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Introduction - CPRE Bedfordshire's Briefing Document No.2

Development proposals for the Oxford – Milton Keynes – Bedford – Cambridge Arc.

5th Studio Final Report

The following Briefing Document is aimed at CPRE Bedfordshire's members, Town & Parish Councils, District Councillors and others in Bedfordshire who have asked for our views on the impact of the National Infrastructure Commission's (NIC) recent Report:

"Partnering for Prosperity: A new deal for the Cambridge - Milton Keynes - Oxford Arc"

In support of this report the NIC appointed a company called **"5th Studio"** to:

"….reach conclusions and make recommendations for the forms of housing development that best fit the needs of the corridor, meeting housing need and supporting jobs and growth."

The 5th Studio Final Report issued in November 2017 is called "Cambridge, Milton Keynes and Oxford Future Planning Options Project" It is the subject of this 2nd Briefing Document which follows on page 3

Background:
The NIC is a non-ministerial government department responsible for providing expert advice to HM Government on infrastructure challenges facing the United Kingdom.
The Chair of the NIC is Lord Adonis and many of the members of the Commission are associated with development companies or businesses involved in the financing of development projects.

The report was published in November 2017 in time for the Autumn Budget, following a period of public consultation.
The report calls for +1 million new homes and a population increase of +1.6m people over an Arc only around 80 miles in length.
CPRE nationally responded to the public consultation with a submission which reflected the concerns of CPRE Bedfordshire and other CPRE branches impacted by the proposals. The Government has since given its support to the NIC report despite local people knowing nothing whatsoever about it.

The briefing document which follows is a 10 page precis of the 5th Studio Final Report which is 144 pages in length.
Our objective has been to analyse the document with Bedfordshire in mind. We have therefore concentrated on the issues in the 5th Studio Final Report which we feel will have the most impact on Bedfordshire.

We hope that this will provide CPRE Bedfordshire members and others with an overview of the principal impacts that the NIC proposals will have on the Bedfordshire countryside and urban green spaces, the Quality of Life of local people and also the adverse implications for our local democracy.

It has been very clear to CPRE Bedfordshire for some considerable time that NIC development proposals for the "Arc" were having a very major impact on the Local Plans being developed by LA's across Bedfordshire – driving massive housing numbers and a very large number of new towns – well in excess of local need.

CPRE's view on the Oxford – Milton Keynes – Bedford – Cambridge Arc:

CPRE nationally supports strategic planning which can deliver regeneration, development and new infrastructure, especially in deprived areas, but there is a real danger of swamping the already over-heated south-east and east of England.

We support the early prioritisation and completion of East-West Rail.

The view of CPRE Nationally and of the CPRE branches across the area affected by the "Oxford – Cambridge Corridor" development proposals is that it makes no sense to encourage this extreme level of development and population growth in an area where house prices are already high for local people, which suffers from severe road and rail congestion, relatively high population density, extremely serious water supply issues and very high levels of air pollution.

With the massive level of proposed development, the "hard infrastructure" improvements suggested by the NIC will have only a minimal impact on the levels of traffic congestion etc.

This is without mentioning the issues currently being experienced in the area due to so-called "soft infrastructure" problems e.g. schools and the availability of teachers, hospitals and local health centres and the availability of doctors and nurses etc.

CPRE believes that a more sensible way forward is a national industrial and development strategy which encourages a more equitable spread of development and population growth across the country.

It should prioritise areas that are most in need of job creation, not contribute to the overdevelopment of the South East.

CPRE Bedfordshire
December 2017

Note:

i. **LEP's** - Reference in the briefing paper is made to LEP's – Local Enterprise Partnerships – unelected bodies which are having a major impact on development across Bedfordshire. They are responsible for distributing very large sums of Government and European Union funding.
The LEP which covers Bedfordshire is SEMLEP – South East Midlands LEP.

ii. **"England's Economic Heartland Strategic Alliance"** - 6 LEP's who come within the Oxford – Milton Keynes – Bedford – Cambridge Arc came together in the last year to form another unelected body called "England's Economic Heartland Strategic Alliance" (EEHSA). The Mayor of Bedford, Dave Hodgson is on the Manage Team of EEHSA and the Leader of Central Bedfordshire Council, James Jamieson is the Vice Chair. It was EEHSA that proposed, **in September 2016**, to the NIC consultation that 1 million new homes should be built across the Arc and that the population should increase by +1.6m by encouraging people to migrate into the area from elsewhere in the UK.

CPRE Bedfordshire's Briefing Document No. 2

Precis of key points:

5th Studio Final Report "Cambridge, Milton Keynes and Oxford Future Planning Options Project"

A copy of the full report can be found here:

https://www.nic.org.uk/wp-content/uploads/171122-NIC-Final-Report-5th-Studio-optimised.pdf

- Page numbers are report pages
- We have taken sections of the report to highlight those proposals that will impact on Bedfordshire.
- It will not come as a surprise that many of the proposals in this report are very similar to some of the very latest options being put forward by developers but not yet included in any of the Local Plans currently being developed by Bedford Borough and Central Bedfordshire Councils e.g. the re-development of central Bedford or developments in the Marston Vale e.g. 8,000 new homes (equivalent to 2 new towns the size of Ampthill) in the area from Kempston Hardwick to Cardington along East/West rail route, huge developments around Sandy/Biggleswade/Potton.
- These could now be incorporated into Local Plans at the last moment giving local people little or no opportunity to comment. Or added later by the NIC.
- We are very concerned at the complete lack of local democracy with no consultation having taken place with Bedfordshire residents either by the NIC or LA's despite the massive scale of the proposals.
- The pages we have highlighted speak for themselves. There are very few CPRE comments – shown in red

P4
It is unlikely that the 'transformational' (or indeed the lower 'incremental') levels of growth can be sustained if focussed exclusively around existing towns and cities, given the constraints of their contexts and limitations on the expansion of their existing infrastructure. A wider range of approaches therefore need to be considered, including the development of wholly new settlements, in order to reach those projections.
East West Rail and the Expressway, if routed and specified correctly, could enable substantial opportunities for the growth of new settlements between Bicester and Bletchley, in Marston Vale, at Sandy, and between Sandy and Cambridge.

P5

Public transport access should underpin growth in the corridor, and this study highlights a missing scale of infrastructure planning and expertise at the level of the metropolitan network. This "missing scale" of connectivity - which might be light rail, tram or bus services - is critical in resolving city congestion issues and "final 5 mile" connectivity, but, with the exception of London, has not been part of local area planning and delivery for some time: the repercussions of which are evident.

While this report does not make recommendations on route alignments for East-West Rail and the Oxford-Cambridge Expressway, it does highlight the importance of considering the broader implications of different route options and the need for them to play complementary roles:

The final routing of the East-West Rail line needs to be developed to support "good growth" in an optimal way, and integrate well with local transport networks. This is particularly important around Bedford and the new section of rail line eastwards to Cambridge.

The Oxford-Cambridge Expressway routing in the west of the corridor needs to be planned in an integrated way to ensure that, as well as fulfilling its role in improving the utility of the national network, it also maximises its potential to support new development. This factor therefore needs to be weighted and appraised alongside all other factors relevant in the process of selecting the final route.

Anything approaching the scale of growth required will demand strong political leadership and **democratic support**.

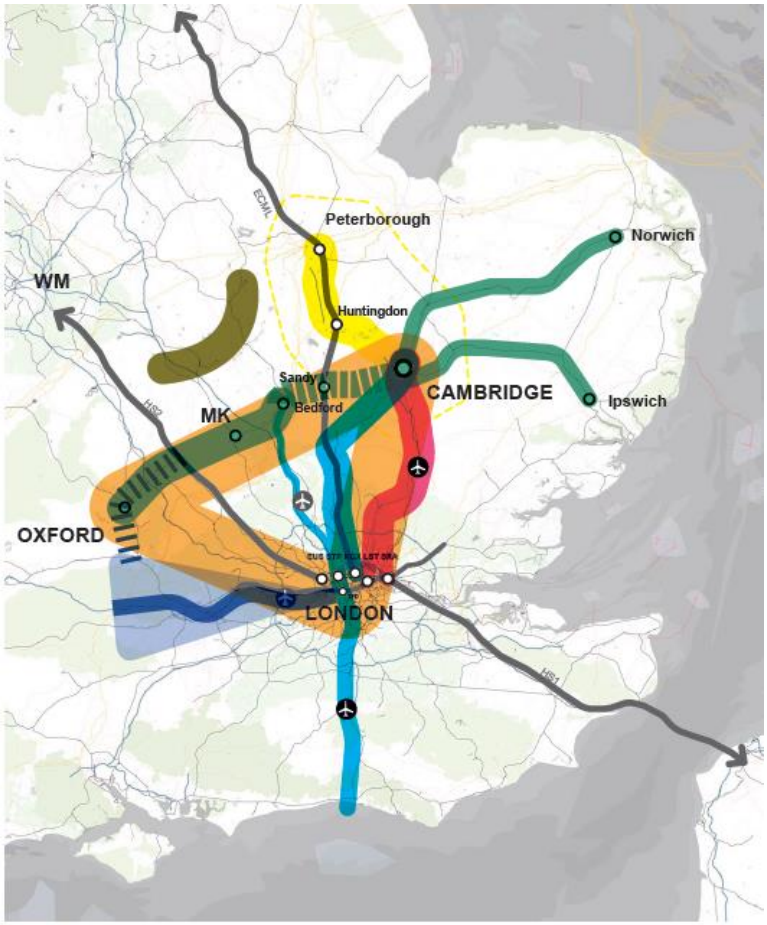
P9

	rate	34 year totals (2016 to 2050)	
	 year	 number of new homes	 corridor population increase (assuming 1.87 people per household)
Baseline Scenario	15,000	510,000	950,000
Incremental Scenario	20,000	680,000	1,272,000
Transformational Scenario	23,000	782,000	1,462,000
Development accommodated due to pressures from land-constrained markets	7,000	238,000	445,000
Study Brief Transformational ± Development accommodated due to pressures from land-constrained markets	23,000 - 30,000	782,000 to 1,020,000	c.1.45m to 1.90m

P10

The Oxford - Milton Keynes - Cambridge corridor in the context of various other intersecting regional/cross-boundary growth corridors/initiatives/strategies >

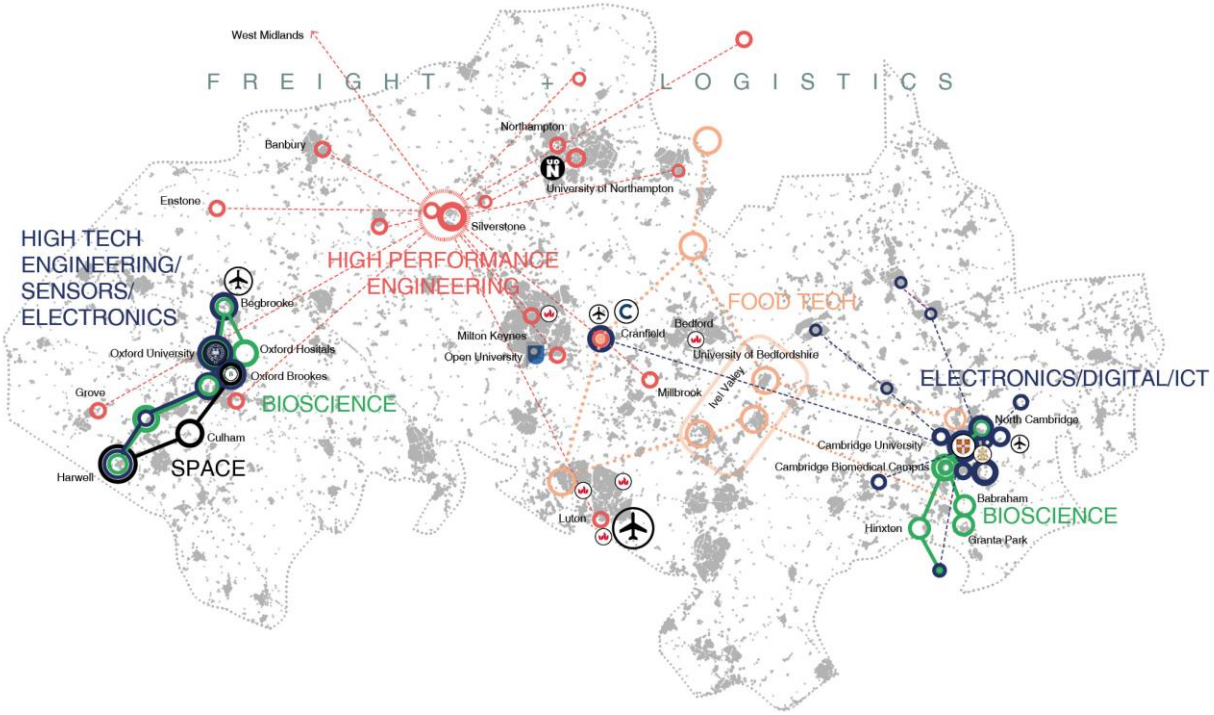
- East-West Rail: West section
- East-West Rail: Central section
- East-West Rail: East section
- Thameslink - Great Northern
- London-Luton-Bedford (London Plan)
- London - Stansted - Cambridge Consortium (LSCC) - West Anglia line
- Cambridge - Peterborough corridor
- Cambridge-Peterborough combined authority
- Oxfordshire "Knowledge Spine"
- "The Golden Triangle"
- "Western Wedge" (London Plan) / M4 Corridor
- "Northamptonshire Arc"
- Electricity and Gas transmission lines



P15

In contrast to the dominant cross-grain of infrastructure connections radiating out from London, analysis of the underlying geology and topography reveals a degree of continuity *along* the corridor, as a relatively low-lying predominantly clay landscape, bounded by **more "precious" or "charismatic" landscapes** on the surrounding higher ground.

P16 (CPRE Comment: note nothing of interest in Bedford!)



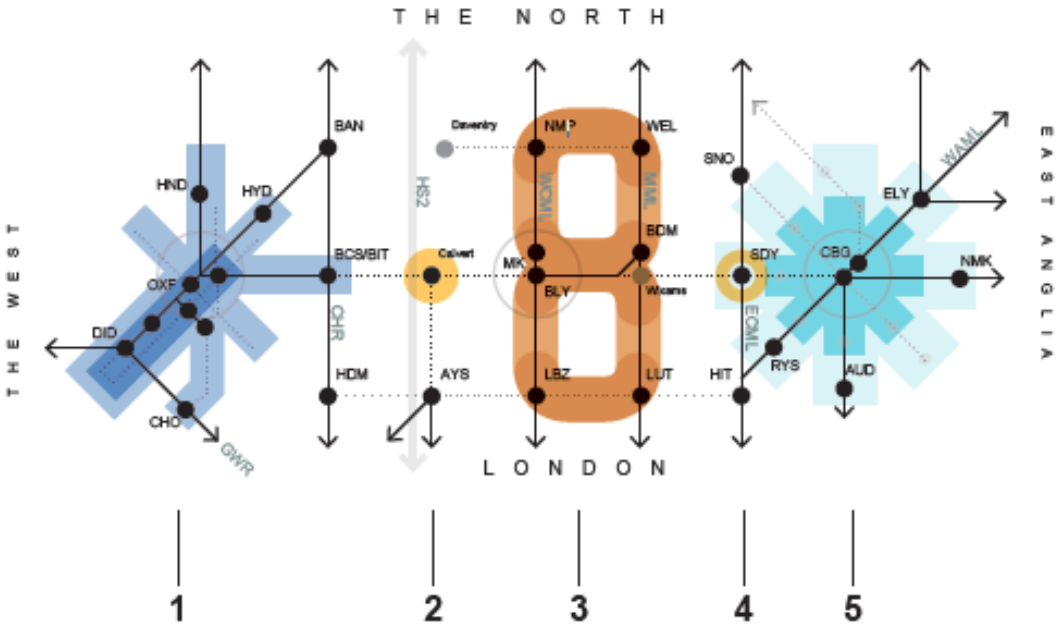
P17 see report (CPRE Comment: Note the "MILTON KEYNES / LUTON / BEDFORDSHIRE /AYLESBURY VALE" corridor and the implied loss of identity of Bedford, Luton and the county.)

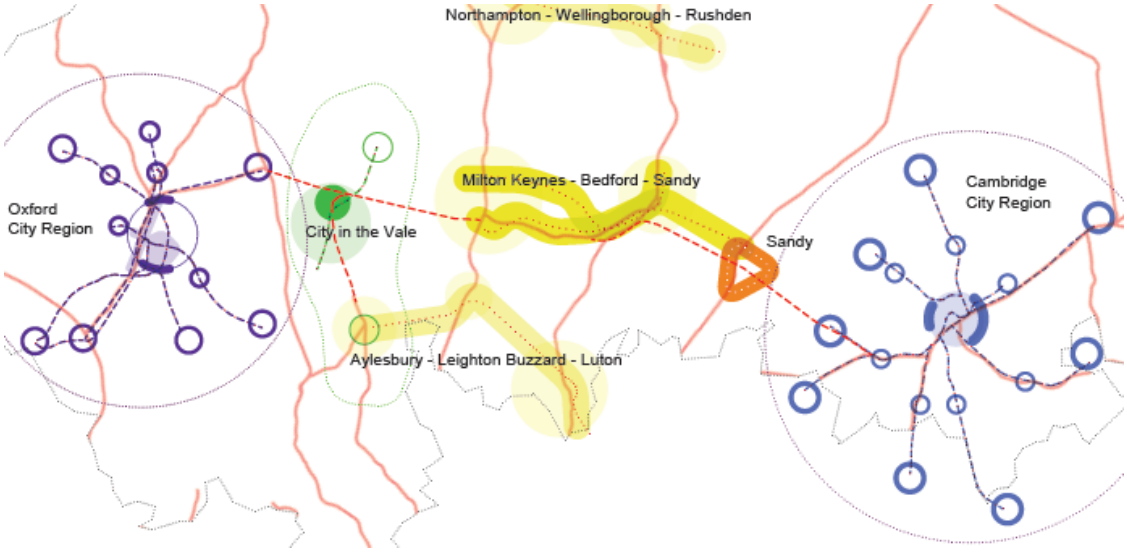
P19
The quality and activity of many urban centres are impacted by the dominance of car movement and parking, with serious issues of congestion, noise and air pollution, the wasteful use of space, and the dilution of any sense of urban "buzz". Two apparent examples are **Bedford** and Aylesbury.

P31
In contrast other cities in the corridor may have capacity for greater levels of intensification and infill given, for instance, the open structure of Milton Keynes and Northampton (both Mark III New Towns) and significant areas of slack-space or previously developed land in existing town centres (**Bedford**, for example).

Those cities not constrained by green belts may also offer opportunities for growth at their edges, for example south of Milton Keynes and South of Bedford, in terms of locations that are along the anticipated alignment of East West Rail and the Expressway.
This leaves three broad areas where there may be greater potential to accommodate larger-scale greenfield development. These locations are:
1. Aylesbury Vale - subject to the delivery and location of a new station on the re-opened East West Rail Line. Large-scale development in this location is probably also dependant on delivery of, and connection to, a new Expressway alignment between Milton Keynes and Oxford.
2. Marston Vale - between Milton Keynes and Bedford. This location is already well served by road, and rail access could be improved through the reorganisation (and supplementation) of services on the Marston Vale line.
3. Around Sandy and Biggleswade - at the intersection of the East Coast Main Line and the proposed new East West Rail route. This location is on the A1 so it is also well served in terms of road access - with further improvements planned.

P33
In line with the analysis above, the strategy for the spatial distribution of growth differs according to location within the corridor, and the diagram above summarises five sub-regional zones as follows:
1. Oxford City Region
2. Calvert
3. Eight Town Figure-of-eight
4. Sandy
5. Cambridge City Region





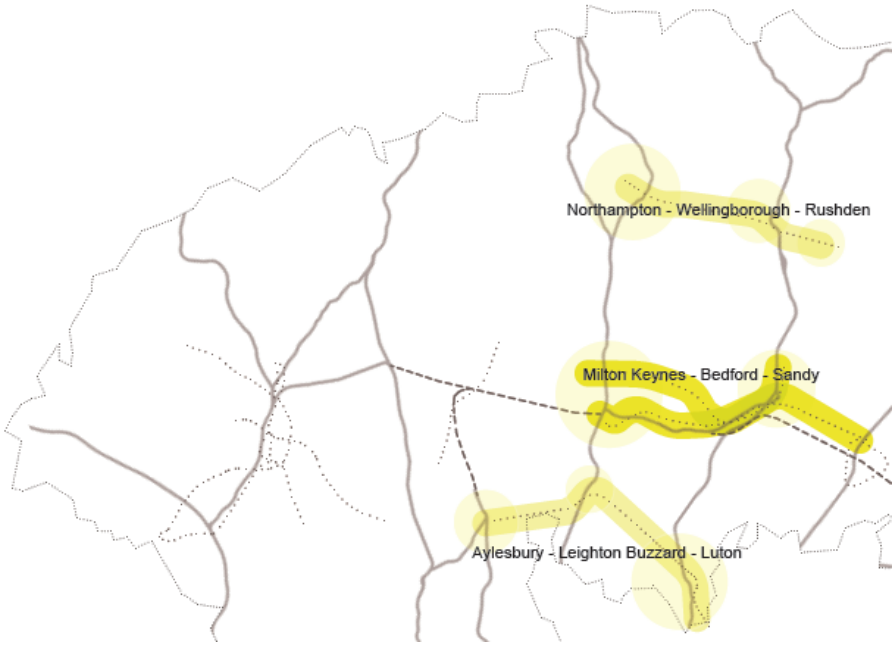
P36

THREE EAST-WEST STITCHES

The creation of linear concentrations of development along new/extended high-quality transit routes that connect existing towns, and their respective stations on north-south rail connections.

Three such "stitches" are envisaged:

- Daventry/Silverstone-Northampton-Wellingborough-Rushden - in line with Northamptonshire's aspirations for a Northamptonshire Arc Mass Transit (NAT). A necklace of existing places and new walkable human-scale settlements would be located along this link.
- Milton Keynes/Bletchley-Marston Vale/Cranfield-Bedford-Sandy - with the potential for a busway or tram-train route continuing to serve existing stations in Marston Vale that would otherwise be bypassed by the proposed new alignment of East West Rail, as well as serving new development locations within Milton Keynes and Bedford, and in the recovered landscape of the former brickworks of Marston Vale.
- Aylesbury-Leighton Buzzard-Dunstable-Luton - by completing an extension of the successful Dunstable to Luton busway to Leighton Buzzard, and potentially on from there via Cheddington to Aylesbury. This would provide an armature for development connected by high-quality public transport to the economic centres of Milton Keynes, Aylesbury and Luton. Consideration could also be given to extending the definition of this stitch eastwards to connect to the East Coast Mainline at Hitchin.



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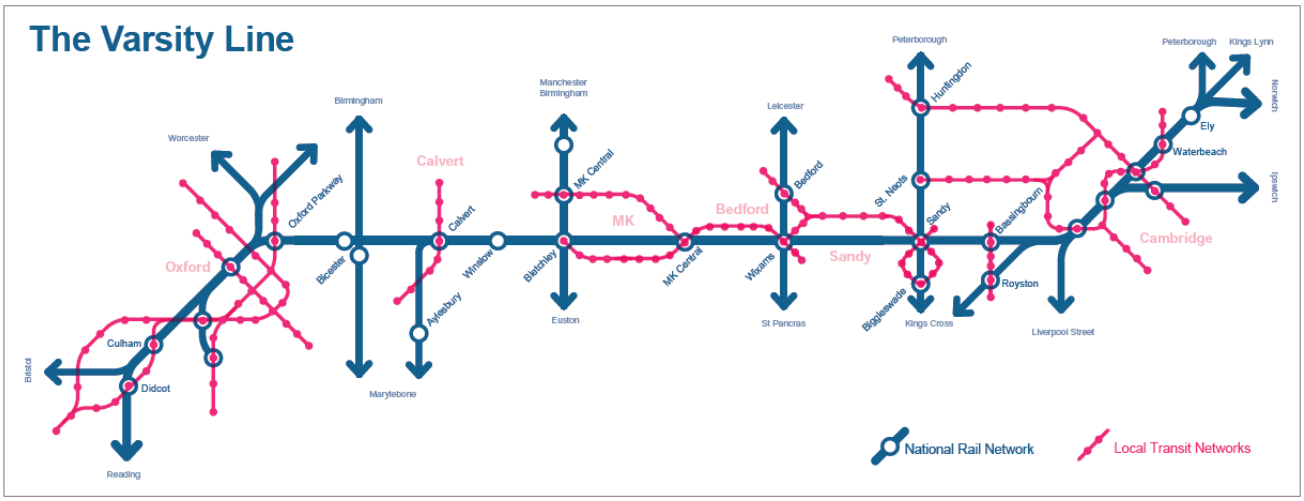


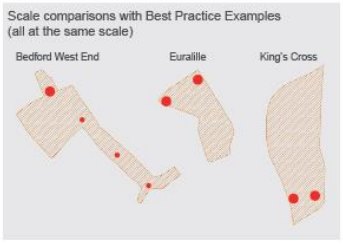
P45 & 46 Town centre intensification: illustrative case study - Bedford

Bedford has not prospered in recent years, despite its good rail and road links to London and a long tradition of excellent independent schools (Bedford, Bedford Girls, Bedford Modern and Dame Alice to name a few).

Some traditional industries, such as engineering, have declined. Similarly, the central area has suffered from the town's proximity to two strong regional retail and service centres in Milton Keynes and Cambridge. However, parts of the town centre remain very attractive, and regeneration of the area between the station and the retail core could lead to the re-vitalisation of the market town role, serving a prosperous and growing urban region.

The western margin of the town centre is predominantly a zone of surface car parks, overweening junctions, unused marginal land around rail infrastructure, space-hungry and unnecessarily central train stabling, and a swathe of disused post-industrial land. As the best practice example scale-comparisons below show, this is a very large area in aggregate, capable of accommodating a substantial mixed-use development. It is in a highly sustainable location on the margin of the town centre, with excellent levels of accessibility by existing public transport, and able to capitalise on the presence of the river and the parkland landscapes along it.

In order to ensure the best overall outcome would be achieved, a plan for the development of this quarter would need to happen in dialogue with the wider plan for the public transport network, the provision of alternative forms of access (to ease the removal of car parking), and the decanting of certain activities such as train stabling.

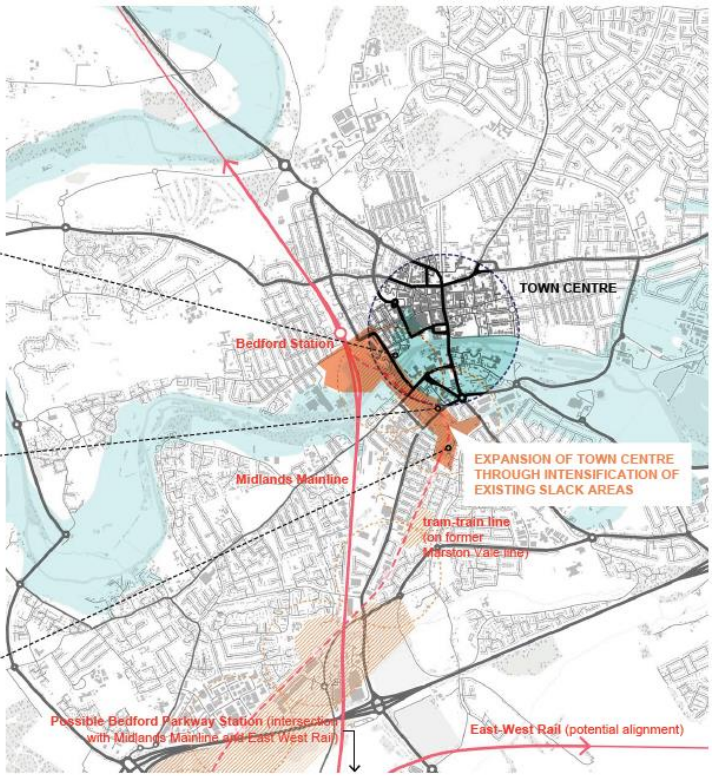


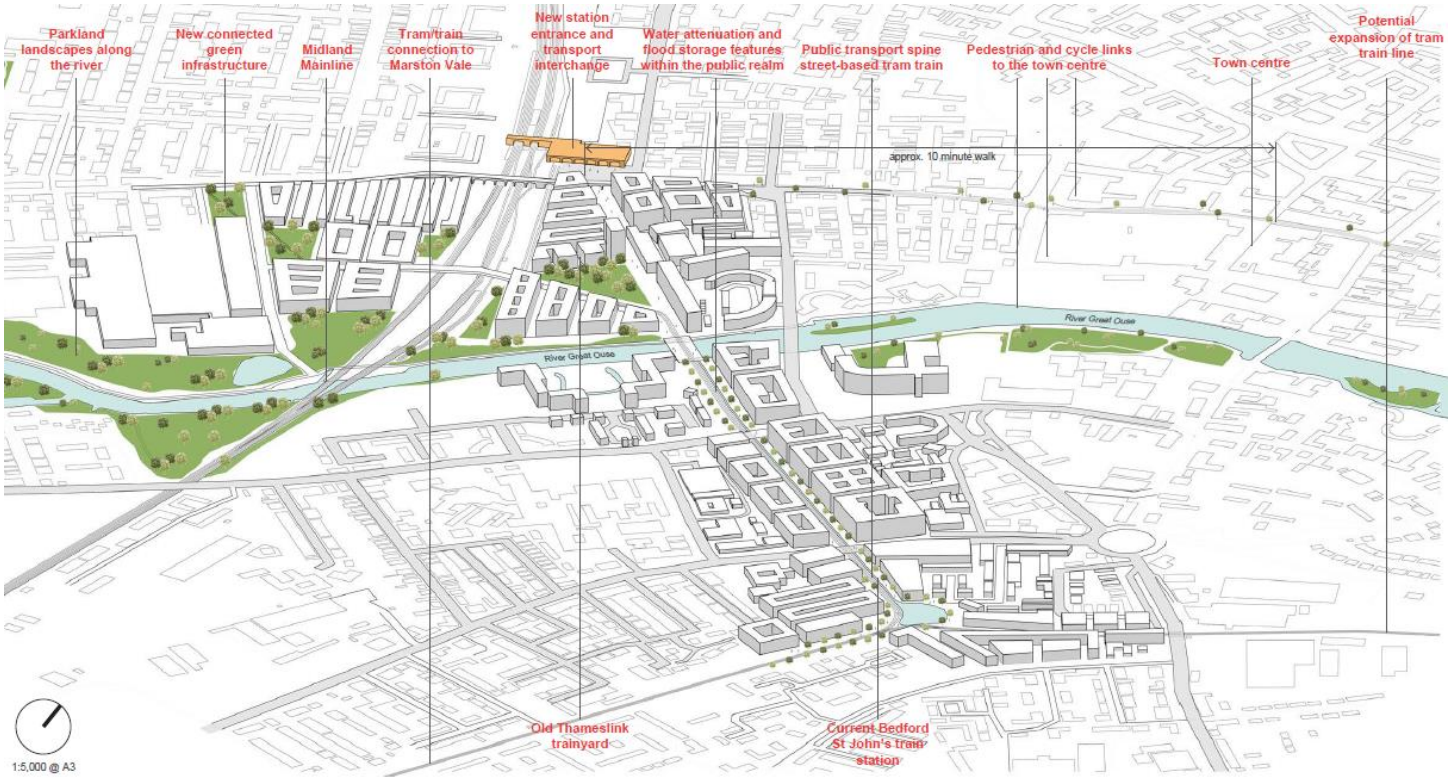
If East West Rail were to be routed to the south of Bedford rather than through the middle, there would be the potential for the eastern section of the Marston Vale line to operate as a tram-train service. France and Germany, for example, routinely use the tram-train service in similar situations, and it is currently being trialled in Rotherham. This would maximise the potential for development along its route as a street-based public transport spine. It would have more regular stops, similar to the concept of Arturo Soria's Ciudad Lineal covered in the best practice examples, instead of a fenced-off rail corridor that would sterilise large tracts of land in the centre. Such an approach could also link development opportunities in Marston Vale to the town centre, as per the ***Typology 3.6 New Small Settlement*** which should be read in conjunction with this typology.

Space-hungry train storage yard centrally located

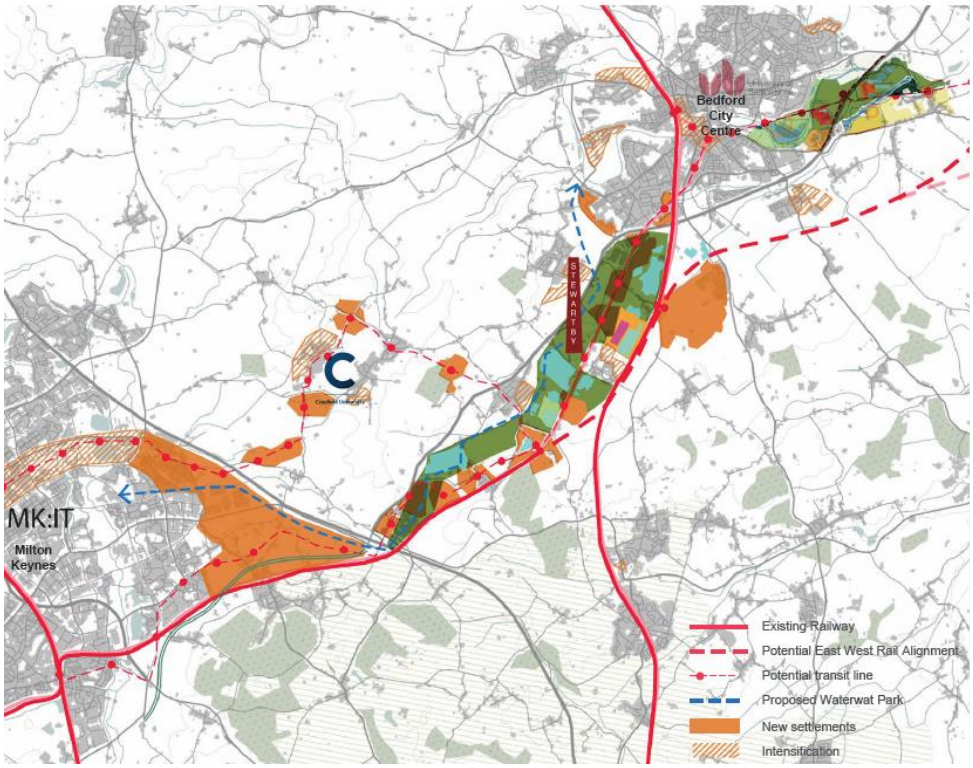
Extensive surface car parks

Basic and unwelcoming public transport infrastructure





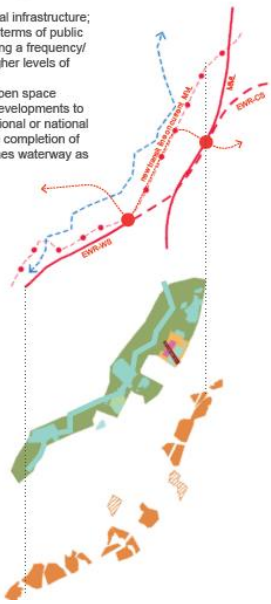
P73-75 New small settlement: illustrative case study - Stewartby



Delivering small settlements intimately connected with their surrounding countryside, while also providing the infrastructure necessary for their support in a sustainable and affordable way is a challenge. In Marston Vale, the resolution of this challenge lies in the creation of a co-ordinating framework within which several smaller settlements could co-locate to make efficient use of available infrastructure.

Development in this area is already anticipated, but there are potentially much greater benefits to be gained through co-ordination, in terms of:

- sharing the cost of essential infrastructure;
- reaching a tipping-point in terms of public transport services, achieving a frequency/ quality that justifies still higher levels of development;
- combining the individual open space requirements of multiple developments to create a park space of regional or national significance - including the completion of the Bedford to Milton Keynes waterway as its centrepiece.



Linear Infrastructures

The new EWR central section could be routed to allow the creation of a complementary, high-frequency link from Central MK via stops serving development locations in Marston Vale to Central Bedford.

Rich Landscapes

The proposed canal link that parallels the transit line would form the centrepiece of collection of accessible landscapes – similar to the Emscher Park, which is one of the best practice examples included in Appendix C.

Diverse small settlements

A collection of new, small, linked settlements, each with its own distinct character and sense of place - set within the wider connective regional park.

Marston Vale was a major centre for brick making for the surrounding region, and it retains some of that industrial legacy and degradation. There are also extensive waste disposal and reclamation sites and some attractive recreational areas created in the former brick pits. Some sites near the M1 and on the edge of Bedford accommodate major warehouses for occupiers such as Amazon and Asda.

The economic role of a number of expanded and new small settlements in this area is likely to be, at least in part, as commuter settlements for Bedford and Milton Keynes. Potentially the AV route between Milton Keynes and Cranfield, as discussed in ***Typology 3.2 Suburban Intensification***, could be extended to Bedford to complement the rail route and provide far more intermediary stops.

However, there is also an opportunity to expand the current economic activities in different parts of Marston Vale involving recreation and leisure, and logistics. In relation to recreation, this could be entirely complementary to the roles of Milton Keynes and Bedford. It could provide more active rural leisure pursuits, mainly based around a series of lakes, some of which already exist, and others which could be readily formed from former brick workings. Some of the settlements could be designed around attractive waterside locations and lakes in this area.

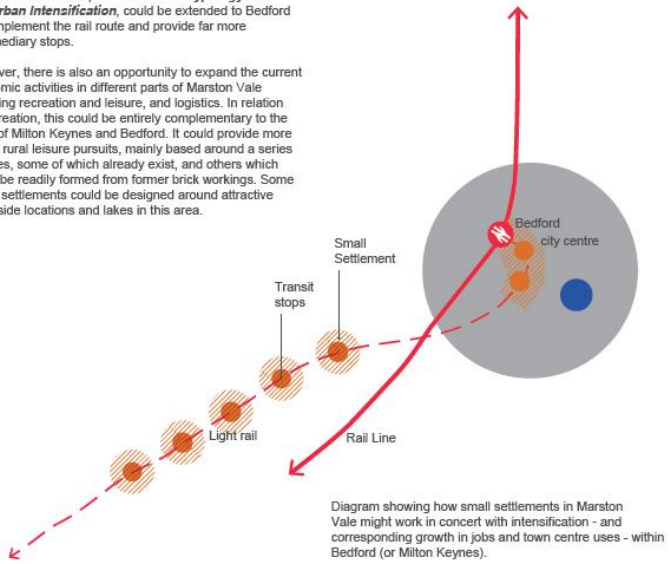


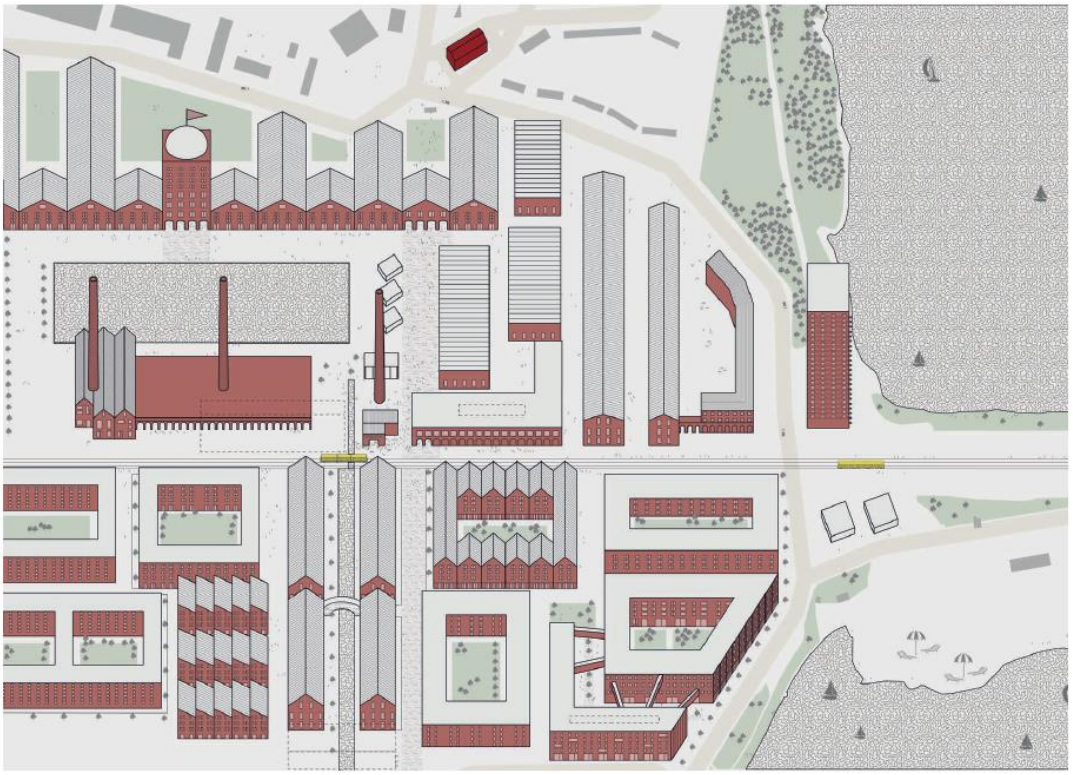
Diagram showing how small settlements in Marston Vale might work in concert with intensification - and corresponding growth in jobs and town centre uses - within Bedford (or Milton Keynes).

The history of clay extraction and brick making has left a series of remarkable and unusual post-industrial landscapes

As with the Emscher Park in Germany this unique inheritance could be celebrated, rather than normalised, and form the foreground to a series of new development sites.

Remnants of the brick making era.

Aerial of forest of Marston Vale Solar PV Farm
Source 12: LHW Partnership, (n.d.)



The concept for a new village at Lower Stewartby is suggested as a counterpoint to the tendency for new development to seek out the emptiest and most neutral of sites for development.

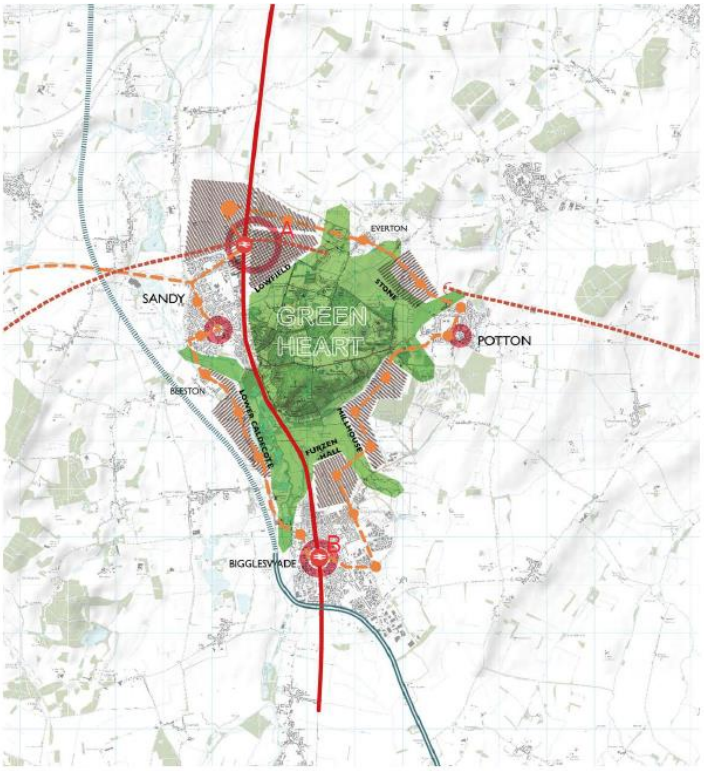
The lakes that occupy the former brick pits provide a spectacular waterside setting. The Listed Brick Kilns and Chimneys, which could well be perceived as a liability, in fact provide an incredible and unique sense of place that should be capitalised on.

Re-appropriation of the former kiln and factory structures as workspace, the intensive utilisation of waterside locations, and infill development of a scale and character that responds to these industrial buildings, would help create a place of intensity as a foil to the extensive landscapes beyond.

Not all of the new villages in Marston Vale would be like this though. But one of the opportunities of building multiple smaller settlements is the potential for each to have a unique identity. The creation of a shared framework would allow a diversity of developments, at a range of scales, to be involved in its implementation. Some would be more like Stow-on-the-Wold and others more like Saltaire, therefore providing for a variety of needs and personal choice.

Close-up of the kiln.
Source 13: Penmorfa, (n.d.)

P85-87 String city: illustrative case study – Sandy-Biggleswade



Above: Diagrammatic representation of how existing (solid grey) and new (grey outlined) places would be linked together by a public transport loop (orange dashed line) around a protected and accessible green heart, that would incorporate Sandy Warren and Biggleswade Common. Existing and new local centres (yellow) would work in combination to serve the needs of the enlarged population.

Left: Illustrative proposal

- East Coast Main Line
- New East West Rail connection
- Rapid, reliable, regular public transport loop serving existing and new settlements
- A1 bypass - freeing the former (sub-standard) alignment to be urbanised
- A. New interchange station (replacing the existing station)
- B. Biggleswade Station
- New compact settlements with nowhere more than 5 minutes walk from countryside

The case study looks at the location where a reinstated railway line from Cambridge to Bedford would cross over and permit passenger interchange with the East Coast Mainline.

Three small towns are already here, arranged around Sandy Warren and Biggleswade Common: two important areas of landscape and nature conservation.

The A1 runs to the west of these towns, and there are proposals to upgrade the A1 on a new alignment away from the existing sub-standard road.

The strategy connects the existing towns with a high quality and efficient to run public transport loop, also linking to the new interchange station and the existing Biggleswade station.

This loop becomes the armature for a string of new neighbourhoods linking to existing centres and new facilities and workspaces around the ring. However, each would also be just a short walk away from the preserved "green heart" of Sandy Warren and Biggleswade Common.

Several of the best practice examples reviewed as part of this study (see Appendix D), such as the Dutch Stedenbaan proposals and the Australian CLARA plan, are based on transit oriented development of this sort. In addition to this approach the Emscher Park in the Ruhr, Helsinki Vision and Stockholm best practice examples also emphasise the creation of a network of green spaces as a primary determinant of the urban form at the largest scale.

The Department for Transport (DfT) and Highways England (HE) have recently undertaken the A1 East of England Strategic Study. This shows that the existing route of the A1 through the western edge of Sandy is particularly in need of improvement. The study goes on to identify high level options for localised improvements or the creation of a new motorway standard route off-line. The DfT/HE have not yet indicated a route or route options for this option. This case study shows an illustrative new alignment to the west as a means of investigating how a new bypass route would open the possibility or re-appropriate part of the old alignment for public transport and urbanisation as part of the ring. It is assumed that improvements to the A1 of some sort or another and appropriate access junctions to serve both existing and new populations would be necessary to support development.

With new settlements arranged in a ring around its edges, the entire population would be within a short walk of the "Green Heart". Alongside the preserved landscapes of Biggleswade Common, Sandy Warren and Sandy Heath, there would be opportunities for new sport, leisure and productive landscapes adjoining the new neighbourhoods. All connected via a network of high quality walking and cycling routes.

The aerial photograph of the Green Heart below - as shown on the initial plan on the previous page - is shown for comparison at the same scale as a series of other open spaces, that are well known for being the focal point for their respective surrounding cities or districts.

The comparisons show that the process of aggregating the open space requirement of the various new surrounding neighbourhoods serves to create a unique new green space. This space will be far larger than all of these iconic large parks, which each serve a much greater and denser catchment than would be the case at Sandy. It would moreover frame (and preserve) the existing sensitive landscapes of the Warren and Common.

Sandy Warren and Biggleswade Common

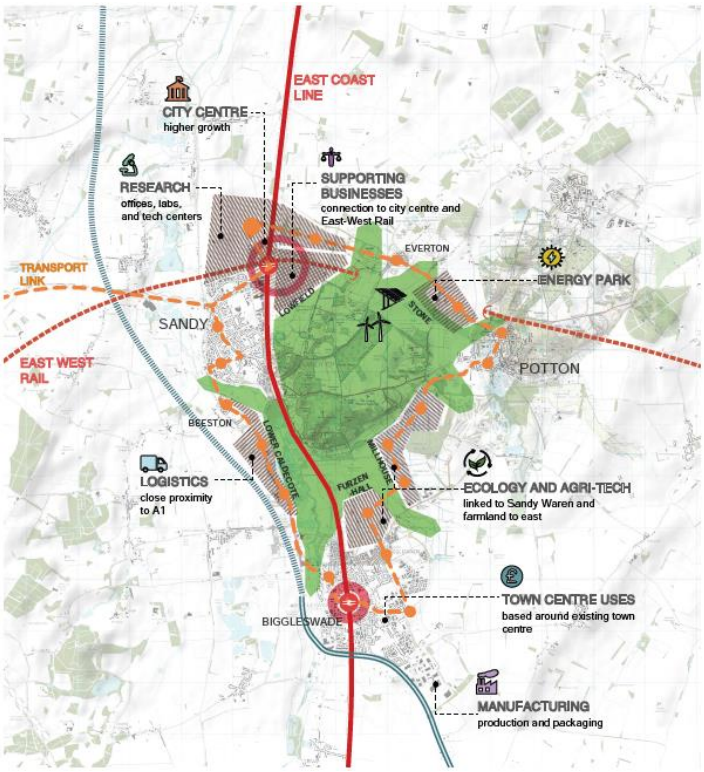
Hampstead Heath, London

Royal Parks, London

Tiergarten, Berlin

Central Park, New York

Sandy Warren



East Coast Main Line

new East West Rail connection

rapid, reliable, regular public transport loop serving existing and new settlements

A1 bypass - freeing the former (sub-standard) alignment to be urbanised

A. New interchange station (replacing the existing station)

B. Biggleswade Station

New compact settlements with nowhere more than 5 minutes walk from countryside

Research and Development Zone

Logistics Zone

Main Economic Zone

Manufacturing

Supporting Businesses

Energy and Logistics Park

The area also has some distinctive economic strengths focused around logistics, food and drink and related industries (e.g. agricultural engineering), and some outstanding environmental assets. The Sandy Warren is such an asset, which is the location of the headquarters of the RSPB and would be at the heart of the new ring city.

The different settlements within the area would each need a distinctive and complementary economic role. They also need to be very well interconnected by public transport if they are to function as a ring city rather than as an unrelated cluster of expanded towns and villages.

The "Food Enterprise Zone" (one of only six in the country) around Biggleswade should attract more businesses in the agri-food sector, particularly if combined with initiatives such as a specialist food incubator facility and if linked functionally to Colworth Park, Unilever's global R&D centre to the north east of Bedford.

In addition, one of the settlements (logically Sandy, if it is actually at the rail/road intersection between east west and north south rail and road routes) should develop higher order functions to serve the new city's population as well as a wider catchment.

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Taken together the case studies and spatial framework demonstrate how the delivery of East West Rail and the Oxford to Cambridge Expressway, if routed and specified correctly, could enable substantial opportunities for the growth of new settlements between Bicester and Bletchley, in Marston Vale, South of Bedford (though, not precluding development in central Bedford), at Sandy, and between Sandy and Cambridge. ..... With this in mind, there follows a summary of our tentative conclusions about the potential choice of Expressway and East West Rail routes that might best support growth in the terms established by the brief for this study, while also meeting the DfT's objectives for strategic/national-scale connectivity.

1. Divergence from the existing Marston Vale line near Millbrook
2. Wixams Station - including MML/EWR interchange and parkway access and enlarged/intensified development adjacent - see Marston Vale case study
3. New Sandy station (replacing the existing station - marked x) - providing ECML/EWR access and a focus for new development north of Sandy - see Sandy case study
4. New station between Sandy and Cambridge as a focus for new development - with potential for access from the A1198 - see Bassingbourn case study
5. Junction with the existing London-Cambridge line west of Foxton
6. Proposed Cambridge South Station (Addenbrookes)
7. Potential for tram-train services via the residual, eastern portion of the Marston Vale line and new connections serving development areas in south/eastern Milton Keynes, Marston Vale and central Bedford (dotted red line) - see the Bedford and Marston Vale case studies.