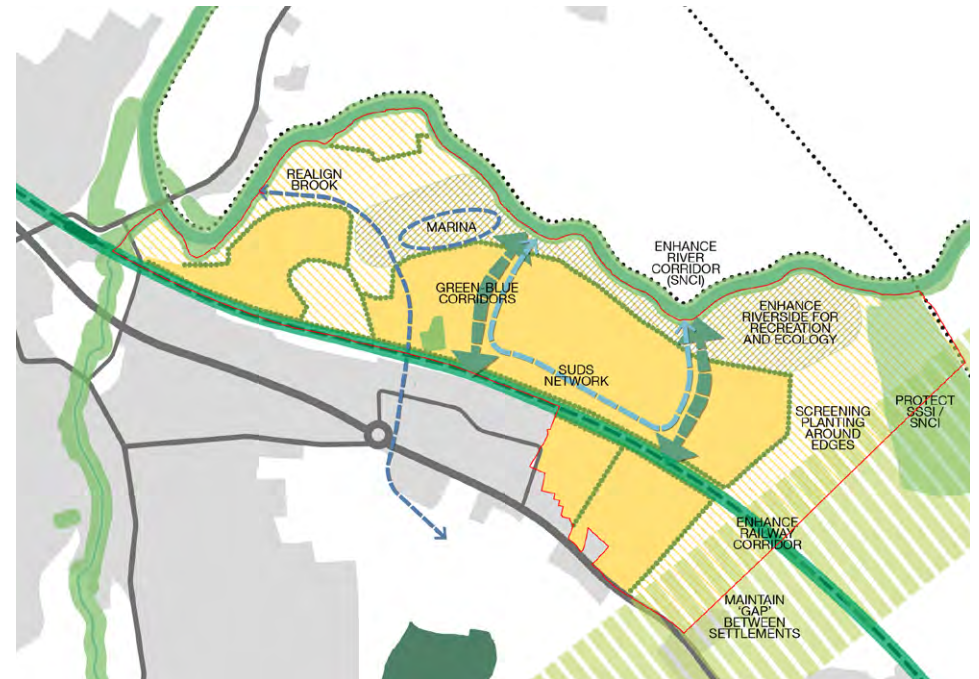
PEDESTRIAN AND CYCLE CONNECTIONS



Strong pedestrian and cycle routes should be provided across the site:

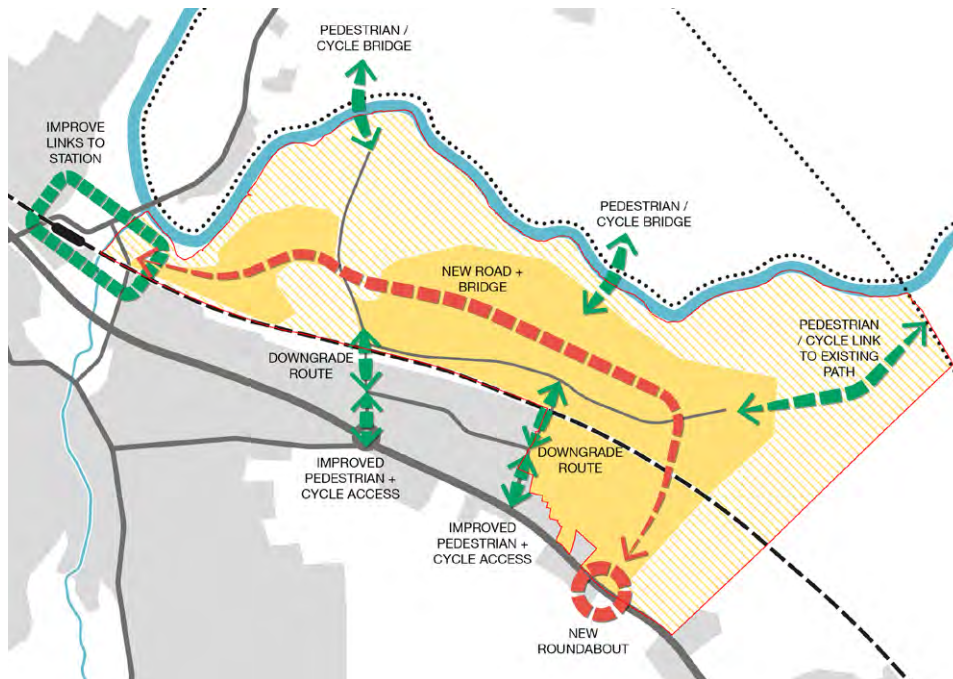
- East-west between Keynsham station and the Bristol & Bath Railway Path.
- North-south between the A4 and the riverside, with potential for bridge connections over the river.
- Cycle-friendly infrastructure within the development.

GREEN INFRASTRUCTURE



- Legible network of green corridors and public spaces which increase the value and amenity of neighbouring developments.
- Support biodiversity and enhance existing habitats.
- Manage surface water through SUDS networks and attenuation.
- Increase public access to the riverside and natural environment with a mix of recreation and leisure offers for residents and other local people.
- Develop a community which fits within the ecological, heritage and landscape context.

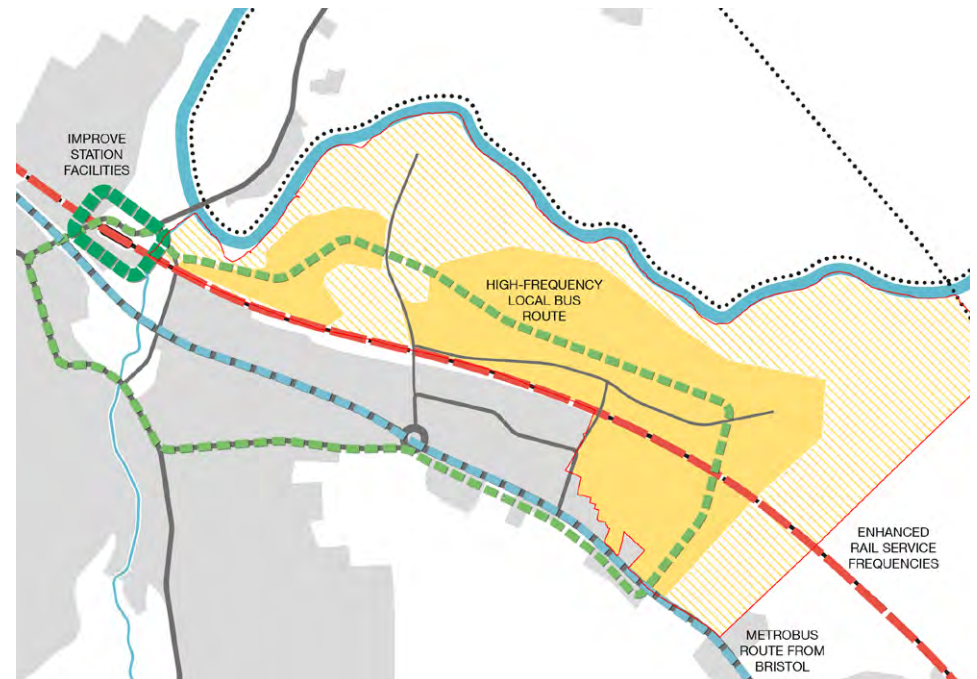
OFF-SITE AND INFRASTRUCTURE IMPROVEMENTS



A number of key infrastructure improvements are required or highly desirable to make the site a strong and sustainable development:

- New road through the site, North Keynsham Link Road, providing relief to the town centre as primary access for the site with new roundabout on the A4.
- Downgrading of existing vehicle accesses (Broadmead Lane and Pixash Lane) to pedestrian/cycle only routes.
- New pedestrian/cycle bridge/s across the River Avon.
- New pedestrian/cycle connections to Keynsham Station and the Railway Path.

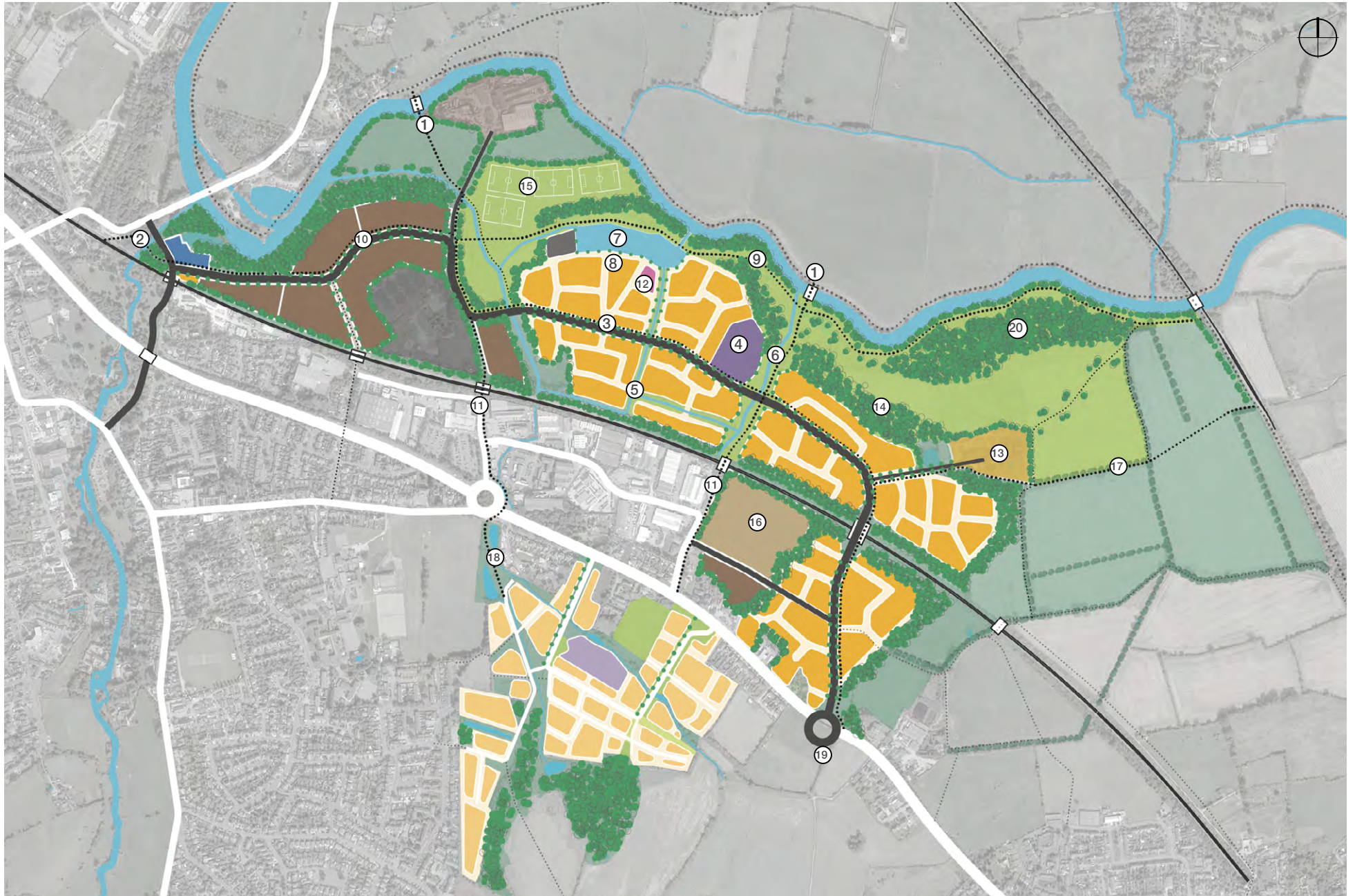
PUBLIC TRANSPORT IMPROVEMENTS



The following public transport improvements have been proposed to serve the site:

- Keynsham train station to be improved with enhanced service frequencies (Metrowest) and improved passenger facilities and expanded car parking.
- Metrobus route from Bristol on the A4 corridor with new stops to provide pedestrian interchange with rail and local bus. In the long-term, light rail could replace Metrobus on the A4 corridor.
- All homes to be within 400m of bus stops or 800m of the station.
- High-frequency local bus service following an orbital route linking the site to the town centre, Metrobus, rail and other local bus services.

CONCEPT STRATEGIC FRAMEWORK



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4 CONCEPT STRATEGIC FRAMEWORK

A concept framework has been developed (shown left) from the site analysis and key principles which provides a high-level layout and provides an indication of site capacity.

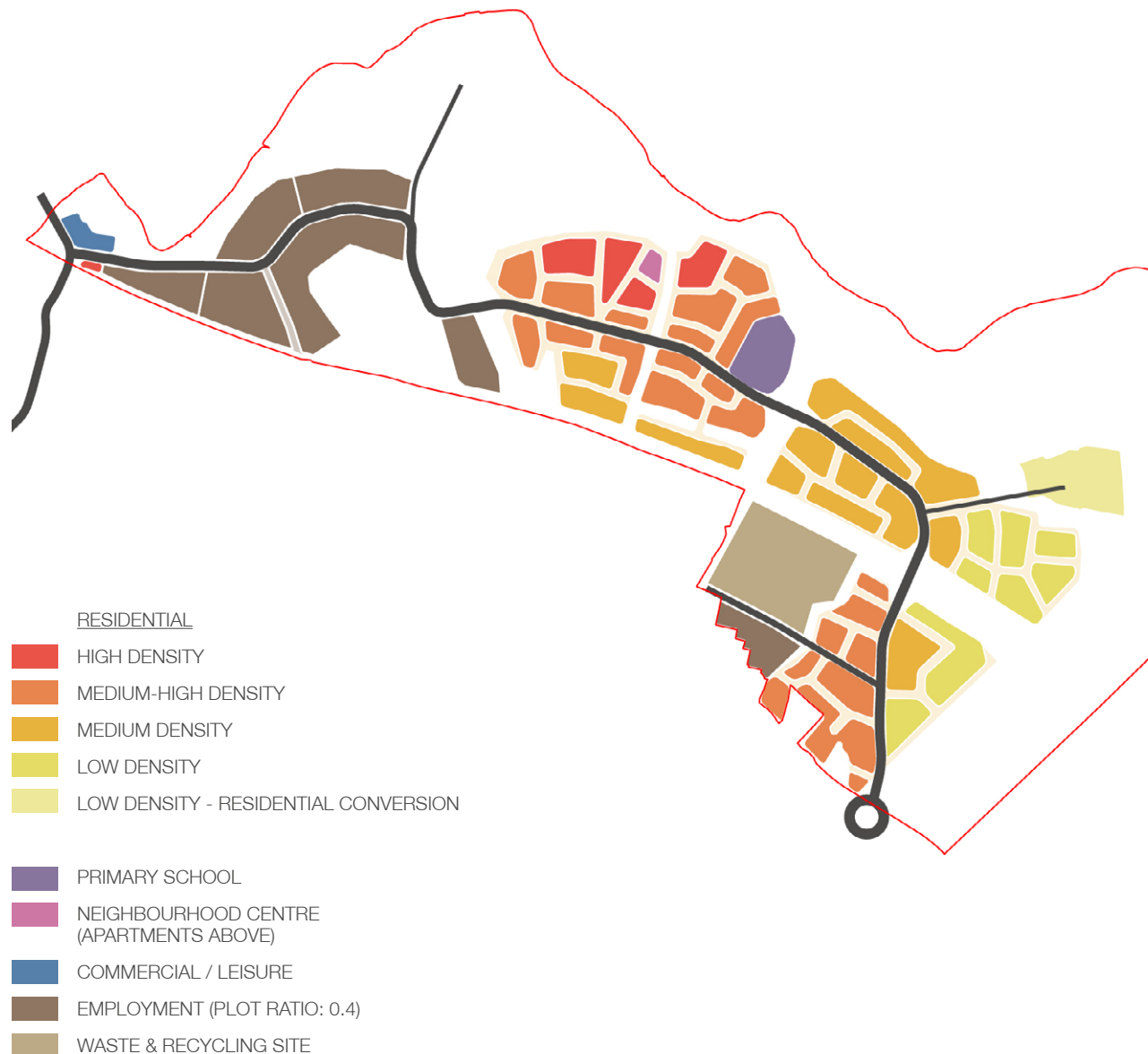
The framework has been structured to optimise residential and employment development, balanced against the flood risk, landscape sensitivity constraints and the limitations of the HSE consultation zones.

-  MIXED-TYOPOLOGY RESIDENTIAL DEVELOPMENT
-  RESIDENTIAL CONVERSION
-  STREETS / PUBLIC REALM
-  PRIMARY SCHOOL
-  NEIGHBOURHOOD CENTRE (APARTMENTS ABOVE)
-  MARINA CAR PARK
-  WASTE & RECYCLING SITE
-  EMPLOYMENT DEVELOPMENT
-  COMMERCIAL / LEISURE
-  PUBLIC OPEN SPACE (RECREATION + SPORT)
-  NATURALISED OPEN SPACE / GRAZING
-  PRIMARY ROAD NETWORK
-  PEDESTRIAN / CYCLE ROUTES
-  BUFFER / WOODLAND PLANTING

LAYOUT CHARACTERISTICS

- 1 Pedestrian and cycle connections across the River Avon.
- 2 Improved pedestrian and cycle connections to Keynsham railway station.
- 3 North Keynsham Link Road alignment through centre of site from Avon Mill Lane to A4 with new roundabout.
- 4 Primary school (1.2 ha site).
- 5 Green spines through residential area providing surface water attenuation through SUDS.
- 6 Central public open space along key pedestrian route linking riverside to Pixash Lane.
- 7 New marina providing residential and leisure moorings. Car park provided to the west.
- 8 Higher density housing fronting marina and riverside - maximise development along valuable views and provide strong surveillance.
- 9 Public access to riverside area with ecological landscape and public realm improvements and increased leisure amenity (integration of sport/play trails).
- 10 Employment development around main access road (55,000sqm floorspace).
- 11 Existing vehicle routes downgraded to pedestrian and cycle-only links.
- 12 Neighbourhood centre (0.5 ha) - potential convenience retail, primary care and community uses with apartments above.
- 13 Character of existing farm to be retained and enhanced for residential development.
- 14 Extensive buffer planting around edges of site to mitigate against visual impact of development. The planting should establish a new viable habitat with recreational, ecological and flood mitigation benefits.
- 15 New recreation facilities to potentially include sports pitch provision.
- 16 New waste and recycling site within Strategic Allocation site.
- 17 Improved pedestrian and cycle connections to the Bristol & Bath Railway Path.
- 18 Links to the East Keynsham Strategic Allocation and community woodland.
- 19 New roundabout connection with A4.
- 20 Habitat management and enhancement to deliver flood and recreational benefits. To include restoration of flood plain grazing marsh (UK Priority Habitat) and new woodland.

DEVELOPMENT DENSITY



DEVELOPMENT QUANTUM

An indicative high-level capacity test has been undertaken based on the concept framework:

RESIDENTIAL QUANTUM

LAND USE	QUANTUM
Residential units	1399 units
Employment floorspace	56,000sqm

LAND USE SPLIT

LAND USE	AREA (HA)	%
Residential (inc. secondary roads)	34	22%
Employment	14	9%
Waste site	4	3%
Riverside / boundary park (inc. buffer planting)	34	23%
Neighbourhood centre	0.3	<1%
Primary school	1	1%
Marina (inc. car park)	2	1%
Major roads	6	4%
Industrial estate (existing)	3	2%
Sewage treatment works	4	3%
Naturalised open space (retained as existing)	48	32%
Commercial / leisure (existing)	0.4	<1%
Total	150 HA	

KEY PRINCIPLES

Clifton Emery have developed a series of Placemaking Guiding Principles for the joint spatial plan, covering Biodiversity, Health and Wellbeing, Social Sustainability, Transport and Urban Design & Landscape. These are addressed in the key principles for this site, as outlined below.

A design code could be developed to accompany any masterplan to ensure a high-level of design quality across the site. The design code should provide greater detail regarding matters including layout, building orientation form and massing, unit mix, public realm treatments, green infrastructure and street hierarchy.

LAYOUT

The site layout demonstrated on the framework uses a connected block structure which supports the street hierarchy to provide clear legibility and give strong frontage over key streets, open spaces and pedestrian/ cycle routes. Taller buildings could be used to reinforce the urban form at these locations.

The school and neighbourhood centre should be located on key and accessible routes and used to create a sense of place to aid wayfinding.

NATURAL ASSETS

The development should respond positively to the existing natural assets and landscape to ensure that the benefits of development outweigh the loss of green belt land. The site should respond to the B&NES Green Infrastructure Objectives for the area:

1. Recognise and enhance a legible network of physical green spaces and corridors.
2. Support resilient ecosystems and biodiversity.
3. Mitigate and adapt the natural and built environment to climate change through the implementation of green infrastructure.
4. Reduce and manage flood risk.
5. Improve mental and physical health, and the cohesion of local communities.
6. Maintain and enhance cultural heritage, landscapes and natural resources.
7. Increase sustainable food production.
8. Promote economic growth, employment and skills improvement.

The riverside area has significant potential to be made publicly accessible and enhanced as both an amenity and environmental asset, linked into a wider green infrastructure network across the site. The improvements could provide an improved transit corridor for cycling commuters connecting to the Railway Path and has leisure potential as a destination for other local people.

Potential enhancements should have a low visual impact but include play and fitness trails, children's play areas, sports pitches, access to the water for boating and fishing activities, and planting of a 'wet

woodland' environment. There is potential to provide allotments, orchards and community gardens within the public areas, alongside sports and leisure facilities.

A network of various public open spaces should be provided within the residential area, creating green corridors between the riverside area to the north, the main road through the centre and along the SUDS network. Incidental squares and pocket parks should be provided within larger development blocks to provide some relief and accommodate surface water retention. These areas should benefit from passive surveillance and provide a range of children's play facilities and safe movement routes.

Edges of the developed areas should be planted up with bands of woodland to around 30m depth to provide visual screening and privacy for residents.

The existing designated areas (SSSI and SNCI) should be protected and enhanced in line with their existing character. There is significant potential on this site to restore and re-create habitats and biodiversity. Public open space could be located in areas of heritage interest to reduce impact on sensitive sites.

The development should embrace green technology and opportunities to minimise the ecological footprint through measures such as rainwater harvesting and green roofs. The development should incorporate sustainable drainage and surface water attenuation networks to avoid additional pressure on the existing floodplain and provide additional habitat. Boundary planting and wooded areas will contribute to reducing urban heating and absorb carbon dioxide.

RESIDENTIAL DEVELOPMENT

The development should support a high-quality mix of housing typologies and tenures to develop a sustainable community which compliments the existing settlement. Local architectural character could be explored to ensure the development feels appropriately bedded into its environment.

The framework plan demonstrates a housing quantum based on a transition of densities: high-density apartments to give a strong frontage around the marina, mix of mid-density houses and apartments over the centre of the site and lower density family housing at the eastern edges where the visual impact will be greatest.

An assumption has been made that higher density units would be provided over 3-4 storeys giving strong frontage and higher densities around public open spaces and the main road. Development over the rest of the site is more appropriate at 2-3 storeys. Around the edges, development should respond to the potential for attractive views towards the riverside and provide appropriate surveillance of public areas whilst minimising visual impact.

The site has potential as a location for custom-build or self-build housing with plots set aside for these alternative delivery mechanisms. This could help establish a strong and unique identity for the site.

ACCESS + MOVEMENT

Primary vehicle access would be provided via the North Keynsham Link Road, with potential to downgrade existing accesses routes to pedestrian/cycle-only. The alignment shown draws the road through the middle of the site to best serve site and through traffic. The route should be of an appropriate nature for a mixed-use environment and be designed to passively restrict vehicle speeds while working as a public transport corridor for local and longer distance services.

The development should adopt a simple and highly-connected street network based on a strong street hierarchy and which supports sustainable and healthy transport options by providing strong, safe links to the pedestrian and cycle network, schools and facilities and to local public transport connections at the A4 and Keynsham Station.

Existing connections under or over the railway should be utilised and connecting routes upgraded where appropriate.

SOCIAL INFRASTRUCTURE

Due to the site's segregation from neighbouring communities, a small neighbourhood centre would be needed to support both residents, tourists and employees with daily social, community, health and retail functions. This could include a small convenience store and some smaller units for retail or small businesses. A marina-side location could be appropriate with potential for additional apartments on upper storeys.

Provision should be made for a primary school on the site. At present, it has been assumed that secondary school provision will be accommodated off-site, subject to developer contributions.

EMPLOYMENT DEVELOPMENT

The framework allows for significant employment development primarily located at the western end of the site where land is less appropriate for residential development due to proximity to the sewage treatment works.

Further employment development is shown at World's End Lane, accommodating the proposed B&NES waste services and recycling centre.

Any new development should provide a strong frontage to the street with car parking in less prominent locations to the rear.

The site framework has potential to accommodate a relocated and remodelled Avon Valley Adventure & Wildlife Park, which would contribute to employment on the site.

AVON VALLEY PARK OPPORTUNITY



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AVON VALLEY ADVENTURE & WILDLIFE PARK

The Avon Valley Park is not shown on the general framework due to the limitations this would have on the development extent, viability of the scheme and public access to and amenity of the riverside area.

An alternative framework is shown, left, which demonstrates an alternative scenario with a reduced residential quantum (loss of around 1 hectare / 40 dwellings) while allowing for relocation of the Avon Valley Park. The Park area is shown at the north-eastern end of the site; additional developable area could be gained if the Avon Valley Farm site is incorporated into the Park. The following principles are important to mitigate impact:

- The site should be laid out to minimise visual impact on views from sensitive locations. Larger buildings and structures and any features such as parking which have a greater visual impact should be located at the south-western area close to other development. These features should be appropriately screened using planting.
- An appropriate area of buffer planting should be provided between the Park and neighbouring residential development to preserve amenity.
- Where possible, pedestrian and cycle access should be provided along the riverside. Alternatively, a new bridge should be provided across the river and the footpath along the north of the river should be enhanced to provide a suitable link to the Railway Path.

DEVELOPMENT PRECEDENTS



ACTIVE FRONTAGE TO OPEN SPACES | STRONG BELT OF PLANTING AROUND EXPOSED EDGES OF THE SITE TO MITIGATE IMPACT ON SENSITIVE VIEWS



STRONG NEIGHBOURHOOD CENTRE AS FOCUS FOR COMMUNITY © GOOGLE 2017



OPPORTUNITY FOR SHARED AND COMMUNITY GARDENS AND ALLOTMENTS ALONGSIDE PRIVATE PROVISION AND PLAY / RECREATION SPACE





MIX OF HOUSING TYPOLOGIES AND TENURES - POTENTIAL FOR DIVERSITY THROUGH ALTERNATIVE HOUSING MODELS AND CUSTOM-BUILD



PEDESTRIAN AND CYCLE FRIENDLY ENVIRONMENT WITH CONVENIENT, SAFE AND ATTRACTIVE MOVEMENT ROUTES



POTENTIAL TO USE THE MARINA AND SURFACE WATER MANAGEMENT AS A DEFINING FEATURE OF THE SITE, CREATING CHARACTER WHILE BEING FUNCTIONAL AND SUSTAINABLE



5 CONCEPT VIEW PHOTOMONTAGES

The following images give an impression of the type of development envisaged on the site.



CONCEPT VIEW - MARINA



CONCEPT VIEW - RIVERSIDE



CONCEPT VIEW - MAIN STREET

6 DELIVERY + IMPLEMENTATION

APPROACH TO INFRASTRUCTURE PLANNING & DELIVERY

A phasing strategy will be required for North Keynsham to ensure that the development and infrastructure come forward in step, minimising the impact of the development, yet taking account of the need for development to remain viable. When drafting the North Keynsham allocation policy phasing should be taken into account and any variation from them carefully justified.

Expectations for the phasing of employment and housing, green infrastructure, highway improvements, strategic walking and cycling links and transfer of land and funding for the primary school all require further consideration. Supplementary studies and consultation with both statutory bodies and the wider community should take place and these will undoubtedly result in the need to reassess the triggers and sequence of infrastructure delivery required. For example consideration needs to be given to whether early phases of housing and employment release could happen before the A4 link road through the site is fully completed through strategic transport modelling.

Compiling a list of infrastructure in relation to this potential allocation has had regard to the infrastructure tests set out in section 122(2) of the Community Infrastructure Levy Regulations which state that it must be:

- Necessary to make the development acceptable in planning terms;
- Directly related to the development; and
- Fair and reasonably related in scale and kind of development.

The success of the emerging preferred concept will ultimately be judged by what is delivered and the approach taken to delivery will therefore be key. It is essential that North Keynsham is taken forward in a co-ordinated and cohesive manner with the bigger picture clearly in mind, in this way the overall vision and objectives for the area can be achieved.

INFRASTRUCTURE REQUIREMENTS AND DELIVERY TRIGGERS

The key elements of infrastructure required to support the North Keynsham's vision and objectives must be delivered in a timely way in order to reduce the impact of the development. The key infrastructure requirements are listed in the following table in relation to the anticipated phase of development and identified trigger points. This table concentrates upon the strategic infrastructure requirements common to the allocation as a whole. Further site specific infrastructure will be required on a more local basis, for delivery under individual detailed planning permissions for the relevant phase of the development such as footpaths and streets and non-strategic habitat mitigation. A range of utilities related infrastructure will also be required such as power, water and foul drainage. Provision for these will need to be made in step with the requirements of each phase of development and ensuring that provision is co-ordinated between phases.

INFRASTRUCTURE REQUIREMENT	ANTICIPATED PHASE & TRIGGER	LEAD DELIVERY ORGANISATION
ACCESS & TRANSPORT		
Avon Mill Lane -A4 Link Road	Prior to any development	B&NES
New A4 Roundabout - Saltford Gap	Phasing subject to Strategic Transport Modelling	B&NES
Offsite junction improvements including A4/B3116, Hicks Gate roundabout, and Avon Mill Lane/A4175	Phasing subject to Strategic Transport Modelling	B&NES
A4 Park + Ride Relocation + Expansion	No trigger. Phase related financial contribution.	WoE Authorities
Metro-Bus A4 Keynsham-Bristol	No trigger. Phase related financial contribution.	WoE Authorities
Bus Service Enhancements	Phasing subject to Strategic Transport Modelling.	Operator / Master Developer

INFRASTRUCTURE REQUIREMENT	ANTICIPATED PHASE & TRIGGER	LEAD DELIVERY ORGANISATION
River Avon Pedestrian Cycle Bridges	Phased delivery from occupation of 1 st dwelling	Master Developer
Cycle and pedestrian paths to Train Station, Town Centre and links to Strategic Cycling Network	Phased delivery from occupation of 1 st dwelling	Master Developer
EDUCATION & EARLY YEARS		
Transfer of land and its access for primary school to LEA	Prior to completion of A4 Link Road	Master Developer / LEA
Provision of serviced site for Nursery & Primary	Prior to completion of A4 Link Road	Master Developer
New Nursery & Primary School Provision	Prior to completion of 100 dwellings	LEA
Enhancements & Extension of Existing Off Site Secondary Provision	Phased according to need as development comes forward. Financial contributions per LEA formula	LEA
COMMUNITY INFRASTRUCTURE		
A site of 0.5 ha for a neighbourhood centre (convenience retail and community facilities including a primary healthcare centre, multi use community centre and youth and child provision)	Prior to the completion of 100 dwellings	Master Developer
Convenience Retailing	Prior to the completion of 100 dwellings	Master Developer
Primary Healthcare Provision	Subject to evidence of need provided by Clinical Commissioning Group. Allocate site or expand existing site.	CCG/Private Practice

INFRASTRUCTURE REQUIREMENT	ANTICIPATED PHASE & TRIGGER	LEAD DELIVERY ORGANISATION
Multi use community centre in Local Centre	Likely to be later phases post plan period	Master Developer
OPEN SPACE, RECREATION, PLAY AND GREEN INFRASTRUCTURE		
Green Spines & Sustainable Urban Drainage	Phased delivery as development comes forward	Master Developer
Riverside Park including fitness trails, children play areas, sports pitches, allotments, community orchards and woodland (34 ha)	Phased delivery as development comes forward. Strategic buffer planting, community woodland and naturalised areas to be established early to provide amenity.	Master Developer
Central Public Open Space linking riverside & Pixash Lane	Phased delivery as development comes forward	Master Developer
Relocated Avon Valley Adventure & Wildlife Park	Relocation concurrent with delivery of A4 link road.	Master Developer/ Landowner

VIABILITY & DELIVERABILITY

Paragraph 173 of the National Planning Policy Framework emphasises consideration of viability and costs in plan-making and decision-taking – plans should be deliverable. The requirements around infrastructure provision and triggers for delivery need to be considered in light of this guidance. Viability testing should be reviewed periodically to ensure that the development envisaged is deliverable as far as is possible given the aspirations for delivery of affordable homes, strategic green infrastructure, a highly distinctive and sustainable development and the need to secure critical infrastructure.

Given the long timescale for delivery of the site and potential for uncertainty about the economy over that period, it will be appropriate to retest the viability of the scheme at alongside preparation of further Supplementary Planning Guidance and later stages, likely when planning applications are submitted. This may mean that the proportion and timing of affordable housing provision or the timing of provision of specific elements of infrastructure, such as the riverside park for example, may need to be revisited. This may have implications for full provision of affordable housing in accordance with the 30% target. Where landowners or developers wish to retest scheme viability, the Council should require an open book approach on scheme viability to be taken.

HOUSING MIX

Ensuring adequate land supply through the identification and facilitation of strategic site allocations is within the control of the Council, however simply allocating land for housing does not necessarily mean housing will come forward quickly. Demand for new market homes can be limited and, within any given area competition between sites must be considered as a real factor. Developers are cautious of going ‘head to head’ and competing directly.

It is necessary to ensure that there are a range of sites that are suitable for a range of housing products, so as to meet the widest possible market demand. This is more than just unit size, it is about the full range of factors including, size, price, style, location and situation. It is also essential that there is the widest possible range of products in terms of tenure including (but not limited to) affordable to rent, affordable to buy, market housing to buy and rent, older people’s (sheltered / retirement) housing, student housing etc. Further consideration is required with regards to the range of products and tenures that the North Keynsham strategic allocation could provide.

At this stage the master planning has not extended to fully consider mix and type of housing. We have simply assumed that this will follow the SHMA and incorporate market, affordable, dedicated private rented and older peoples housing in the mix. This early stage of the master planning process has not identified these locations on the ground. We have assumed some of the parcels will be developed with these types of housing included in the mix.

Affordable housing will be a requirement at North Keynsham due to the scale of the need established through the West of England SHMA. Policy CP9 requires 30% affordable housing in Keynsham. We have assumed that the demand for this type of housing is not a limiting factor and will be delivered in full.

The SHMA and other evidence has indicated an aging population and a need for older peoples housing. It is necessary to be cautious about imposing specialist housing for older people on new sites away from a town centre. The emerging concept for North Keynsham includes a new neighbourhood centre that is

anticipated to have a full range of services, including retail, community and health and education. Consideration should be also given to incorporating private rented housing. The demand for rented housing is strong in Keynsham (due to issues of affordability). We believe that the site should incorporate a modest amount of housing to be let as private rented housing and that this could be delivered over and above the completions assumed for market housing for sale.

It is also assumed that as part of the overall 1,400 units a proportion of self-build plots could be delivered within the site. This could make a contribution to increasing the build out rate above that of a conventional strategic allocation by virtue of the fact that such plots would not be subject to the same market saturation risk as traditional open market housing. In addition, there may be an increase in the build out rate through the use of modular construction techniques. It is recommended that further feasibility work is undertaken on housing tenure and accelerated construction at North Keynsham.

An important aspect is the number of outlets that there may be on any one site. It is not unusual for more than one developer to be active on one site. In terms of site size the following rules of thumb are commonly used:

- One Developer - Up to 100 units.
- Two Developers - 300- 500 units.
- Three Developers - Over 500.

Typically as sites develop out it is generally possible to accommodate more outlets, therefore increasing the completion rate. North Keynsham has a configuration that could lend itself to accelerated build out rates with different outlets being accessed from opposite ends of the spine road, as well as promotion of a range of housing products. It is considered that North Keynsham could accommodate four developer outlets.

The 2008 DCLG & University of Glasgow research report 'Factors Affecting Housing Build Out Rates' suggested the distance between greenfield development sites on the edge of provincial cities that developers would consider to be competitive is approximately 6 miles. The distance between the proposed Whitchurch and North Keynsham strategic allocations is less than this and the North Keynsham site itself is less than 1 mile from east to west across. This suggests that it is appropriate to be cautious about the assumptions over delivery from a site that could be perceived to be competing for buyers with other sites in Bath and Bristol. This relates to market housing only.

PHASING & DELIVERY ASSUMPTIONS

The overall approach taken towards phasing and infrastructure delivery is to seek to ensure that each phase of development is as self-sufficient as possible whilst delivering necessary strategic elements of infrastructure in a timely manner and not prejudicing the ability of the following phases to do the same. The delivery of infrastructure and phasing should be approached in accordance with the following principles:

- Infrastructure should be provided in a timely way in order to reduce and mitigate the impact of the development.
- Given the scale of North Keynsham, there is a need to balance certainty of delivery of critical infrastructure with the need to maintain flexibility over the delivery of the development and infrastructure, especially as delivery is likely to take place over a period in excess of 12 years.
- A coherent and coordinated approach to infrastructure delivery, construction management and development phasing is needed in order to ensure that the vision and objectives are met.
- Avoiding in so far as possible the creation of parcels of land or pockets of development that do not relate to their surroundings or are isolated from each other.
- The early provision of transport infrastructure is recognised as being a key requirement in order to reduce the impact of the development upon the existing local highway network. It is expected that development will commence from the west via the provision of a new A4 link which will act as a spine road through North Keynsham.
- The need to provide employment development in step with housing will deliver 14ha of serviced employment land (to provide approximately 56,000 sqm floorspace) within the western part of the site early in the phasing. Further

employment would be provided in small clusters in later phases of the development within the neighbourhood centre and adjacent to the marina.

- If required, the relocation of Avon Wildlife Park from its current location within the centre of the site to the eastern edge will also be in the early phases of development to open up central parcels of land for provision of the neighbourhood centre and primary school and adjacent housing areas.
- Development is expected to move concurrently in an easterly direction providing the commencement of the neighbourhood centre, marina and primary school, also from the south of the railway as the completed link access is completed.
- Development is expected to take place over a period of at least 12 years. A degree of flexibility will be essential in order that the development can respond to changing circumstances over time.
- In the event that delivery of an earlier phase stalls, proposals to bring forward later planned phases could be considered provided they do not undermine delivery elsewhere within the overall site.

INDICATIVE PHASING & DELIVERY

An indicative build out rate has been prepared to inform the Draft JSP, future feasibility work related to infrastructure delivery, transport modelling and any future planning application. This builds in early high-level analysis of the numbers of units expected to be completed per year and cumulatively. The delivery rate has been based on the following assumptions:

- The current economic climate continues and will be normal over the life of the project. It is more than likely that there will be 'ups and downs' over the life of the project.
 - Housing completions will be led by the lead in times required for the A4 link road.
 - The strategic infrastructure programme for JSP sites currently assumes that the A4 Link will progress through prefeasibility (2018-2020), Outline Business Case (2020-2022), Design and Full Business Case (2022-2024) and procurement and construction (2025-2027).
 - That the maximum rate of general housing (market and affordable housing) delivery from the area north of the railway is unlikely to exceed an overall average of 150 units per year over the remainder of the JSP plan period once the link road is constructed. 1,400 units starting in 2027 of which 1050 would be within the JSP plan period.
 - The area to the south of the railway should be considered independently to the remainder of the site, although they will share some infrastructure requirements.
 - A typical market outlet completes in the region of 50 market units per year. The actual rate will however vary from phase to phase over the life of this project.
 - Bearing in mind the scale of the project, we have assumed there would not be more than 4 concurrent schemes of market housing for sale. This may vary over the life of the scheme.
- A master developer will deliver the strategic green infrastructure, strategic pedestrian and cycle links, neighbourhood centre, marina and social and physical infrastructure. The land will be packaged up and sold on a fully serviced basis to housebuilders and Registered Providers to develop. In addition B&NES and the HCA may enter into joint venture or similar arrangements, becoming involved in direct development.

The projected housing completion rate for North Keynsham is summarised in the following table:

PROJECTED HOUSING COMPLETIONS 2027-2038			
		ANNUAL COMPLETION	CUMULATIVE TOTAL
JSP	2027-28	50	50
	2028-29	50	100
	2029-30	100	200
	2030-31	100	300
	2031-32	150	450
	2032-33	150	600
	2033-34	150	750
	2034-35	150	900
	2035-36	150	1050
POST JSP	2036-37	125	1175
	2037-38	100	1275
	2038-39	75	1350
	2039-40	50	1400
Total Completions = 1400			

SOURCE: ARUP 2017

Individual phases have not been planned in precise detail as a comprehensive approach to community engagement is required to inform more detailed planning of the site. However, it will be necessary to ensure that the house types developed are designed so as not to compete directly on price. As such it will be necessary for the units to vary in terms of size (overall size as well as the number of bedrooms), quality (specification) and design, in contrast to traditional 'modern estate housing' delivered by a single developer.

It is assumed that it will take 10 years before construction of any units actually starts at North Keynsham due to the lead in times for the design, consenting and construction of the A4 link road. Delivery rates in years 1-2 are in alignment with typical early year delivery rates on other urban extensions for year. Delivery then ramps up over the period 2029 – 2038 before tapering off prior to final completion of the scheme in 2040. The completions profile reflecting rates of delivery experienced on other urban extensions. Factors such as the disposal strategy of the developer and the presence of multiple developers on site could drive higher annual completions. Higher delivery rates could occur at North Keynsham if an explicit high growth agenda and early delivery of critical infrastructure (both physical and social) is pursued.

The pre-conditions for achieving the indicative trajectory for North Keynsham include provision of a mix of housing which will lead to a variety of products available throughout the plan period (and beyond) from a number of different sales outlets. In addition the mix of tenures will provide an added element of variety. Private rented products and specialist older people housing could be phased to be brought forward once the local neighbourhood centre has been constructed.

A strategic allocation at North Keynsham has the potential to be different to a traditional urban extension if it were public sector-led. An option for consideration is that B&NES and the Homes and Communities Agency consider acting as the master developer and acquire land and forward fund infrastructure upfront to help support delivery. A delivery strategy utilising a variety of development partners and delivery methods could help to deliver in excess of the 150 units for a number of the peak years. Pursuing such a delivery model at scale means that a number of tenures that the traditional developer may not consider could be part of the final mix (e.g. PRS, older people housing, other rented and affordable products) to support the housing needs of the SHMA as interpreted in the JSP.

LONG TERM MANAGEMENT AND MAINTENANCE

To maintain a high quality of community facilities and green infrastructure across the strategic allocation it will be important to set in place robust and consistent management arrangements. B&NES should seek to prepare and agree a neighbourhood management plan jointly with the applicants prior to the commencement of development. The plan should cover all open spaces and public buildings and cite all management objectives with the aim of establishing medium and long term objectives and arrangements. This plan will also need to consider a robust governance structure which could take the form of a management trust/company and could also include a role for Keynsham Town Council.

In terms of funding, it is likely that the plan will look to generate revenue from an annual service charge from residents and business occupiers together with the potential for revenue from hire of building and facilities. Revenue will be subsidised by the developer in the early stages and additional revenue sources (grant funding, sponsorship and commercial opportunities) should also be explored.

7 NEXT STEPS

PREPARATION OF A SUPPLEMENTARY PLANNING DOCUMENT

The success of North Keynsham and adherence to the vision and objectives set out in this Strategic Planning Framework document will depend to a large extent on the continued partnership working of the landowners, B&NES, HCA, LEP and other key stakeholders to secure delivery of a high quality and sustainable place and supporting infrastructure in a timely way.

It will be possible to approach the further planning and development of North Keynsham in a number of ways and the production of a Supplementary Planning Document to provide further guidance is recommended. This approach reflects the potential for the submission of a number of separate outline planning applications by individual promoters whilst recognising the importance of securing consistency in approach, quality and coordination between applications and the delivery of infrastructure to enable the overall allocation.

The Supplementary Planning Document (SPD) would build on the preparatory work undertaken to prepare this document. The SPD would be a material consideration to be assessed when determining planning applications for North Keynsham.

The main objective of the SPD would be to set out the key principles that planning applications will need to have regard to if they are to be considered acceptable. Accordingly, the purpose of the document is to bridge the gap between the policy aspiration which is initiated by this document and implementation in order to ensure high quality design and the delivery of a successful place. Another important role of the document is to co-ordinate the different phases of development and the delivery of infrastructure that will be necessary.

The SPD will inform developers and their designers when preparing planning applications, B&NES when considering proposals, and stakeholders and people in the local community when reviewing and responding to emerging schemes. So that the guidance retains its legitimacy over time and is able to adapt to different proposals and changing circumstances, it should be designed to be inherently flexible. It identifies what is likely to be acceptable by B&NES.

The SPD would set out guiding principles on a range of high level design considerations that are intended to structure the strategic allocation. Detailed guidance, concerning issues such as street and public realm design and the character of the development, would be set out in a more detailed framework plan and in a series of urban design and architectural principles to guide detailed proposals. These will clarify design expectations that will be important to the overall character and appearance of the new neighbourhood.

The overriding objective of the SPD is to improve the quality of proposals and the resulting developments, ensure that infrastructure and phases are co-ordinated and strategic policy aspirations are met. It should provide a foundation for improving the efficiency of the pre-application and determination processes.

The NPPF recommends the use of Design Codes to help deliver high quality outcomes. This is reiterated in the PPG which recognises Design Codes as a type of detailed guidance that is particularly useful for complex scenarios involving multiple parties in long-term development. The Housing White Paper also continues to encourage greater use of design codes, and states that the NPPF will be amended so that local authorities are expected to set out clear design expectations such as design codes to provide greater certainty.

Further technical feasibility will be required to inform proposals:

- North Keynsham Treatment Works Odour Assessment - The most recent odour assessment undertaken by Wessex Water was in 2009. Wessex Water have stated that up to date odour monitoring data would be required to feed into an odour dispersion modelling exercise to inform the next stages of masterplanning.
- Landscape Visual Impact Assessment - In line with Guidelines for Landscape and Visual Impact Assessment (v3) a stand-alone EIA compliant LVIA assessing the potential effects of a preferred concept framework.
- Energy Strategy - Defining a viable approach to meeting and managing the incremental growth of the site's building energy demand, informing development of an integrated 'Utilities & Energy Strategy' as a component of the SPD.

- Surface Access Strategy - Inclusion of preferred option land use schedule in strategic transport model. Highway capacity analysis of proposed access junctions including Avon Mill Lane / A4175 and proposed new roundabout access / A4. Preparation of concept highway alignment plans and associated junctions to enable a West of England Combined Authority funding contribution.
- Highway Bridge Design Concept - High-level concept for proposed highway bridge over railway demonstrating technical feasibility and allowing initial cost, including the progression of agreements with Network Rail and Highways England.
- Pedestrian Cycle Bridge Design Concept - High-level concept for new pedestrian and cycle bridges over River Avon demonstrating technical feasibility, concept design drawings for structures and initial cost estimate to enable funding bids for sustainable transport funding such as the Local Growth Fund Access Fund.
- Marina Concept Design & Hydrological Analysis - Design concept for proposed location (including lock gate and sluices). Hydrological Catchment Analysis. Consideration of siltation, aeration and dredging requirements.
- Modular Housing & Custom Build – Feasibility study of the potential for the application of accelerated construction techniques and custom-build in North Keynsham. This would be essential to facilitate HCA funding through the accelerated delivery (or a successor) programme.
- Green Infrastructure feasibility work - to establish a new wet woodland, water meadow and/or reed bed habitat plan to provide multi-purpose SUDs solutions for the new housing, highways and pedestrian / cycle paths, and to create a high quality, sustainable place to live. Would involve field surveys and review of best practice, and would provide a costed habitat masterplan. Would deliver habitat gains required by the NPPF.

A second stage of strategic masterplanning will be required to take the above into consideration before planning applications are made for the site.

REQUIREMENTS FOR FUTURE PLANNING APPLICATIONS

North Keynsham will be delivered over a time period in excess of 12 years and due to the ease of the land ownership has the potential to come forward as one or two outline or full planning applications north and south of the railway. Outline applications would be followed by reserved matters applications that may be based on a subdivision of the north and south of the railway into smaller sub-phases. There are a limited number of landowners north of the railway line.

Further consideration needs to be given to the best mechanism to deliver the required infrastructure associated with this development, whether it be by the Community Infrastructure Levy in whole or part, or via site specific S106 agreements. Important to the decision on which mechanism will be the most effective in delivering the necessary infrastructure will be an understanding of the likely number of planning applications in outline or full likely to be received for the strategic allocation as a whole. This is due to the limit on the ability to pool more than five S106 contributions for the same project.

To ensure that options are kept open for the most effective delivery of infrastructure and that individual applications do not prejudice the ability to provide infrastructure on other parts of the site it will be important to ensure that the whole allocation together with the new green infrastructure come forward as no more than a total of 5 planning applications. B&NES should encourage development to ensure that there are no more than 5 s106 agreements in total across the whole of the allocation area.

For further information please contact:

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