

LAND WEST OF PENKRIDGE

Cannock
Wolverhampto

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Congr

Penkridge
Stafford

Kinvas
Water E

Growth Scenarios Report
Staffordshire County Council
prepared by David Lock Associates
and AECOM

08/20

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Purpose and objectives of the report

1.1 Staffordshire County Council (SCC) has instructed David Lock Associates (DLA) and AECOM to undertake indicative master planning of potential development scenarios at Penkridge in Staffordshire. SCC owns substantial areas of land to the west of Penkridge and the potential of this land, and other adjoining land, has been explored through this exercise. The overarching objective is to explore how SCC's landholdings could help deliver sustainable growth for Penkridge, meaning development and supporting infrastructure with potential to achieve wider environmental, social and physical benefits.

1.2 The purpose of this work is for their own considerations and to assist SCC with an informed engagement exercise with key stakeholders and community representatives about the potential to deliver long-term sustainable growth at Penkridge. As part of this master planning process, the potential for a new western spine road has been explored by AECOM, including indicative routes and junction options.

1.3 South Staffordshire District Council (SSDC) is undertaking a review of its Local Plan. A consultation was undertaken in October 2019 on a Housing Strategy and Infrastructure Delivery document and this set out a housing target of 8,845 over 2017-2037 (442 per annum), including approximately 4,000 dwellings to help meet the wider Greater Birmingham housing requirements. This is the main context for the opportunity at Penkridge and this work is intended to assist SCC in any next steps of discussions and/or site promotion. There is currently no Neighbourhood Plan for Penkridge.

Approach

1.4 The master plan scenarios have evolved through an iterative process including:

- desk top analysis including site constraints mapping, review of key SCC reports and South Staffordshire District Council documents and relevant vision examples.
- analysis of feasible route and junction options.
- presentation/workshop with the client group (undertaken on 21st April and 11th June); and
- site visits and drone photography (undertaken on 13th July).

1.5 At this stage no detailed technical surveys or reviews have been undertaken and no discussions with the district council, other external technical stakeholders or local community bodies have taken place.

Structure of Report

1.6 This report is structured into five chapters and, following this introduction, it covers:

- Analysis of the site, including constraints, design opportunities and route options (Chapter 2).
- An emerging vision and key principles to frame potential development (Chapter 3);
- A framework for growth – a description of the concept master planning undertaken for different growth scenarios for SCC landholdings and wider Penkridge (Chapter 4); and
- Conclusions: bringing together our analysis and findings for potential strategic growth options in Penkridge (Chapter 5).



2.1 This chapter examines the Penkridge site in more detail to understand the physical and other constraints, planning policy and strategic context, new road alignments analysis and key design opportunities.

Site location and description

2.2 Penkridge is a market town in Staffordshire, located on the A449 and West Coast mainline, approximately 7km south of Stafford, 7km north west of Cannock and 15km north of Wolverhampton (see figure 2). At the 2011 census Penkridge had a population of approximately 8,500 people but that is likely to have grown over the last decade due to new housing developments.

2.3 South Staffordshire's Rural Services and Facilities Audit (2018) confirms Penkridge as a Tier 1 settlement (the most sustainable category) in terms of access and diversity of shops, services and community facilities and public transport access. In terms of facilities, Penkridge has the following key facilities:

- a rail station;
- two supermarkets and variety of local convenience and specialist shops;
- an outdoor market;
- three first schools, Penkridge middle school and Wolgarston High School;
- a GP practice;
- a leisure centre and outdoor sports fields;
- a library;
- a day care nursery;
- community meeting building; and
- three churches and four pubs.

2.4 The study site is located on the western flank of Penkridge (see figure 2.2) and extends to a total site area of 219.7ha. The site falls into two main County Council farm estates: the Deanery Estate which lies to the west and south west and is crossed by Pinfold Lane, Bungham Lane and Water Eaton Road; and the Preston Barn Estate which is the rectangular fields immediately to the west of Levedale Road and north of Preston Vale Lane. The site is in agricultural use and generally characterised by regular shaped fields bounded by some hedgerows and woodland. The River Penk, Whiston Brook and the confluence of the two watercourses are within the site.

2.5 Penkridge is in a strategic location for rail and road access. Penkridge Rail Station has frequent services to Stafford, Wolverhampton and Birmingham. Penkridge straddles the A449 with Stafford to the north and junction 13 of the M6; and junction 12 of the M6, the A5 and M54 to the south.

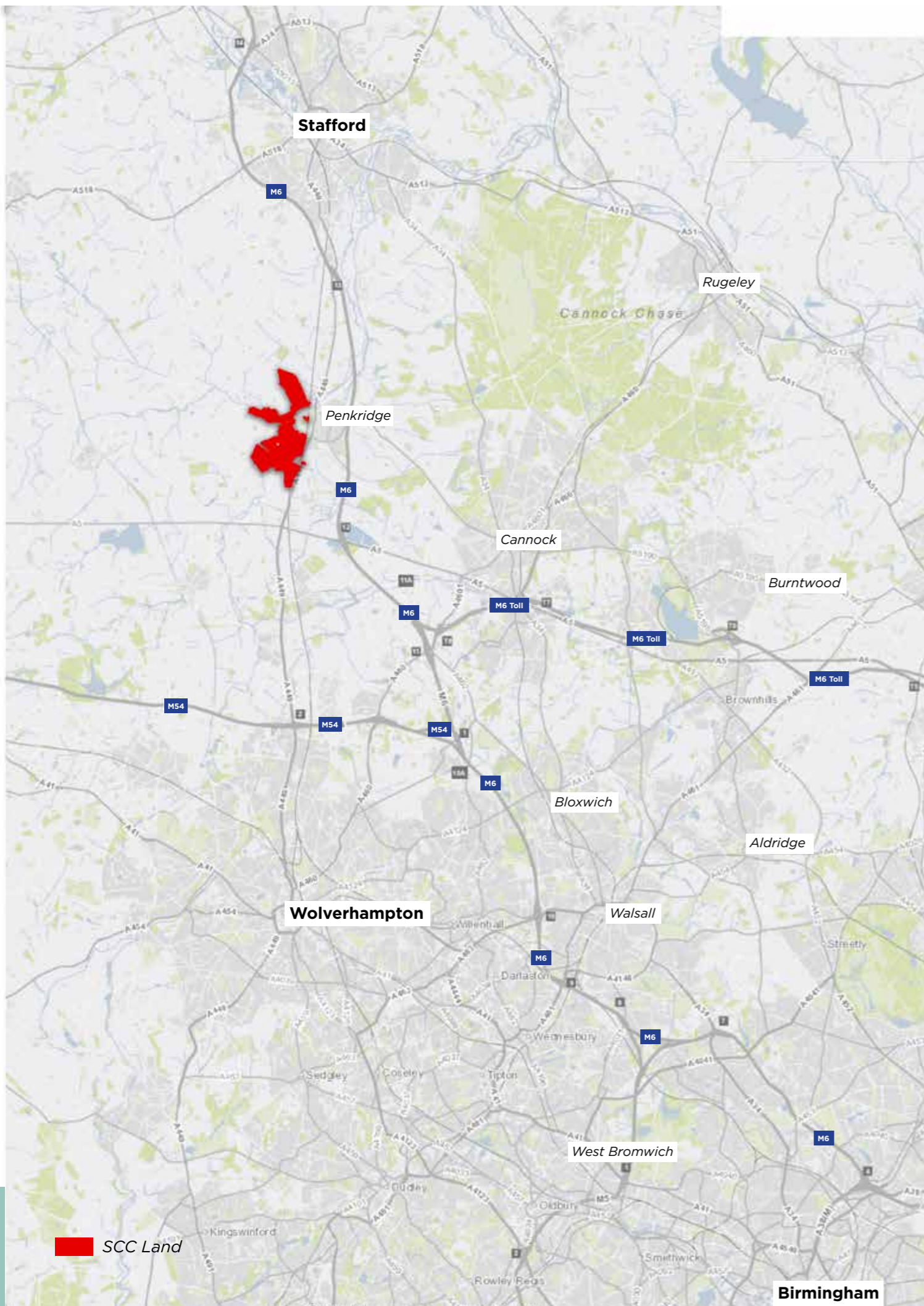


Figure 2.1 : STRATEGIC LOCATION

Site constraints

2.6 Figure 2.2 shows the key environmental constraints on the site. A number of documents have also been reviewed to understand the nature of the site and are considered in turn.

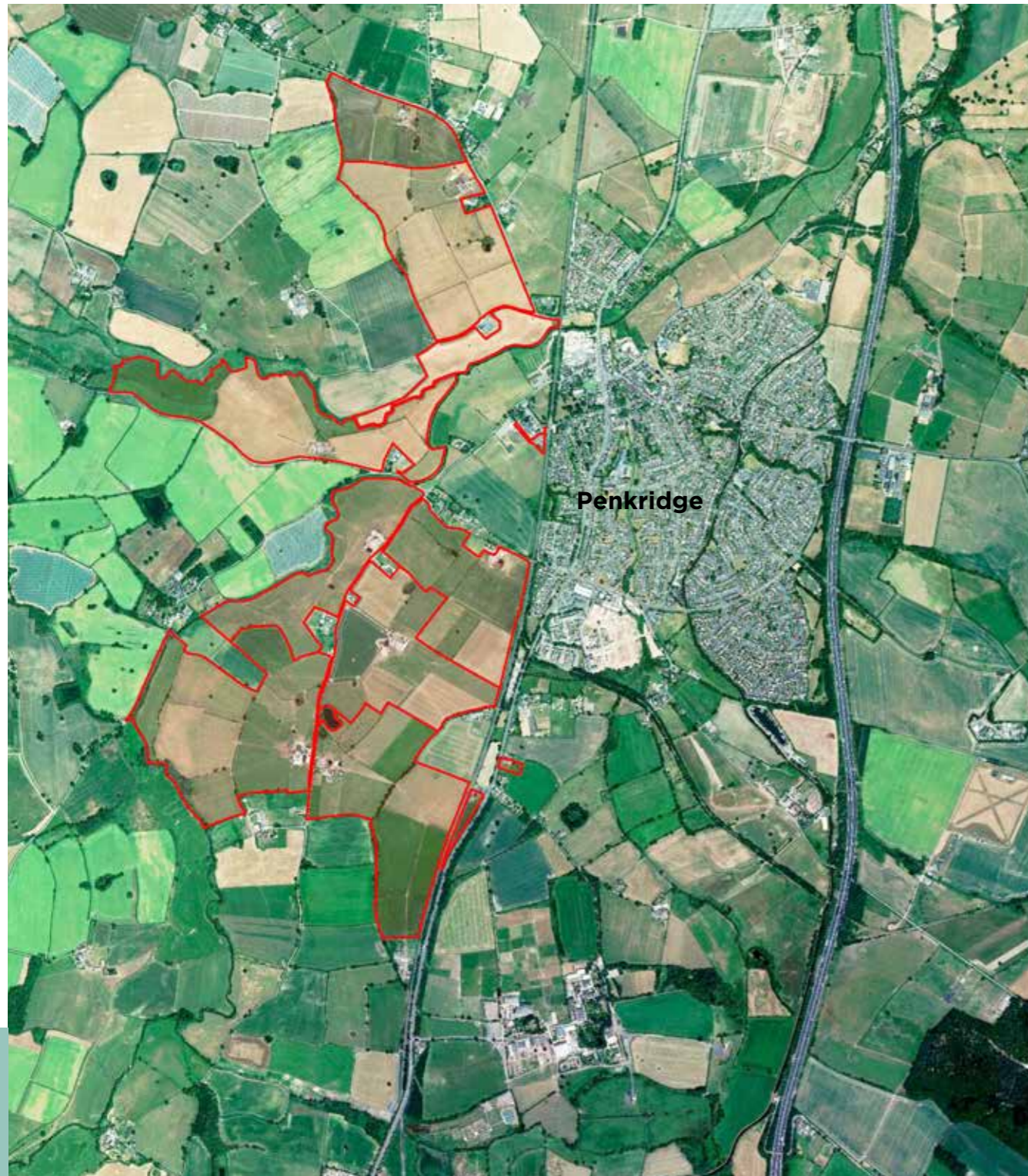


Figure 2.1: **SITE LOCATION**

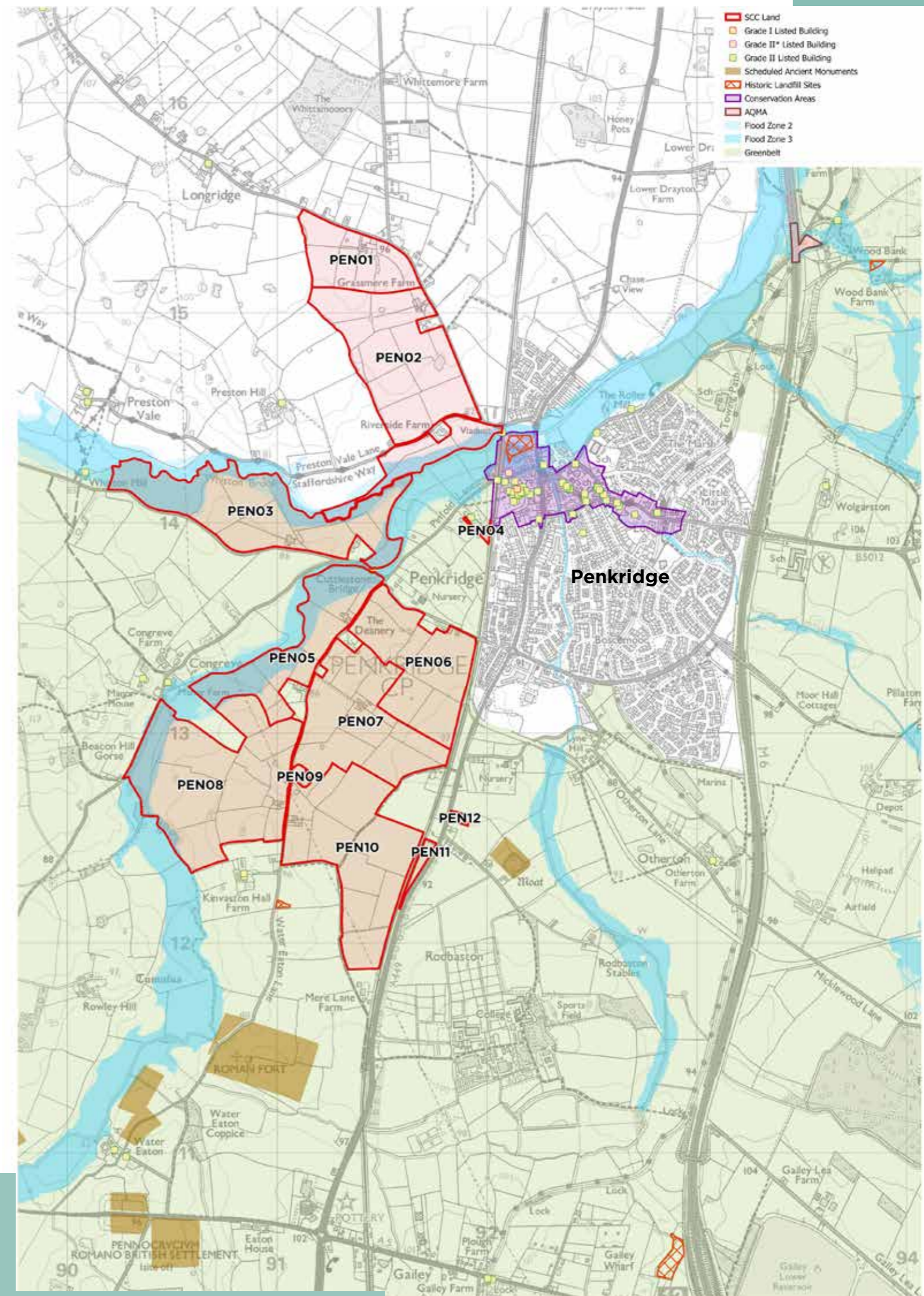


Figure 2.2: **CONSTRAINTS**

Access and Transport

2.7 The whole of the site is within approximately 10 to 30 minutes walking time to Penkrige centre or between 3 minutes to 10 minutes cycling time. The current roads within site, however, are of a rural nature and there are few pedestrian routes and no formal cycleways. There is a bridleway adjoining the site and crossing the railway near to Lyne Hill Lane and Rodbaston to the south and Levedale to the north). There is also an existing cycleway on the eastern side of the A449.

2.8 Penkrige rail station provides frequent services to Stafford and to Birmingham (approximately every hour). Stafford takes approximately 7 minutes and Birmingham 28 minutes. The station is unsupervised but provides ticket machines, waiting rooms, 20 no. cycle stands and car parking, including on the western side of the rail line. The nearest bus stops are along the A449. There are frequent bus services to Cannock, Stafford and Wolverhampton (e.g. no.54 and no. 75 service).

2.9 Road access into Penkrige involves either crossing the railway on either Pinfold Lane or Bungham Lane or under the Levedale Tunnel (Levedale Road). There is also a bridleway crossing over the railway near to Rodbaston College to the south.

2.10 Penkrige straddles the A449 which is the main road between Stafford and the A5/M54 and Wolverhampton. The M6 motorway runs the east and is accessed from either junction 13 to the north or junction 12 to the south. It is known that Penkrige sometimes experiences higher levels of traffic, which can cause adverse environmental conditions, as a result of M6 diversions. This is a key consideration in relation to the potential to provide an alternative main route to the west through potential development areas. This could disperse higher levels of traffic and provide the opportunity to make positive changes to the environment in the centre.

Flood risk and drainage

2.11 The South Staffordshire stage 1 Strategic Flood Risk Assessment was published in 2019. The Penk catchment draining to Penkrige is shown in the assessment as medium risk of flooding and this includes part of the study site. Whilst most of the site falls within flood zone 1 (less than 1 in 1,000 annual probability), there are areas of flood zone 2 (between 1 in 100 and 1 in 1,000 annual probability) and zone 3 (greater than 1 in 100 annual probability and functional floodplain) along the River Penk and Whiston Brook. Given the size of the site it is possible to avoid residential development and other vulnerable uses from being located within those areas. Any road crossing flood areas will need to provide suitable mitigation to avoid flood risk. There is a clear opportunity for the inclusion of Sustainable Drainage Systems (SuDS) within the site.



Penkrige Railway Station



View looking east of the River Penk towards rail viaduct

Landscape character and topography

2.12 The site is flat or gently sloping flat topography and largely devoid of trees and woodland except for some hedgerow boundaries. Land slopes south to north from about 95m AOD to 81m AOD (next to the river).

2.13 In terms of landscape classification, the land is ancient clay farmlands with some alluvial flood plain (immediately adjoining the watercourses). The South Staffordshire Land Sensitivity Study assessed the land to the south as having moderate-high sensitivity. Area to north has not assessed but adjoining land shown as moderate-high sensitivity.

2.14 The landscape sensitivity underlines the importance of a landscape led approach to any new development and to be particularly responsive to existing landscape features (especially boundary hedgerows/trees) inter-visibility and retaining some key views through the site from Penkridge.

Biodiversity

2.15 There are no statutory nature designations within or adjoining the site (e.g. SSSI, SAC, Ramsar). The site, and all of Penkridge, falls within the 8km impact zone of the Cannock Chase SAC and residential development would be subject to the Cannock Chase SAC mitigation scheme. In addition, some of the southern areas of the site fall within the impact zone of Belvide Reservoir SSSI, which lies over 5km to the south west.

2.16 Within the site itself, there are existing hedgerows, trees and ponds which may have biodiversity value. In addition, Whiston Brook and the River Penk may be of biodiversity value. Many of the features could be incorporated within areas of green space. If development of the site were taken forward detailed surveys would be required and a biodiversity strategy formatted to achieve overall net gain.

Heritage

2.17 There are no Scheduled Monuments within or immediately adjoining the site. The nearest scheduled monuments lie to the south (Kinvaston Roman Fort) and to the south east (Rodbaston Old Hall moated site). Cuttlestone Bridge falls within the site boundary and is a Grade II listed structure. It is a stone bridge spanning the River Penk and dating from the 18th century. There are also listed buildings in Penkridge itself including the Grade I listed St Michaels Church and the Hatherton Hotel off Pinfold Lane (Grade II). Kinvaston Hall Farmhouse is also Grade II listed, just to the south of the site off Water Eaton Road. Penkridge Conservation Area lies to the east but is contained to the east of the railways lines.

2.18 The Staffordshire Historic Environment Character Area (2011 has reviewed the land parcels within the site. The northern parcels (Preston Barns) are within PKHECZ1 and its character is described as mostly 'early reorganised piecemeal development'. Non-designated assets are highlighted such as Levedale railway viaduct. Also, along the Penk there is evidence of water meadow earthworks Overall it is categorised as having medium evidential, aesthetic and historical value; low communal (no public access); and moderate to low archaeological protection. It is recommended that any development should respect pattern of field boundaries and dispersed settlement pattern; and retain mature hedgerows. The southern parcels (Deanery) are within area PHECAZ2 and the character of the land is mostly '18th/19th century planned enclosures'. There are no non-designated assets within parcels but of medium historic/aesthetic value (other value low). The report recommends that any development in this area should respect pattern of field boundaries and dispersed settlement pattern; and retain mature hedgerows.

Other environmental

2.19 There is Air Quality Management Area (AQMA) adjoining the M6 but none in Penkridge. The rail line is a source of potential noise and this would need to be subject of surveys. Mitigation measures may be required including provision of sufficient buffers between the line and any sensitive receptors (including housing or residential). A 33kV power line also crosses the southern part of the site and would either require undergrounding or incorporating into sufficient green space.

2.20 The southern part of the site lies within a Minerals Safeguarding Area as defined by the Staffordshire Minerals Local Plan (SMLP) 2017. Policy 3 requires that for any development proposals within safeguarded areas, information on the quantity and quality of the reserves be submitted and evidence that any non-mineral development would not unduly restrict mineral operations.



Cuttlestone Bridge (Listed)



Railway Viaduct over River Penk

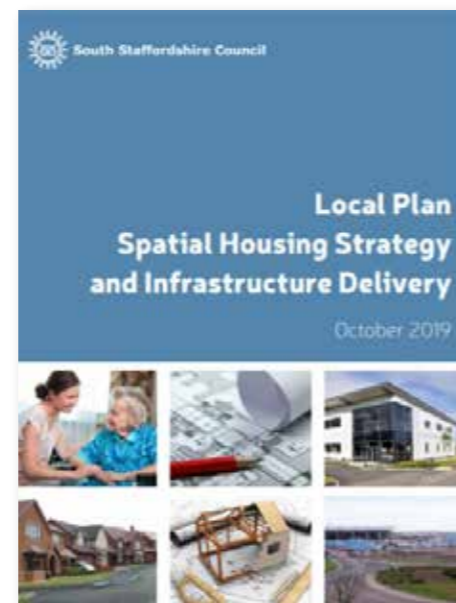
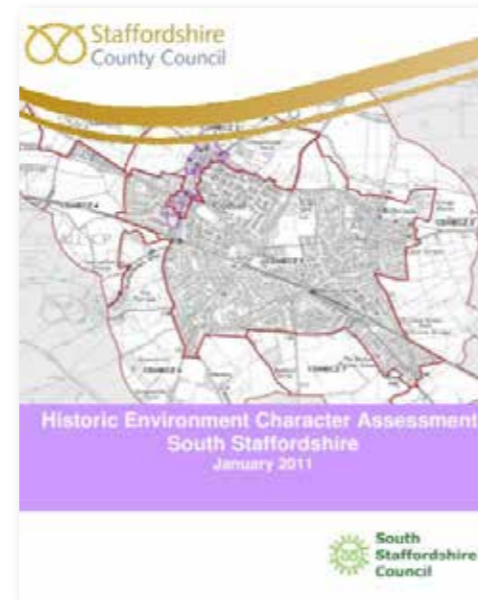


View of the River Penk from Cuttlestone Bridge

Strategic planning context

2.21 South Staffordshire District Council (SSDC) is undertaking a review of its Local Plan. A consultation was undertaken in October 2019 on a Housing Strategy and Infrastructure Delivery document and this set out a housing target of 8,845 over 2017-2037 (442 per annum), including approximately 4,000 dwellings to help meet the wider Greater Birmingham housing requirements. Seven options were consulted on (Options A to G). 7 options (A-G) but these are not mutually exclusive. Options A and D show the highest growth and strategic allocations at Penkrige. Option D shows a substantial northern extension to Penkrige (1,500-7,000 dwellings). The Option aligns well with sustainability appraisal but negative sides identified include deliverability and historic character. Option G is shown as the Council's preferred option - focussing growth to deliver new and improved infrastructure and best meet housing needs in the Black Country comprising 60% of growth in existing villages but remaining 40% urban area edge it indicating about 6% of growth in Penkrige (about 500 new dwellings only). Option G also shows area of search between Wolverhampton and Stafford for larger new settlement beyond the plan period (approx. 10,000 homes). The preferred options document of the Local Plan Review is expected to be published in summer 2021.

2.22 There is no doubt that Penkrige as a settlement is a key opportunity to explore for potential growth. It is defined as a Category 1 settlement by South Staffordshire District Council. Moreover, the Greater Birmingham Housing Market Area Strategic Growth Study (2018) examined the high-level potential for strategic scale growth to meet wider HMA housing needs and identified an urban extension to North Penkrige as one of strongest performing options. South of Penkrige performed similarly except for the fact there is land in the Green Belt. Whilst the study was very high level and no specific sites were identified, it does further support the principle of exploring strategic growth at Penkrige.



2.23 A further contextual factor supporting strategic growth is the proximity to centres of employment. There is good rail accessibility to Birmingham, Wolverhampton and Stafford from Penkrige. In addition, the West Midlands Interchange was consented via the National Infrastructure Planning regime in April 2020. The site lies just 3.5 km to the south of Penkrige and is expected to employ 8,500 people, in addition to existing employment at Four Ashes.

2.24 There are also strategic green infrastructure opportunities that could be realised through connecting existing green spaces and corridors with new multi-purpose green infrastructure, especially connecting the River Penk and Whiston Brook, existing woodlands and the Staffordshire and Worcestershire Canal to establish a Penkrige wide green network for biodiversity and recreation (see figure 2.3).

2.25 Whilst the land to the south of River Penk is within the Green Belt and the land to the north of the River Penk is defined as open countryside, development at Penkrige could represent a strategic opportunity to locate new homes close to a public transport hub and with good accessibility to employment centres. The National Planning Policy Framework (NPPF) states that where land is to be taken out of the Green Belt, first consideration should be given to previously developed land or sites well served by public transport (paragraph 138).

2.26 Regarding the purposes of the Green Belt, the South Staffordshire Green Belt study (2019) identifies Land West of Penkrige as achieving a 'weak' contribution in relation to preventing the merger of towns, checking unrestricted sprawl and protecting historic towns. Only one objective, encroachment in the countryside, is shown as achieving a 'strong' contribution.



Figure 2.3 : WIDER CONNECTIVITY

Design Strengths and Opportunities

2.27 The site has been analysed in terms of urban design strengths and opportunities as a way of understanding place specific characteristics to inform development scenarios. Figure 2.4 highlights the key design opportunities and strengths.

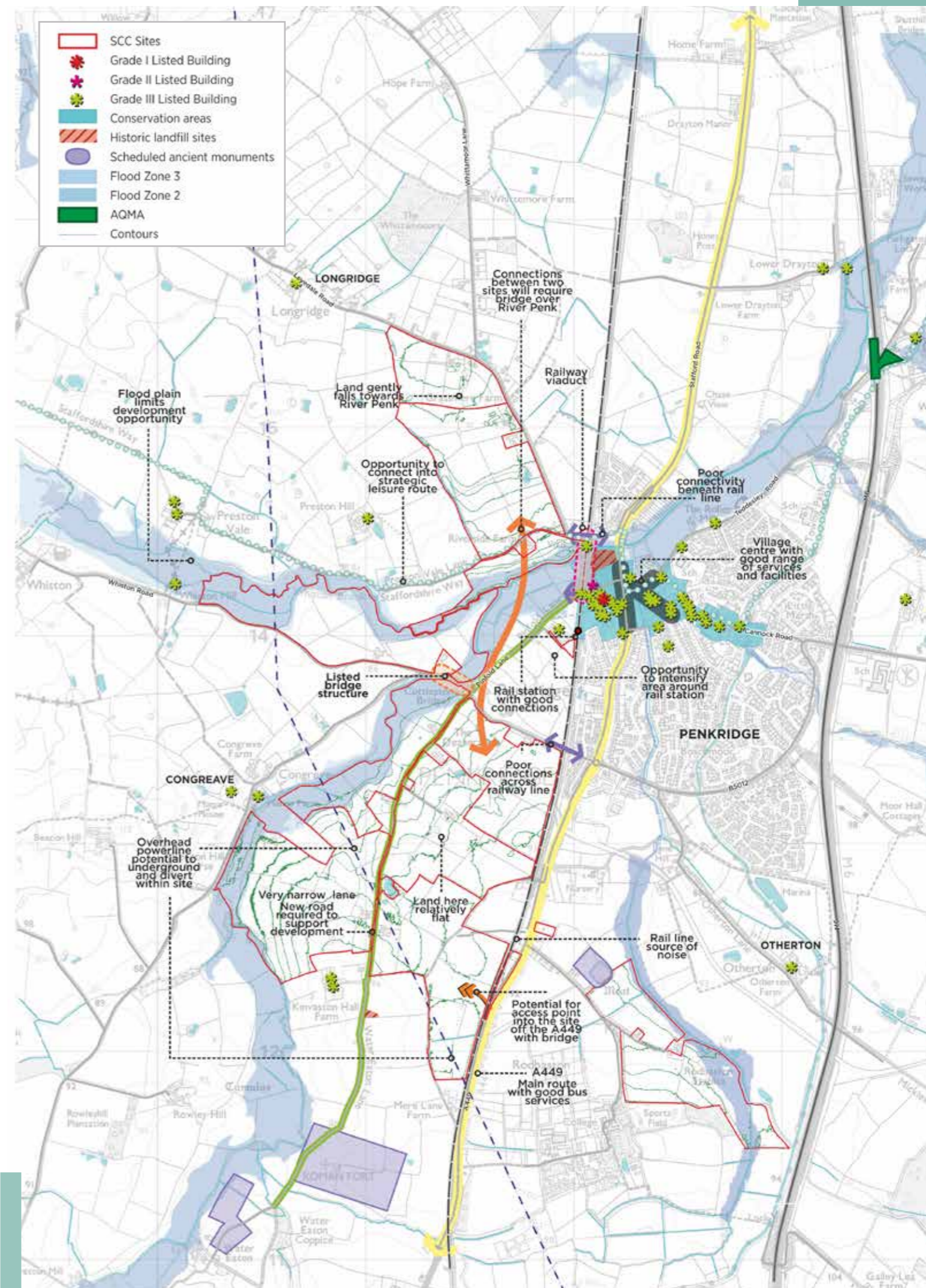


FIGURE 2.4: KEY DESIGN OPPORTUNITIES AND STRENGTHS

03 VISION AND PRINCIPLES

3.1 The potential of SCC land coming forward for development and for wider social, environmental and economic benefit has been framed within the context of 'Garden City Principles'. The original Garden City principles were developed through the work of Ebenezer Howard in the late nineteenth century and applied through a different model of development, such as at Letchworth Garden City, where the best of town and country were to be combined, and land value captured, to deliver beautiful and healthy places with affordable homes, high quality green spaces, access to jobs, infrastructure and long term ownership by the local community.

3.2 This broad concept has remained relevant and been adapted to meet the challenges of today through the Town and Country Planning Association (TCPA) and the Government's Garden Communities programme, including the emergence of Garden Villages. The TCPA set out a series of core principles which can form a framework for high quality development in the 21st century.

"A Garden City is a holistically planned new settlement which enhances the natural environment and offers high-quality affordable housing and locally accessible work in beautiful, healthy and sociable communities. The Garden City Principles are an indivisible and interlocking framework for their delivery, and include:

- Land value capture for the benefit of the community.
- Strong vision, leadership and community engagement.
- Community ownership of land and long-term stewardship of assets.
- Mixed-tenure homes and housing types that are genuinely affordable.
- A wide range of local jobs in the Garden City within easy commuting distance of homes.
- Beautifully and imaginatively designed homes with gardens, combining the best of town and country to create healthy communities, and including opportunities to grow food.
- Development that enhances the natural environment, providing a comprehensive green infrastructure network and net biodiversity gains, and that uses zero-carbon and energy-positive technology to ensure climate resilience.
- Strong cultural, recreational and shopping facilities in walkable, vibrant, sociable neighbourhoods.
- Integrated and accessible transport systems, with walking, cycling and public transport designed to be the most attractive forms of local transport."

3.3 For Penkridge, these key principles have been used as a guide or reference point to ensure the objective of sustainable growth is properly considered. Figure 3.1 shows the application of the principles and illustrates some of the ideas developed from the design strengths and opportunities plan.



Figure 3 : GARDEN CITY PRINCIPLES APPLIED TO THE PENKRIDGE CONTEXT

04 PENKRIDGE DEVELOPMENT SCENARIOS

Introduction

4.1 Four development scenarios have been considered for Penkridge, three of which only show development on SCC owned land but the fourth scenario illustrates a wider strategic growth potential. These are not mutually exclusive but can be considered as separate scenarios or components of a strategy for the whole town. The four scenarios are:

- **Scenario 1: Extension to north west Penkridge**
- **Scenario 2: Extension to south west Penkridge**
- **Scenario 3: Extension to west of Penkridge (SCC land)**
- **Scenario 4: The wider Penkridge growth opportunity**

4.2 Each scenario is briefly described and illustrated in turn.

Scenario 1: Extension to North West Penkridge (Preston Barn Estate)

4.3 A concept master plan has been prepared for the land off Levedale Road, which is part of the SCC owned Preston Barn Estate. This land is not within the Green Belt



Figure 4.1 : VIEW LOOKING SOUTH TOWARDS PENKRIDGE SHOWING EXTENT OF SCC LAND

4.4 The plan shows approximately **580 dwellings** on 16.5 ha net land but within a wider generous network of green spaces (gross area about 55 ha). The central Spine Road runs through the site and is future proofed for the potential of this forming part of a strategic spine road back to the A449 to the north. A small neighbourhood or local centre is proposed that could provide a community building and local shop. An extensive network of green spaces is shown to provide biodiversity, recreational and amenity benefit..

4.5 Figure 4.2 shows the concept plan which includes the following features:

- Development as a north western extension to Penkridge with main vehicular access taken from Preston Vale Road/Levedale Road.
- Residential development of approximately 580 dwellings with a mix of full market, low cost affordable and specialist homes.
- A main spine road from which secondary and tertiary accesses can emanate and form a clear street network.
- Retention of existing woodlands, ponds and substantial hedgerows within in a network of green spaces between clearly defined parcels.
- Public open space and sports fields along the northern edge acting as a transition with adjoining countryside.
- New woodland and landscape planting within the network of green spaces;
- A small neighbourhood and local centre to provide a community meeting space or other similar facility, and a local shop/s.
- Densities ranging between 25-45 dwellings per hectare would be appropriate but typically an average of about 35dph.
- Upgrades to Preston Vale Lane and Levedale Road, pedestrian and cycle spine into Penkridge (under Levedale Tunnel) and upgrades to existing junction with A449.

4.6 Developing the northern parcels on its own would not generate the quantum of development to deliver more substantial benefits for Penkridge but could still provide some more limited environmental and social benefits in terms of new green spaces. It could also be future proofed to act as one phase of a larger development, especially a new Western Penkridge Spine Road which could connect directly to the A449.

4.7 The scale of development has not been tested in terms of transport impacts and it is clear that the existing roads and junctions would need to be improved to support the development. One key opportunity is the inclusion of a new cycle and pedestrian route alongside Levedale Road and under Levedale Tunnel, which would encourage walking or cycling into the town centre and connecting to other green routes.

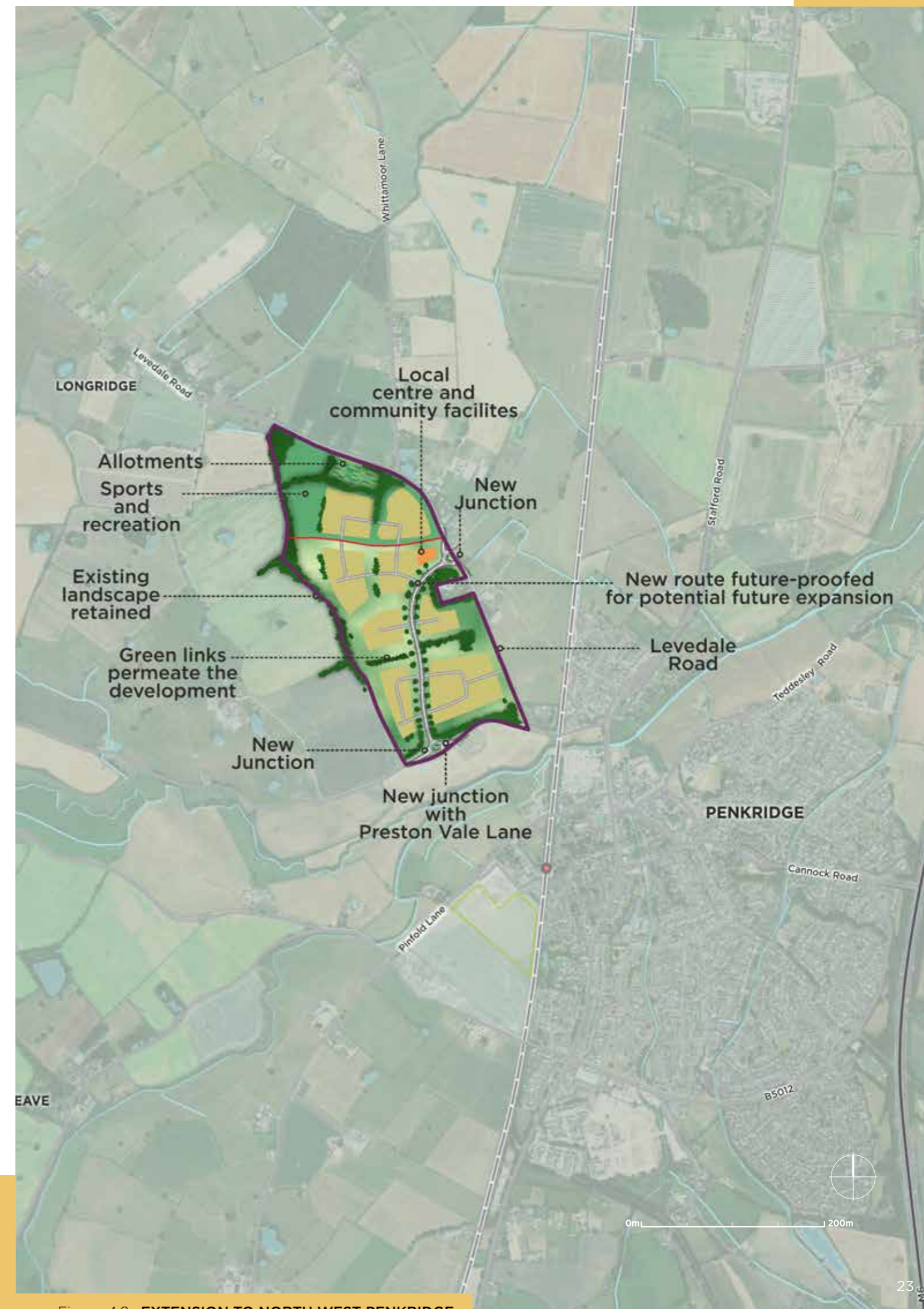


Figure 4.2 : EXTENSION TO NORTH WEST PENKRIDGE

Scenario 2: Extension to South West Penkridge (Deanery Estate)

4.8 A concept master plan has been prepared for land off Pinfold Lane and Water Eaton Lane, which is the SCC owned Deanery Estate and is within the Green Belt.

4.9 The plan shows approximately **2,080** dwellings with a local centre and new first school, a network of green spaces and new parkland along Whiston Brook. The total site area is about 163 ha but approximately 60ha has been shown as residential. A central spine road runs through the site from a new junction from the A449 and bridge over the rail line.



Figure 4.3 : VIEW LOOKING SOUTH ALONG WATER EATON LANE



Figure 4.4 : VIEW LOOKING NORTH ALONG WATER EATON LANE

4.10 Figure 4.5 shows the concept plan which includes the following features:

- Development as a south western extension to Penkridge with main vehicular access taken from the A449 (Stafford Road) via new junction and bridge.
- Residential development of approximately 2,080 dwellings with a mix of full market, low cost affordable and specialist homes.
- A local centre adjoining a new First School (two form entry).
- Contributions to expand Penkridge Middle School and Wolgarston High School if required.
- A main spine road from which secondary and tertiary accesses can emanate and form a clear street network.
- Retention of existing woodlands, ponds and substantial hedgerows within in a network of green spaces between clearly defined parcels.
- A new multi-functional community park along the Whiston Brook and the River Penk with recreational, biodiversity and historic focus.
- Public open space and sports fields along the northern edge
- New woodland and landscape planting within the network of green spaces;
- Densities ranging between 25-45 dwellings per hectare would be appropriate but typically an average of about 35dph.
- Upgrades to Pinfold Lane and Bungham Lane as required; pedestrian and cycle links to Penkridge Rail Station; and cycle connections to Penkridge via existing brideway bridge over railway and A449 cycleway.

4.11 Development on the southern parcels would be in close proximity to Penkridge Rail Station and existing facilities on the west side of the rail line, including Monckton Leisure Centre and Penkridge Medical Practice, and good pedestrian and cycle links could be made to this area. Ensuring a new or improved cycle and pedestrian route further into Penkridge Centre is more restricted due to the limited width of Pinfold Lane tunnel under the rail line.

4.12 Developing the southern parcels on its own would generate the need for new school provision and a larger local centre with community facilities. Development contributions would be required to support the expansion of Penkridge Middle School and Wolgarston High School, and the same could apply with respect to Penkridge Medical Practice and Monckton Leisure Centre. A larger community park could be created extended along Whiston Brook and the River Penk.

4.13 The scale of development has not been tested in terms of transport impacts. To release this land and this scale of development would require a new junction and bridge from the A449 and bridge over the railway line. Third Party land would be required to achieve this junction (understood to be owned by Rodbaston College). Consideration would also need to be given to Network Rail and rail operators with regards the rail bridge. The new spine road would only serve the site but could be future proofed to be extended further north at a later phase. Improvements will also be needed to Pinfold Lane and Bungham Lane if utilised.

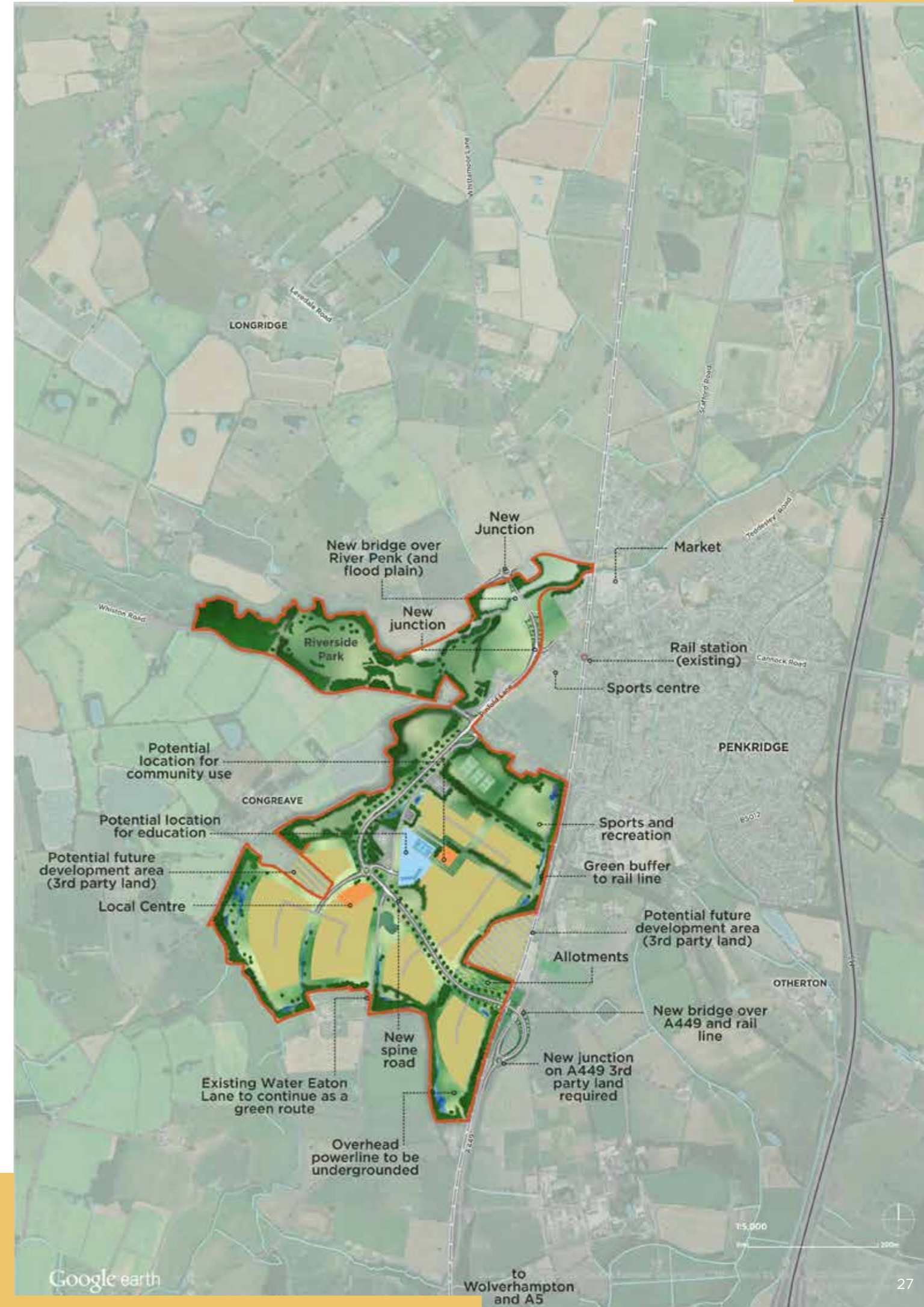


Figure 4.5 : EXTENSION TO SOUTH WEST PENKRIDGE

Scenario 3: Extension to West of Penkridge (All County Council Land)

4.14 The third scenario essentially brings together both the main County Council landholdings as set out in Scenarios 1 and 2. In combination and that this greater scale of development, some of the wider benefits and Garden City principles can be realised. Overall, it comprises a western extension of Penkridge of 2,660 dwellings, with development to the south west and north west connected by a spine road and new bridge of the Penk. At the centre of the development is a Riverside Park, creating a green lung for the new and existing population; and two new first schools (one to the north, one to south).

4.15 Figure 4.6 shows the concept plan which includes the following features:

- Development as a south western extension to Penkridge with main vehicular access taken from the A449 (Stafford Road) via new junction and bridge.
- Potential to extend the spine road to connect to the north on the A449 (subject to other land ownerships), effectively forming an alternative main route to travelling through the centre of Penkridge at busy times.
- Residential development of approximately 2,660 dwellings with a mix of full market, low cost affordable and specialist homes.
- Two local centres and one new first school.
- A main spine road from which secondary and tertiary accesses can emanate and from a clear street network.

- Retention of existing woodlands, ponds and substantial hedgerows within in a network of green spaces between clearly defined parcels.
- A new multi-functional Riverside Park along the Whiston Brook and the River Penk with recreational, biodiversity and historic focus.
- Various Public open space and sports fields along the northern edge
- New woodland and landscape planting within the network of green spaces;
- Densities ranging between 25-45 dwellings per hectare would be appropriate but typically an average of about 35dph.
- Upgrades to Pinfold Lane and Bungham Lane as required; pedestrian and cycle spines to Penkridge via Levedale Tunnel, Penkridge Rail Station; and cycle connection to Penkridge via existing bridleway bridge over railway and A449 cycleway.

4.16 A scheme on this land could help deliver a network of generous new green spaces, pedestrian and cycle routes, new first schools, community meeting space and contributions to other infrastructure enhancements. The wider benefit of creating an alternative main route to the A449, however, can only be fully implemented via additional land to the north but this scenario could facilitate it in terms of the remaining route of a western spine road and the bridge and junction at Rodbaston. In addition, there is land immediately adjoining the station and Monckton Leisure Centre outside of SCC ownership which could make a positive contribution to the sustainable growth of Penkridge (considered within scenario 4).

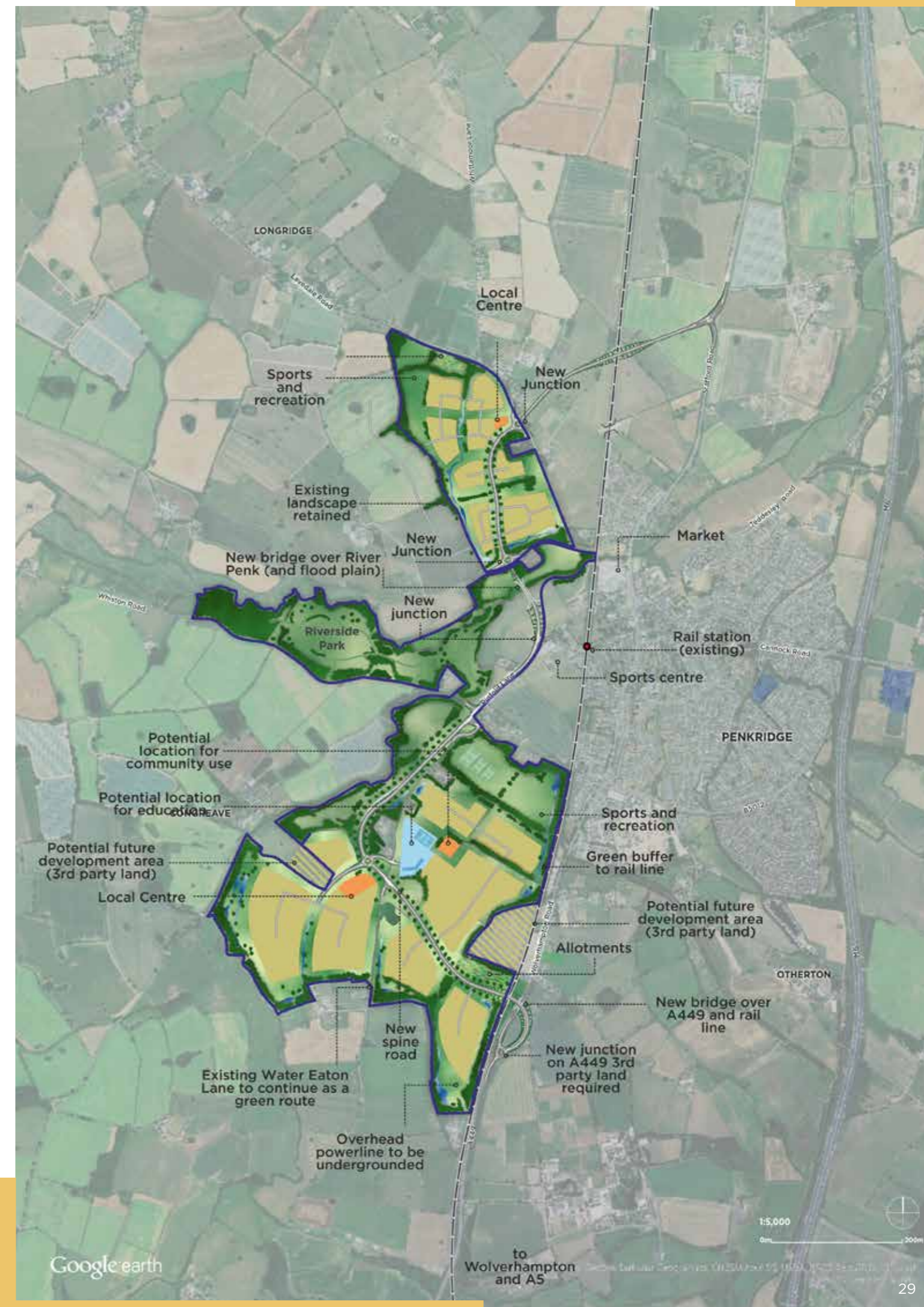


Figure 4.6 : EXTENSION TO WEST OF PENKRIDGE

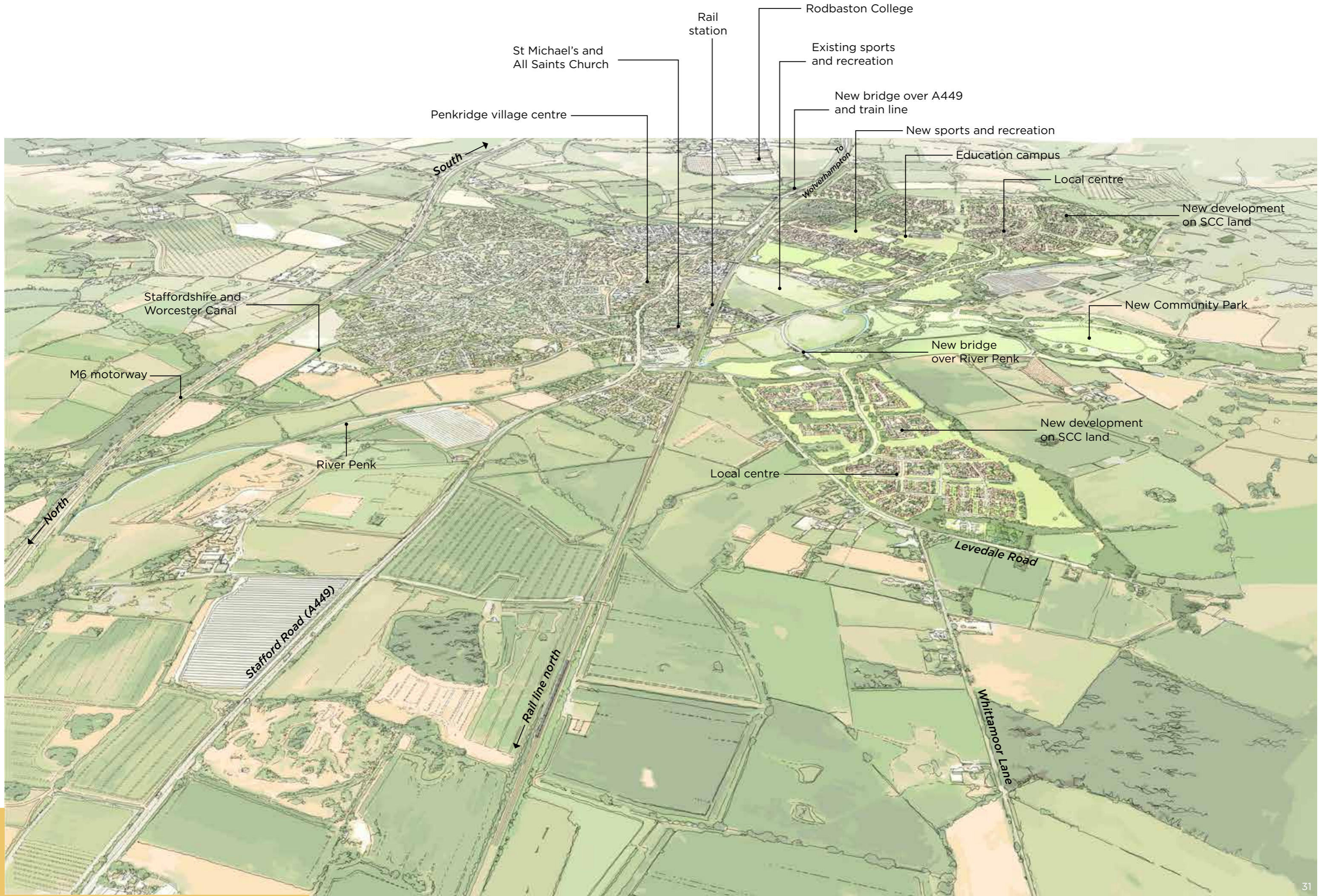


Figure 4.7 : VISION FOR SCC LAND

Scenario 4: The wider growth opportunity

4.17 The last scenario considers the potential for SCC land being developed in conjunction with other land to the north of Penkridge and land immediately west of the railway station. In addition, we have also considered the opportunity for improvements to the public realm and streetscape in the centre of Penkridge, resulting from the potential delivery of a full western spine road as an alternative main route.

4.18 Figure 4.8 shows the concept plan for wider growth potential. In addition to development on SCC land and the substantial Riverside Park (see Scenario 3), it also shows:

- A Northern Gateway area to Penkridge with development between the A449 and SCC land and to the east of the A449. This could deliver approximately an additional 1,870 dwellings and help deliver the final section of the western spine comprising a bridge over the railway line and junction with A449.
- A mixed use development on land immediately east of the station, to include employment space sports facilities and 330 dwellings.
- In total, this means there is potential for 4,860 dwellings in the wider Penkridge scenario supported with a new middle school and high school and two new first schools.

4.19 It is recognised this would be a long-term and substantial growth strategy for Penkridge (over some 30 years or so). This would work providing there was a clear commitment to high quality places and spaces, careful planning of the infrastructure requirements and a deliver and phasing strategy to ensure infrastructure rich development, including the delivery of a western spine road and substantial new parks, sports facilities, upper tier schools and improvements to the centre.

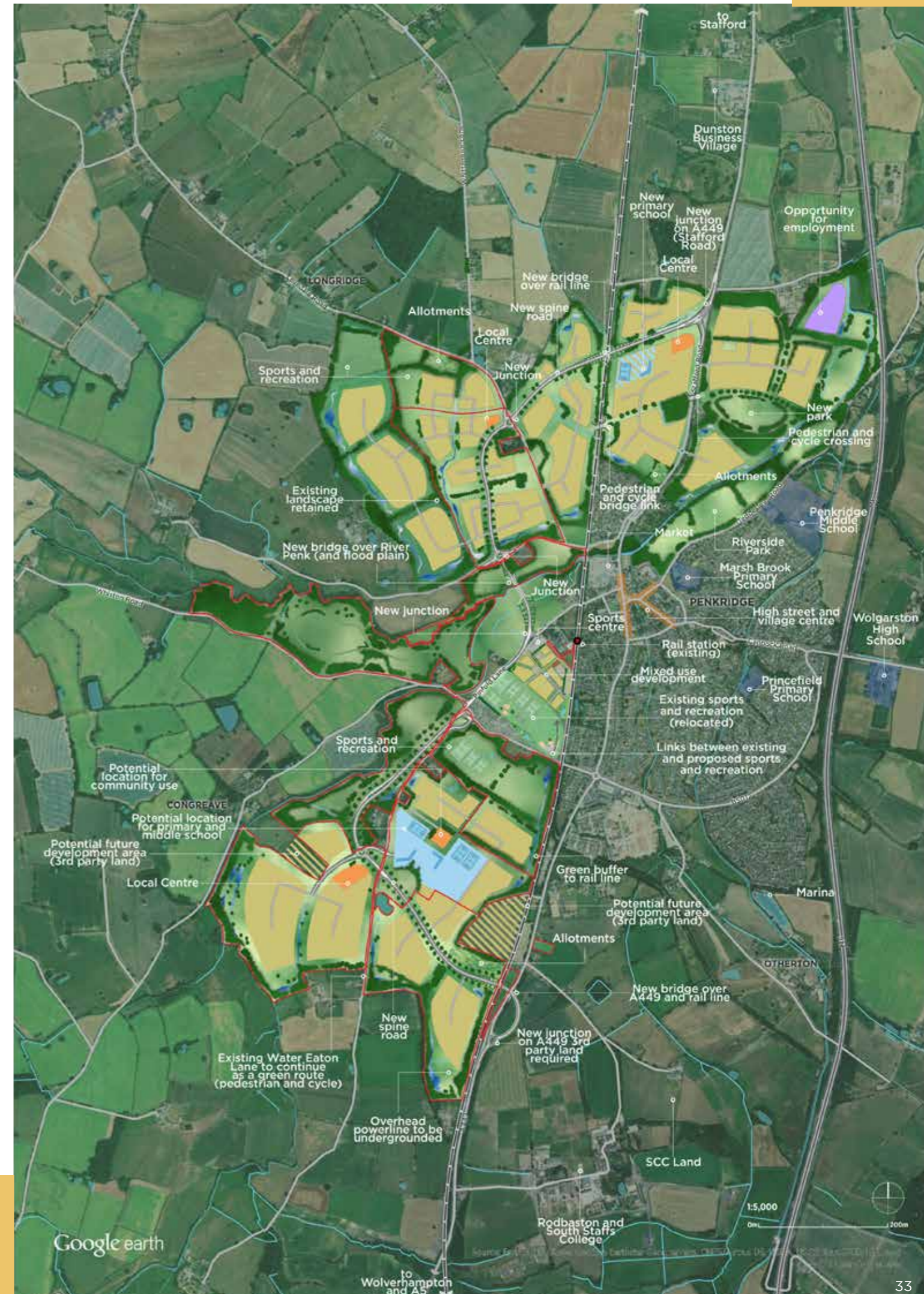


Figure 4.8 : CONCEPT PLAN FOR WIDER PENKRIDGE GROWTH

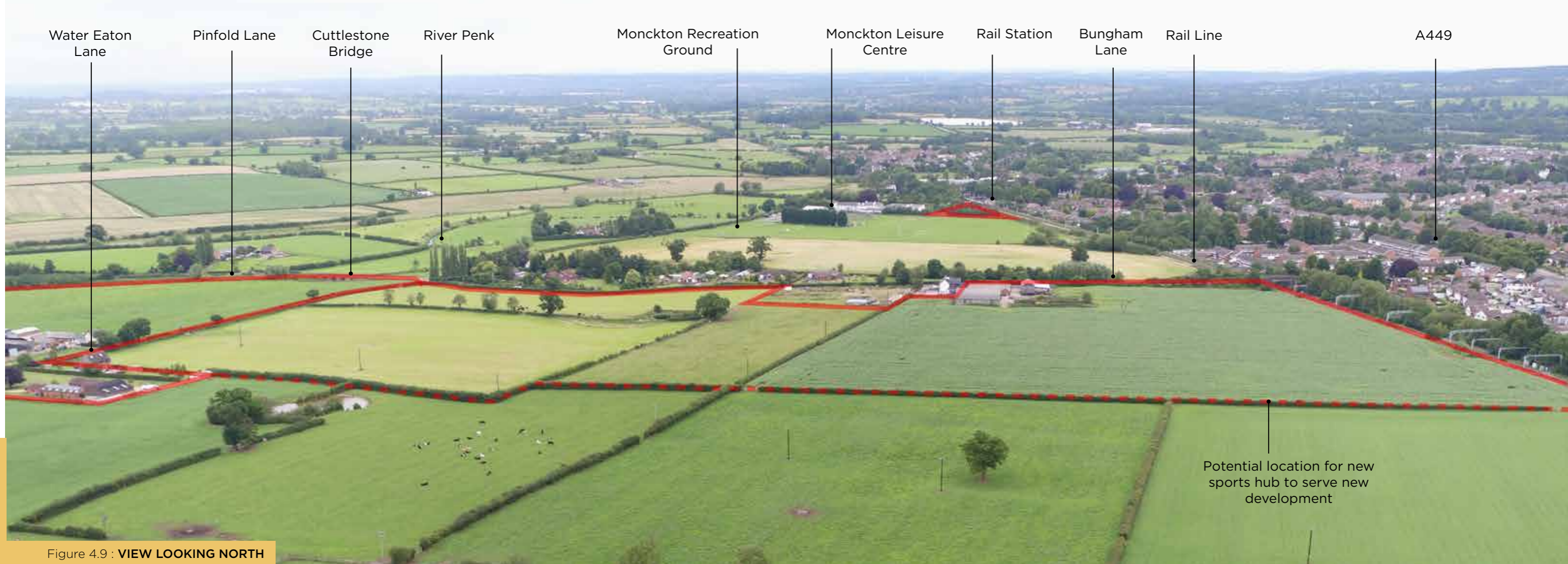


Figure 4.9 : VIEW LOOKING NORTH



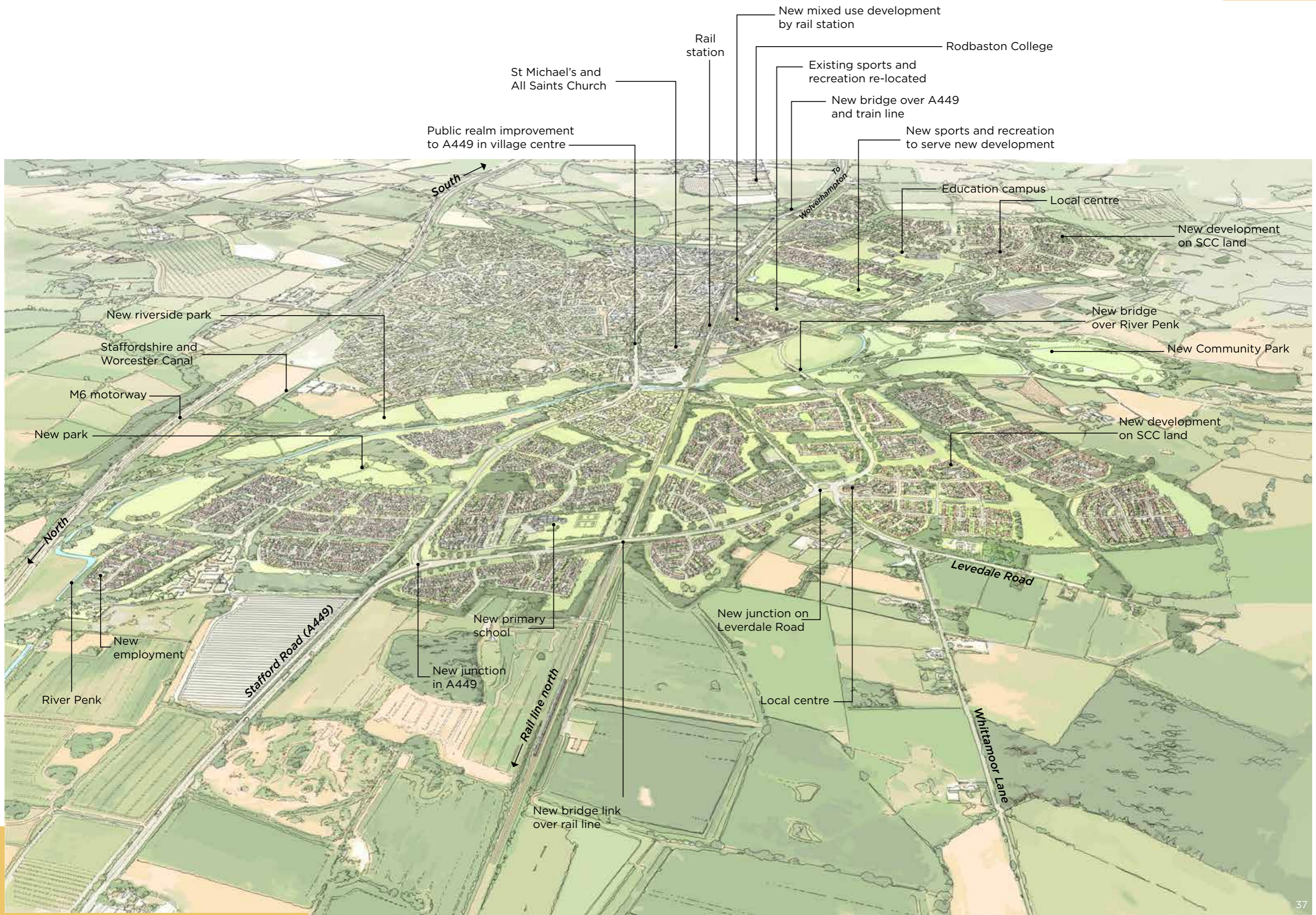







Figure 4.10 : VISION FOR PENKRIDGE

	Residential area building footprint	- 3.03ha - 8,864m ² x 3storeys = 26,592m ² @circa 80m ² per apt = 330 apartments
	Mixed use area building footprint	- 1.54ha - 2,766m ² x 3 storeys = 8,298m ² / 89,322sq.ft
	Employment area employment footprint	- 0.60ha - 1,652m ² x 3 storeys = 4,956m ² / 53,348sq.ft
	New station car parking	- 4,000m ² /160cps based on 25m ² per space
	Existing Monckton Sports Centre	- 0.36ha

4.20 Development of new office space, residential and outdoor sports campus immediately adjoining the railway station and Monckton Leisure Centre. This could achieve approximately 330 apartments and 13,000sqm of mixed use and commercial space employment along with circa 160 car parking spaces.



Figure 4.11 : CONCEPT PLAN FOR STATION AREA

Delivering a Western Spine Road

4.21 The prospect of delivering a full western spine road through SCC and adjoining land has been considered by AECOM in relation to indicative junctions, bridges and a route. AECOM has undertaken several concept options to develop a through-route to support the potential redevelopment. Options explored included a 'bypass' style route and a more traditional Spine Road option, with concept design of connection points onto the A449. Appendix A contains the full AECOM report which shows junction options and the By-pass v spine road options. Following review of the options in conjunction with DLA, the Spine Road solution was chosen as the best option to support the development. This provides the best balance of developable area

and connectivity into the development sites, whilst still serving as an attractive alternative route to the existing A449 through Penkridge for through-traffic. High level journey time analysis has been undertaken, which demonstrates that the Spine road option would form an attractive alternative route, if developed in conjunction with a downgrading of the existing A449 through Penkridge. An illustrative cross section of the proposed Spine Road has also been prepared by DLA which shows the potential for a 7.3m carriageway within a 19.3m corridor adjoining front gardens and buildings, as shown on Figure 4.12.

4.22 The prospect of delivering a full western spine road through SCC and adjoining land has been considered by AECOM in relation to indicative junctions, bridges and a route geometry.



Figure 4.12 : CROSS SECTION ILLUSTRATION OF PROPOSED NEW SPINE ROAD

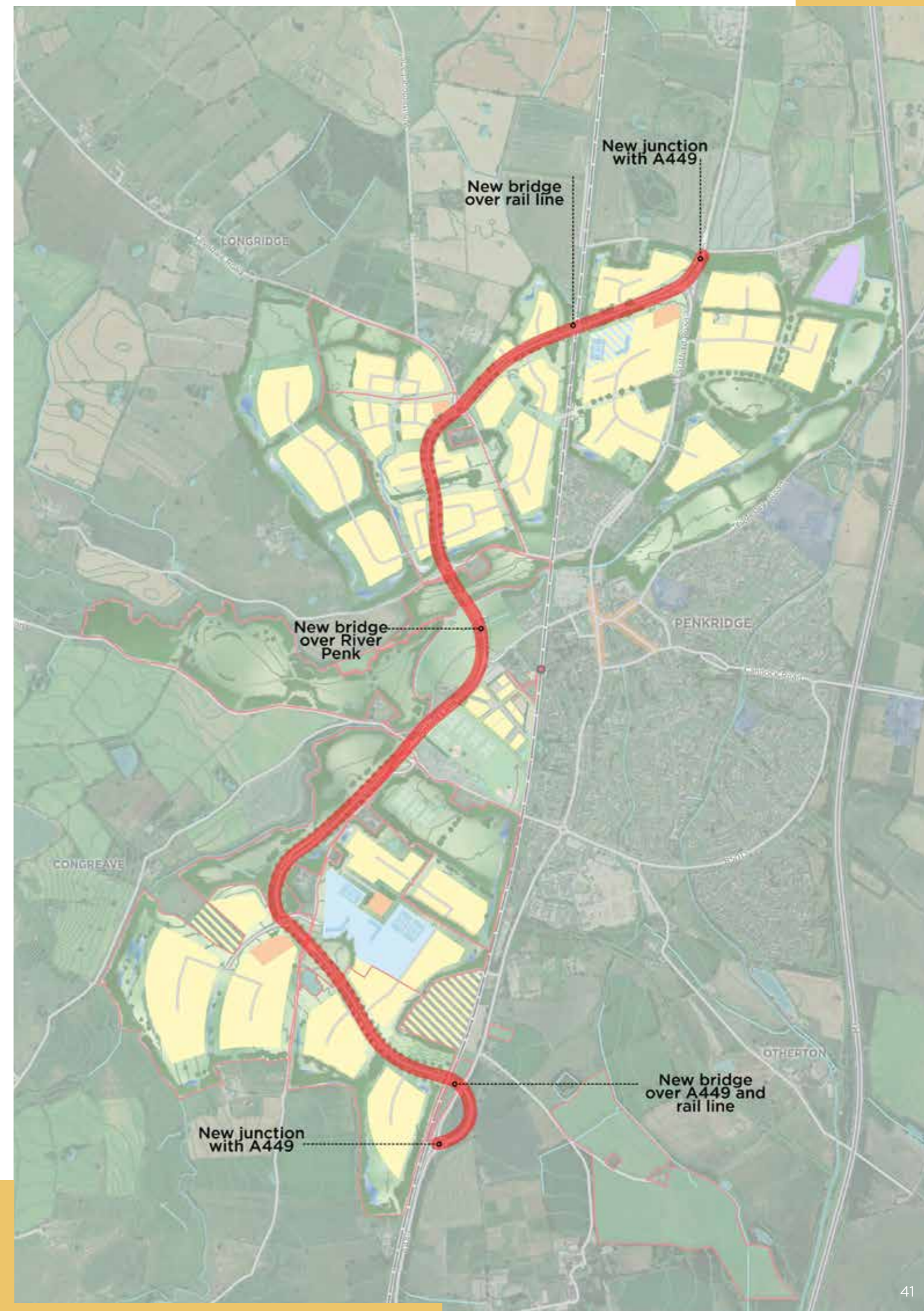


Figure 4.13 : ROUTE OF PROPOSED SPINE ROAD



Figure 4.14 : VIEW LOOKING NORTH ALONG A449

- 1 Rationalised carriageway
- 2 Widened footway
- 3 Tree boulevard
- 4 Central reserve with wildflower planting
- 5 New public event space and 'parklet'
- 6 Potential for public art (clock tower?)
- 7 New pedestrian crossing
- 8 Rationalised pedestrian crossing
- 9 Grove of cherry trees
- 10 Reference to water course in paving



Figure 4.16 : CONCEPT PLAN FOR CROWN BRIDGE

Improvements to Penkridge Centre

4.23 There is potential for physical and environmental improvements in the centre of Penkridge as a result of the western spine road being implemented. A preliminary design exercise has been undertaken with respect to Crown Bridge Square and main crossroads in Penkridge. The potential of a new link road mirroring the A449, to the west of the railway line offers scope for reduced traffic volumes to pass through the village centre of Penkridge. The reduction in traffic provides the opportunity for a new type of streetscape to be created that moves away from a highway dominated environment towards a new design that balances the movement of cars through this main arterial but also makes provision for walking and cycling in equal measure. The reconfiguration of highway space allows for improved walking and cycling whilst also facilitating vehicle movements, parking, deliveries, access and public transport. Referencing the historic name for this area of the village - Crown Bridge - "Crown Bridge Square" could become a new area of civic pride for the village.

4.24 This is simply an illustration to show possibilities. The intention would be for a scheme to be locally led and fully informed by public involvement. This may lead to other ideas such as pavement cafe or a new approach to parking that is not included in this illustration.



Figure 4.15 : ARTIST'S PERSPECTIVE LOOKING NORTH ALONG A TRANSFORMED A449

Community ownership and/or stewardship of assets

4.25 A key part of achieving Garden City principles is the approach taken to ownership and management of community assets and open space. The principles should be that the local community (existing Penkridge community and new residents) have an integral involvement in and benefit from the assets in the development.

4.26 There is no single way to achieving this, as the following examples illustrate:

- Setting up a bespoke community trust specific to manage green space and other assets. The Parks Trust in Milton Keynes was set up on this basis. An upfront endowment allowed the trust to be set up to manage parks and related community buildings in Milton Keynes. It also has the ability to raise revenue from other assets to recycle back into the trust.
- Using an existing trust already set up to manage assets. Examples of this include the Land Trust, who are brought in by developers and/or authorities under stewardship arrangements.
- Transferring ownership and management to the Parish Council. It is common for Parish Council to take on this role with smaller assets and collect a precept from the Council tax to pay for management and maintenance. At Cambourne in Cambridgeshire, a new Parish Council was set up and the parks, sports facilities and some community buildings in the new village transferred to their control. The parish receives a precept from the district council but also can receive revenue for the use of some of the facilities.



The River Penk could become a focus of community asset, a new riverside park

05 CONCLUSIONS

5.1 Staffordshire County Council (SCC) instructed David Lock Associates and AECOM to explore broad development scenarios relating to County Council Farm Estates land to the west of Penkridge and to prepare concept master plans for these scenarios. In addition, wider growth potential has been considered by including land owned by other parties and with respect the improvements to the centre of Penkridge. This work has been done to assist SCC in exploring opportunities for their land but also how the County Council, as a public sector landowner, could deliver environmental, social and economic benefits for Penkridge as a whole.

5.2 A desk top analysis, complemented by site visit and drone photography, has been undertaken to understand the nature of the site, its constraints and opportunities. No detailed surveys have yet been undertaken at this stage and that would be an important next step in order to test and refine the master plan work. Overall, the desk top analysis shows there are no environmental constraints on the site that would preclude development subject to a sensitive approach being taken towards retention of key features of importance (hedgerows, woodland, ponds for example).

5.3 From the outset, the work has been framed by an overarching vision and principles relating to Garden Cities and Villages. At the heart of this is the fact that the County Council, as a public sector landowner, can facilitate proposals so that land value is captured to deliver wider environmental and social benefit. The site analysis and initial concept master planning allowed us to apply the principles to the Penkridge context.

5.4 Concept master planning has been undertaken on four main development scenarios. These are not mutual exclusive options nor are they sequential phases but they are scenarios tested in order to understand the form and quantum of development and social infrastructure. The four scenarios comprise:

- **Scenario 1: Extension to north west Penkridge (on the Preston Barn Estate).**
- **Scenario 2: Extension to south west Penkridge (on the Deanery Estate).**
- **Scenario 3: Extension to west of Penkridge (all SCC land, as defined above).**
- **Scenario 4: The wider Penkridge growth opportunity (SCC land plus other land).**

5.5 Table 5.1 overleaf summarises the main aspect of each scenario. Overall, scenarios 1 or 2 on their own offer the opportunity new homes in close proximity to the station and the centre with some wider benefits, notably the ability to deliver a Riverside Park within scenario 2, other green open spaces and new and improved pedestrian/cycle connections. Both are limited with regards to existing highways, however. Scenario 1 on its own would require more detailed transport assessment work to establish other quantum of new housing that could be delivered from improvement to the existing road network.

Scenario 2 to the south would require a new junction and bridge from the A449 and the subsequent spine road could be future proofed to allow for an extension to the north. On its own, just to serve the southern land, this would likely be an expensive piece of infrastructure against the amount of development achieved.

5.6 Taking all SCC land on the western side of Penkridge (combining scenarios 1 and 2) would allow for a larger Riverside Park and the ability to facilitate a full western Spine Road to the north of third party land were brought forward to make the link from the Preston Barn Estate to the A449. Third party land would be required in any event to deliver the southern junction and bridge into the site. The final scenario explores the full potential of delivering growth west of Penkridge growth along side a northern gateway area. Land immediately adjoining the station outside of SCC control has also been included and this could deliver mixed use development and a sports campus. In this scenario the potential to improve the public realm in Penkridge has been explored as a consequence of creating an alternative main route via a full western spine road. These improvements could also be delivered via scenario 3 if the full western spine road were to be delivered.

5.7 Overall, the growth scenarios that can deliver the full western spine road and a critical mass of development for new mixed use and social infrastructure are more capable of delivering Garden City principles and could be the basis for a positive and sustainable long term growth strategy for Penkridge.



Table 5.1: Summary of the four growth scenarios

Scenario 1 Extension to north west Penkrige (Preston Barn Estate).	Scenario 2 Extension to south west Penkrige (Deanery Estate).	Scenario 3 Extension to west of Penkrige (SCC land).	Scenario 4 The wider Penkrige growth opportunity
<ul style="list-style-type: none"> • Approx. 580 dwellings • Ped/cycle route under Levedale Tunnel • Spine Road future proofed for further connections • Limitations due to existing highways -upgrades necessary. • Small neighbourhood centre 	<ul style="list-style-type: none"> • Approx. 2,080 dwellings • New junction from A449 (Rodbaston) and bridge over railway • Spine Road future proofed for further connections • Riverside Park (south of Penk/Whiston Brook) • Sports fields • New First School (2 form entry) • Improvements to cycle link on A449 into Penkrige and ped/cycle links to Penkrige Station • Some 3rd party land required for junction/bridge. • Local centre adjoining school 	<ul style="list-style-type: none"> • Approx. 2,660 dwellings • New junction from A449 (Rodbaston) and bridge over railway. • New road bridge over Penk • Spine Road future proofed to north for further connections • Riverside Park (south and north of Penk) • Sports fields • A new first school • Ped/cycle route under Levedale Tunnel • Improvements to cycle link on A449 into Penkrige and ped/cycle links to Penkrige Station • Some 3rd party land required for junction/bridge. • Two mixed use local centres 	<ul style="list-style-type: none"> • Approx. 4,860 dwellings, including land to north of Penkrige and immediately west of station • New junction from A449 (Rodbaston) and bridge over railway. • New junction from A449 (Rodbaston) and bridge over railway (north of Penkrige) • New road bridge over Penk • Complete western spine road • Riverside Park (south and north of Penk) • Sports fields • Two new First Schools • New Middle and High School campus • Investment in improving public realm/streetscape in Penkrige • Improvements to cycle link on A449 into Penkrige and ped/cycle links to Penkrige Station • 3rd party land required for junctions/bridges and development. • New outdoor sports campus near station and Monckton Leisure Centre • Three mixed use local centres • Mixed use/commercial development near station



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