Strategy for 2050: Growth Options Assessment January 2020

Introduction and approach

As part of the background evidence to support the Strategy for 2050, Milton Keynes Council has undertaken a high level assessment of 14 spatial options for potential directions of growth which could assist in delivering the Council's growth ambitions to house a population of 500,000 people within Milton Keynes Borough and the wider area by 2050.

The map below shows the location of each of the broad areas that have been assessed.

Each of the broad locations has been assessed against a range of environmental and locations factors using existing information, particularly that forming the evidence base for Plan:MK, adopted in March 2019 and other local plans covering the Option areas where those lie outside of Milton Keynes.

The assessments review the strengths and weaknesses of each of the options and provide a brief commentary and conclusion on their suitability for development in the period to 2050.

The assessment has had regard to:

- Locational factors, such as flood risk, topography, landscape, connectivity etc.;
- Existing growth allocations across the metropolitan area (both those within Milton Keynes Borough and those proposed in neighbouring authorities within the Study Area);
- The ability of the option to deliver against the objectives of the Strategy for 2050, particularly:
    - its ability to realise inclusive growth outcomes for both existing and new communities within the Metropolitan Milton Keynes Area year on year throughout the period to 2050 and beyond,
    - the ability to promote delivery of a modal shift in transport through making the most of existing and proposed regional infrastructure improvements and through providing development that helps to deliver, and benefits from, a new MRT system;
    - the ability to take advantage of, and improve, existing and planned, east-west infrastructure and connections which are present in the south of Milton Keynes and extend into Aylesbury Vale and Central Bedfordshire, and develop the long term growth potential created by the Cambridge - Milton Keynes - Oxford Corridor.

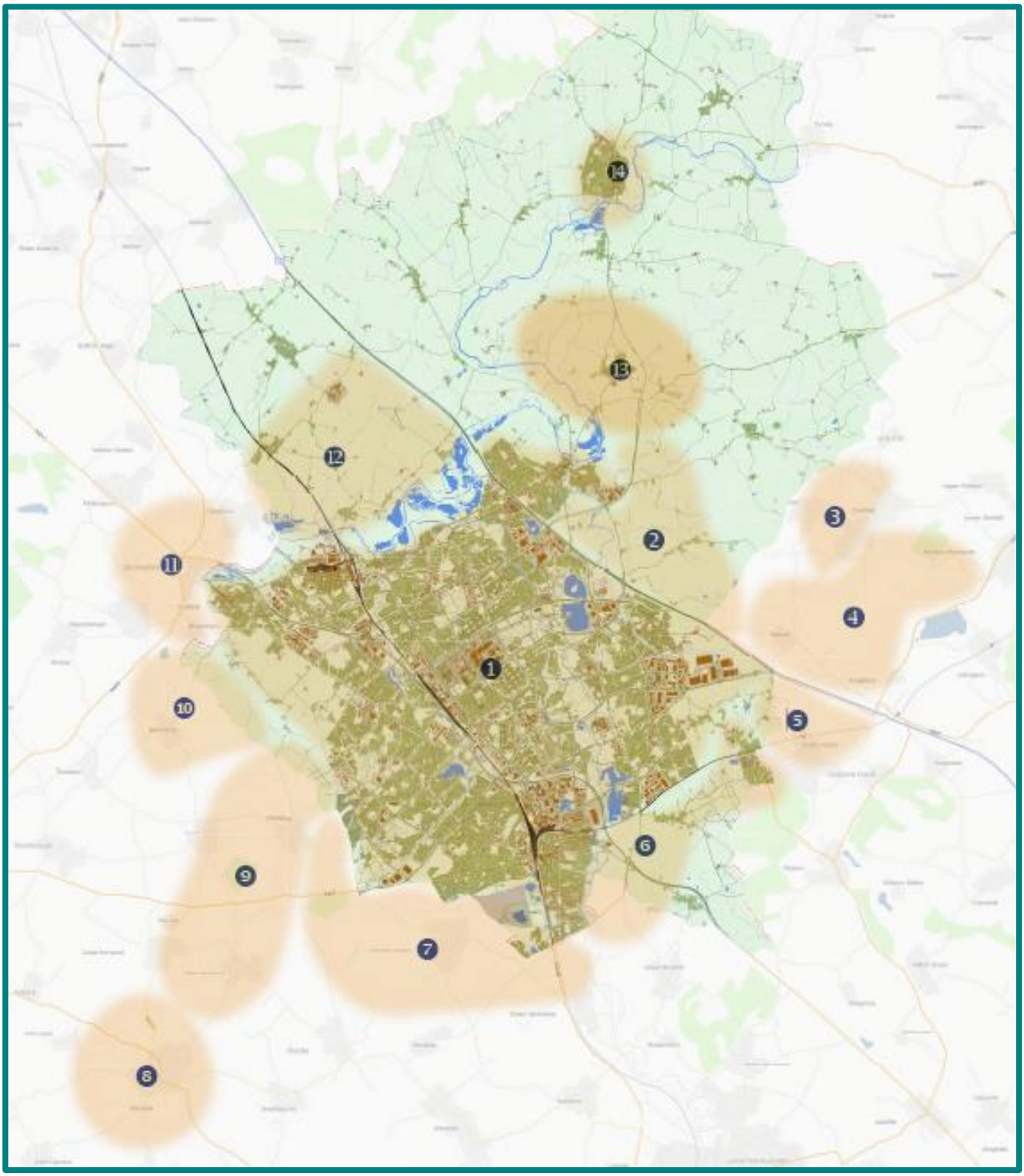
The assessment considers each of the 14 options in turn with a summary of the strengths and weaknesses of each option.

This assessment provides a link between the Strategy for 2050 and the first review of Plan:MK, insofar as it will provide the first opportunity for comments to be made on options/directions for growth beyond the existing commitments contained within Plan:MK and the proposed growth in Milton Keynes' neighbouring authorities.

The new Local Plan will cover the period to 2040 and will look to continue to deliver the long-term growth aspirations for Milton Keynes. It will be the first statutory planning document to embed the Strategy for 2050 within planning policy. As such the Strategy for 2050 will provide a key consideration for the new Local Plan in terms of its vision and objectives, development strategy and directions of growth.

Whilst the engagement on the Strategy for 2050 will not form part of a statutory Regulation 18 consultation for the purposes of plan making, it does form the first part of the engagement process for the new Local Plan and the comments received will be used by the Council's Development Plans Team in beginning to draw up a draft Plan for a full Regulation 18 consultation at a later date.

As part of the background evidence to support the Strategy for 2050, Milton Keynes Council has undertaken a high level assessment of 14 spatial options for potential directions of growth which could assist in delivering the Council's growth ambitions to house a population of 500,000 people within Milton Keynes Borough and the wider area by 2050.



In preparing the Strategy for 2050 and assessing these sites, ten principles were used as a way of thinking about how to achieve the best possible future for Milton Keynes in growing to a population of 500,000 people. The assessment tables reference these principles, and although it should be noted that the final draft Strategy for 2050 does not specifically state them, they are still relevant in reviewing the growth options.

1	**A commitment to inclusive growth** Metropolitan Milton Keynes becomes a place of around half a million people by 2050, through growth that benefits everyone in the city
2	**Build sustainability into everything the city does** We put sustainability at the centre of decisions, making sure we all take responsibility for the climate emergency.
3	**Connected growth and mobility** Plan for a pattern of growth which best connects with existing and new road and rail transport links and design communities at densities that help make shared and mass rapid transit services viable
4	**Mobility for all** Nobody should be at a disadvantage by not having access to a car. We will move from over-reliance on car-based travel to more walking, cycling, mass rapid transit and other shared, on-demand mobility.
5	**Economic growth that provides jobs for all** Provide work opportunities for all MK residents at different skill levels, including many in knowledge intensive businesses
6	**Provide a range of homes that work for everybody** Plan for a diverse range of types, sizes and tenures of homes for everyone who lives in Milton Keynes or wants to live here.
7	**Keep Milton Keynes green and beautiful** Value and maintain the greenness of Milton Keynes, with new areas of open space and water as part of new developments, helping to protect and promote biodiversity and manage flood risk
8	**Create better places and communities that work for everyone** New communities are designed to be more sustainable, walkable, healthy and inclusive for all residents and visitors, developed using transit-oriented development principles where people can meet their every-day needs nearby
9	**Build stronger centres** Create a stronger city centre in CMK and maximise opportunities at Bletchley to develop a complementary town centre, with both being vibrant locations for more workers, residents, students, shoppers and visitors
10	**Provide leadership and direction** Develop mechanisms that make sure growth is delivered in a coordinated, planned way, with strong local leadership which takes bold decisions and work in collaboration with partners.

Summary of key strengths and weaknesses of the Spatial Options

Direction of Growth Locations	Strengths/Opportunities	Weaknesses/Threats
1. Existing Urban Area	• Opportunities to revolutionise land use design and place making principles to promote healthy living, employment opportunities and sustainable public transport for all. • Higher density development will make more effective use of land. • Introduction of rapid transit presents an opportunity to reduce car usage freeing up existing car parking space for other uses. • A larger resident population in CMK supports intensification of uses and the vitality of the area. • Redevelopment of existing employment sites in Milton Keynes has potential for other uses including housing. • Regeneration of the older estates, especially if linked to new nodes for rapid transit could benefit both existing and new residents by increasing access to a wider range of facilities and services. • Bletchley is a potentially important hub for services and employment benefitting from its position on East-West rail and the West Coast Mainline. • Higher density developments across the urban area can create a critical mass to support public transport improvements, low-energy transport modes and to reduce overall car use. • Increasing the number of people in one location can also help to improve the viability and quantity of services and facilities.	• Risk that key stakeholders may not sign up to a new vision for growth. In CMK especially, there would need to be a balance between shorter term market objectives and longer term aspirations. • the New Town architecture and structural elements are held in strong regard – significant change to this, particularly in CMK may attract challenge. • Increasing density of development could potentially lead to increased congestion in the urban area if not mitigated by sustainable travel initiatives.
2. East of M1 toward Central Bedfordshire	• Potential to accommodate large scale growth – relatively unconstrained by environmental factors. • Excellent location on the national road network. • Attractive location for economic investment.	• M1 acts as a barrier to connections into Milton Keynes. • Impact of large scale growth on character and integrity of existing villages • Cross boundary development into Central

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	• Critical mass of population would support connections to rapid transit system and investment in infrastructure. • Growth at scale would support a wide range services and facilities making the eventual development relatively self-sufficient.	Bedfordshire Council area, requiring joint working and agreement which is a risk to its delivery.
3. East of the M1 South toward Cranfield	• Existing relationship between Cranfield University and Innovation Park and Milton Keynes. • New MK University further strengthens those links • Travel time to Central Milton Keynes is fairly short but would benefit significantly from increased connectivity through rapid transit. MRT. • Relatively unconstrained in environmental terms – important views to the Greensand Ridge should be retained. • Opportunity to extend and enhance strategic GI network.	• M1 acts as a barrier to connections into Milton Keynes. • Relatively poor road, bus and rail connections to Milton Keynes. • Limited capacity of existing social infrastructure to absorb large scale growth.
4. East MK toward Salford and Marston Moretaine	• Opportunity to deliver strategic GI linking Cranfield in the north to the new development at Marston Vale Villages to the south. • Large scale growth, if delivered with Spatial Option 3, could create a corridor to support rapid transit improving connections to Milton Keynes.	• Constrained by flood risk in the southern part of the Option area. • Sparsely populated, rural area would be sensitive to change as a result of large scale growth. • The ridge of higher ground to the south east of the area, including Brogborough Hill presents a potential constraint to both capacity and delivery of growth in this part of the option. • Relatively poor existing road, bus and rail connections to Milton Keynes. • M1 acts as a barrier to connections into Milton Keynes. • Very limited provision and capacity of existing social infrastructure to absorb large scale growth.

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5. Aspley Guise Triangle	• Benefits from proximity to rail stations on East West rail route. • Identified as a potential future growth area in emerging Central Beds Local Plan. • Potential to link into the rapid transit network and to Spatial Option 6 to create stronger east-west links across southern Milton Keynes, over the M1 and to the development area around Marston Vale. • Limited environmental constraints. • Area is already impacted by presence of strategic roads – the M1 and A421.	• The Option is in Central Bedfordshire Council area, requiring joint working and agreement which is a risk to its delivery. • May be impacted by the Expressway, creating uncertainty and a risk to timely delivery. • Potential flood risk close to the M1. •
6. Southern Border of MK	• Relatively unconstrained by flooding and other environmental factors. • The option area is well located with regard to strategic infrastructure scheme for East West Rail (EWR) and the potential Oxford-Cambridge Expressway. • Woburn Sands and Ridgmont are stations on East West Rail • Connection to rapid transit network provides opportunities for improve connectivity with Milton Keynes. • This direction also has the potential to provide a link or connection to the route of the Bedford to MK Waterway in Central Bedfordshire via new strategic green infrastructure.	• Development dependent on delivery of East West Rail and clarity as to the route for the Expressway, which represents an inherent uncertainty and risk to delivery of growth. • Connectivity across the railway line needs to be addressed, to ensure the area is well connected to the rest of Milton Keynes. • The majority of the Spatial Option is already committed to development although there are risks to its delivery particularly in respect of the final route for the Expressway (or decisions on the future of this road). • Wavendon and Woburn Sands are vulnerable to change from development through coalescence. Extensive development could impact the integrity of the Greensand Ridge and its peaceful character. • The lack of a natural boundary to this option area presents a risk of further linear growth in a southerly direction which would

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		impact villages such as Little Brickhill. • Protect views of the Greensand Ridge/ Brickhills.
7. South West MK toward Newton Longville	• If brought forward with Options 9 and 10, the area could achieve growth on a transformational scale. • Proximity to East West rail, the A421 and the growth corridor and the A4146 Stoke Hamond bypass offer excellent transportation links. • Opportunities to expand the Milton Keynes Rapid Transit to serve the area . • The Option could support a new East West Rail station south west of MK, linking rail services and a Park & Ride on the A421 with key destinations within the urban area. • Provides a Green Infrastructure opportunity connecting western and South Western Milton Keynes through a series of greenways along with the greenway/River Ouzel corridor through Central Milton Keynes. • Not heavily constrained by national or regional designations and doesn't suffer significant flooding apart from around the River Ouzel corridor.	• The Option requires cross boundary working with Aylesbury Vale and the new Bucks unitary - joint working and agreement carries a risk to its delivery. • A significant amount of land in this area is already committed with an existing planning permission and VALP site allocation for Salden Chase and the allocation of Shenley Park for some 1100 homes. • The A421 has a noise impact and would be a major consideration in the location of any potential development. • Constraints include views from Drayton Parslow and the Sand and Gravel safeguarding zone around Newton Longville.
8. Winslow Area	• The area has significant capacity for new growth where a strategic settlement scale development could unlock benefits for the existing area. • Growth at scale could deliver a strategic link road to the A421 to mitigate impacts to Winslow town centre and would also need to be aligned with significant public transportation and non-car mode infrastructure connections to the railway station and Milton Keynes, Buckingham and Aylesbury. • The Option, provides opportunities to link to the MK rapid transit	• The Option requires cross boundary working with Aylesbury Vale and the new Bucks unitary - joint working and agreement carries a risk to its delivery. • The character of the town and its surrounding villages should not be lost with any proposed growth. Growth would need to be centred to the north of the town where landscape sensitivities are not as significant. • The area around Winslow

Direction of Growth Locations	Strengths/Opportunities	Weaknesses/Threats
	network to reduce car usage and improve connectivity. • Growth should provide opportunities to reconnect missing GI links to existing and proposed development around south and south west Milton Keynes.	supports a broad range of habitat due to its grassland type. It is imperative to retain hedgerows in the area due to wildlife connectivity.
9. Extended Growth to SW of MK	• Delivering this area alongside Spatial Options 7 and 10, could deliver growth on a transformational scale, providing a wider sustainable transport network that connects at a local level and at a strategic level to East West rail. • Transformational growth opportunities would be enhanced by connecting to the Mk rapid transit system. • Not heavily constrained by national or regional designations and doesn't suffer significant flooding. • Large scale growth could unlock enhanced green infrastructure at a regional scale, positioning two new Whaddon Chase communities to connect growth SW of Milton Keynes with an effective rapid transit network.	• The Option requires cross boundary working with Aylesbury Vale and the new Bucks unitary - joint working and agreement carries a risk to its delivery. • The A421 is a source of noise and would be a major consideration in the location of any potential development. • The sensitive landscape character of Whaddon Chase is a significant constraint and needs to be treated as such. Development should not breach the Shenley Ridge which is a significant feature on the skyline when looking north-east from the Whaddon area. • The A421 will suffer from substantial delays in accommodating the proposed MKC and VALP growth going forward into the future without substantial infrastructure interventions such as the Bletchley Bypass and the dualling on the A421.
10. West MK toward Beachampton	• Growth here could extend the WEA. • Opportunities to enhance and extend MK Rapid Transit offer into this area could lead to transformational growth by providing the opportunity to enhance placemaking and the relationship between built up area and countryside. • Not heavily constrained by national	• The Option requires cross boundary working with Aylesbury Vale and the new Bucks unitary - joint working and agreement carries a risk to its delivery. • The sensitive landscape character of this option area is a significant constraint • Development would breach

Direction of Growth Locations	Strengths/Opportunities	Weaknesses/Threats
	or regional designations and does not suffer significant flooding.	the Shenley Ridge which is a significant feature on the skyline when looking north-east from the Whaddon area. Wholesale expansion over the Ridge has been resisted in the past as it would introduce urban development into the rural Whaddon Chase. Due to the slope, opportunities to screen or limit the impact of development on views from the west would be limited. • Development would require significant 'start up' infrastructure costs due to physical distance to main points of access and trunk roads. • Area is relatively remote from the rest of Milton Keynes and may require large investment into alternative transport modes from the start to assist with trip budget/traffic flow and congestion issues. • There are limited opportunities to contribute towards East West Rail or Expressway. • Significant part lies within both the Sand and Gravel Safeguarding and the Limestone Safeguarding area in the Milton Keynes Minerals Local Plan. This includes current operational sites.
11. North West toward South Northants	• Growth here could unlock the A5 Northern Gateway into MK, delivering access to the rapid transit system and delivering a new community at scale with new facilities, schools and transport connection points for park and rides in the MRT system.	• The Option requires cross boundary working with South Northants - joint working and agreement carries a risk to its delivery. • The eastern part of the Spatial Option around Cosgrove is particularly

Direction of Growth Locations	Strengths/Opportunities	Weaknesses/Threats
	• Redesign on the A5 at this point presents an opportunity to provide an effective long term north of MK for future transit based around the A5D strategic connection • Villages in this area could benefit from additional residents to sustain a critical mass of services in the future. Opportunities for growth to create new strategic GI links to connect to the existing corridors both into MK and out into Northamptonshire.	sensitive to new development. • Some risk of flooding would need to be addressed. • Risk that the aspirations for the area could be compromised by planned and piecemeal development in this part of South Northants.
12. North MK	• The Option area has the potential to deliver a significant scale of growth c upwards of 20,000 homes. • Such scale of growth would require strategic connections to the wider highway network – M1, A508/A5, A509 and A422;. • The Spatial Option is essentially severed from the Milton Keynes urban area by the floodplain of the River Great Ouse, and so the Growth Study acknowledges that it should only come forward if it delivers a significant range of infrastructure, which would require the prior development of a new delivery model. The area has potential as a new TOD, but there are significant risks as to its deliverability.	• Growth would require multiple strategic connections with the road network to adhere to the principle of inclusive mobility. • Bridging over the extensive flood plain of the River Great Ouse / Linford Lakes would require significant investment and there is a risk that it may not be acceptable in planning terms nor deliverable due to cost. • Also transport in the area does not relate well without a new M1 junction in the vicinity, a new development of this scale without external routes away from the city would add pressure to the local network as well as the existing junctions onto the national motorway network • The area has a number of potential constraints, including flood risk from the River Great Ouse in the south and the impact on landscape character, particularly around the existing settlements. • Given the scale of investment required to deliver the necessary infrastructure to serve

Direction of Growth Locations	Strengths/Opportunities	Weaknesses/Threats
		growth here, a new delivery model would be required which carries significant risk.
13. North East MK beyond Newport Pagnell	• Development in this area could be connected to a rapid transit link from Olney into Milton Keynes, creating a new growth corridor to the north east of Milton Keynes. • Growth could present an opportunity to create new landscape scale strategic GI links to the River Great Ouse corridor and the wider GI network.	• Due to the small scale of existing settlements in this area and the associated lack of physical and social infrastructure, large scale growth in this location would need to fund and deliver all of the necessary infrastructure. • The area is remote from the east-west growth axis to the south of Milton Keynes and has limited connectivity with the wider Milton Keynes area. • The area has no direct rail connections. • The area has strong landscape character, significant heritage assets and high sensitivity to development. As such, significant growth would result in irreversible change to its character.
14. Olney North of MK	• Locational advantage on the A509 between Wellingborough and MK, a key radial route into CMK. • Growth here is predicated on the delivery of a bypass for the town centre to relieve congestion and impact on air quality. • Development here could also increase connectivity with the rest of the borough enable easy and convenient movement for the area. • Extension of the MK rapid transit network to serve Olney would enhance opportunities for more sustainable modes of transport. • Given the existing Growth area could deliver new and enhanced green infrastructure improving links to the existing GI assets in the area (	• Development and associated traffic growth in this area has the potential to impact on the fabric and setting of Olney town and its heritage assets. • Flood risk associated with the River Great Ouse would limit the potential for growth to the south and east of Olney. • The western part of the Spatial Option which is at less risk from fluvial flooding is, however, highly sensitive to new development. Careful consideration will be needed as to the location, design and layout of any

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	(Emberton Country Park and the River Great Ouse corridor). • The existing town is a walkable, attractive place, where residents have access to a range of every day services and facilities as well as access to nature and opportunities for active lifestyles. Improved transport links, both for public transport and for rapid transit will enhance the opportunities for residents to access jobs and other services in Milton Keynes.	growth in this area

Spatial Option 1 Existing Milton Keynes Urban Area

The Spatial Option covers the whole of the existing urban area of Milton Keynes. The proposition in the MK 2050 Strategic Growth Study, 2019, is to take advantage of opportunities for intensification and regeneration within the urban area, ranging in scale from Central Milton Keynes and Bletchley, through district centres, redevelopment of existing employment sites to local centres and currently undeveloped reserve sites.

The Growth Study envisages the intensification of activities and higher density developments contributing significantly both to the delivery of the growth aspirations to 2050 and to the improvement of economic and social opportunities for existing residents, including healthy living and sustainable public transport for all.

Constraints Assessment (primarily based on evidence base for Plan:MK)	
Flood Risk	**SFRA 2015 –** the northern part of urban area adjoins/ includes the floodplain of the River Great Ouse; to the east, the corridor of the River Ouzel runs north to south, with the floodplain contained within the city's linear park system and skirting the eastern side of Bletchley – there are areas of flood zone 2 and 3b (functional floodplain). To the west of the urban area, the Loughton Brook includes areas of flood zone 3b. Milton Keynes was designed so that the majority of the functional and engineered floodplain is within linear parks. Since 1992 these have been managed by the Milton Keynes Parks Trust (MKPT), which has a 999 year lease on the land. As a result, there are few properties lying within Flood Zones 2 and 3 within the urban area of Milton Keynes. Areas where there are propertieswithin Flood Zones 2 or 3 include: • Newport Pagnell, where there are several properties in Flood Zone 2 and 3 upstream of the Ouzel - River Great Ouse confluence. • New Bradwell, where there are properties in Flood Zone 3 associated with the Great Ouse on Newport Rd. • Bletchley and Water Eaton, where there are properties in Flood Zone 2 or 3 for Water Eaton Brook in Bettina Grove, Frensham Drive and Larch Grove. • Isolated properties along the Ouzel including part of the Open University Campus at Walton Hall and Caldecotte Mill. • Stony Stratford, where there are properties in Flood Zone 3 on Ostlers Lane and Fegan's Court. Further properties in Mill Lane, the High Street, Magdalen Close and Willow Lane are in Flood Zone 2. • Tongwell where there are properties in Flood Zone 3 from Tongwell Brook The river corridors form an important amenity for Milton Keynes and are included in the parkland which is leased by the MK Parks Trust (MKPT) which has the rights and responsibilities of riparian owners and is charged with the care of the parkland. The MKPT manages some balancing lakes within the linear parks. **Surface Water Management Plan, 2016** – there are a number of watercourses

	that run through the urban area – Loughton Brook, Broughton Brook, Calverton Brook, Caldecotte Brook and Shenley Brook. The Plan identifies some 11 Critical Drainage Catchments (CDC) within Milton Keynes where flood risk is considered most severe and recommends a series of measure to mitigate risk for each CDC. ***Summary**: despite areas of functional floodplain affecting parts of the urban area, the balancing lakes and linear parks systems means that there are relatively few properties located within Flood Zones 2 and 3. A considerable part of the urban area is at risk from surface water flooding and any future growth proposals should have regard to the creation of Strategic Urban Drainage systems that ideally link into the wider balancing lakes network as well as to the mitigation measures identified for each CDC.*
Landscape Character	The Landscape Character Assessment and Landscape Sensitivity Study assess the rural landscape outside of the Milton Keynes urban area. The urban landscape is assessed in the Residential Characterisation Study, 2017 which aims to describe the character of residential areas within Milton Keynes and to use this evidence to help design future development. Whilst the defining characteristics of Milton Keynes include the grid road network, the separating of employment and residential uses, with employment spread around the settlement and strategic structuring elements such as the linear parks, these more strategic aspects of character are not covered in this Study which rather focusses at the local scale using a series of Character Types. The key structuring element of Milton Keynes is the grid road network which has resulted, in the main, in individual estates being disconnected from each other and not therefore having a relationship with each other. The different character typologies show that there is no one typical layout within Milton Keynes but rather that the new town has a “patchwork character” with many grid squares having their own unique character. ***Summary:** the Character Types in the Residential Characterisation Study provide guidance for the design and layout of future development. Consideration will, however, need to be given to whether the aspirations for intensification of development and activities in the urban area to 2050 can be accommodated within the existing character or whether, as the Study states, “The spirit and design ethos of the time in which a building is constructed should therefore be embraced as a part of this ongoing continuum of design evolution.”*
Heritage Assets	Milton Keynes is the last, largest and most ambitious of all the new towns in England. Its unique character contributes to its local, national and international significance, with many assets within the urban area having been awarded grade II listing by the Government and its advisors, Historic England, including: • The Shopping Building • Central Library • Former bus station (Elder Gate) • Houses at Cofferidge Close, Silver Street Stony Stratford, Octo • Octo (CMK)

	• 2MS Series No.1 sculpture (Bletchley). Milton Keynes Council is creating a MK New Town Heritage Register to identify all assets that contribute to the distinctive identity of Milton Keynes, with or without grade II listing. The Council's website provides a number of examples of New Town Heritage buildings including Station House, Lloyds Court and the Fred Roche Gardens in CMK; system employment buildings in Kiln Farm. There are a number of Scheduled Monuments, numerous listed buildings and some 14 Conservation Areas across the Spatial Option area, including Bletchley which is focussed on Bletchley Park. ***Summary:*** *There is significant heritage interest across the Spatial Option from the existing villages around which the city has grown to buildings that celebrate the New Town heritage. Meeting the aspirations for intensification of activities and development as part of delivering growth to 2050 will require careful consideration of these assets.*
Biodiversity ecology/ geology	There are two SSSIs in this area (Howe Park Wood and Oxley Mead). There are areas of ancient woodland at Linford and Stanton Wood, Shenley Wood and Howe Park Wood. Local Nature Reserves (LNRs) are designated by local authorities as habitats of local significance which contribute to both nature conservation and public appreciation and understanding of wildlife. There is one LNR in the Borough at present – at the Blue Lagoon, Bletchley. Wildlife Corridors in Milton Keynes are a specific designation to Milton Keynes and represent linear pathways of habitats that encourage movement of plants and animals between other important habitats. These are treated in the same way as Local Wildlife Sites in Milton Keynes. Three biodiversity opportunity areas about the boundaries of the Milton Keynes urban area – the Ouse Valley to the north; Greensand Ridge to the south west and Whaddon Chase to the west. Where development is located in or adjacent to a BOA, its design and layout, planning conditions and obligations will be used to secure biodiversity enhancement to help achieve the aims of that BOA. Milton Keynes City itself is defined as a Local Biodiversity Opportunity area likely in recognition of the linear park network, wildlife corridors and green and blue infrastructure that provide habitat and corridors for species movement. ***Summary:*** *due to the linear parks and associated lakes, parks and green spaces that are one of the key structuring elements of Milton Keynes, the area retains a considerable amount of biodiversity interest and assets.*
Green Infrastructure	As noted above, Milton Keynes was planned and developed with a network of GI integrated throughout the City. The creation of balancing lakes, provides city scale water management and areas of green space to act as flood risk buffers and form the basis of the linear parks. The linear park system creates an almost continuous network of urban parks, rural green spaces, river valleys, ancient

	woodlands and nature reserves around the city and provides flood management and leisure and recreation for the city's residents. The grid road corridors also have significant areas of green space along their routes, enabling movement of wildlife. The Mk Green Infrastructure Study, 2017, identifies the key components of the MK GI network as the linear parks, district parks, local parks and pocket parks; playing fields and outdoor sports facilities and the grid road corridors. The Study notes that "*24.6% of MK is urban –within this urban area around 13.2% of land cover falls within the publicly accessible GI network*." The Study identifies a number of landscape-scale strategic GI opportunity areas to be considered when planning for future growth. These opportunity areas surround the Milton Keynes urban area ad are intended to provide access to high quality greenspace and protect important historical assets. ***Summary:*** *the Spatial Option benefits from an extensive green and blue infrastructure network which is an important structural element to Milton Keynes. Whilst future growth to 2050 will need to balance aspirations for intensification of uses with the retention of the existing linear parks and green infrastructure, growth presents significant opportunities to extend and develop the strategic GI network both within new urban development but also out to surrounding strategic corridors.*
Soil and Agricultural Land Quality	With the exception of the linear parks and GI corridors, the majority of the Spatial Option is classed as predominantly urban land. development. ***Summary:*** *agricultural land quality is not an issue for this Option.*
Air Quality	There are no AQMAs within the MK urban area. The traditional design of the grid roads and estates provides separation of housing from the more highly trafficked roads and this together with the green corridors in which the grid roads sit, can reduce air pollution impacts on sensitive uses. The Air Quality Annual Status Report 2018 for Milton Keynes found that air quality objectives were achieved at all monitoring locations throughout Milton Keynes. The Report notes a slight downward trend in the annual mean nitrogen dioxide (NO2) and particulate matter (PM10) concentrations measured over the last 15 years at the Civic Offices in Central Milton Keynes automatic monitoring station and the Newport Pagnell monitoring station. The council's priorities for air quality improvements are to encourage the use of ultra-low emission vehicles (ULEVs), public transport and cycling and walking. ***Summary:*** *air quality within the Spatial Option meets air quality objectives, despite continued growth of the city and its surroundings. Greater use of ULEVs, public transport and future development of a rapid transit network would further reduce road traffic emissions.*
Transport	The Council's Transport Topic Paper, March 2018, supplements the Transport Modelling Evidence prepared for Plan:MK. The evidence shows the following key headline impacts arising from the cumulative effects of committed growth and the new growth proposed in

	Plan:MK with minimal mitigation: • Significant overall increase in traffic in the 2031 reference case, with greater jobs than housing growth fueling increases in car journeys from outside Milton Keynes to central Milton Keynes. • Worsening situation in both AM and PM peaks, with entry point links (A421, A5, A509, A422 and M1 junctions) generally more stressed alongside the internal central MK network due to the greater levels of in commuting. • The Plan:MK growth scenarios cause limited significant further impact on the network, other than links and junctions in close proximity to where this additional growth is located. Whilst the modelling work for Plan:MK provides a forecast of traffic conditions to 2031, it underplays or assumes little in terms of travel behaviour change due to a number of mitigating factors, including the application of the Mobility Strategy which was adopted in March 2018. The Mobility Strategy covers the period to 2036 but is informed by an outlook to 2050 and the expectation that Milton Keynes will have grown to a city of 400,000 people as per the Futures 2050 report. To support delivery of this growth the mobility strategy outlines an increased role for cycling, passenger transport/buses and technology in providing mobility for all, travel choices, an effective network with reduced impact on the environment, health and safety. Other mitigating elements include the potential impact of East-West Rail on rail mode share in Milton Keynes; the impact of demand responsive transport, shared mobility and reduced car ownership; and the 'built-in' resilience of the Milton Keynes road network and the comparatively good journey times currently experienced in Milton Keynes. Overall, whilst new road capacity will be needed as Milton Keynes grows and the network will be under more pressure in future years, the network has the capacity to absorb the demand and will benefit from future efforts to achieve modal shift and operate an effective park and ride system. The Council's Written Statement on Infrastructure and Viability for Plan:MK examination identifies the main transport challenges for Milton Keynes as including further significant growth in population, jobs and in-commuting; current modal share dominated by single occupancy car use, with low levels of cycling, walking and public transport; declining bus patronage and the lowest bus satisfaction level of authorities who are measured and the need for reliable journey times for all modes of transport in order for Milton Keynes to remain economically competitive. To accommodate this growth in travel demand and respond to the challenges faced, the mitigating elements described above will apply and the Written Statement notes that the city needs to:- • Stabilise average journey times and ensure they remain competitive while promoting the development of smart shared sustainable mobility for all; • Provide a fully integrated and accessible public transport system - "Mobility as a Service" (MaaS). • Develop and promote a 'First Last Mile' culture for future technologies

	such as autonomous and connected vehicles and sustainable connectivity. • Ensure transport infrastructure is configured to enable the city's future development and growth in travel demand to be accommodated based on the council's 'First Last Mile' Strategy. The MK Futures 2050 Commission report (MK/MIS/001) defines a long term vision for the city. The report identifies the need for 'Smart, Shared, Sustainable Mobility' to support future growth of the city's population; working on how transformational growth could be delivered based on high density development along rapid public transit corridors. Initiatives include shared use vehicles (such as autonomous pods, electric car share, and demand responsive services), direct commuter cycle network linking rail stations and Central Milton Keynes (CMK), and bus interchange and park & ride transport hubs. The MK 2050 Strategic Growth Study, 2019 proposes Central Milton Keynes (CMK) as a good location for future growth at scale, providing a significant opportunity for it to act as the focal point for a city-wide rapid transit network. Given the stress that the network likely to experience based on the findings of the transport modelling for Plan:MK, a significant shift to a rapid transit or sustainable public transport system for all will be a key requirement to making future growth at scale work, and enabling an intensification of economic, leisure and retail activities there. *Summary: the modelling undertaken for Plan:MK shows increasing stress on the road network as a result of planned growth and the increase in jobs over housing growth, resulting in in-commuting from surrounding areas. There will be new road capacity and mitigation measures to meet the needs of the Plan:MK growth together with a move towards modal shift interventions both during the plan period and to 2050. Growth to 2050 will ideally be supported by the development of the 'Smart, Shared Sustainable Mobility' approach, creating a rapid transit network across the MK urban area and out to surrounding settlements.*
General Infrastructure Capacity	**Sewerage and Wastewater Treatment**: **Water Cycle Study** - the majority of growth within the urban area would be treated at the Cotton Valley Water Recycling Centre (WRC), with some being treated at the Newport Pagnell WRC. The scale of growth in Plan:MK for the WRC catchments was assessed, with significant growth being defined as the quantity of the development within a WRC catchment which would be equal to or greater than 10% of the current permitted Dry Weather Flow (DWF) consent. This is due to certain WRCs discharge permits having flow headroom capacity, but if operated to their full permitted discharge volumes (i.e. all permitted headroom is used up by growth), there is a high risk of significant deterioration in water quality and potentially deterioration in WFD status. Cotton Valley is one of three WRCs identified as having headroom but receiving significant growth and was subject to a Water Quality Assessment in the Study. Upgrades to the Cotton Valley WRC infrastructure would be required to meet revised water quality standards - the Study recommends that Environment Agency and AWS should plan work to determine the exact requirements of the future discharge permit and the specific treatment upgrades that would need to be applied in order to ensure

provision is made by Anglian Water for the necessary upgrades.

Social Infrastructure:

Health: The Council's Written Statement on Infrastructure and Viability for the Plan:MK examination states that Milton Keynes forms part of the NHS Bedfordshire/Luton/MK Sustainable Transformation Plan (STP) area and the work done by the STP bodies (which includes MKC) will result in the submission of investment proposals for transforming services across the area to the Department of Health in the summer 2018. Within Milton Keynes this is likely to seek the provision of new Hubs, bringing together services for the North, Central and South areas of the urban area. In the interim, the Council has led on the delivery of new large scale health centres for the Eastern and Western Expansion areas which will provide 45,000 new patient places dealing with demand from the expansion areas and providing some additional capacity to alleviate pressures on existing facilities.

The Council's HIF bid for the MK East strategic allocation will provide a further large scale health centre in this location. The MK University Hospital also has a recently opened Academic Centre and a well-established Estates Strategy aimed at the continuous improvement and expansion of services. The hospital site has capacity for continued development up to 2031.

Education: the MKC School Place Planning Review, 2019 notes that, as a result of significant demographic growth, and despite substantial capital investment there remains a projected shortage of school place provision in a number of areas across the borough, particularly in the secondary sector. The borough is broken down into areas, with the Spatial Option falling within parts of each area. Across the borough as a whole there are:

- 29 infant schools
- 11 junior Schools
- 50 primary schools
- 11 secondary schools, all but one are located within the MK urban area
- 2 all-though school
- 6 special school and
- 2 alternative education provision facilities.

***Summary**: In terms of wastewater, an increase in residential and employment growth will have a corresponding increase in the volume and flow of wastewater generated within the Borough and hence it will be essential to consider infrastructure and environmental capacity. New WRC infrastructure will be required to meet the growth in Plan:MK, and further significant growth in the urban area to 2050 will need to be assessed for its impact on water quality and the capacity of the WRC.*

With regards to Health and Education, provision is being made to deliver new infrastructure to meet he current planned needs in Plan:MK, further capacity will be required as the population grows with additional significant growth in this area up to 2050.

National/ sub-national infrastructure drivers and projects	
Oxford-Cambridge Growth Arc (the Arc)	General context: Milton Keynes Council is committed to realising the city's potential as the hub of the Cambridge-Milton Keynes-Oxford growth corridor, responding positively to the aspirations of the Council's MK Futures 2050 programme, the Council Plan 2016-2020 and the NIC Report 'Partnering for Prosperity', to expand the City to a population of approximately 500,000 people by 2050. Milton Keynes Council's Strategy for 2050 will provide a framework for how the aspirational levels of growth supported by the Council should be delivered, to be translated into future reviews of the Local Plan. Policy DS0 in Plan:MK therefore commits to an early review with the intention that a draft plan containing strategic policies will be submitted to Government for examination no later than the end of 2022.
East-West Rail	1. The proposed East West Rail scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects. 3. Ensure that strategic infrastructure, including new elements of East West Rail are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The MK 2050 Strategic Growth Study identifies Bletchley as an area with excellent potential future connectivity, with its existing rail station on the West Coast Mainline, providing national north-south connectivity; a proposed stop on East West Rail , delivering regional east-west connectivity and a potential key node on a MK rapid transit network. These connectivity benefits provide a strong basis for a comprehensive redevelopment and regeneration approach to development in Bletchley to 2050. Further growth in Central Milton Keynes and elsewhere across the urban area would benefit from connections to East West Rail – the Milton Keynes Central rail station on the West Coast Mainline is one stop away from Bletchley, but the delivery of a rapid transit network across the urban area would significantly enhance connectivity to the wider rail network.
Expressway	1. The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS

	2) and be complete by 2030 3) Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The preferred corridor within which a route for the Expressway is to be identified skirts the southern part of the Spatial Option area.

Local Growth Allocations & Settlement Hierarchy	

Plan:MK, 2019	The spatial strategy focusses housing development within, or adjacent to the
	
	existing urban area of Milton Keynes. This approach supports the approach of the MK2050 Commission report to see future development initially focused on, and adjacent to the existing urban area, whilst taking account of the potential future opportunities provided by the completion of East-West Rail and the new Cambridge-Milton Keynes-Oxford growth corridor. Plan:MK provides some smaller to medium sized sites within the existing urban area to give flexibility in the housing supply and reduces the need to rely on the delivery of large strategic sites in the earlier years of the plan period.
	
	Plan:MK focusses growth on the following areas:
	
	• Strategic Developments Within the Existing Urban Area: completion of existing city grid squares, the Eastern and Western Expansion Areas and the Strategic Land Allocation.
	• CMK: some 3,535 dwellings in CMK and Campbell Park residential area, in addition to the c1,025 dwellings which are already committed.
	• Land at Eaton Leys is allocated and has outline permission for up to 600 dwellings and associated facilities.
	• South East Milton Keynes: there is available and deliverable land
	• to the south-east of the existing urban area around the settlements of Wavendon, Woburn Sands and Bow Brickhill. This area is, however, affected by the Expressway and East-West Rail proposals, the land requirements for which are not yet finalized.
	• Urban Infill: comprising
	  ○ Small sites: Plan:MK allocates a number of small to medium sized non-strategic sites for housing development, within the existing urban area.
	  ○ Regeneration: additional homes may be provided through the regeneration of the seven priority areas under the Council's Regeneration Programme, led by Your:MK. Similarly, some regeneration opportunities may come forward around the older centres of Wolverton and Bletchley.
	  ○ Brownfield Sites: A number of very small sites on the Brownfield register can be expected to come forward as small housing sites.
	
	Settlement Hierarchy: the existing urban area of Milton Keynes City is Tier 1 in the Hierarchy. Tier 2 , Key Settlements include Newport Pagnell. Tier 3 is

	villages and rural settlements outside of this Spatial Option area.
VALP	N/A
Central Beds Local Plan	N/A
South Northants Local Plan	N/A
MKC Minerals Local Plan, 2017	N/A
Northamtonshire Minerals & Waste LP, update 2017	N/A
MKC Site Allocations Plan, 2018	The Plan allocates15 small and medium-sized sites, providing approximately 995 homes, throughout the Milton Keynes urban area.
Neighbourhood Plans	There are a number of neighbourhood plans across the Spatial Option area, including the Central Milton Keynes Business Neighbourhood Plan. It can be expected that a number of these plan will be updated and reviewed over the coming years as the parish and town council respond to the new policy framework provided by Plan:Mk and changing national policy and guidance.

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth

Principle 1: A commitment to inclusive growth

Intensification and regeneration within the Milton Keynes urban area will create opportunities for a transformational scale of growth capable of benefitting existing residents socially and economically. Intensifying activity will bring more vibrancy and mix of uses to the urban area although increasing densities of development the intensification of activities could impact on elements of the original city design and structure which could lead to resistance from parts of the community.

Principle 2: Build sustainability into everything the city does

Intensification of activities and higher densities with a greater mix of uses would create a greater critical mass to strongly support a move to a rapid transit network, with the existing hubs of CMK, Bletchley and the district and local centres providing ease of access to more sustainable modes of travel and significantly reducing car-borne journeys.

Principle 3: Connected Growth and Mobility

As noted above, Bletchley with its existing rail station on the West Coast Mainline, providing national north-south connectivity; a proposed stop on East West Rail , delivering regional east-west connectivity and a potential key node on a MK rapid transit network has a strong basis for a

comprehensive redevelopment and regeneration approach to development to 2050. Further growth in Central Milton Keynes and elsewhere across the urban area would benefit from connections to East West Rail – the Milton Keynes Central rail station on the West Coast Mainline is one stop away from Bletchley, but the delivery of a rapid transit network across the urban area would significantly enhance connectivity to the wider rail network.

Principle 4: Mobility for All

Growth across the Spatial Option area would need to be at a significant scale in order to deliver the critical mass of population to support the development of a rapid transit network, but Intensification of activities and higher densities with a greater mix of uses at key transport hubs across the city would provide ease of access to more sustainable modes of travel to benefit all.

Principle 5: Economic growth that provides jobs for all

Employment growth at Bletchley and CMK in particular offer great opportunities for a wider range of job opportunities for all. At Bletchley, its unique rail connectivity and links to the future rapid transit network will increase its desirability for economic investment. In CMK, new employment growth will be coupled with the upgrading and redevelopment of existing office stock to increase the concentration of jobs as well. Jobs growth here will be supported by an increased residential population.

Principle 6: Provide a range of homes that work for everybody

The critical mass that development of this Spatial Option could bring means that new development in this area would increase opportunities for access to affordable homes to meet the needs of a broad sector of the population. The urban area is comprised of a range of estates with different characters and facilities providing choice for new residents, from first time buyers, families to elderly. The critical mass would also support infrastructure provision in support of new residential communities.

Principle 7: Keep Milton Keynes Green and Beautiful

Growth will need to respect and seize opportunities to extend the existing strategic GI network created by the linear parks. Limited development would, in any event, be possible in the linear park network due to their following the river corridors and floodplains. New development should continue to deliver local scale GI and to link these areas to the wider large scale networks. Intensification of activities may mean the loss of some areas of existing open space but should provide investment to improve the quality and accessibility of others.

Principle 8: Create better places and communities that work for everyone

Intensification and regeneration across the Milton Keynes urban area has the potential to create better places that benefit existing residents as well as new but delivering new sustainable transport measures and greater access to jobs, homes and retail and leisure activities. There are opportunities to deliver improvements to people's health and wellbeing, through improved connectivity to facilities, particularly by rapid transit and access to open space and GI by creating new green links and corridors.

In CMK, in particular, however, achieving this will require the market and existing residents to accept a new approach to growth here as well as the ability of the Council to intervene in and lead the delivery of the new approach. Future growth across the area is likely to require infrastructure to be provided in tandem with new residential development in order to ensure that the new

communities have access to a wide choice of facilities and services within walking or cycling distance without increasing stress on existing services and facilities.

Principle 9: Build stronger centres

Large scale growth in CMK provides opportunities to increase what is currently a relatively small resident population, providing more activity and a greater pool of labour to support further economic growth. Redevelopment of the existing outdated office stock and the brining into us of existing vacant and underused land provides significant investment opportunities for economic growth, especially if supported by a new rapid transit network. Improving alterative travel modes to the car will reduce the need to car parking, allowing this land to be used for other purposes that can enhance the city centre's attractiveness and vibrancy.

Principle 10: Provide leadership and direction - Not applicable to this option

Conclusions

The Spatial Option area benefits from the key structuring elements that make Milton Keynes what it is today, the grid roads and linear parks in particular providing the framework within which the city has grown. The network of linear parks and balancing lakes mean that the area is relatively well protected from flood risk, but it is vital that future growth maintains and provides new strategic urban drainage systems to continue this successful approach.

intensification of activities and higher density developments across the urban area will contribute significantly both to the delivery of the growth aspirations to 2050 and to the improvement of economic and social opportunities for existing residents, including healthy living and sustainable public transport for all. Changes to the character and 'new town' elements as a result of growth may attract criticism and resistance and will require a careful and planned approach to engagement to 'sell' the benefits of change.

A larger population size in key locations and across the existing city as a whole will provide a critical mass to support the delivery of a comprehensive rapid transit network for Milton Keynes which can provide a sustainable travel network, delivering mobility for all and improving connections to wider national and regional routes including the Expressway and East-West Rail. It will be important for the delivery of a rapid transit system to accompany major growth to 2050, otherwise traffic and congestion will increase in the short term reducing accessibility and impacting on the area's attractiveness for economic investment.

Spatial Option 2 East of the M1 toward Central Bedfordshire

This area includes the strategic urban extension, Milton Keynes East, allocated in Plan:MK for a mixed new residential and employment development to meet the long term needs of Milton Keynes. The site is allocated for c 5,000 new homes, at least 1,475 to be delivered up to 2031. Development is predicated on the delivery of new strategic infrastructure and the policy seeks the safeguarding of land for a mass rapid transit system to deliver connectivity to CMK and other key destinations.

The Spatial Option covers a wider area than the Plan:MK allocation, extending into Central Bedfordshire to the south east. This south eastern part of the Option falls within the area identified for a new Transit Oriented Community in the MK 2050 Strategic Growth Study,, 2019, which identifies a wider growth area between the M1 and Cranfield connected to the Milton Keynes urban area primarily by rapid transit.

Constraints Assessment (primarily based on evidence base for Plan:MK)	
Flood Risk	**SFRA 2015 -** The Milton Keynes East strategic allocation is significantly constrained by the River Ouzel, which flows through the centre of the site and results in the area falling within flood Zone 2 and 3 (along the course of the river). However, land impacted by flood zones is not proposed for development in Plan:MK, and is, instead to be retained as open space flood plain and, as per the existing linear park land within Milton Keynes, will form part of a strategic, integrated approach to managing flood risk on the site. Whilst the development of the site allocation will include new roads crossing the River Ouzel floodplain, suitable design and mitigation including clear spans, flood relief culverts and associated earthworks means that the roads would not impede flood flow or increase flood levels within the flood plain. **Surface Water Management Plan, 2016**: the plan defines a Critical Drainage Catchment (CDC) for Newport Pagnell immediately to the north east of the Spatial Option. Although outside the CDC, the River Ouzel floodplain through the Option area is shown to be of medium to low risk of surface water flooding, although, as noted above, this is to be mitigated by keeping this area free from built development. ***Summary:*** *the Spatial Option is constrained by fluvial and surface water flooding although this has already been taken into account in the design and layout of the Plan:MK allocation.*
Landscape Character	**Milton Keynes Landscape Character Assessment, 2016** classifies the landscape of the borough into Landscape Character Types (LCTs) and Landscape Character Area (LCAs), where LCAs are a subdivision of the LCT. This spatial option falls within LCT 2, River Valley and specifically LCA2d, the Ouzel South Urban River Valley; it borders LCT 4 Clay Lowland Farmland, specifically LCA 4a Broughton to Tickford Clay Lowland Farmland. **Key characteristics of LCT2** include: areas of pasture close to the river; open

	field patterns with ditches and wire fences; limited access to the river in rural areas and few crossing points; the river is inconspicuous within the landscape, marked only by scattered trees; tranquil character. **LCA2d** consists of a triangle of land between the A509, M1 and Newport Pagnell centred on the River Ouzel floodplain which is mostly within the Ouse Valley Linear Park. The area is dominated by major roads including the M1, the A422 dual carriageway and the A509. Due to the M1 there is fragmented access despite its proximity to urban areas. Distinctive features include Caldecote Mill and the deserted medieval village and moated site at Caldecote Farm. The area between Willen Road and the M1 is identified in the Minerals Local Plan and is currently in use as a sand and gravel extraction site. **Landscape condition**: moderate as a result of widespread land cover change due to development on the edge of Milton Keynes and major roads (M1, A422 and A509) that has disrupted the valley landscape. As the majority of the area is in floodplain there is little built development in the area which is bounded by the M1 to the southwest, Newport Pagnell to the north and the A509 to the east effectively disconnecting it from the surrounding landscape. **Development considerations** include preventing development in the floodplain and, in management terms, promoting continued management and enhancement of the Ouzel corridor and access from adjacent urban areas. **Key characteristics of LCT4 include:** mixed arable, pasture and recreational land uses; large scale arable fields with overgrown hedges and smaller areas of pasture for horses and stabling; limited woodland cover; conifer shelterbelts; dominated by major transport routes; scattered villages with a mix of characters; gravel, sand and clay workings and restoration; extensive and open views to the clay plateau, wooded Greensand Ridge and towards Milton Keynes **LCA4a** lies to the east of Milton Keynes north of the M1 and forms the lower slopes of the Clay Plateau Farmland. It contains large arable fields and small isolated woodland copses. The M1 corridor runs along its southern boundary beyond which is the on-going development within the Eastern Expansion Area of Milton Keynes. The LCA has extensive views to the clay plateau to the east. Settlement is limited to isolated farms. **Landscape condition**: moderate due to the influence of the M1 to the south, and a field pattern that has fragmented as a result of amalgamation. Woodland and tree cover is sparse and age structure generally restricted to mature or young trees. There are few semi-natural habitats in the area. The M1 appears to provide a boundary to built development in the south and as a result there is little new built development in the area. **Development considerations** include ensuring that earthworks adjacent to the M1 corridor are designed and planted to effectively screen residential

	properties but also ensure that the profiles are shaped and planted to harmonise with the local landscape character as seen from within the city and from the rural areas east of the M1, and ensure that the M1 Ridge (noise bund) matures into a strong, tree covered landscape feature. **A Landscape Sensitivity Study to Residential Development in MK and adjoining areas** was published in October 2016 which assessed 30 areas for their capacity to absorb new residential development. the MK East strategic allocation falls within Areas 4, 5 and 6. Areas 4 and 6 are appraised as having low sensitivity and capable of accommodating residential without affecting key characteristics and/or values in this landscape. Whilst Area 5 is appraised as having medium sensitivity, the study concludes that "*The more open landscape on the lower slopes of the Ouzel valley, in proximity to the A509 London Road and the North Crawley Road are less sensitive to residential development*." The lower slopes referred to coincide with where development within the MK East would occur. ***Summary:*** *the landscape character of the area has a low to medium sensitivity to change and new development and should be able to accommodate further growth over and above that already allocated in Plan:MK*
Heritage Assets	Within the MK East site there is one designated heritage asset, the Grade II Listed Coach House Hotel (formerly Moulsoe Buildings Farmhouse). There are a number of Archaeological Notification Sites within the western part of the site. There is a collection of 11 Listed Buildings within Moulsoe, including the Grade 1 Listed Church of St Mary. There is also the Grade II Listed Tickford Park Farmhouse which sits east of the site allocation and north ofMoulsoe. Further afield is a collection of five Listed Buildings west of the M1 in Willen (including the Grade I Listed Church of St Mary Magdelene) and three Listed Buildings in Broughton (including the Grade I Listed Church of St Lawrence). ***Summary:*** *there are a number or heritage assets across the area, predominantly listed buildings within the existing settlements. Regard should be had to the setting of these assets in any further development.*
Biodiversity ecology/ geology	The MK East site includes the Wildlife Corridors associated with the 'wet corridor' of the River Ouzel running south north through it and the 'road corridor' associated with the M1. The site also includes the Biological Notification Site 'Wood south of Wepener', the designation of which indicates there may be the presence of certain habitats and species to warrant designation as a Local Wildlife Site subject to a more detailedassessment. To the north east of the Spatial Option area lie areas of Ancient Woodland to the east of Moulsoe (Moulsoe Old Wood and Lower Wood). Moulsoe Old Wood is also a Biological Notification Area. The Spatial Option area does not contain any sites internationally designated for nature conversation purposes. There are no SSSIs within the area designated for geodiversity, nor are there any Regionally Important Geological

	Sites (RIGS). ***Summary:*** *the biodiversity assets of the area within the MK East strategic allocation are already being planned for. Other assets are limited and on the basis of current evidence, it is considered that the ecological assets and constraints are capable of being accommodated in line with the mitigation hierarchy set out in Plan:MK policies in such a way as to result in a net gain to biodiversity.*
Green Infrastructure	The Milton Keynes Green infrastructure Strategy, 2018, notes the route of the River Ouzel through the MK East urban extension and seeks the protection of the river corridor in order to provide a buffer from flood risk and use green space to reduce the risk of pollutant run off into the river. The Ouzel corridor is also identified as one of the opportunities to connect missing links, providing an opportunity to further extend the Linear Park network outwards from Milton Keynes ingot the wider countryside. ***Summary:*** *the Spatial Option location presents a significant opportunity to extend and enhance the existing strategic green infrastructure network , particularly in terms of improving connections to Milton Keynes.*
Soil and Agricultural Land Quality	The majority of agricultural land around the edge of Milton Keynes is classified as grade 3, there is evidence (Plan:MK Sustainability Appraisal 2017) that some of the land in the Spatial Option falls within the Best and Most Versatile (BMV) classification. ***Summary:*** *whilst BMV land needs to be recognised, the lack of survey data means that classification of agricultural land is not robust. This is unlikely to be a factor preventing development in this option area.*
Air Quality	There is a risk of air pollution from the Pineham sewage works to the south and noise pollution from the M1 motorway. ***Summary:*** *the design of MK East has had regard to the 'plume' from the Pineham sewage works and seeks to locate sensitive uses away from the area likely to be affected by odour.*
Transport	The transport modelling undertaken for the preparation of Plan:MK considered the cumulative effects of existing committed growth and that planned in Plan:MK. It showed a significant increase in traffic, particularly car journeys from outside Milton Keynes to central Milton Keynes as a result of the borough growing more jobs than housing. Particularly relevant to the spatial option, it found a worsening situation in both AM and PM peaks, with entry point links (A421, A5, A509, A422 and M1 junctions) generally more stressed alongside the internal central MK network due to the greater levels of in commuting. The MK East allocation was tested in the MK Multi Modal Model against two growth scenarios - 3,000 dwellings (Scenario 2) and 5,000 dwellings (Scenario 2b) alongside the creation of 6,330 jobs. These two scenarios included mitigation in the form a new vehicular bridge crossing over the M1 and a network of distributor roads throughout the site that would alter the current pattern of routes immediately east of the M1. Congestion and delay at

	Junction 14 of the M1 worsened under both scenarios over and above that occurring under the Reference Case 2031, but the mitigation measures would accommodate the majority of additional movements across the M1. The Council has since undertaken further modelling in support of its Housing Infrastructure Fund bid (HIF bid) to test different interventions that aid connectivity across the M1 and relieve congestion on the network to acceptable levels. This modelling has also informed the layout of the allocation represented in the emerging Milton Keynes East Development Framework SPD. At this stage a new dual carriageway link across the M1 is the favoured intervention, alongside other changes to road network and a package of smaller mitigation measures to improve the existing road network. Further modelling will be carried out to test interventions in more detail. There is the potential to support delivery of a fast mass-transit system connecting CMK and Cranfield University. Also, the scale of growth allocated at MK East should deliver mixed communities, including shops, services/facilities and employment, in addition to housing, leading to a degree of self containment. In terms of minimizing car dependency, however, growth to the East of the M1 is less than ideal due to its distance from CMK, and the barriers to movement (the M1), however interventions associated with the allocation of Milton Keynes East would seek to improve connectivity and travel times by public transport and other modes between this area and CMK. The MK 2050 Strategic Growth Study, 2019, identifies the Spatial Option area as providing an opportunity to complete the Mk grid, using the existing grid road crossings of the M1. The Study recommends that the proposed new M1 crossing should be designed at the outset to provide dedicated Rapid Transit links as part of the grid corridor, with a proposed new Park and Ride on the A509. Much of these recommendations are reflected in the emerging Milton Keynes East Development Framework SPD. ***Summary:*** *mitigation measures to be delivered alongside Mk East (including a HIF bid for new infrastructure including a new crossing of the M1) would accommodate the majority of movements across the motorway. Further growth would benefit from improved connectivity from links to a Milton Keynes rapid transit network.*
General Infrastructure Capacity	**Water Cycle Study, 2017**: the Newport Pagnell London Road Water Recycling Centre (WRC) lies immediately to the north of the Option area and the Cotton Valley WRC to the south west over the M1. MKC and Anglian Water have agreed that the Mk East development will drain to Cotton Valley WRC when due to the limited capacity within the smaller WRCs. The Water Cycle Study (2017) establishes that Cotton Valley has headroom capacity, but to a limited extent. The conclusion is reached that, in order to ensure that the use of available permitted headroom does not impact on downstream water quality objectives (ammonia, BOD and phosphate are key considerations), changes to the quality permit are required, and upgrades may be required, which may have phasing implications. Water Supply Strategy - based on the level of growth in Plan:MK, the WCS

	concluded that, there would be adequate water resources to cater for growth over the plan period. However, it has identified long term limitations on further abstraction from the raw water resources supplying the Borough. It will therefore be necessary to manage water demand from all new development in order to achieve long term sustainability in terms of water resources. In the **School Place Planning Forward View, 2019** , this spatial option falls within the North planning area which covers the rural part of the borough to the north east of the M1. There are currently no primary or secondary schools within the spatial option area although the MK East strategic allocation is required to deliver schools to meet the demand from new residents. Depending on the scale of further growth there would likely be a need to provide additional school provision. **Health:** The nearest GP surgeries to this area are in Newport Pagnell, although, as for schools above, the strategic allocation in Plan:MK is likely to deliver new healthcare facilities capable to serving both the new development end existing residents. ***Summary:*** *The scale of the MK East strategic allocation in Plan:MK is such that it has the potential to enable the delivery of strategic physical and social infrastructure (including secondary education and health facilities) to serve the needs of the new community and potentially the wider area. Future growth in this location would provide an opportunity to deliver further infrastructure to enhance the area's sustainability, whilst also seeking to minimize car dependency through the development of a rapid transit network connecting residents to jobs and facilities in Milton Keynes and Cranfield.*

National/ sub-national infrastructure drivers and projects	
Oxford-Cambridge Growth Arc (the Arc)	**General context:** Milton Keynes Council is committed to realising the city's potential as the hub of the Cambridge-Milton Keynes-Oxford growth corridor, responding positively to the aspirations of the Council's MK Futures 2050 programme, the Council Plan 2016-2020 and the NIC Report 'Partnering for Prosperity', to expand the City to a population of approximately 500,000 people by 2050. Milton Keynes Council's Strategy for 2050 will provide a framework for how the aspirational levels of growth supported by the Council should be delivered, to be translated into future reviews of the Local Plan. Policy DS0 in Plan:MK therefore commits to an early review with the intention that a draft plan containing strategic policies will be submitted to Government for examination no later than the end of 2022.
East-West Rail	1. The proposed East West Rail scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term.

	2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects. 3. Ensure that strategic infrastructure, including new elements of East West Rail are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. Whilst East West Rail and the Expressway will not unlock development at MK East, the site is well placed within the Arc to deliver transformational growth around Milton Keynes. The spatial option area is not connected to East-West Rail, however, the delivery of a rapid transit network connecting this area to Milton Keynes would enable quick and efficient connections to railway stations at MK and Bletchley.
Expressway	1. The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030 3. Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The spatial option area is outside of the preferred corridor within which a route for the Expressway is to be identified. Despite the opportunity to develop rapid transit connections, the Expressway would be likely to be a significant attractor for car borne journeys which increase pressure on the links over the M1 or on rural roads to the south.

Local Growth Allocations	
Plan:MK, 2019	Policy SD12 in the adopted Plan:MK, 2019 allocates part of the option area for a strategic urban extension, for around 5,000 dwellings and employment floorspace. Delivery of the development is dependent on the funding and delivery of the strategic infrastructure required to make the site deliverable. **Settlement Hierarchy:** Moulsoe is a Tier 3 settlement in the Plan:MK settlement hierarchy – a village where development will come forward either via neighbourhood plans or be limited to infilling.

VALP	N/A
Central Beds Local Plan	N/A
South Northants Local Plan	Part 1 plan, West Northants Joint Core Strategy, adopted 2014. JCS review underway, consultation on Issues in Oct 2019 including a call for sites. Development is currently focussed on the main towns of Northampton, Brackley, Daventry and Towcester. Part 2 plan for S Northants, the Inspector's report is awaited. No additional significant development allocated close to the boundary with Milton Keynes
MKC Minerals Local Plan, 2017	The River Ouzel corridor which runs through the allocated SUE, is identified as a Primary Minerals focus Area (the River Great Ouse (West [upstream] of River Ousel), River Ousel Geology: Sub-alluvial river terrace). The Minerals Local Plan notes an existing commitment for sand and gravel extraction at Land south of Caldecote Farm, which falls within the spatial option area.
MKC Site Allocations Plan, 2018	No allocations for this area – the Site Allocations Plan does not include sites outside of the Milton Keynes urban area.
Neighbourhood Plans	The spatial option adjoins the area of the Newport Pagnell Neighbourhood Plan. The plan allocates a large site for residential development at Tickford Fields Farm to the north eastern edge of the town. Land to the east of Willen Road is allocated as a linear park extension – the proposed linear park along the river Ouzel corridor which forms part of the requirements for the Mk East allocation could connect with this.

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth

Principle 1: A commitment to inclusive growth

Inclusive and transformational growth means connecting more people to the available economic opportunities and for there to be a significant long term growth in the area's economy as well as in the number of new homes. The scale of the MK East strategic allocation in Plan:MK is such that it has the potential to enable the delivery of strategic social infrastructure (including secondary education and health facilities) to serve the needs of the new community and potentially the wider area. Future growth in this location would provide an opportunity to deliver further infrastructure to enhance the area's sustainability, whilst also seeking to minimize car dependency through the development of a rapid transit network connecting residents to jobs and facilities in Milton Keynes and Cranfield.

Principle 2: Build sustainability into everything the city does

In order to meet the targets in the Strategy for 2050 for carbon neutral and carbon negative development, development in this area would need to be supported by improved public

transport and links to the rapid transit network in order to significantly reduce car-borne journeys. The design of MK East is already being future proofed by designing-in a transit corridor to provide links to Cranfield, CMK and beyond.

Principle 3: Connected Growth and Mobility & Principle 4: Mobility for All

Growth in this location will require improved connections to Milton Keynes and, in order to achieve a significant shift away from the use of the car, a connection to the MK mass rapid transit network. As per Principle 2, the option provides opportunities for a significant concentration of development to support rapid mass transit.

Whilst the Option has the potential to deliver a comprehensive new community, there are potential draw-backs due to the area's relatively poor existing links to CMK, due to the M1 acting as a barrier.

Principle 5: Economic growth that provides jobs for all

The Spatial Option location provides an opportunity to contribute to the development of the innovation and knowledge intensive industry sector, identified in the Strategy for 2050. Rapid transit links to Cranfield University and Technology Park would place this area on a key axis within the city-wide 'innovation campus' envisaged in the Strategy. does not fall within any of the potential economic growth locations identified the Strategy for 2050. The Strategy identifies Cranfield Technology Park and Interchange Park in Newport Pagnell as key existing employment locations that have a low-density built form and rely on car travel. Direct access to the MRT would provide opportunities for higher density employment and development, and enable more sustainable commuter patterns.

Principle 6: Provide a range of homes that work for everybody

The delivery of a large scale new community in this area would provide a wide range of opportunities for access to affordable homes to meet the needs of a broad sector of the population.

Principle 7: Keep Milton Keynes Green and Beautiful

Whilst the development of this option area would entail to use of green field land and the associated loss of open countryside, the landscape is considered to be of relatively low sensitivity to new development and a significant part of the area, the River Ouzel valley corridor, will be retained as a linear park.

Principle 8: Create better places and communities that work for everyone

Planned and future growth in this area has the potential to create a new community with a wide range of services and facilities to meet the needs of residents.

Principle 9: Build stronger centres

Not applicable to this option.

Conclusions

The existing strategic allocation for up to 5,000 homes in this area present a significant opportunity to deliver further growth supported by mass rapid transit and social and physical infrastructure which can also benefit the surrounding area.

The M1 provides a potential barrier to the connectivity of the area to CMK and the Milton Keynes urban area although a new crossing is planned in order to be able to deliver the Plan:MK allocation.

Spatial Option 3 East of the M1 South toward Cranfield

This Spatial Option is focused on Cranfield in Central Bedfordshire.

Together with part of Option 2, this area forms one of the new Transit Oriented Development (TOD) communities identified in the MK 2050 Strategic Growth Study. The TOD communities are envisaged to be able to deliver excellent Rapid Transit connections with the Milton Keynes grid but are also positioned to integrate existing destinations with new growth.

The Growth Study notes that TOD communities will only be acceptable if they also include, create and deliver regional-scale green infrastructure and strategic SUDS assets for the area as a whole.

The economic relationship between Cranfield (the village, University and Innovation Park) and Milton Keynes is already important and this is likely to be further strengthened through the development of the new university for Milton Keynes.

Constraints Assessment (primarily based on evidence base for Central Bedfordshire Local Plan)	
Flood Risk	**SFRA 2017 -** the primary flood risk in Cranfield is from several unnamed watercourses which bisect the villages. The majority of these ordinary watercourses are not covered by the Environment Agency's Flood Zones but could still present a risk of fluvial flooding. Surface water mapping shows that flood risk to Cranfield is confined to existing watercourses and ponding in open areas and gardens in the 30-year and 100-year event. In the 1,000-year event, roads become flow routes toward the existing watercourse outside of the village, with Merchants Lane, Lincroft and Orchards Way at notable risk. ***Summary:*** *This Spatial Option is not constrained by flood risk, but any new development would need to address surface water flood risk.*
Landscape Character	**Landscape Character Type (LCT):** Option falls within Landscape Character Type 1, Clay Farmland as defined in the Landscape Character Assessment, 2016, and specifically within Landscape Character Area 1A - Cranfield to Stagsden Clay Farmland. The landscape is elevated, rising above the adjacent low-lying Clay Vales, and gently plateaus on the highest ground. The area is open and exposed which provides long distance views across the landscape. The area has a number of ancient semi-natural woodlands, and the land is predominantly arable cropping within large open fields. **LCA 1A characteristics**: Strong rural character over much of the area, which is vulnerable to urban influence for instance the visible and audible impact of roads and large scale development. Landscape pattern is provided by hedgerows and mature hedgerow trees despite their poor condition. An open and exposed character with long distant views and strong skylines. Scattered spinneys and blocks of ancient woodland such as Holcott Wood. Areas of surviving small irregular fields are vulnerable to further loss due to agricultural

	reorganisation. High level of recreational access via rights of way network including Milton Keynes Boundary Walk and the John Bunyan Tail/ Sustrans Route 51 which forms a connection with the Greensand Ridge Walk. Small scale rural lanes plus large areas only accessible via rights of way. Visual Sensitivities of this area include the local skylines, created by subtle changes in topography, which are vulnerable to cluttering by vertical development and notably demand for wind turbine development (e.g. views to potential turbines on skylines). There are also long ranging views to the Mid Greensand Ridge (6b) and across lower lying rural landscape of the North Marston Vale (5d) and Salford – Aspley Clay Vale (5c). **The 2007, Aspley Triangle Landscape Sensitivity Study,** 2007 was prepared to assess the potential impact of development in the Aspley Triangle on the surrounding landscape. The study highlights a number of characteristics of this Spatial Option which are relevant in this assessment. In assessing Area 1A (i)a: Cranfield University and Airfield, the study notes the impact of existing development including Cranfield Airfield, Technology Park, University plus the medium sized settlement of Cranfield on the landscape. The large scale institutions dominate, with very little areas of rural landscape remaining, apart from occasional pasture fields, paddocks and former Ends such as Wharley End now encapsulated by more recent development. Cranfield is a village of medieval origin nucleated around the church but with more recent development extending along the roads on the plateau top. The large scale modern development associated with the Technology Park is visually imposing, particularly when viewed on the skyline from the vale around Salford. The airfield has a visible and audible presence. The Study concludes that the Cranfield plateau has relatively few intrinsically sensitive features, but notes that views are interrupted by large scale development at Kingston. The proposals for large scale development east of Milton Keynes (note the Study was prepared in 2007) will create a more continuous urban area and change the perception of the Cranfield area as an elevated plateau surrounded by a rural landscape. The eastwards expansion will also disrupt the clear landscape connection between the Vale and Greensand Ridge as evident in views from the Cranfield Plateau edge. ***Summary:*** *the character of the landscape area is already affected by existing large scale development both within the Spatial Option area and in Milton Keynes to the south east.* *New development should respect the important views to the Greensand Ridge from the Cranfield plateau. Care will need to be taken in the design and location of buildings on the plateau due to its prominence and long distance views.*
Heritage Assets	Cranfield has a collection of Listed Buildings, which are mostly clustered around the local church on Court Road, and around the High Street area. An Archaeological Notification Area follows the High Street through the village. There are patches of land classified as Archaeological Notification Areas to the south, east and north of Cranfield. To the north of the settlement there is a

	moated site which is a designated Scheduled Monument. ***Summary:*** *current evidence does not suggest the existence of heritage assets that would affect future expansion. Archaeological investigations would be required as part of any new development.*
Biodiversity ecology/ geology	Marston Thrift is a SSSI, County Wildlife Site and Local Nature Reserve located to the east of Cranfield and the site contains broadleaved mixed and yew woodland. The wood is important for wildlife, attracting a variety of butterflies including the rare black hairstreak and birds such as black cap and chiff chaff. Cranfield Manor Farm Meadows is another County Wildlife Site to the north of Cranfield, and Holcot Wood County Wildlife Site is located to the south, next to an area of Pasture and Parkland. There are small areas of Lowland Mixed Deciduous Woodland around Cranfield Airport and Cranfield University. The settlement is bordered to the east by the Biodiversity and Green Infrastructure Network. ***Summary:*** *development to the west of Cranfield and around the University, Technology Park and airfield would be some distance from the Marston Thrift SSSI. Increased population size could result in increased recreational pressure on this area which could require future management. Pressure could be reduced by delivering new GI to increase access into the countryside and wider GI network.*
Green Infrastructure	The Strategic Green Infrastructure Plan, 2007, identifies a strategic GI area to the south east of the option area (Area 3 – Bedford to Milton Keynes (Marston Vale). The option area lies within the Forest of Marston Vale, one of 12 nationally designated community forests created in the 1990s. It covers some 61 square miles and extends into Bedford Borough in the north and to the M1 in the south. It is a strategic and regionally important environmentally led regeneration initiative providing social, economic and environmental benefits. The aim of the Forest of Marston Vale is to achieve 30% tree coverage in the Marston Vale, the achievement of this aim is supported by Policy EE9 in the Central Bedfordshire Local Plan. ***Summary:*** *the Spatial Option location presents a significant opportunity to extend and enhance the existing strategic green infrastructure network , particularly in terms of improving connections to Milton Keynes.*
Soil and Agricultural Land Quality	Best and Most Versatile Agricultural Land: Cranfield is located in Grade 3 agricultural land, as is much of the land surrounding the settlement, however, it is unknown whether this is sub-grade 3a or 3b. ***Summary:*** *the lack of survey data means that classification of agricultural land is not robust. This is unlikely to be a factor preventing development in this option area.*
Air Quality	The Spatial Option is not covered by an AQMA.

Settlement Patterns	Cranfield village dates back to Saxon times, and is built on a hill, characterised by a mix of red and buff brick housing, with a mix of both style and ages. ***Summary:*** *the village is characterised by a range of housing types, ages and styles. Growth provides an opportunity to deliver high quality new development.*
Transport	**Transport Modelling Stage 1A, July 2017:** the Spatial Option falls within Area C: (East / West Corridor) which is described as having limited growth potential in terms of existing settlements, but has potential for medium to strategic scale growth including new settlements subject to investment in infrastructure. The modelling shows that for the 2035 Reference Case, there is significant congestion on the network in Area C, especially on the M1 (including Junction 13), A421 and A6. The area is noted as having potential for significant growth, especially in the form of new settlements, however, this would require investment in infrastructure, given that the levels of stress on the strategic routes are expected to be high already in the 2035 Reference Case. New developments along the A6 are likely to impact the performance of the A6 as well as the A421 and M1, while growth between Bedford and Milton Keynes is likely to have a direct impact on the A421,M1, M1 Junction 13 and local roads in the area. The 2035 Reference Case scenario model run shows a volume over capacity ratio close to 100% for the A421 in the option area, which indicates the need for capacity improvement for the A421.The M1 Junction 13 also shows high level of stress and mitigation measures will be required if growth and additional traffic from further developments are expected along the A421 corridor. Rail: The nearest railway station is located outside of the settlement, with the 2 nearest stations being Millbrook to the east and Ridgmont to the south, both about 5 miles away from Cranfield and both on the Marston Vale Line. Bus: Cranfield is serviced by a range of bus services which run at various times throughout the week, both commercial and community services are available for residential use. The quality of the waiting facilities varies, in some cases bus shelters are provided complete with laybys, raised kerbs and bespoke timetable information, whilst in other cases only bus stop flags are provided with timetable information stuck or tied to the pole. Discussions have been opened by Cranfield Parish Council with Milton Keynes and Arriva for creating an effective service linking Cranfield to Milton Keynes which would come into effect next year and might involve the creation of an express commuter service to Milton Keynes station. ***Summary:*** *the area currently has relatively poor road and bus connections to Milton Keynes at present and further development without sustainable transport measures would exacerbate the existing levels of stress on the strategic road network, particularly the A421 and M1 at Junction 13. Growth here, if based on the delivery of a mass rapid transit system, presents a significant opportunity to improve those links, providing ease of access to*

	employment opportunities and reducing car borne traffic.
General Infrastructure Capacity	**Sewerage and Wastewater Treatment:** Cranfield is located in the Marston Moretaine Wastewater Treatment Works (WwTW) catchment area. The other settlements located in this catchment area are Marston Moretaine, Lidlington, Upper Shelton and Lower Shelton. The settlements in this WwTW catchment have a combined capacity of 2971 dwellings. **The Settlement Capacity Study, 2017,** notes that Cranfield contains a variety of services and facilities including a community centre, 2 lower schools, a middle school, a university, 2 convenience stores, 2 newsagents, 2 post offices, a chemist, a dentist, a GP surgery/health centre, 5 restaurants/takeaways and 2 food serving pubs. The settlement lacks any banking facilities, any supermarkets, any recreational or entertainment facilities. Notable towns with superstores close to the Cranfield area include Milton Keynes (approx. 6 miles), Flitwick (approx. 10 miles) and Ampthill(approx. 10 miles).The settlement has a number of clubs and groups. **Education:** Cranfield Academy is at capacity and does not have the space to accommodate site expansion. Holywell School is also at capacity and does not have the space to accommodate site expansion. The Study classified Cranfield village's capacity of development in the local plan as Low, partly due to the topography and presence of the Airport meaning that suitable development land is limited to that in the far south of the settlement, distant from existing services and facilities. Another reason for the village's limited capacity is that of the lack of potential for existing village facilities to absorb additional residents and expand. The Study did note that further development could facilitate and enable investment in additional facilities and capacity, but that a significant quantum of development would be needed to deliver these benefits. ***Summary**: a significant quantum of development would be needed in this spatial option in order to deliver the necessary growth in infrastructure to support new and bring benefits to existing residents.*

National/ sub-national infrastructure drivers and projects	
Oxford-Cambridge Growth Arc (the Arc)	The Central Beds Local Plan identifies a number of areas for Future Growth. Further assessment of the potential of strategic sites on the East West Rail/Expressway and the A1/East Coast Main Line Corridor routes is planned in line with emerging decisions on this strategic infrastructure. This will enable further growth potential to be looked at in line with decisions to be taken on routes, timing and services, together with provision of wider infrastructure and delivery support. This assessment will inform a Partial Review of this Plan and will contribute to the ongoing work in the Central Corridor Area
East-West Rail	1. The proposed East West Rail scheme must be built as quickly as possible to

	unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects. 3. Ensure that strategic infrastructure, including new elements of East West Rail are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The spatial option area is not connected to East-West Rail, however, the delivery of a rapid transit network connecting this area to Milton Keynes would enable quick and efficient connections to railway stations at MK and Bletchley.
Expressway	1. The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030 3. Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The spatial option area is outside of the preferred corridor within which a route for the Expressway is to be identified. Despite the opportunity to develop rapid transit connections, the Expressway would be likely to be a significant attractor for car borne journeys which increase pressure on the links eastwards over the M1 or on rural roads to the south.

Local Growth Allocations & Settlement Hierarchy	
Plan:MK, 2019	N/A
VALP	N/A
Central Beds Local Plan	Plan currently at examination. **Allocations:** The Spatial Option falls within the E-W Area in the plan's development strategy. The Plan acknowledges the economic importance of this area given the presence of advanced research and development at Cranfield Technology Park and Millbrook Proving Ground and close links with

	Milton Keynes. The area is well connected with the upgraded A421, and the M1 and the planned Western Section upgrade of East West Rail between Oxford and Bedford. The local plan identifies two, relatively small sites for housing development delivering some 63 homes. **Settlement Hierarchy:** The Local Plan has 4 tiers to its Settlement hierarchy - Major Service Centres, Minor Service Centres, Large Villages, and Small Villages. Cranfield is classed as a Minor Service Centre - a "*larger settlement with a good level of services, possibly including a school, doctor's surgery, a basic retail offer and frequent public transport links*"
South Northants Local Plan	N/A
MKC Minerals Local Plan, 2017	N/A
Minerals & Waste LP, 2014 (CBC, Luton & Bedford Borough Councils)	Nothing proposed for the Spatial Option area.
MKC Site Allocations Plan, 2018	N/A
Neighbourhood Plans	N/A

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth

Principle 1: A commitment to inclusive growth

Inclusive and transformational growth means connecting more people to the available economic opportunities and for there to be a significant long term growth in the area's economy as well as in the number of new homes. Cranfield University, Technology Park and airfield represent a significant focus for economic growth, particularly in the education, knowledge and innovation sector but improved connectivity with the Milton Keynes urban area will be a key factor in securing benefits of further employment and housing development in this area. Whilst the distance between Cranfield and central MK is relatively short, journeys are hampered by limited links over the M1 and the presence of local routes with little public transport connection at present. Bringing forward development at this Spatial Option on its own would limit the value for money of any new rapid transit links, whereas, combining this area with land to the north, would create a larger focus of development, linked to growth at MK East (Spatial Option 2) and forming a more sustainable scale of growth east of the M1.

Principle 2: Build sustainability into everything the city does

In order to meet the targets in the Strategy for 2050 for carbon neutral and carbon negative development, further development in this area, particularly expansion of the employment offer at Cranfield University and Technology Park, would need to be supported by improved public transport and links to the rapid transit network in order to significantly reduce car-borne journeys between MK and Cranfield. The Spatial Option may not provide a large enough scale of residential development to support significant expansion of the existing social and physical infrastructure, however, linking this Option to the planned development at MK East would address this.

Principle 3: Connected Growth and Mobility & Principle 4: Mobility for All

Growth in this location will require improved connections to Milton Keynes and, in order to achieve a significant shift away from the use of the car, a connection to the MK mass rapid transit network. As per Principle 2, the option provides opportunities for a significant concentration of development to support rapid mass transit.

Principle 5: Economic growth that provides jobs for all

The Spatial Option provides an opportunity to contribute to the development of the innovation and knowledge intensive industry sector, identified in the Strategy for 2050. The Strategy for 2050 identifies Cranfield Technology Park and Interchange Park in Newport Pagnell as key existing employment locations that have a low-density built form and rely on car travel. Direct access to the MRT would provide opportunities for higher density employment and development, and enable more sustainable commuter patterns.

Principle 6: Provide a range of homes that work for everybody

The delivery of further residential development in this area would increase opportunities for access to affordable homes to meet the needs of a broad sector of the population.

Principle 7: Keep Milton Keynes Green and Beautiful

Whilst the development of this option area would entail the use of green field land and the associated loss of open countryside, the landscape is considered to be of relatively low sensitivity to new development. If brought forward as part of a wider growth area, on the transit Oriented Development community typology, the wider development should include, create and deliver regional-scale green infrastructure and strategic SUDS assets. The location of the Spatial Option adjoining the strategic GI corridor Bedford to Milton Keynes (Marston Vale) and its proximity to the new linear park planned for MK East in Plan:MK provides opportunities for linking any new GI into these wider networks. the Option also falls within the area of the Forest of Marston Vale wherein, the Central Beds Local Plan seeks the delivery of 30% tree coverage which new development would need to contribute to.

Principle 8: Create better places and communities that work for everyone

New residential development around Cranfield village could bring with it new or expanded facilities and services to serve both new and existing residents. This opportunity would, however, be further enhanced were the Spatial Option to form part of a larger scale growth area.

Principle 9: Build stronger centres - Not applicable to this option.

Principle 10: Provide leadership and direction

This Spatial Option lies within Central Bedfordshire Council area. The Strategy for 2050 is clear that where the vision for the future of Milton Keynes includes development located outside of the borough boundary, the delivery of that development will be for the local planning authorities in those areas to determine through their own local planning processes. Development here will, therefore require co-operation and joint working between the local authorities to deliver the necessary connections and infrastructure to support inclusive and transformational growth.

The Strategy suggests that any new delivery mechanism created for Milton Keynes should have the capability of being expanded to cover adjacent authorities (or parts of those areas) in order to share the mutual benefits of growth.

Conclusions

Overall this Spatial Option is relatively unconstrained by flood risk and other environmental factors.

The University, Technology Park and Airport provide important employment and economic development opportunities and would benefit from improved connections to Milton Keynes where a significant proportion of the employees are based. Direct access to a mass rapid transit network would provide opportunities for higher density employment and development, and enable more sustainable commuter patterns.

The village of Cranfield currently has limited capacity in its schools and other services and facilities. Further development in this location would therefore need to be of an appropriate quantum in order to provide the necessary investment in new infrastructure. This may be best done by linking this Spatial Option with a larger corridor of growth westwards towards the M1 and Milton Keynes, which would also maximise the opportunities to link the Cranfield area to a mass rapid transit network.

Spatial Option 4 East MK towards Salford and Marston Moretaine
This Spatial Option is an elongated area primarily to the north of the A421 and covering an area that includes the villages of Salford, Brogborough and Marston Moretaine. To the south of the A421 lies the strategic allocation of Marston Vale New Villages, Policy SA2 in the submission version of the Central Beds Local Plan.

Constraints Assessment (primarily based on evidence base for Central Bedfordshire Local Plan)	
Flood Risk	**SFRA 2017 –** to the north and south-west of Salford, in the southern part of the Option area, there is an area of floodplain for a watercourse (Broughton Brook); flood risk is classified as zones 2 and 3. Broughton Brook is currently failing to meet Water Framework Directive objectives for water quality and could be impacted by further development in this area , for example, through 'deterioration' in ecological status or potential. ***Summary:*** *development in the southern part of the Spatial Option close to the M1 would be constrained by flood risk. Development in this area could also further worsen the condition of the Broughton Brook.*
Landscape Character	**Landscape Character Types (LCT): the** Option falls within two Landscape Character Types, as defined in the Landscape Character Assessment, 2016: LCT 1, Clay Farmland and 5, Clay Vale. Within LCT 1, a tongue of Landscape Character Area 1a, Cranfield to Stagsden Clay Farmland runs east-west through the Option area, bisecting LCT 5, Clay Vale in to two different LCAs: 5C, the Salford-Aspley Clay Vale and 5D, the north Marston Clay Vale. **LCA 1A characteristics**: Strong rural character over much of the area, which is vulnerable to urban influence for instance the visible and audible impact of roads and large scale development. Landscape pattern is provided by hedgerows and mature hedgerow trees despite their poor condition. An open and exposed character with long distant views and strong skylines. Scattered spinneys and blocks of ancient woodland such as Holcott Wood. Areas of surviving small irregular fields are vulnerable to further loss due to agricultural reorganisation. High level of recreational access via rights of way network including Milton Keynes Boundary Walk and the John Bunyan Trail/ Sustrans Route 51 which forms a connection with the Greensand Ridge Walk. Small scale rural lanes plus large areas only accessible via rights of way. Visual Sensitivities of this area include the local skylines, created by subtle changes in topography, which are vulnerable to cluttering by vertical development and notably demand for wind turbine development (e.g. views to potential turbines on skylines). There are also long ranging views to the Mid Greensand Ridge (6b) and across lower lying rural landscape of the North Marston Vale (5d) and Salford – Aspley Clay Vale (5c). Whilst the characteristics for LCA 1A do not specifically refer to this feature,

	there is a ridge of higher ground at Brogborough Hill to the south eastern edge of this area which may present a constraint to development In this part of the option area. Whilst the route of the Bedford to Milton Keynes waterway lies outside of this option, Brogborough Hill presents a significant challenge to the successful delivery of this part of the route and a Falkirk Wheel type solution has been mooted in the past. The Landscape Strategy for LCA 1A is to enhance and renew the landscape and conserve its rural agricultural character. Enhancement should focus on strengthening the landscape pattern to create interconnected green infrastructure networks to provide structure in the context of urban expansion on the edge of Milton Keynes, and habitat links such as new woodland, grassland and hedgerow corridors along the ridge to the north and east of the character area and the adjacent character area 5d North Marston Clay Vale including further woodland creation to the east of Cranfield. **LCA 5C characteristics**: a large to medium scale flat and open clay vale contained by the Wooded Greensand Ridge to the south and the Clay Farmland to the north. Intermittent views to these landscapes are characterised by dramatic wooded horizons - on the Greensand Ridge - and to modern, built development at Cranfield University and Technology Park - on the plateau, and views to houses and large scale retail units to the eastern edge of Milton Keynes in the south west of the character area. Arable farming is the predominant land use with a fairly strong surviving hedgerow network. The vale has, however, been subject to large scale fragmentation by urbanised transport corridors including the embanked M1 corridor, A421, A507 and interchange at J13, large-scale building units to the north and south of Junction 13. Distinctive landscape elements include tributary valleys which permeate the landscape, particularly to the west, and the essentially rural 'unsettled' character. Areas of pasture with the predominantly arable landscape are an important visual feature and contain some earthworks evidence of former settlement and ridge and furrow. The Landscape Strategy for LCA 5C is to conserve the tributary valleys associated with the Great Ouse, the settlement character of Salford and the hedgerow pattern. The overall strategy is for enhancement/renewal of the landscape, particularly by restoring and repairing elements that have been lost or degraded, notably hedgerows, which would significantly strengthen the landscape pattern and distinctiveness of the vale. **LCA 5D characteristics:** a large scale, flat and open clay vale with distant views to the contrasting landscapes of the Mid Greensand Ridge (6b) and the Cranfield to Stagsden Clay Farmland(1a) – which contain the vale and form a prominent backdrop to the south and west. The vale is distinctive as a result of large scale industrial activities including former clay extraction and landfill, more recent large scale industrial buildings and commercial development, major road and rail corridors, and areas that have undergone (and are undergoing) landscape restoration - notably the flooded clay pits forming a series of lakes, as well as arable farming contained within large open fields and the ongoing establishment of the Forest of Marston Vale. The area is facing pressure for future growth in the Vale, including the continued residential

	expansion e.g. Wixams, East West Rail, development of the Bedford- Milton Keynes Waterway Park and increased development at Millbrook Proving Ground. There is, though, ongoing woodland planting as part of the Forest of Marston Vale. Visual sensitivities of this area include extensive views - any development/ significant change within the vale is likely to be visible over long distances. Visibility will, however, reduce as younger woodland matures . The Landscape Strategy for this area responds to the disturbance and fragmentation that it has suffered in the past due to industrial activity, urban fringe development and the presence of major transport corridors. The overall strategy is to continue to enhance/renew the landscape. ***Summary:*** *the area is a sparsely populated, predominantly rural area, with a few small settlements. Development at Cranfield to the north of the Option area is a strong feature on the horizon, as is development in Milton Keynes to the east. To the south east, Brogborough Hill is a significant ridge of higher ground running roughly east-west. The rural character of the area, especially to the south and east is impacted by industrial activities, including clay extraction as well as a number of major road corridors. Lying within the Forest of Marston Vale, the landscape strategy seeks the enhancement and renewal of the landscape.*
Heritage Assets	There are a number of listed buildings across the Spatial Option area, mainly associate with the settlements of Salford, Brogborough and Marston Moretaine. Moat Farm Scheduled Ancient Monument lies to the south of Marston Moretaine . ***Summary:*** *current evidence does not suggest the existence of heritage assets that would affect future expansion. Archaeological investigations would be required as part of any new development.*
Biodiversity ecology/ geology	Marston Thrift is a SSSI, County Wildlife Site and Local Nature Reserve located to the east of Cranfield and the site contains broadleaved mixed and yew woodland. The wood is important for wildlife, attracting a variety of butterflies including the rare black hairstreak and birds such as black cap and chiff chaff. ***Summary:****. Increased population size could result in increased recreational pressure on this area which could require future management. Pressure could be reduced by delivering new GI to increase access into the countryside and wider GI network.*
Green Infrastructure	**Strategic Green Infrastructure Plan, 2007**: The Option area lies within the strategic GI corridor Area 3 – Bedford to Milton Keynes (Marston Vale). The option area lies within the Forest of Marston Vale, one of 12 nationally designated community forests created in the 1990s. It covers some 61 square miles and extends into Bedford Borough in the north and to the M1 in the south. It is a strategic and regionally important environmentally led regeneration initiative providing social, economic and environmental benefits. The aim of the Forest of Marston Vale is to achieve 30% tree coverage in the Marston Vale, the achievement of this aim is supported by Policy EE9 in the

	Central Bedfordshire Local Plan. ***Summary:*** *development within the Spatial Option location could compromise the ability to deliver the strategic green infrastructure network in this location. The proximity of the strategy GI corridor to potential growth at Cranfield and to Marston Vale New Villages to the south does however, mean that it could perform a valuable role in delivering GI to support large scale growth to 2050.*
Soil and Agricultural Land Quality	Best and Most Versatile Agricultural Land: land in the Option area is Grade 2 and Grade 3 agricultural land, however the sub-grade (3a or 3b) is not known. ***Summary:*** *the lack of survey data means that classification of agricultural land is not robust. This is unlikely to be a factor preventing development in this option area.*
Air Quality	The Spatial Option is not covered by an AQMA.
Settlement Patterns	The Option area is characterised by a limited number of small settlements and the area as a whole is sparsely settled. ***Summary:*** *given the small scale of existing settlements and the limited amount of settlement across the area, growth here would result in a significant change in the character of an essentially rural landscape. The area is a relatively undeveloped tract of land between the more built-up area of Cranfield to the north and the allocated growth at Marston Vale New Villages to the south.*
Transport	**Transport Modelling Stage 1A, July 2017:** the Spatial Option falls within Area C: (East / West Corridor) which is described as having limited growth potential in terms of existing settlements, but has potential for medium to strategic scale growth including new settlements subject to investment in infrastructure. The modelling shows that for the 2035 Reference Case, there is significant congestion on the network in Area C, especially on the M1 (including Junction 13), A421 and A6. The area is noted as having potential for significant growth, especially in the form of new settlements, however, this would require investment in infrastructure, given that the levels of stress on the strategic routes are expected to be high already in the 2035 Reference Case. New developments along the A6 are likely to impact the performance of the A6 as well as the A421 and M1, while growth between Bedford and Milton Keynes is likely to have a direct impact on the A421,M1, M1 Junction 13 and local roads in the area. The 2035 Reference Case scenario model run shows a volume over capacity ratio close to 100% for the A421 in the option area, which indicates the need for capacity improvement for the A421.The M1 Junction 13 also shows high level of stress and mitigation measures will be required if growth and additional traffic from further developments are expected along the A421 corridor. Rail: The Spatial Option area does not include a railway station, with the closest station being Ridgmont, on the Marston Vale Line. ***Summary:*** *the area currently has relatively poor road and bus connections to*

	Milton Keynes and the rest of Central Bedfordshire at present and further development without sustainable transport measures would exacerbate the existing levels of stress on the strategic road network, particularly the A421 and M1 at Junction 13. Growth here however, if based on the delivery of a mass rapid transit system, could present a significant opportunity to improve those links, providing ease of access to employment opportunities and reducing car borne traffic. Growth in this location, if connected to an MRT system, could also enable the expansion of the system out into the new Marston Vale New Villages development to the south, and eastwards towards Bedford.
General Infrastructure Capacity	**Sewerage and Wastewater Treatment:** Sewerage and Wastewater Treatment: The sewerage and wastewater capacity of the Wastewater Treatment Works that Salford is within the catchment for is unknown. Possible that the Wastewater Treatment Works is located within Milton Keynes. **The Settlement Capacity Study, 2017,** as a sparsely settled and relatively rural area, the Spatial Option has limited existing services and facilities. Marston Moretaine would be the largest settlement in the area, and residents could access other services available in Cranfield, or further afield in Milton Keynes . ***Summary**: a significant quantum of development would be needed in this spatial option in order to deliver the necessary growth in infrastructure to support new and bring benefits to existing residents. Infrastructure would be required to be delivered up front of development due to the lack of existing facilities in the area.*

National/ sub-national infrastructure drivers and projects	
Oxford-Cambridge Growth Arc (the Arc)	The Central Bedfordshire Local Plan identifies a number of areas for Future Growth. Further assessment of the potential of strategic sites on the East West Rail/Expressway and the A1/East Coast Main Line Corridor routes is planned in line with emerging decisions on this strategic infrastructure. This will enable further growth potential to be looked at in line with decisions to be taken on routes, timing and services, together with provision of wider infrastructure and delivery support. This assessment will inform a Partial Review of this Plan and will contribute to the ongoing work in the Central Corridor Area
East-West Rail	1. The proposed East West Rail scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects. 3. Ensure that strategic infrastructure, including new elements of East West

	Rail are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The spatial option area is not connected to East-West Rail, however, the delivery of a rapid transit network connecting this area to Milton Keynes would enable quick and efficient connections to railway stations at MK and Bletchley, although the railway station at Ridgmont would be closer.
Expressway	1. The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030 3. Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The spatial option area is on the edge of the preferred corridor within which a route for the Expressway is to be identified. Despite the opportunity to develop rapid transit connections, the Expressway would be likely to be a significant attractor for car borne journeys which increase pressure on the links eastwards over the M1 or on rural roads to the south.

Local Growth Allocations & Settlement Hierarchy	
Plan:MK, 2019	N/A
VALP	N/A
Central Beds Local Plan	Plan currently at examination. **Allocations:** The Spatial Option falls within the E-W Area in the plan's development strategy. The plan allocated an extension to Marston Moretaine of some 63 dwellings. Immediately to the south of the Spatial Option is the Marston Vale New Villages strategic allocation. The Plan identifies future opportunities for growth to be considered in a Partial Plan Review. These are related to the East-West Rail and the Expressway. When delivered, these strategic infrastructure projects will strongly support the development potential of further large scale growth in the Marston Vale. There is also some potential north of the railway line in an area known as the Aspley Guise Triangle for mixed use development in the form of new villages. However, as development cannot come forward until the route of the

	Expressway has been finalised which is estimated to be post 2021, it has been identified as a safeguarding Location for consideration in the Partial Plan Review rather than an allocation to ensure that the route is not sterilised. Consultation and evidence told us that villages around Woburn including Aspley Guise must be protected due to their unique character, heritage assets and natural environment so any future development here would however need to be appropriately buffered to avoid coalescence and harm to the character of the existing settlements. Land at Aspley Guise (North of the Railway Line) is safeguarded for future development for consideration in the Partial Plan Review. This land has a potential capacity for around 3,000 homes, but does not contribute to the Plan target of 39,350 homes. **Settlement Hierarchy:** The Local Plan has 4 tiers to its Settlement hierarchy - Major Service Centres, Minor Service Centres, Large Villages, and Small Villages. Marston Moretaine is classed as a Large Village; Salford and Brogborough as Small Villages.
South Northants Local Plan	N/A
MKC Minerals Local Plan, 2017	N/A
Minerals & Waste LP, 2014 (CBC, Luton & Bedford Borough Councils)	Nothing proposed for the Spatial Option area.
MKC Site Allocations Plan, 2018	N/A
Neighbourhood Plans	N/A

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth
Principle 1: A commitment to inclusive growth Inclusive and transformational growth means connecting more people to the available economic opportunities and for there to be a significant long term growth in the area's economy as well as in the number of new homes. There is currently limited development in this area and little new development being planned for in current local plans. Rather than expanding and transforming existing urban areas, growth in this Spatial Option would therefore likely require the creation of a new settlement of a significant size, large enough to meet its own needs in terms of social and

physical infrastructure as well as requiring access via MRT to the employment opportunities at Cranfield and Milton Keynes in order to minimise car borne journeys.

Principle 2: Build sustainability into everything the city does

In order to meet the targets in the Strategy for 2050 for carbon neutral and carbon negative development, development in this area would need to be supported by improved public transport and links within the Option area itself and out to the rapid transit network in order to significantly reduce car-borne journeys between MK and Cranfield. The Spatial Option may not provide a large enough scale of residential development to support significant expansion of the existing social and physical infrastructure, however, linking this Option to adjoining area would address this.

Principle 3: Connected Growth and Mobility & Principle 4: Mobility for All

Growth in this location will require improved connections to Milton Keynes and, in order to achieve a significant shift away from the use of the car, a connection to the MK mass rapid transit network. As per Principle 2, the option provides opportunities for a significant concentration of development to support rapid mass transit.

Principle 5: Inclusive economic growth that provides jobs for all

The Spatial Option does not include any existing significant employment locations, it is, however, close to the key employment locations at Cranfield Technology Park and at M1 J13 to the south. Links from the Spatial Option to these areas could help to support opportunities for higher density employment and development, and enable more sustainable commuter patterns.

Principle 6: Provide a range of homes that work for everybody

Any new development in this area would increase opportunities for access to affordable homes to meet the needs of a broad sector of the population.

Principle 7: Keep Milton Keynes Green and Beautiful

Whilst the Spatial Option is outside the Milton Keynes urban area, the same principle applies. The option area falls within the strategic Bedford to Milton Keynes GI corridor which has the potential to be connected to new strategic GI and deliver much wider access to the countryside between Milton Keynes and Bedford. Development in this Spatial Option area could compromise the delivery of the Bedford to MK strategic GI corridor, reducing its effectiveness. The whole area falls within the Forest of Marston Vale (FoMV) and the landscape strategy for the area indicates that the FoMV Plan should set the context for landscape management.

Principle 8: Create better places and communities that work for everyone

New development of the scale necessary to deliver the necessary infrastructure is likely to overwhelm the existing small settlements in this area, even with buffer areas around them. Growth of the scale required would fundamentally change the character of this area and its settlements and does not fit well with this principle.

Principle 9: Build stronger centres - Not applicable to this option.

Principle 10: Provide leadership and direction

This Spatial Option lies within Central Bedfordshire Council area. The Strategy for 2050 is clear

that where the vision for the future of Milton Keynes includes development located outside of the borough boundary, the delivery of that development will be for the local planning authorities in those areas to determine through their own local planning processes. Development here will, therefore require co-operation and joint working between the local authorities to deliver the necessary connections and infrastructure to support inclusive and transformational growth.

The Strategy suggests that any new delivery mechanism created for Milton Keynes should have the capability of being expanded to cover adjacent authorities (or parts of those areas) in order to share the mutual benefits of growth.

Conclusions

In environmental terms, development in the southern part of the Spatial Option would be constrained by flood risk. As a sparsely populated, predominantly rural area between the more built-up area of Cranfield to the north and the allocated growth at Marston Vale New Villages to the south, a significant scale of new development would be required to deliver the necessary infrastructure but such a scale of development would result in a significant change in the character of an essentially rural landscape and could compromise the area's ability to continue to function as a strategic Bedford to Milton Keynes GI corridor.

The area currently has relatively poor road and bus connections to Milton Keynes and the rest of Central Bedfordshire at present and further development without sustainable transport measures would exacerbate the existing levels of stress on the strategic road network, particularly the A421 and M1 at Junction 13. Serving this area from a new MRT network out of Milton Keynes could help to address the existing connections issues and link the area to the homes and job opportunities at Cranfield, MK East and potentially to the Marston Vale New Villages to the south. Any development in this location will be the responsibility of Central Bedfordshire council, requiring cooperation and collaboration with Milton Keynes Council to ensure a consistent and joined-up approach to development.

Overall, given the area's existing landscape character and settlement pattern is it likely that there will be other locations better placed to deliver growth up to 2050.

Spatial Option 5	Aspley Guise Triangle
This Spatial Option comprises an area of land extending from the boundary between Milton Keynes and Central Bedfordshire Councils to the west, eastwards towards junction 13 of the M1, and bounded to the south by the rail line, known as the Aspley Guise Triangle. The area is washed over by the Green Belt. The Strategic Growth Study, 2019 identifies this Option as part of a wider growth area encompassing extensions to allocated Plan:MK sites at south East MK, Eaton Leys and South Caldecotte and applies the 'Completing the Grid' typology The Central Bedfordshire Local Plan acknowledges that there is some for mixed use development in the form of new villages. However, as development cannot come forward until the route of the Expressway has been finalised, the area has been safeguarded for future development for consideration in the Partial Plan Review. This land has a potential capacity for around 3,000 homes.	

Constraints Assessment (primarily based on evidence base for Central Bedfordshire Local Plan)	
Flood Risk	SFRA 2017 – to the north of the Triangle, adjoining the M1, there is an area of Flood Zone 2 along the Broughton Brook. Broughton Brook is currently failing to meet Water Framework Directive objectives for water quality and could be impacted by further development in this area , for example, through 'deterioration' in ecological status or potential. ***Summary:*** *development in the northern part of the Spatial Option close to the M1 would be constrained by flood risk. Development in this area could also further worsen the condition of the Broughton Brook.*
Landscape Character	Landscape Character Types (LCT): the majority of the Option falls within Landscape Character Type, 5, Clay Vale and Landscape Character Area, LCA 5C. a small part of LCT6 – Wooded Greensand Ridge curves into the Option at Aspley Guise, specifically, LCA 6A – Woburn Greensand Ridge. LCA 5C characteristics: a large to medium scale flat and open clay vale contained by the Wooded Greensand Ridge to the south and the Clay Farmland to the north. Intermittent views to these landscapes are characterised by dramatic wooded horizons - on the Greensand Ridge - and to modern, built development at Cranfield University and Technology Park - on the plateau, and views to houses and large scale retail units to the eastern edge of Milton Keynes in the south west of the character area. Arable farming is the predominant land use with a fairly strong surviving hedgerow network. The vale has, however, been subject to large scale fragmentation by urbanised transport corridors including the embanked M1 corridor, A421, A507 and interchange at J13, large-scale building units to the north and south of Junction 13. Distinctive landscape elements include tributary valleys which permeate the landscape, particularly to the west, and the essentially rural 'unsettled'

	character. Areas of pasture with the predominantly arable landscape are an important visual feature and contain some earthworks evidence of former settlement and ridge and furrow. The Landscape Strategy for LCA 5C is to conserve the tributary valleys associated with the Great Ouse, the settlement character of Salford and the hedgerow pattern. The overall strategy is for enhancement/renewal of the landscape, particularly by restoring and repairing elements that have been lost or degraded, notably hedgerows, which would significantly strengthen the landscape pattern and distinctiveness of the vale. LCA 6A Characteristics: A distinctive and heavily wooded area with a strong sense of enclosure. A landscape of rural character typified by areas of pasture, woodland tracts and picturesque red-brick villages but in which additional elements such as quarrying and transport corridors detract at a local scale. The ancient broadleaved woodland and Scots pine plantations combine to create a strong sense of enclosure - creating a dramatic contrast where views open out to large tracts of arable land and areas of pasture. Aspley Guise is a nucleated medieval village supplemented by linear settlements of Bedford Estate cottages. Visual sensitivity – the ridge sets the backdrop to the Vale (LCA 5C). the heavily wooded northern edge of the ridge is elevated, exposed and highly visible with clear reciprocal views to and from the adjacent low-lying, flat landscape. These views are sensitive to adverse change such as unsympathetic development within the foreground of the vale as seen from the ridge top. Likewise, any adverse change - such as tall development or unsympathetic felling on the ridge top would be highly visible in views from the Vale. The Landscape Strategy for the area focusses on conserving and enhancing the landscape of the Woburn Greensand Ridge. Enhancement opportunities predominantly relate to improving its condition, which, with appropriate landscape management, would improve the integrity of the landscape and strengthen its character. ***Summary:*** *the area is a relatively flat area of the Vale, with areas of pasture, early enclosure field pattern. There are important view to and from Brogborough Hill and the area provides foreground setting to the Greensand Ridge (Husborne Crawley and Castle Hill). It will be important to retain distinction and separation between any new development in the vale and the settlements on the ridge (Aspley Guise).*
Heritage Assets	There are no heritage assets within the Spatial Option area. There is a listed building – Crossing Cottage, on the Salford Road along the railway line. To the south of the area are the conservation are of Aspley Guise and Husborne Crawley and a number of listed buildings within each village. ***Summary*** *: current evidence does not suggest the existence of heritage assets that would affect future development.*
Biodiversity ecology/	There is a County Wildlife Site – Braystone – to the far west of the Spatial Option and one outside the option area, south of the Salford Road and railway

geology	line (Aspley Guise Meadows) ***Summary** : current evidence suggests that the Option area has limited biodiversity interest that would be adversely affected by future development.*
Green Infrastructure	Strategic Green Infrastructure Plan, 2007: The Option area lies within the strategic GI corridor Area 3 – Bedford to Milton Keynes (Marston Vale). To the south of the Spatial Option area lies strategic GI corridor 4 – the Greensand Ridge. These are priority corridors, which create a strategic green infrastructure network, they highlight areas where investment and project delivery can make the most impact in securing multi-functional green infrastructure. This corridor provides a key east-west green infrastructure linkage across the county, taking in the parts of the major settlement of Bedford and linking with the Lower Great Ouse River Valley Corridor 3 ***Summary** : development within the Spatial Option location could compromise the ability to deliver the strategic green infrastructure network in this location. The Bedford to Milton Keynes corridor provides a key east-west GI link from Bedford towards Milton Keynes. The route of the Bedford to MK Waterway through the middle of the Spatial Option provides an opportunity to deliver strategic bridleway, cycle and footpath links.*
Soil and Agricultural Land Quality	Best and Most Versatile Agricultural Land: land in the Option area is Grade 2 and Grade 3 agricultural land, however the sub-grade (3a or 3b) is not known. ***Summary** : whilst the presence of BMV needs to be recognised, the lack of survey data means that classification of agricultural land is not robust. This is unlikely to be a factor preventing development in this option area.*
Air Quality	The Spatial Option is not covered by an AQMA.
Settlement Patterns	Whilst there are no settlements within the Spatial Option, there are a number of industrial, business and agricultural businesses, including Hayfield Business Park to the east, accessed off the A421 and a number of local enterprises along Salford Road. ***Summary :** given the limited amount of development in this Option area, growth here would result in a significant change in its existing character. The area is, however, already impacted by the presence of strategic roads – the M1 and the A421 in particular.*
Transport	Transport Modelling Stage 1A, July 2017: the Spatial Option falls within Area C: (East / West Corridor) which is described as having limited growth potential in terms of existing settlements, but has potential for medium to strategic scale growth including new settlements subject to investment in infrastructure. The modelling shows that for the 2035 Reference Case, there is significant congestion on the network in Area C, especially on the M1 (including Junction 13), A421 and A6. The area is noted as having potential for significant growth, especially in the form of new settlements, however, this would require investment in infrastructure, given that the levels of stress on the strategic

	routes are expected to be high already in the 2035 Reference Case. New developments along the A6 are likely to impact the performance of the A6 as well as the A421 and M1, while growth between Bedford and Milton Keynes is likely to have a direct impact on the A421,M1, M1 Junction 13 and local roads in the area. The 2035 Reference Case scenario model run shows a volume over capacity ratio close to 100% for the A421 in the option area, which indicates the need for capacity improvement for the A421.The M1 Junction 13 also shows high level of stress and mitigation measures will be required if growth and additional traffic from further developments are expected along the A421 corridor. Rail: Aspley Guise railway station, on the Bedford line, lies on the southern boundary of the Spatial Option. Ridgmont Station to the immediate east of the M1 and Woburn Sands to the west are identified stopping stations on East West Rail. A Park & Ride facility is being planned by CBC to enable M1 and local traffic to access East West rail services alongside current/planned B8 distribution uses, but there is no indication that a strategy for connecting Ridgmont to other growth areas or to existing destinations by dedicated or prioritised public transport routes are being examined alongside the P&R proposal. The safeguarded route of the Bedford to Milton Keynes Waterway runs east-west across the Spatial Option area and follows the railway line to cross the M1 in the direction of Ridgmont. The canal corridor provides the opportunity to enhance strategic bridleway, cycle and footpath links. ***Summary :*** *the Spatial Option is at a key location on the A421 and J13 of the M1 as well as being well-located in relation to a potential route for the Expressway and to East-West Rail. Growth in this location would require connections to the proposed MK MRT which would help to alleviate existing levels of stress on the strategic road network, particularly the A421 and M1 at Junction 13. Growth here, if based on the delivery of a mass rapid transit system, could present a significant opportunity to improve those links, providing ease of access to employment opportunities and reducing car borne traffic. Growth in this location, if connected to an MRT system, could also enable the expansion of the system out into the new Marston Vale New Villages development to the south, and eastwards towards Bedford.*
General Infrastructure Capacity	Sewerage and Wastewater Treatment: from the Water Cycle Study, Stage 2, 2018, it is unclear which Water Treatment Centre catchment this area falls within, and it is possible that it is located within Milton Keynes. Social Infrastructure: The area is currently sparsely settled and what development there is, is predominantly business or agricultural in nature. There are, therefore, no existing social infrastructure facilities or services within the Option area, although there are some limited facilities in Aspley Guise to the south and Woburn Sands to the south west. ***Summary*** *: a significant quantum of development would be needed in this spatial option in order to deliver the necessary growth in infrastructure to support new and bring benefits to existing residents. Infrastructure would be*

	required to be delivered up front of development due to the lack of existing facilities in the area.

National/ sub-national infrastructure drivers and projects	
Oxford-Cambridge Growth Arc (the Arc)	The Central Bedfordshire Local Plan identifies a number of areas for Future Growth. Further assessment of the potential of strategic sites on the East West Rail/Expressway and the A1/East Coast Main Line Corridor routes is planned in line with emerging decisions on this strategic infrastructure. This will enable further growth potential to be looked at in line with decisions to be taken on routes, timing and services, together with provision of wider infrastructure and delivery support. This assessment will inform a Partial Review of this Plan and will contribute to the ongoing work in the Central Corridor Area
East-West Rail	1. The proposed East West Rail scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects. 3. Ensure that strategic infrastructure, including new elements of East West Rail are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The southern boundary of the spatial option follows the East-West Rail route and the area benefits from proximity to Woburn Sands and Ridgmont stations.
Expressway	1. The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030 3. Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The spatial option area lies within the preferred corridor within which a route for the Expressway is to be identified. The current A421 is likely to form part of the planned Expressway at M1 Junction 13.

	From the MK 2050 Strategic Growth Study: *"The impact of the Expressway – in terms of route alignment and changes in traffic movements through this area – is not yet known. If the Expressway is built at grade through this area it will have significant adverse environmental impacts, will limit the capacity of the area to accommodate already planned housing growth well related to EWR, and is likely to directly impact communities through CPO of existing properties. As such, for the Expressway to have any chance of being acceptable and supported locally as* *well as serving a strategic purpose, tunneling at certain locations around MK (at points between the M1 and A5 south of the city) are likely to be necessary. Extensions and connections of the existing grid corridors in south Milton Keynes with the A421, the A5, the Expressway and to access Woburn Sands Station must also be considered and fixed. These conversations have started in respect of Plan:MK development sites and their individual Development Frameworks – particularly in respect of the H10 and V10 extensions where grid corridor reserves within the urban area are fixed – but no consensus has been reached between MKC and CBC, or between MKC and the private sector, as to the preferred routeing or funding/delivery vehicle for this infrastructure".* The lack of a decision on the final route of the Expressway, and questions raised as to its future progression by Grant Shapps MP in November 2019 represents a risk to decision making and delivery in this location.

Local Growth Allocations & Settlement Hierarchy	
Plan:MK, 2019	N/A
VALP	N/A
Central Beds Local Plan	Plan currently at examination. Allocations: The Spatial Option falls within the E-W Area in the plan's development strategy. The Plan identifies future opportunities for growth to be considered in a Partial Plan Review. These are related to East-West Rail and the Expressway. When delivered, these strategic infrastructure projects will strongly support the development potential of further large scale growth in the Marston Vale. The Plan notes that there is some potential north of the railway line (this Spatial Option) for mixed use development in the form of new villages. As development cannot come forward until the route of the Expressway has been finalised, this area is identified as a safeguarded location for consideration in the Partial Plan Review to ensure that the route is not sterilised. The Plan is clear that villages around Woburn including Aspley Guise must be protected due to their unique character, heritage assets and natural environment so any future development here would need to be appropriately buffered to avoid coalescence and harm to the character of the existing settlements.

South Northants Local Plan	N/A
MKC Minerals Local Plan, 2017	N/A
Minerals & Waste LP, 2014 (CBC, Luton & Bedford Borough Councils)	Nothing proposed for the Spatial Option area.
MKC Site Allocations Plan, 2018	N/A
Neighbourhood Plans	N/A

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth

Principle 1: A commitment to inclusive growth

Inclusive and transformational growth means connecting more people to the available economic opportunities and for there to be a significant long term growth in the area's economy as well as in the number of new homes. The Spatial Option is at a key location in relation to the strategic road network, East-West Rail and the proposed Expressway. Its location makes it a good location for employment growth but it also has the potential to deliver new homes, as an extension to exiting planned growth in Milton Keynes to the west.

Principle 2: Build sustainability into everything the city does

In order to meet the targets in the Strategy for 2050 for carbon neutral and carbon negative development, development in this area would need to be supported by improved public transport and links to a mass rapid transit network in order to significantly reduce car-borne journeys. It is at a key location on the east-west axis between Oxford and Cambridge and benefits from access to East-West Rail.

Principle 3: Connected Growth and Mobility & Principle 4: Mobility for All

Growth in this location will require improved connections to Milton Keynes and, in order to achieve a significant shift away from the use of the car, a connection to the MK mass rapid transit network. As per Principle 2, the option provides opportunities for a significant concentration of development to support rapid mass transit, especially if linked to growth to the west.

Principle 5: Economic growth that provides jobs for all

Whilst there are a number of businesses operating from premises, including converted agricultural buildings within the Spatial Option, the area is sparsely developed. It does, however, have locational advantages due to its position on the A421/M1 junction 13 and with access to

the employment location at Marston Vale. With connections to an MRT network, the area has potential to deliver higher density employment development, and enable more sustainable commuter patterns.

Principle 6: Provide a range of homes that work for everybody

Any new development in this area would increase opportunities for access to affordable homes to meet the needs of a broad sector of the population. It is, however, relatively remote from the Milton Keynes urban area and, unless provided in tandem with new residential development, would not benefit from a wide choice of facilities and services within walking or cycling distance. Whilst connection to an MRT would provide links to Milton Keynes and potentially other local settlements such as Woburn Sands, it may not be the best location for affordable homes for families needing access to services.

Principle 7: Keep Milton Keynes Green and Beautiful

Whilst the Spatial Option is outside the Milton Keynes urban area, the same principle applies. The option area falls within the strategic Bedford to Milton Keynes GI corridor and delivery of strategic GI in this location could help to deliver much wider access to the countryside between Milton Keynes and Bedford. Extending strategic green and grey infrastructure networks from Milton Keynes out to M1 J13 as part of this Spatial Option would enable links to be made to planned growth areas east of the M1 (Ridgmont P&R/employment hub and the Marston Valley new community). The route of the Bedford to MK Waterway runs north-east to south-west through the Spatial Option and provides an opportunity to connect to green infrastructure and walking, cycle and bridleway routes.

Intensive development in this Spatial Option area could, however compromise the delivery of the Bedford to MK strategic GI corridor, by taking up land needed for GI, so reducing its effectiveness.

Principle 8: Create better places and communities that work for everyone

As for Principle 6 above, new development in this area would involve creating a new community as there is only limited development her at present. As the area is relatively remote from the Milton Keynes urban area, infrastructure would need to be provided in tandem with new residential development in order to ensure that the new communities had access to a wide choice of facilities and services within walking or cycling distance. Connection to an MRT network would provide links to Milton Keynes and potentially other local settlements such as Woburn Sands.

Principle 9: Build stronger centres - Not applicable to this option.

Principle 10: Provide leadership and direction

This Spatial Option lies within Central Bedfordshire Council area. The Strategy for 2050 is clear that where the vision for the future of Milton Keynes includes development located outside of the borough boundary, the delivery of that development will be for the local planning authorities in those areas to determine through their own local planning processes. Development here will, therefore require co-operation and joint working between the local authorities to deliver the necessary connections and infrastructure to support inclusive and transformational growth.

The Strategy suggests that any new delivery mechanism created for Milton Keynes should have

the capability of being expanded to cover adjacent authorities (or parts of those areas) in order to share the mutual benefits of growth.

This location is at particular risk of a piecemeal and disjointed development form which does not support or deliver on the 'good growth' objectives sought in the MK 2050 Strategic Growth Study and the Principles on the Strategy for 2050 (demonstrated by a number of recent speculative applications in both MK and Central Beds on land to the east of Newport Road). A collaborative approach between MKC and Central Beds Council is key to the delivery of a successful development in this location.

Conclusions

The Spatial Option is relatively unconstrained by environmental factors. There is an area of flood risk (Flood Zone 2) along the Broughton Brook corridor in the northern part of the Option area. In landscape terms, the area is within the flatter Vale, but there are important views to and from Brogborough Hill and to the Greensand Ridge which would need to be respected in any development.

Locationally, the Spatial Option benefits from access to the A421 and the M1 at Junction 13. It also has access to East-West Rail and falls within the preferred corridor for the Expressway although the lack of a decision on the final route of the Expressway, and questions raised as to its future progression by Grant Shapps MP in November 2019 represent a risk to decision making and delivery in this location. The route of the Bedford to Milton Keynes Waterway also runs broadly east-west through the area, providing opportunities for leisure and strategic blue and green infrastructure.

Development in this location would need to ensure that the strategic GI corridor between Bedford and Milton Keynes can still be delivered. Growth in this location would require connections to the proposed MK MRT which would help to alleviate existing levels of stress on the strategic road network, particularly the A421 and M1 at Junction 13. Growth here, if based on the delivery of a mass rapid transit system, could present a significant opportunity to improve those links, providing ease of access to employment opportunities and reducing car borne traffic.

Although, due to the lack of existing development within the Spatial Option area, a significant quantum of development would be needed here in order to deliver the necessary growth in infrastructure to support new residents, the locational benefits of this Option and the relative lack of environmental constraints mean that it has potential to contribute to the delivery of growth to 2050.

Spatial Option 6 Southern border of Milton Keynes
This Spatial Option comprises an area of land extending from Wavendon in the east to the A4146 in the south-west. It includes some land within Central Bedfordshire Council area, around Aspley Heath and in AVDC at Eaton Leys. Together with land in Spatial Option 5 (Aspley Guise Triangle), the MK2050 Strategic Growth Study, 2019 identifies this Option as a wider growth area encompassing extensions to allocated Plan:MK sites at South East MK, Eaton Leys and South Caldecotte and applies the 'Completing the Grid' typology. The majority of this Spatial Option has already been assessed as part of the consideration of the exiting planning permissions and site allocations in Plan:MK.

Constraints Assessment (primarily based on evidence base for Plan:MK)	
Flood Risk	**SFRA 2015 –** no part of the Spatial Option area falls fully within either Flood Zone 2 or 3. The existing committed sites at Newton Leys and Eaton Leys contain areas of flood zones 2 and 3 within their site boundaries, however this has been dealt with through their planning consents in line with existing Milton Keynes policy and again no development was allowed within these zones. The north western boundary of the site at Eaton Leys adjoins the River Ouzel. The vast majority of the area allocated as South East MK (SEMK) in Plan:MK is located within Flood Zone 1. The Caldecotte Brook and its tributaries extend into land north and south of the railway which include land which is flood zones 2 and 3. Given the relatively very small areas of flood zones 2 and 3 and where these occur, the Council considered that housing and other built development can be limited to areas of Flood Zone 1, without affecting the capacity or delivery of the site, in line with Policy FR1 and national policy and guidance. ***Summary:*** *the Spatial Option is unconstrained by fluvial flooding.*
Landscape Character	**Landscape Character Types (LCT):** the majority of the Option falls within Landscape Character Type, 4, Clay Lowland Farmland and specifically LCA 4b, Wavendon lay Lowland Farmland. **LCT 4 characteristics**: Low lying and generally flat landscape on the urban edge of Milton Keynes; mixed arable, pasture and recreational land uses; large scale arable fields with overgrown hedges and smaller areas of pasture for horses and stabling; wide range of urban fringe activities and uses including garden centres, allotments, individual industrial premises to the south east of Milton Keynes; limited woodland cover with conifer shelterbelts; few field trees except in the vicinity of Wavendon House. Dominated by major transport routes; scattered villages with a mix of characters with on-going residential and commercial development adjacent to this LCT. **LCA4b characteristics:** an area of open arable fields with some remnant historic field patterns with a mix of urban fringe uses. There is a more historically intact area around Wavendon. There are prominent conifer hedges and shelter belts around Wavendon and Bow Brickhill. Extensive and open

	views to the clay plateau, wooded Greensand Ridge and towards Milton Keynes; the open agricultural landscape provides a visually important setting for the Greensand Ridge. **Landscape Condition**: poor due to the presence of busy 'A' roads, large scale distribution centres and on-going development on the urban edge of Milton Keynes. There is a lack of visual cohesiveness in this urban fringe landscape due to the variety in built form. Landscape pattern is fragmented. Conifer hedges and shelter belts have replaced native hedgerows around the villages and are a prominent feature. The area is under pressure from urban fringe development and incremental changes will result in further erosion of the key characteristics of the area which provide the landscape setting for the urban edge of Milton Keynes. **Development Considerations:** retain open views across the Clay Lowland Farmland to the Brickhill Greensand Ridge. **Landscape Sensitivity Study to Residential Development 2016:** appraises the SE MK part of the Spatial Option as having low landscape sensitivity and being capable of accommodating residential development without affecting key characteristics and/or values in this landscape. North of the railway line, Wavendon and Woburn Sands are noted as being vulnerable to change from development through coalescence. South of the railway, extensive development could affect the integrity of the Greensand Ridge as a key landform feature, its peaceful character and the contrast between it and the flat clay lands north of it and the integrity of historic villages (Bow Brickhill and Woburn Sands) are vulnerable to change. These impacts could, however, be avoided by following advice In the Study and Plan:MK includes policies to ensure the Study' guidance is followed and other steps taken to avoid and mitigate to an acceptable degree any landscape impact upon the Greensand Ridge and the identity of the adjacent villages. ***Summary:*** *the landscape character overall is fragmented due to existing development and the presence of major roads and transport links within the Option area. Development here will need to be carefully designed to protect the integrity of the existing historic settlements eg Wavendon and Woburn Sands and will also need to avoid and mitigate landscape impact on the Greensand Ridge.*
Heritage Assets	Within the SEMK there are no designated heritage assets, however there is an Archaeological Notification Site towards the centre of the land south of the railway. There are a number of designated heritage assets within the wider vicinity of the site - the Danesborough Camp and Motte Castle Scheduled Monuments. Further west close to Eaton Leys is the Scheduled Monument of the Roman settlement of Magiovinium. The Grade II* Listed Church of All Saints, Bow Brickhill and Church of St Michael, Aspley Heath are situated on higher ground to the south and south east of the area. The Grade II* Listed Church of St Mary in Wavendon lies to the north of the area. There are a number of Grade II Listed buildings within the Wavendon, Woburn Sands and Bow Brickhill areas and a Conservation Area

	in Woburn Sands. ***Summary:*** The assets outlined above are not considered to present an overriding constraint to the development of the site.
Biodiversity ecology/ geology	The SEMK part of the Spatial Option includes a designated Wildlife Corridor running along each side of the railway and extending to cover an area of open water and deciduous woodland (priority habitat) south of the railway and adjacent to the built-up area of Woburn Sands before narrowing and extending further to Bow Brickhill Road. The Greensand Ridge is characterised by extensive woodland cover, some of which is ancient woodland, and which is designated as a Local Wildlife Site and priority habitat. ***Summary:*** *on the basis of current evidence, it is considered that the ecological assets and constraints are capable of being accommodated in line with the mitigation hierarchy set out in Plan:MK policies in such a way as to result in a net gain to biodiversity*
Green Infrastructure	The Option includes a number of green infrastructure assets, including: • Areas of open water and priority deciduous woodland in the eastern part of. the area, south of the railway line. • Designated wildlife corridor that runs along both sides of the railway line • The Caldecotte Brook and its tributaries which extend into land north and south of the railway. • A network of hedgerows • footpaths and a bridleway, largely running north south. Beyond the site are a number of strategic green infrastructure assets, most notably the Greensand Ridge. The approach in Plan:MK is to protect and enhance the green infrastructure within the site and seek to create connections with the wider network green infrastructure. The Green Infrastructure Study identifies the potential for new connections to be made across the Option area from the MK urban area out to the Greensand Ridge. ***Summary:*** *development within the Spatial Option location could provide opportunities to deliver new strategic GI connections to the Greensand Ridge to the east as well as delivering a green corridor along the railway line to provide a continuous link through the whole of this development area to the south east of Milton Keynes. Together with Spatial Option 5, development here can link to the Bedford to Milton Keynes strategic GI corridor and enhance this key east-west GI link from Bedford towards Milton Keynes as well as providing opportunities for new connections to the Bedford to MK Waterway from the west.*
Soil and Agricultural Land Quality	BMV: the SEMK allocation includes areas of Best and Most Versatile agricultural land, including some land classed as Grade 2. Impacts on BMV agricultural land will need to be considered as part of the planning application

	process. ***Summary:*** *in allocating SEMK, the Council considered development of the agricultural land within SEMK to be justified as it makes a significant and appropriate contribution toward meeting the Council's Objectively Assessed Need for Housing relative to other alternatives, as evidenced in the Council's Sustainability Appraisal. Design of the development will take BMV into account so that poorer quality land will be used in preference to that of a higher quality.*
Air Quality	The Spatial Option is not covered by an AQMA.
Transport	Transport modelling undertaken for Plan:MK for the SEMK allocation indicates that the addition of 2,000 homes south of the railway in this Option area would have minimal additional traffic impacts over and above the existing commitments and would also have little impact on Bow Brickhill level crossing, in terms of flow and delay with a maximum flow circa 900 PCU using the crossing which is within an acceptable volume for the crossing to accommodate given the train service frequency assumed. Impacts in traffic growth will be mitigated by a planned new road links between the H10 and Bow Brickhill Road bridging the railway line just to the west of Woburn Sands, and the additional road network linking H10 through to A5130 (Newport Road). A key assumption in the modelling for SEMK is the provision of a new road bridge over the railway alongside a new road network through the allocation site. A new road bridge is considered to be important from a place making perspective and would be of benefit of the wider transport network. When modelling the combined impact of the new employment allocation at South Caldecotte and SEMK, results show impacts on journey times along Brickhill Street between Kelly's Kitchen Roundabout on the A5 and the H10 due to the new access for the employment site. Notwithstanding the above assumptions and modelling work, Milton Keynes Council is undertaking a South East MK Transport Study to investigate highway and transport issues in more detail in this area of the city. This work will inform planning decisions associated with Plan:MK and help to inform the Strategy for 2050. **Rail:** SEMK is in close proximity to two railway stations, Bow Brickhill and Woburn Sands (a stopping point on East-West Rail) which will provide access during the plan period to improved rail services to and from Oxford, Central Milton Keynes and Bedford. Beyond the plan period, from additional services to Cambridge will be available. To the west there is Bletchley station on both the West coast Mainline and East-west Rail route. To the north east is Aspley Guise railway station, on the Bedford line, and Ridgmont Station to the immediate east of the M1, another identified stopping station on East West Rail. ***Summary:*** *the Option is well connected to the rail network and well placed to take advantage of East West Rail. Connection to the MRT network would further help to alleviate existing levels of stress on the road network.*

General Infrastructure Capacity	**Sewerage and Wastewater Treatment:** the Option is served by Cotton Valley Water Treatment Works (WTW), where the Study found flow capacity to be sufficient to meet planned growth in Plan:MK with some capacity available for future growth beyond the plan period. Treatment process upgrades using conventional treatment technology will be needed to ensure compliance with legislative water quality targets as well as to meet more stringent, non-statutory river quality targets. **Social Infrastructure:** The scale of development already planned in this area has the potential to enable the delivery of community infrastructure on site to serve the needs of the new community and potentially the wider area, This is particularly the case with education and health, where SEMK will enable the delivery of a new secondary school and health centre to serve the new communities and those in Woburn Sands, Bow Brickhill and the committed scheme at Eaton Leys. ***Summary**: the scale of development already planned for this Spatial Option is delivering infrastructure to meet the needs of new residents and to enhance the range of facilities available to existing communities in the area.*

National/ sub-national infrastructure drivers and projects	
Oxford-Cambridge Growth Arc (the Arc)	General context: Milton Keynes Council is committed to realising the city's potential as the hub of the Cambridge-Milton Keynes-Oxford growth corridor, responding positively to the aspirations of the Council's MK Futures 2050 programme, the Council Plan 2016-2020 and the NIC Report 'Partnering for Prosperity', to expand the City to a population of approximately 500,000 people by 2050. Milton Keynes Council's Strategy for 2050 will provide a framework for how the aspirational levels of growth supported by the Council should be delivered, to be translated into future reviews of the Local Plan. Policy DS0 in Plan:MK therefore commits to an early review with the intention that a draft plan containing strategic policies will be submitted to Government for examination no later than the end of 2022.
East-West Rail	1. The proposed East West Rail scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects. 3. Ensure that strategic infrastructure, including new elements of East West Rail are planned and developed, to achieve net gains in biodiversity and natural

	capital across the arc. The Spatial Option is well located in respect of East West Rail and the benefits it will offer for journeys. The issue of crossings over the railway line has been the subject of considerable work by Network Rail and consultation with Milton Keynes Council and the affected communities. The latest position is thought to be that Network Rail will maintain the two level crossings close to SEMK at Bow Brickhill and Woburn Sands and provide an accommodation bridge over the railway within the eastern area of the SEMK for use by farm vehicles. Final proposals are awaited but MKC is continuing to discuss the matter of road bridges over the railway with Network Rail and DfT in order to reach an agreement on the position, design, funding and shared value associated with a road bridge(s) as part of the development of SEMK. This matter presents a risk to the delivery of the development.
Expressway	1. The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030 3. Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The spatial option area lies within the preferred corridor within which a route for the Expressway is to be identified. From the MK 2050 Strategic Growth Study: *"The impact of the Expressway – in terms of route alignment and changes in traffic movements through this area – is not yet known. If the Expressway is built at grade through this area it will have significant adverse environmental impacts, will limit the capacity of the area to accommodate already planned housing growth well related to EWR, and is likely to directly impact communities through CPO of existing properties. As such, for the Expressway to have any chance of being acceptable and supported locally as* *well as serving a strategic purpose, tunneling at certain locations around MK (at points between the M1 and A5 south of the city) are likely to be necessary. Extensions and connections of the existing grid corridors in south Milton Keynes with the A421, the A5, the Expressway and to access Woburn Sands Station must also be considered and fixed. These conversations have started in respect of Plan:MK development sites and their individual Development Frameworks – particularly in respect of the H10 and V10 extensions where grid corridor reserves within the urban area are fixed – but no consensus has been reached between MKC and CBC, or between MKC and the private sector, as to the preferred routeing or funding/delivery vehicle for this*

	infrastructure". The lack of a decision on the final route of the Expressway, and questions raised as to its future progression by Grant Shapps MP in November 2019 represents a further risk to decision making and delivery in this location.

Local Growth Allocations & Settlement Hierarchy	
Plan:MK, 2019	Strategic site allocations at: • SEMK – c 3,000 dws • Eaton Leys (already has outline planning permission) – 600 dws • South Caldecotte strategic employment site – c 195,000m^2 B2/B8 and some ancillary B1 floorspace. **Settlement hierarchy**: SEMK is a strategic growth area in the Milton Keynes Urban Area, Tier 1. Woburn Sands is a Key Settlement in Tier 2, and Bow Brickhill and other rural villages fall within Tier 3 where any development would generally come forward through neighborhood plans or within the settlement boundary.
VALP	N/A
Central Beds Local Plan	N/A
South Northants Local Plan	N/A
MKC Minerals Local Plan, 2017	N/A
Minerals & Waste LP, 2014 (CBC, Luton & Bedford Borough Councils)	N/A
MKC Site Allocations Plan, 2018	N/A
Neighbourhood Plans	Woburn Sands, made in July 2014. The Neighbourhood Plan seeks to retain and enhance the character and identity of Woburn Sands as a small old town in rural Milton Keynes, which will remain an attractive and sustainable location meeting the aspirations of residents, the wider Woburn Sands community and all those who use the town's facilities.

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth

Principle 1: A commitment to inclusive growth

The Spatial Option is at a key location in relation to the strategic road network, East-West Rail and the proposed Expressway. Its location makes it a good location for housing and employment growth as recognised in the allocation of much of this area in Plan:MK and the existing planning permissions. Taking advantage of existing grid road reserves to link into the MK urban area to the north, the area would benefit from connection to an MK MRT.

Principle 2: Build sustainability into everything the city does

In order to meet the targets in the Strategy for 2050 for carbon neutral and carbon negative development, development in this area would need to be supported by improved public transport and links to a mass rapid transit network in order to significantly reduce car-borne journeys. It is at a key location on the east-west axis between Oxford and Cambridge and benefits from access to East-West Rail.

Principle 3: Connected Growth and Mobility & Principle 4: Mobility for All

Growth in this location will benefit from the critical mass of development from the scale of allocations and existing sites. Despite good rail links, connection to the MRT would be needed to achieve a significant shift away from the use of the car. The committed development could come forward as a sustainable interconnected series of mixed use communities that would benefit from modal choice within walking distance and offer good proximity to services.

Principle 5: Inclusive economic growth that provides jobs for all

It would be envisaged that this area would provide a highly desirable location for investors due to its connectivity and the proximity to the high quality environment of the Greensand Ridge although the majority of land in the option area is already either allocated, the subject of planning permissions or part of the built up area of existing villages. The South Caldecotte strategic employment allocation in Plan:MK introduces a significant new employment location into this part of Milton Keynes, increasing choice and employment opportunities. With connections to an MRT network, the area has potential to deliver higher density employment development, and enable more sustainable commuter patterns.

Principle 6: Provide a range of homes that work for everybody

The desirable location and critical mass means that new development in this area would increase opportunities for access to affordable homes to meet the needs of a broad sector of the population. Due to its location this area could provide a genuine mixed community feel from first time buyers to family housing. The critical mass would also support infrastructure provision in support of new residential communities.

Principle 7: Keep Milton Keynes Green and Beautiful

Development here could provide opportunities to deliver new strategic GI connections to the Greensand Ridge to the east as well as delivering a green corridor along the railway line. Together with Spatial Option 5, development here could link to the Bedford to Milton Keynes strategic GI corridor and enhance this key east-west GI link from Bedford towards Milton Keynes as well as providing a connection to the Bedford to MK Waterway. Development will need to have careful regard to its impact on the high quality landscape of the Greensand Ridge to the

south.

Principle 8: Create better places and communities that work for everyone

The existing planned development is coming forward as a series of individual developments, however there are opportunities to create a series of linked communities at a 'human scale' creating new local centres and transport hubs without the dominance of the car. Mass Transit would be promoted and interconnectivity between communities and the wider Milton Keynes urban area including the redways developed.

The scale of development currently planned for this area requires infrastructure to be provided in tandem with new residential development in order to ensure that the new communities have access to a wide choice of facilities and services within walking or cycling distance without increasing stress on existing services and facilities in adjoining settlements. Connection to an MRT network would provide links to Milton Keynes and potentially other local settlements such as Woburn Sands.

Principle 9: Build stronger centres - Not applicable to this option.

Principle 10: Provide leadership and direction

Small parts of this Spatial Option lie within Central Bedfordshire and Aylesbury Vale Council areas. The Strategy for 2050 is clear that where the vision for the future of Milton Keynes includes development located outside of the borough boundary, the delivery of that development will be for the local planning authorities in those areas to determine through their own local planning processes. Development here will, therefore require co-operation and joint working between the local authorities to deliver the necessary connections and infrastructure to support inclusive and transformational growth.

The Strategy suggests that any new delivery mechanism created for Milton Keynes should have the capability of being expanded to cover adjacent authorities (or parts of those areas) in order to share the mutual benefits of growth.

Conclusions

The Spatial Option is relatively unconstrained by environmental factors. There is an area of flood risk (Flood Zone 2) along the River Ouzel affecting the Eaton Leys site but this has been addressed in the planning permission for the site. The key issue is the impact that development could have on important views to and from the Greensand Ridge to the south of the area.

The majority of the Spatial Option is already committed to development although there are risks to its delivery particularly in respect of the final route for the Expressway (or decisions on the future of this road) and in respect of crossings over the railway line, with Network Rail seeming to favour maintaining the existing level crossings, but MKC seeking a new road bridge or bridges to improve north-south connections.

Particularly if combined with Spatial Option 5 (Aspley Guise Triangle), the Spatial Option would provide a critical mass of development, potentially in a series of linked new communities which would support MRT connections back into Milton Keynes and potentially further to the east towards the Marston Vale New Villages and employment area in Central Bedfordshire.

Spatial Option 7 South West of Milton Keynes, towards Newton Longville

The area straddles both Milton Keynes Council (MKC) administrative area and Aylesbury Vale District Council (AVDC) administrative area with the vast majority of the area within AVDC and as such this area will be assessed using Vale of Aylesbury Local Plan (VALP) evidence in the main as many of the evidence documents for MKC do not cover this area notwithstanding the urban edges. The area covers the village of Newton Longville and abuts the other village of Stoke Hammond and Drayton Parslow. The area also abuts Bletchley and includes sites that have previously been allocated in MKC Local Plan which are now being built out such as the area around Tattenhoe /Snelshall, Kingsmead, Newton Leys and the proposed site allocations in VALP namely Salden Chase and Shenley Park, collectively referred to as North East Aylesbury Vale (NEAV).

The area is identified as a 'South West of Milton Keynes in the MK2050 Strategic Growth Study, 2019 under the 'Completing the Grid' typology. The study envisages development of the area to include the Salden Chase allocation plus additional land and could have the potential to deliver a new railway station on the East West line.

Constraints Assessment (primarily based on evidence base for Plan: MK)	
Flood Risk	**SFRA 2015** The area is within the Ouzel and Milton Keynes river catchment and contains within the area the Buckingham and River Ouzel Internal Drainage Board. The River Ouzel is a tributary of the River Great Ouse and rises in the Chiltern Hills before entering the study area 2.15km north-west of Leighton Buzzard. The river flows in a predominantly northern direction and exits the district at the point where it converges with the Water Eaton Brook approximately 1.46km south-east of Bletchley. There are several tributaries of the River Ouzel that flood and several sites that have been allocated or are being proposed to be allocated such as Newton Leys and Salden Chase have required Flood mitigation as they have been at least partially within flood zone 2 and 3. In the past there has been some minor localized flood events that have occurred in Newton Longville. The area that straddles Milton Keynes is within the West Bletchley Critical Drainage Catchments (CDCs) which contains multiple or interlinked sources of flood risk. ***Summary**: The area contains a risk of fluvial flood risk along the River Ouzel corridor and its tributaries. There has been no significant risk of pluvial flood risk in the area.*

Landscape Character	**MKC Landscape Character Assessment (MKCLCA)** The area does not contain any Landscape Environmental Designations however there is Poker's Pond Meadow SSSI South of Stoke Hammond that abuts the area.There are several ancient woodlands between Newton Longville and the proposed development site at Salden Chase and areas west of Salden Chase as well. Although there are no designations in this area, higher ground around Drayton Parslow offer panoramic views across this land area towards Milton Keynes and should be maintained. **Landscape Sensitivity Study** A Landscape Sensitivity Study to Residential Development in MK and adjoining areas was published in October 2016 which assessed 30 areas for their capacity to absorb new residential development. This are is covered by sensitivity land area(s) including the Ouzel Claylands and the Newton Longville Claylands. The Ouzel Claylands are likely to be able to accommodate residential development without a significant adverse change in landscape character. The landscape area physically adjoins the built edge of Milton Keynes and due to its open nature, most of the area is visually influenced by suburban development. There is intrusion from the busy road network and field amalgamation on the valley slopes results in a weak sense of place. However, the valley bottom along the river Ouzel and the Grand Union Canal is locally distinctive and vulnerable to change from development. The area is an important green corridor with high recreational value linking Milton Keynes to the surrounding countryside. Conserve and promote links and green corridors from the Grand Union Canal Walks to the surrounding countryside and the Greensand Ridge. The steep scarp of the Greensand Ridge that lies adjacent to the east is a key landscape characteristic that is vulnerable to change and must be respected in relation to future development. Extensive residential development on the lower ground close to the Greensand Ridge has the potential to affect the perception of the Greensand Ridge as a key landform feature diluting the contrast between the flat claylands and the Greensand Ridge. There is potential for the distinct sense of separateness/contrast and the peaceful character of the Greensand Ridge to be diluted. Integrate any new development with a strong landscape structure to shield views from the higher ground on the Greensand Ridge. The Newton Longville Claylands could accommodate residential development without affecting key characteristics and/or values in the landscape. Physically the area adjoins the built edge of Bletchley/Milton Keynes where some landscape elements are in decline. Strong enclosure is provided by the well-maintained hedges and folds in the landscape which creates areas that are visually enclosed. The integrity of the village of Newton Longville, particularly with future development pressure from the reinstatement of the railway, is vulnerable to change. Avoid disturbance of the historic field pattern to the

	west of the village. ***Summary:*** *The area has potential for residential development if accommodated sensitively respecting features such as the Greensand Ridge, the Ouzel valley and the Grand Union Canal corridor. Notwithstanding the SSSI that lies just south of Stoke Hammond there are no designations in the area however, view from Drayton Parslow across to Milton Keynes should be protected and the integrity of the characteristic and setting around Newton Longville will also need to be considered.*
Heritage Assets	The area contains Newton Longville Conservation Area which contains 9 Grade 2 listed Buildings one Grade 1 Listed Building and several locally listed buildings. The area is also adjacent to the Conservation Areas of Drayton Parslow and Stoke Hammond, both of which contain several Grade 2 Listed buildings. The Conservation Area boundary at Newton Longville encloses a small area of historic buildings within a much larger village significantly altered by modern development. The Conservation Area is important because it is the only part of two formerly separate areas of historic development to have retained significant elements of its former character and cohesion. The former rural character of Newton Longville has to a large extent been lost through the impact of more recent development. However, the mature trees, hedges and grass verges concentrated around the churchyard and grounds of Newton Longville Manor still provide a connection with the wider rural landscape. There are two Scheduled Ancient Monuments (SAMs)within the area: • Tattenhoe Deserted Medieval Village, 300m west of Home Park Farm. • Water Spinney medieval fishpond, Tattenhoe ***Summary:*** *the Conservation Area of Newton Longville along with the tow Conservation Areas that abut the area including Stoke Hammond and Drayton Parslow will require significant landscape and buffering schemes to ensure harm form any proposed development is minimsied.* *The two SAMS are close to the built-up area of Milton Keynes and the new development of Tattenhoe and Snelshall and would have been considered as part of these developments however, their wider setting would still require sensitive consideration.*
Biodiversity ecology/ geology	As previously mentioned, the area does not contain any Landscape Environmental Designations however there is Poker's Pond Meadow SSSI South of Stoke Hammond that abuts the area which contains one area that has the remains of medieval ridge and furrow ploughing. There is a marshy area where there was formerly a pond, but most of the field is dry grassland, with an unusually wide variety of plants, and over 100 species of grasses, sedges, herbs and rushes recorded. Forward to 2020: Buckinghamshire and Milton Keynes Biodiversity Action Plan (BMKBAP), identifies Local Biodiversity Areas identify where the greatest opportunities for habitat creation lie, enabling the efficient focusing of resources to where they will have the greatest positive conservation impact.

	The two that have been identified in the BMKBAP are: • Milton Keynes City • Ouzel Valley Several woods including Thrift Wood, Broadway Wood, Salden Wood, Middle Salden Wood also provide several species. ***Summary:*** *there are two areas have been recognised for additional resource to enhance habitat creation. The SSSI at Poker's Pond Meadow offers a significant ecological asset and is close to the area. A significant buffer would need to be delivered to mitigate any encroachment impact. The area also has numerous woodland that offer a variety of habitat.*
Green Infrastructure	The Milton Keynes Green infrastructure Study, 2018, includes areas of 'landscape scale' opportunities which can provide access to high quality greenspace and protect historical assets as the wider area takes on future growth. One of the key priorities form the Study is to provide a green connection between the urban extensions of South and South West Milton Keynes. These connections would pass through this area and into the overarching green infrastructure network linking around to the Blue Lagoon nature reserve continuing the liner park network into this area. There is a notable lack of larger areas of accessible greenspace in the arc around the south and west of Milton Keynes; this deficit will be exacerbated if development takes place in this area. ***Summary:*** *The area is disconnected strategically to the wider Green Infrastructure network and as such it has been recognised that missing links need to be provided. There is an opportunity to reconnect missing links to existing and proposed development around south and south west Milton Keynes through development.*
Soil and Agricultural Land Quality	Much of the area is defined as predominately Grade 3. Further assessment would be required to be able to ascertain whether the Grade 3 land was 3a (BMV) or 3b land. In this context land classified as Best and Most Versatile (BMV) is protected strongly through the application of planning policy in order to retain the highest yielding agricultural land for agricultural purposes. There are parts of area that are categorised within Grade 4. The area is within a superficial secondary aquifer but not within a groundwater source protection zone. Sites within a secondary aquifer are capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. There are no areas within the Plan area that are susceptible to groundwater pollution, however the entire Plan area is designated as a groundwater and surface water nitrate vulnerable zone. ***Summary:*** *There are no significant issues with either agricultural land quality or ground contamination that require further advanced assessments other than*

	normal Development Management requirements.
Air Quality / Noise Quality	Although the area does not contain an Air quality Management Plan there is a degree of noise pollution from traffic on the A421 and A4146. Any proposed development within the proximity of these corridors would be subject to comprehensive air and noise assessments. ***Summary:*** *Assessment of overall noise and air quality for this area did not raise any specific significant issues that require further assessment notwithstanding normal noise and air mitigation assessment*
Transport	**Buckinghamshire County Council Countywide Traffic Model** The area has several major roads that pass through it namely the A4146 which links South and East Milton Keynes to the A5/M1/Leighton Buzzard and the A421 which links the M1/Milton Keynes to Buckingham/A40. Both roads carry a high volume of traffic due to their strategic nature. This area uses the similar route corridors as area 9 hence the same assessments apply relating to the A421 and A4146. The Buckinghamshire County Council Countywide Traffic Model A comparison of the Do Something (DS or VALP growth) against the Do Minimum (DM or background growth) shows relatively little difference in travel time in Milton Keynes. However, on the western edge of the town, close to the A421, some significant travel time increases are observed both on the A421 and connecting minor roads. Travel time increases are relatively slight on the A421, within Buckinghamshire, compared to the DM (up to 6%), although the A421 immediately east of the county boundary experiences relatively significant travel time increases in the PM peak (up to 150%) on the approach to the Coddimoor Lane/ Whaddon Road/ A421 roundabout. On roads adjoining the A421 there are moderate to significant increases in travel time as a result of increases in demand flow on these links and the A421. These increases arise as a result of the additional development in the DS scenario. The increases in demand lead to additional queuing and congestion on the minor arms of junctions along the A421 as both the capacity for traffic exiting the minor arm is reduced, and the demand flow increases. Notable travel time increases occur on Coddimoor Lane (up to 300%), Shucklow Hill in the AM peak (up to 100%), and Whaddon Road in the PM peak (up to 80%), comparing the DS with the DM. Run 1 of the mitigated scenario includes the Bletchley Bypass but excludes dualling of the A421. In this scenario there are relatively slight travel time decreases on Stoke Road, between Newton Longville and the A4146 (up to 60%), as two-way demand flows fall by more than 1000 vehicles. However, the inclusion of the alternate route further increases demand flow on the A421, leading to a worsening of congestion than that experienced in the DS scenario. Run 2 of the mitigated scenario includes dualling the A421 between Buckingham and Milton Keynes but excludes the Bletchley Bypass. In this

	scenario, the increase in capacity on the A421 leads to relatively slight improvements in travel time (up to 80%) on the corridor. However, this has the effect of inducing additional demand on the route, which leads to further travel time increases on the adjoining minor roads, compared with the DM. ***Summary:*** *there are significant travel time increases at the eastern end of the corridor near to Milton Keynes. Neither mitigation run 1 nor run 2 reduces these impacts to any great extent, as both the Bletchley Bypass and dualling of the A421 are not modelled together. If both schemes were brought forward this may increase capacity on the corridor. There are moderate demand flow increases observed across the area, particularly on the A5, A509, A421, B4034 and A4146.* *If the Bletchley By-pass and improvements to the A421 are delivered the increases in demand flow are less significant on the majority of A and B roads through the area.*
General Infrastructure Capacity	**Water Cycle Study (WCS):** The area is within the Anglian Water management area and is served by Drayton Parslow Waste Water Treatment Works (WwTW). This is one of the WwTW's that were identified which would exceed their consented DWF permits due to potential growth. In terms of the foul sewerage capacity the area Infrastructure and/or treatment upgrades will be required to serve any proposed growth, but no significant constraints to the provision of this infrastructure have been identified. This area will require off-site work and development could only go ahead once a requisition or firm commitment has been received from developers and would be required within 12months from commencement. The effect of the increased effluent flow due to potential future development has a negligible effect on the predicted peak flow for events with return periods of 30 and 100 years in relation to the Waste Water Treatment Works. In terms of water quality, the River Ouzel is classified as moderate. **Schools – school capacity** At Newton Longville (and Whaddon and Thornborough) there is no expansion potential however, these areas already take many pupils from MK, so it would just displace these once the key developments around Milton Keynes deliver their schools (in line with the pupil generation rates). Newton Longville is currently taking children from the Newton Leys development (within AVDC on edge of MK) so Newton Longville can't expand although the new 3FE school at Newton Leys will mitigate this. The proposed development at Salden Chase is reserving a site for a 3FE Secondary School and could seek to make this bigger if needed. Schools that fall within the area's catchment are: • Drayton Park School • Water Hall Primary School • Newton Leys Primary School 3FE

- Sir Herbert Leon Academy

Sport & Leisure

Proposed Draft VALP 2019 – Policy I2 requires that open space provision is set at 2.4 hectares of strategic open space per 1,000 population.

Areas proposed for allocated adjacent to Milton Keynes would need equivalent to an additional 3 badminton court hall or 0.74 four court sports halls, additional 2.17 swimming pool lanes, two community centres, 0.31 of artificial pitch, 8 grass pitches and 3 cricket wickets and 7 tennis courts. However, this will ultimately depend on the distribution of the housing developments.

Health

Milton Keynes CCG commissions health care services for residents within the Milton Keynes area. Its geographic area of responsibility covers all the wards in Milton Keynes plus the wards of Great Brickhill and Newton Longville in Aylesbury Vale. Due to the amount of committed development already around Milton Keynes and the proposed site allocations at Salden Chase and Newton Leys, Milton Keynes CCG would seek contributions towards the cost of providing additional health care facilities within their administrative area. This is due to the impact on several existing GP practices in Milton Keynes CCG (Drayton Road, Hilltops, Parkside, Westcroft and Whaddon).

The nearest existing GP surgeries are:

- Water Eaton
- Bletchley

Acute care access is either at Milton Keynes, Stoke Mandeville or Northampton hospitals.

***Summary**: The overall assessment of WwTW Sewerage System Capacity Assessment is that the area can be accommodated with improvements to the infrastructure/treatment upgrades however, there have been no significant constraints that would prejudice the area from coming forward.*

Although the area currently does not have primary school capacity due to the intake of Milton Keynes development pupils this will be readdressed once schools such as Salden Chase are in operation. Any development in this area would require commensurate pupil places (in line with pupil generation rates)

Good accessibility to facilities in Milton Keynes and Bletchley would need to be supported by making provision for on-site provision to serve new TOD communities.

Although the area is served by several smaller GP's including Water Eaton, due to the cumulative impact form other development in the south and west of Milton Keynes further contributions would be required to mitigate this.

National/ sub-national infrastructure projects	
Oxford-Cambridge Growth Arc (the Arc)	General context: Milton Keynes Council is committed to realising the city's potential as the hub of the Cambridge-Milton Keynes-Oxford growth corridor, responding positively to the aspirations of the Council's MK Futures 2050 programme, the Council Plan 2016-2020 and the NIC Report 'Partnering for Prosperity', to expand the City to a population of approximately 500,000 people by 2050. VALP will provide an aspirational growth level that will be supported by and contribute towards the prosperity and connectivity aims of the growth ARC. Proposed development in the area would contribute toward the governments and sub regions growth and connectivity aspirations.
East-West Rail (Partnering for Prosperity – a new deal for the Cambridge-Milton Keynes-Oxford Arc) – National Infrastructure Commission Report	1. The proposed East West Rail scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects 3. Ensure that strategic infrastructure, including new elements of East West Rail are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The area will support and benefit the new railway station at Winslow as well as the service between Winslow and Bletchley and further afield.
Expressway (Partnering for Prosperity – a new deal for the Cambridge-Milton Keynes-Oxford Arc) – National Infrastructure Commission Report	1. The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030

	3. Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. Due to the proximity of the expressway in this area proposed growth would benefit from the connectivity and strategic links through the sub region. For the development top come forward a bypass around Bletchley would be required which could deliver more capacity to the area.

Local Growth Allocations and Settlement Hierarchy	
Plan: MK, 2019	No allocations have been made for this area in the adopted Plan: MK 2019 Local Plan
VALP	This area contains 2 Site Allocations in the VALP as proposed to be modified by the Main Modifications, 2019. The allocation at Salden Chase was in the submission version of the VALP, with an allocation at Shenley Park being re-added to the plan in the Main Modifications. Allocation WHA001 Whaddon Chase, is proposed for approximately 1,150 homes, 110 bed care home/extra care facility, new primary school, subject to need a site for new secondary school, multi-functional green infrastructure (in compliance with Policies I1 and I2 and associated Appendices), mixed use local centre, exemplary Sustainable Drainage Systems, new Link Road between A421 Buckingham Road and H6 and or H7 Childs Way/Chaffron Way, public transport and cycling and walking links. Collectively the 2 allocations are referred to as North East Aylesbury Vale in the VALP. Salden Chase Resolution to approve – 15/00314/AOP – Outline planning application with all matters reserved except for access for a mixed use sustainable urban extension on land to the south west of Milton Keynes to provide up to 1,855 mixed tenure dwellings; an employment area (B1); a Neighbourhood Centre including retail (A1/A2/A3/A4/A5), community (D1/D2) and residential (C3) uses; a primary and a secondary school; a grid road reserve; multi-functional green space; a sustainable drainage system; and associated access, drainage and public transport infrastructure. **VALP Settlement Hierarchy**: Newton Longville falls within North East Aylesbury Vale where land is allocated adjacent to Milton Keynes for some 3,300 dwellings.
Central Beds Local Plan	N/A
South Northants Local Plan	N/A
Bucks CC Minerals &	In terms of mineral resources in the area there are two Sand & Gravel types, Glaciofluvial, River Terrace. This are is within a sand and gravel safeguarding

Waste Local Plan 2016-36	area.
MKC Waste DPD, 2007	N/A
Neighbourhood Plans	The area is not covered by any 'made' Neighbourhood Plans.

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth

Principle 1: A commitment to inclusive growth

Situated within the corridor already served by a major trunk road. Connections to Winslow station to access east west rail. Opportunity to enhance mass transit with Salden Chase and potentially Shenley Park into Bletchley. Opportunity to deliver the Bletchley bypass which will add more capacity to the local network.

Principle 2: Build sustainability into everything the city does

There is an opportunity on a large scale to further the sustainable construction agenda Milton Keynes has previously committed too. Due to opportunities for non-car borne travel because of proximity to east west rail and edge of MK location opportunities to extend mass transit and create good quality green corridors and landscaping due to critical mass. This area would also benefit from Area 9 coming forward due to the improved connectivity to Winslow Station and Green Infrastructure improvements around Milton Keynes. The area would need to ensure that the integrity of the landscape and views between Drayton Parslow and Milton Keynes are not compromised. There are also opportunities to introduce a Strategic SUDs Network

Principle 3: Connected Growth and Mobility

This area would be able to deliver substantial growth due to its connections with the growth corridor including the A421 which could potentially be considered for a Park & Ride site. As the area abuts the built-up area of Milton Keynes the grid road system could also be safeguarded. Clear links with Shenley Park/Whaddon Chase and further to Bletchley and the East West services make this area attractive for connected growth opportunities

Principle 4: Mobility for All

With the proximity of East West rail there is an opportunity to deliver modal shift away from the car and deliver a bus network and extend the Milton Keynes Mass Rapid Transport Network to link to East West rail and new and existing communities such as Newton Longville. The proposed Rapid Transit Network would serve the MK allocated growth, new communities around Newton Longville, regeneration at Westcroft and a potential A421 P&R. In the context of the growth strategy to 2050, planned and potential growth this area would support the proposal for a new EWR rail station south west of MK. A station south west of MK was proposed in the original East West Rail scheme and was part of previous strategic planning documents as part of wider growth proposals in this area. A station here would enable an interchange between EWR services and

CMK to be established, linking rail services and a Park & Ride on the A421

Principle 5: Economic growth that provides jobs for all

This type of location could provide a good mixture of housing types, employment opportunities, leisure and retail due to the proximity of the growth corridor and its supported infrastructure. The areas location in the South of Milton Keynes between the M1/A421 and M40 could provide significant opportunities for commuters and employers a like.

Principle 6: Provide a range of homes that work for everybody

The desirable location and critical mass could provide a positive impact in housing affordability delivery. Due to its location this area could provide a genuine mixed community feel from first time buyers to family housing. The critical mass would also support infrastructure provision in support of new residential communities.

Principle 7: Keep Milton Keynes Green and Beautiful

The biggest constraint in terms of landscape is that of the views between Drayton Parslow and Milton Keynes and its setting. There are also significant views from The A421 looking south across Aylesbury Vale although Salden Chase has already been committed in that location. This area could provide a significant green corridor between the River Ouzel and Whaddon Chase and could connect new and existing communities the network. The area could act as a catalyst to connect the Milton Keynes Green Infrastructure to the wider sub area.

Principle 8: Create better places and communities that work for everyone

The Salden Chase proposals already safeguards a 'grid road' corridor which will maximise local connectivity between a number of new planned growth areas whilst allowing existing strategic and through movements to be diverted away from existing settlements such as Newton Longville and on to the strategic network such the A421 and A4146, this will also benefit Freight born traffic. Mass Transit would be promoted and interconnectivity between communities and the Wider Milton Keynes urban area including the redways developed.

Principle 9: Build a stronger heart to the city

Not applicable

Principle 10: Provide Leadership and Direction

A significant part of this Spatial Option lies within Aylesbury Vale Council area. The Strategy for 2050 is clear that where the vision for the future of Milton Keynes includes development located outside of the borough boundary, the delivery of that development will be for the local planning authorities in those areas to determine through their own local planning processes. Development here will, therefore require co-operation and joint working between the local authorities to deliver the necessary connections and infrastructure to support inclusive and transformational growth.

The Strategy suggests that any new delivery mechanism created for Milton Keynes should have the capability of being expanded to cover adjacent authorities (or parts of those areas) in order to share the mutual benefits of growth.

Conclusions

This area has been considered to deliver an estimated 10,000 homes as part of North Aylesbury Vale.

The area south and south west of Milton Keynes provides the opportunity to achieve growth on a transformational scale. The 10,000 homes that has been considered as part of this growth will provide the required infrastructure for this area to be a sustainable growth option for Milton Keynes and the north of the vale.

The proximity to Milton Keynes/Bletchley and the areas of growth such as Water Eaton, Newton Leys and South West Milton Keynes including the VALP allocations at Salden Chase and Shenley Park could provide a Green Infrastructure opportunity that would assist in connecting western and South Western Milton Keynes through a series of greenways along with the greenway/River Ouzel corridor through Central Milton Keynes.

The proximity to East West rail, the A421 and the growth corridor and the A4146 Stoke Hamond bypass all offer excellent transportation links and provides the area an opportunity for both commuter and commercial investors. There would also be opportunities to expand the Milton Keynes Mass Rapid Transit as well.

In terms of constraints, the area isn't heavily constrained by national or regional designations and doesn't suffer significant flooding apart from around the River Ouzel corridor, however the area does contain the A421 which would have a noise impact and would be a major consideration in the location of on any potential development,

Constraints to growth in the area include the views from Drayton Parslow and the Sand and Gravel safeguarding zone around Newton Longville. The area contains Newton Longville Conservation Area and abuts the Conservation Areas of Drayton Parslow and Stoke Hammond, both of which contain several Grade 2 Listed buildings.

Spatial Option 8 Winslow Growth

The area has been identified as 'Winslow Growth' in the MK2050 Strategic Growth Study, 2019. Growth is concentrated around the town and its immediate surroundings. The area is wholly within AVDC and although some MKC evidence base covers Winslow on a Strategic Growth basis this area will be assessed using Vale of Aylesbury Local Plan (VALP) evidence in the main.

Constraints Assessment (primarily based on evidence base for VALP)	
Flood Risk	**SFRA 2015** The only stream is a meandering tributary of the Claydon Brook which is found in a few fields to the west of Winslow. There are also a couple of springs on the edges of the area. The area is drained by the River Great Ouse and Backwaters and is partially within flood zone 2 and 3 and contains a large proposed site allocation contained within the proposed draft VALP – Land to east of B4033, Great Horwood Road. This will need to pass a sequential test in order to be taken forward and delivered There is also another site at risk from flooding from an ordinary water course which is Land west of Furze Lane. This site is within Flood Zone 1 but at risk from an ordinary watercourse, which should be taken into account when carrying out the Sequential Test and the Exception Test if required. Flooding history in Winslow has mainly been localized at Claydon Brook which has included sewer and overland flooding. In the past the Elmfields estate has also flooded as has Granborough Road. Also, Verney Junction suffered an overflow of watercourses and existing flood defenses The Claydon Brook also appears to be source of fluvial flood risk to the farmland surrounding the settlements of North Marston, Granborough and Winslow. Again, no property flooding has been recorded, but road and field flooding is known to be a regular occurrence in Winslow In general, there is a high proportion of surface water flooding in Winslow. ***Summary**: Although the majority of the area is outside of flood zones 2 and 3 the area is susceptible of pluvial flooding. The Claydon brook has also been known to flood fields and roads in the past.*
Landscape Character	**Aylesbury Vale District Council & Buckinghamshire County Council** **Aylesbury Vale Landscape Character Assessment: t**he area that Winslow lies in is defined as undulating Clay Plateau. The ridge runs from east to west. At the centre is the small town of Winslow, whilst the eastern end is marked by the village of Swanbourne and to the west by the village of Addington. The A413 runs along a section of the ridge to the

	west of Winslow and the B4032 follows it to the east of the town. The landscape retains a strong balanced and well-structured agricultural character despite its close proximity to Winslow. Busy roads bounded by strong hedgerows often with landmark trees are a feature of the area. Geology Head deposits over mudstones. The western section is underlain by the lower, middle and upper formations of the Oxford Clay whereas the West Walton Formation underlies the eastern section. The field pattern is predominantly small to medium sized in a fairly irregular pattern. The use of the fields is mixed with more pasture on the edges of Winslow. Farms are less dispersed than is typical elsewhere in this part of the Aylesbury Vale and tend to be set back some distance from roads. Most farms have adjacent small woodlands. There is an equestrian centre at Addington Manor. The tree cover is higher than in most of the surrounding landscape. The hedgerow quality varies but is generally strong. Some are unmanaged forming tall strong hedges occasionally reaching the height of mature trees whilst others are regularly clipped and contain mature oak and ash. Small copses have been allowed to develop in some field corners. Woodland is generally in the form of very small blocks often adjacent to farms. The largest woodlands form part of the designed parkland around Addington Manor. The hedgerow pattern is variable but with local sections of mature hedgerows largely unmanaged. The pattern of elements remains limited in scope but with few detracting features. Overall the visual unity of the area is unified due in part to the distribution of woodland cover, which is comparatively high around Addington and throughout the area there are very small woodlands often close to farms. Notably the quality of the landscape around Winslow is good showing few signs of neglect or deterioration. The cultural integrity is considered good due to the strong field pattern with small to medium and fairly irregular fields and attractive historic settlements. Ecological integrity is strong due to good connectivity and relatively large areas of designated sites and habitats of District significance. Within the context of a landscape which is not intensively managed, the functional integrity of the landscape is considered to be very good. Summary of Condition/Sensitivity Analysis Sensitivity The landscape is of distinctive character and good quality in a comparatively settled agricultural area. Overall the sense of place is considered to be moderate with local evidence of historic continuity. The landform is apparent and towards the edges of the area there are views out over the surrounding lower ground. The tree cover is variable but with intermittent copses. Woodland cover is strongest around Addington. Mature trees in clipped hedgerows are a feature of the area with some landmark trees. Visibility is variable depending on the location and is rated as moderate. Overall the moderate strength of character combined with the moderate visibility gives the landscape a moderate degree of sensitivity. ***Summary:*** *Generally, the landscape in very good condition and is of distinctive character with high levels of tress cover. The area is characterised by small and medium sized agricultural fields and support woodlands.*
Heritage Assets	There is little evidence for pre-medieval occupation. The main focus of archaeological interest is in the historic town of Winslow and at Shipton where a

	Saxon cemetery and medieval hamlet is recorded. The A413, called the Portway in 1599, shows signs of an early medieval diversion to link into Winslow High Street leaving a relict lane running west to join the B4032 north of Shipton. Swanbourne has a conservation area with stone and timber framed brick infilled vernacular houses surrounded by fields of ridge and furrow and fossilised strip fields. The historic landscape in this area is a mix of parliamentary enclosure and pre 18th century enclosure which is mainly in the west. The parliamentary enclosure at Shipton was unusually early (1745) and has a more irregular layout than normal probably reflecting the pre-existing pattern of open field furlongs. The parkland around Addington and Swanbourne is a major feature of the area. A sizeable amount in the centre of Winslow is considered a historic settlement although there is substantial new development around it. There is an area of pre 18th century meadow to the north of Swanbourne. This area is also associated with the Whaddon Chase hunt, and the larger woodlands such as Canada near Foxhole Farm and Spring Corner were utilised as fox coverts. The area has retained its historic field pattern well with little recent enclosure or prairie farming. Designations Conservation Areas at Swanbourne (2), Shipton Archaeological Notification Areas. ***Summary**: Due to the nature of this area and the historic town of Winslow and villages of Swanbourne and Shipton, there are notable conservation areas in the area and a large amount of archaeology. History in this area has helped shape the landscape and therefore, must be protected.*
Biodiversity ecology/ geology	The Forward to 2020: Buckinghamshire and Milton Keynes Biodiversity Action Plan (BMKBAP) identifies Winslow Ridge as being dominated by grassland habitat which is mostly improved although in the west there is a very small area of neutral grassland. This is a broad habitat type as is the much more frequently found broadleaved woodland present in small blocks throughout both parts of the ridge. Priority habitat types are restricted to a small area of eutrophic standing water of the South Lake at Addington in the west ridge, and the parkland at Swanbourne in the east ridge. Elsewhere standing water is limited. Habitat connectivity is good due to the strong hedgerow system. Arable land is much less prevalent compared to other parts of the District and is found mainly in the eastern ridge. ***Summary:** The area around Winslow supports a broad range of habitat due to its grassland type. It is imperative to retain hedgerows in the area due to wildlife connectivity.*
Green Infrastructure	Winslow has no accessible greenspace over 20ha within 10km, which is below the minimum ANGSt level. This is further compromised with the notable lack of larger areas of accessible greenspace in the arc around the south and west of Milton Keynes; this deficit will be exacerbated if development takes place in this area. Summary: *The area is disconnected strategically to the wider Green Infrastructure network and as such it has been recognised that missing links need to be provided. There is an opportunity to reconnect missing links to existing and proposed development around south and south west Milton Keynes through development.*

Soil and Agricultural Land Quality	Much of the area is defined as predominately Grade 3 although there is some grade 2 and 3a land around the proposed site allocation. Further assessment would be required to be able to ascertain whether the Grade 3 land was 3a (BMV) or 3b land. In this context land classified as Best and Most Versatile (BMV) is protected strongly through the application of planning policy in order to retain the highest yielding agricultural land for agricultural purposes. There are parts of the area that are categorised within Grade 4. ***Summary:*** *There are no significant constraints to developments on the whole except for areas around the existing site allocation which are no being developed.*
Air Quality / Noise Quality	Currently, there are no significant air or noise issues in or around Winslow due to the distance from any strategic highway, however, any growth would bring with it a risk to noise and air pollution and so would need to be mitigated. The opening of Winslow station and the subsequent East West services would bring an increase in noise and air pollution to the railway corridor.
Transport	**Buckingham Transport Study** This study assessed traffic movements within an area defined by Buckingham and Winslow areas and identified schemes that could assist with modal shift away from the car and also assessed car born traffic in the area. The A413 Sustainable Travel Scheme includes: a 9km shared cycle and footway link adjacent to the A413 between the towns of Winslow and Buckingham The new East-West rail station in Winslow will provide direct links to strategic destinations in the south-east that are currently relatively inconvenient to reach with public transport from Buckingham. It is consequently possible (subject to future usage) that the existing bus frequency to/from the town should increase to cater for additional users to/from Buckingham, this could complement the existing X60 connection. The National Cycle Network Route 51 passes through Winslow, providing onward access to Milton Keynes and Bicester. **Buckinghamshire County Council Countywide Traffic Model** A comparison of the travel time changes between the background growth in Buckinghamshire and VALP proposed development scenario indicates that the town experiences relatively slight increases in travel time across both the AM and PM peak with the local plan development in place. The impacts differ from that observed for phase two as the proposed new town (4,000 house development) site to the north of Winslow has been removed for this phase. As a result, it was not necessary to test any mitigation in the local area in either mitigation scenario. ***Summary****: Background and proposed development growth in the area is due to only increase slightly during the plan period however, if further growth, for example a large urban extension or new settlement was proposed, there would be mitigation required to redistribute traffic movements from the town centre*

	and a new link to the A421 would need to be delivered.
General Infrastructure Capacity	**Water Cycle Study (WCS) :** The area is within the Anglian Water management area and is served by Winslow Sewerage Treatment Works (STW). For the majority of growth planned in Winslow there is sufficient capacity within the WwTW for the whole VALP period. In terms of the foul sewerage capacity there would be upgrades required to infrastructure/treatment upgrades to serve area, but no significant constraints to the provision of this infrastructure have been identified. For surface water network capacity, infrastructure and/or treatment upgrades will be required to serve the area and major constraints have been identified. Within the Anglian Water management area, Winslow WwTWs was identified to exceed its consented DWF permits due to potential growth and lead to class deteriorations of more than 10% however, proposed development around Winslow can be accommodated with a tighter permit and upgrade to the WwTW. **Schools – school capacity** The existing proposed VALP growth within Winslow would trigger the provision of a new 1fte school or 1fe expansion of Winslow CE Primary school. In terms of secondary provision, the existing Sir Thomas Freemantle school will be relocating within the town. Winslow has limited capacity for secondary school provision but could take a limited amount of infilling. **Sport & Leisure** For proposed VALP growth at Winslow the population growth justifies no more than the following infrastructure provision: • 0.66 of a badminton court. No additional stand-alone provision is therefore justified, although a relevant financial contribution to existing provision would be. • 0.07 artificial grass pitch pitches • A financial contribution towards swimming pool provision • 2 grass pitches and 1 cricket wickets • 2 tennis courts **Health** Additional demand will be placed on the existing practice at Norden House in Winslow (which is already at full capacity) but potentially offset by new provision at Salden Chase, the urban extension to Milton Keynes. Acute care access is either at Milton Keynes or Northampton hospitals. ***Summary:*** *The majority of proposed growth in Winslow has sufficient water supply and resources capacity however, there are a couple of site that infrastructure and/or treatment upgrades would be required to serve proposed growth or diversion of assets may be required, however there are no significant*

	constraints to the provision of this infrastructure have been identified. *If substantial growth was to occur in Winslow a new Secondary School would be required along with a Primary School. Due to the compact nature of the town an All-through school could be one option.* *Any new development sites at Winslow will be expected to contribute to a new clinic at Norden House.*

National/ sub-national infrastructure projects	
Oxford-Cambridge Growth Arc (the Arc)	General context: Milton Keynes Council is committed to realising the city's potential as the hub of the Cambridge-Milton Keynes-Oxford growth corridor, responding positively to the aspirations of the Council's MK Futures 2050 programme, the Council Plan 2016-2020 and the NIC Report 'Partnering for Prosperity', to expand the City to a population of approximately 500,000 people by 2050. Milton Keynes Council's Strategy for 2050 will provide a framework for how the aspirational levels of growth supported by the Council should be delivered, to be translated into future reviews of the Local Plan. The area site firmly within the Growth Arc and as such will contribute towards both economic growth and housing delivery. Infrastructure has already been identified and committed to support this such as Winslow Station.
East-West Rail (Partnering for Prosperity – a new deal for the Cambridge-Milton Keynes-Oxford Arc) - National Infrastructure Commission Report	1. The proposed East West Rail scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects 3. Ensure that strategic infrastructure, including new elements of East West Rail are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. Winslow Station has been consented and will form a focus for future growth. This will also provide opportunity for the TOD communities to access East West rail and the connectivity it

	brings.
Expressway (Partnering for Prosperity – a new deal for the Cambridge-Milton Keynes-Oxford Arc) – National Infrastructure Commission Report	1. The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly-defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030 3. Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The expressway corridor contains this area and any further growth in Winslow will require improved connectivity to the A421 as the strategic corridor in the area irrespective of which preferred route for the expressway is taken.

Local Growth Allocations	
Plan:MK, 2019	N/A
VALP	WIN001 – Land to the East of the B4033, Great Horwood Rd. 585 homes and green infrastructure Source Phasing 50 homes to be delivered 2017-22 and 535 homes from 2023-2033
Central Beds Local Plan	N/A
South Northants Local Plan	N/A
MKC Minerals Local Plan, 2017	In terms of mineral resources in the area there are two Sand & Gravel types, Glaciofluvial, River Terrace. This are is within a sand and gravel safeguarding area.
MKC Waste DPD, 2007	N/A

MKC Site Allocations Plan, 2018	N/A
Neighbourhood Plans	441 homes at sites allocated through the 'made' Winslow Neighbourhood Plan (2014).

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth

Principle 1: A commitment to inclusive growth

This area could support growth to ensure communities are inclusive and due to the accessibility of East West rail could support substantial growth with improved connections between Milton Keynes and Winslow Station, however, currently the town operates as a small dormant town for commuters with a small town centre and a rural environment.

Any growth of the scale that previously was considered, such as a new settlement a few miles north of Winslow would need to be considered within the context of Winslow and its setting.

Principle 2: Build sustainability into everything the city does

Development in this area would need to be supported by improved public transport and connectivity to Milton Keynes and other destination such as Buckingham and Aylesbury. Plans to improve public transport to Buckingham have already been identified.

The town does not contain large areas of flood risk although the areas east and west of the town are the most sensitive in terms of landscape quality therefore, development should be restricted to the north.

Principle 3: Connected Growth and Mobility & Principle 4: Mobility for All

Growth in this location will require improved public transportation and Green Infrastructure connections to Milton Keynes, Buckingham and Aylesbury. With physical improvements to Winslow Station from Milton Keynes, new employment growth could be delivered to the north of the town with a mixed-use district centre based around a TOD concept of an interconnected community with the rest of Winslow and further afield.

This growth would need to be aligned with a strategic link to the A421 to ensure strategic traffic in the town is replaced with pedestrian, walking and public transport connectivity.

Principle 5: Economic growth that provides jobs for all

The area has been identified in the MK: 2050 Growth Study as a potential location for a Park & Ride, MK:RT network extensions related to growth and a MK:RT interchange as well as establishing a cycle hub at the rail/RT interchanges and improve local access.

This will make the area attractive for employers to locate there or located in areas within the Growth Study area that can be access from Winslow.

Principle 6: Provide a range of homes that work for everybody

With improved public transport links, the area could be attractive to older households as well as to families needing space to grow.

Principle 7: Keep Milton Keynes Green and Beautiful

Improved accessible Green Infrastructure that is interconnected with the surrounding countryside and other Green Infrastructure corridors will enhance the areas offer as well as protect and safeguard green corridor connectivity to the wider Milton Keynes GI network.

Principle 8: Create better places and communities that work for everyone

Winslow is an attractive old town with a range of services and facilities that support a modest population.

With the advent of the railway station and East West connections, this brings on a step change in potential connectivity and inward investment to the town and area. Growth in the area in the shape of a TOD could develop community cohesion further by providing more accessible services to a wider population by connecting people with services via public transport including the MK Mass Rapid Transit, walking and cycling infrastructure connectivity to the railway station interchange.

Principle 9: Build stronger centres

Not applicable to this option

Principle 10: Provide leadership and direction

The Spatial Option lies wholly within Aylesbury Vale Council area. The Strategy for 2050 is clear that where the vision for the future of Milton Keynes includes development located outside of the borough boundary, the delivery of that development will be for the local planning authorities in those areas to determine through their own local planning processes. Development here will, therefore require co-operation and joint working between the local authorities to deliver the necessary connections and infrastructure to support inclusive and transformational growth.

The Strategy suggests that any new delivery mechanism created for Milton Keynes should have the capability of being expanded to cover adjacent authorities (or parts of those areas) in order to share the mutual benefits of growth.

Conclusions

This area has been considered to deliver an estimated 7,500 homes as part of North Aylesbury Vale.

It is imperative that the character of the town and its surrounding villages is not lost with any proposed growth. Growth would need to be centred to the north of the town where landscape sensitivities are not as significant.

Any growth of the scale that is being considered would require a strategic link road to the A421 to mitigate impacts to the town centre and would also need to be aligned with significant public transportation and non-car mode infrastructure connections to the railway station and Milton

Keynes, Buckingham and Aylesbury.

The area has a significantly high proportion of inaccessible green infrastructure which will need readdressing. Opportunities to reconnect missing links to existing and proposed development around south and south west Milton Keynes through development should be explored.

The area around Winslow supports a broad range of habitat due to its grassland type. It is imperative to retain hedgerows in the area due to wildlife connectivity.

Spatial Option 9 Extended Growth to South West of Milton Keynes

The area straddles both Milton Keynes Council (MKC) administrative area and Aylesbury Vale District Council (AVDC) administrative area with the majority of the area within AVDC and as such this area will be assessed using Vale of Aylesbury Local Plan (VALP) evidence in the main as many of the evidence documents for MKC do not cover this area.

The area runs a north south axis from Whaddon including Whaddon Chase and Area 9 in the north to Little Horwood north of Winslow in the south.

The area is identified as a 'New TOD Communities' (Transit-Orientated Development) area in the MK2050 Strategic Growth Study, 2019.

Constraints Assessment (primarily based on evidence base for the VALP with some reference to that for Plan: MK)	
Flood Risk	**SFRA 2015:** There are unnamed ordinary watercourse runs through the southern part of the site area. The Buckingham and River Ouzel IDB is located downstream of the site on the Loughton Brook, this site may drain into this management area. The area is within Flood Zone 1 and there has been no evidence of flooding in the area based on the Environment Agency Historic Flood Mapping and historical flood search, therefore there is no risk of Pluvial flooding in the area although Bottledump Roundabout on the A421 has a Fluvial flood risk. The site is also not within a Groundwater Source Protection Zone Surface water management design will be required based on detailed site investigations, including infiltration testing. SuDS are possible on all sites and a large greenfield site such as this should be able to implement an exemplar scheme. Conveyance features should be designed above ground and following natural flow paths where possible. Example features may include swales, attenuation features, green roofs, rainwater capture and reuse and permeable paving. Storage for runoff from the development in extreme events should be located out of the flood risk area. ***Summary:*** *The area only has pluvial flood risk and has no record of fluvial flooding and therefore, there is no risk of fluvial flooding.*
Landscape Character	**Strategic Landscape and Visual Capacity Study (SLVCS) – a**s the majority of the area is within AVDC the SLVCS was used for assessment purposes although if this site area comes forward with Area 10 then the MKCLCA for that area would need to be also considered. The SLVCS was commissioned to identify site suitability for allocation within VALP for residential or economic development, or a mix of both. The assessment identified that topography on or surrounding the area would not likely affect the areas capacity to accept development. There would be a slight reduction in potential development capacity of the area

based on the significant vegetation on or in areas surrounding the site being implicated, built form that provides containment around or beyond the site could compromise capacity, impact on sensitive receptors on the edge of facing settlements and views of the site from sensitive receptors scattered in the surrounding landscape, for example properties/farmsteads.

The area would not be affected in terms of disruption on the surrounding landscape character and would not contribute to the tranquillity or remoteness of the landscape.

The site consists of agricultural units, arable fields divided by field boundary hed gerows and is intersected by Shenley Road. Tall vegetative screening to the bou ndaries of the site filter views from elevated housing to the east (from scattered farmsteads to the north, south and west and from housing to the north west. The area forms a plateau north of Shenley Road and significantly falls towards the A421 south of Shenley Road exposing views of Aylesbury Vale.

The overall, Landscape Character Area condition is very good.

Defining the special qualities of local landscape designations in Aylesbury Vale District Final Report 2016 – the Whaddon – Nash Valley Local Landscape Area is an undulating landscape with valleys carved into it by tributaries of the River Great Ouse. A rural and ancient landscape containing remnants of the medieval forest of Whaddon Chase, its agricultural land use provides a historic tie to the farming history of the area. The landscape of fields and woodland provides an attractive setting for the villages and Conservation Areas of Whaddon and Nash and is prominent when viewed from the north. The area is rich in ecological landscape value including woodlands, fens and lowland meadows.

The area has a predominantly rural and agricultural landscape, reflecting the farming history of the area and ties to the villages of Whaddon and Nash.

It has a coherent character and pattern of elements in relatively good condition, with visual unity held together by the inter-relationship of steeper winding valleys, streams, woodlands and historic field parcels.

There is rich natural value of the extensive area of rare species rich valley fen habitat, designated a Local Wildlife Site as well as many native woodland sites, lowland meadows and wood-pasture and parkland near Whaddon.

The area provides an open and rural landscape setting to the Conservation Areas of Nash and Whaddon. The landscape allows extensive and long reaching views across the countryside, from many vantage points within the Conservation Areas and is important to the character of the villages. There is a rich layer of history within the landscape including the Grade II listed Whaddon Hall and relicts of Whaddon Park, historic settlement pattern of isolated farms, historic field boundaries which preserve the lines of former woodlands and evidence of Roman occupation.

The rural character and recreational value of green infrastructure in proximity to the urban fringe of the growth city of Milton Keynes.

Summary: *any proposed development in the area will need to maintain the*

	existing extent and condition of neutral grassland, fen, encourage the improvement of ecological diversity through varied land maintenance regimes to benefit landscape and habitats, encourage the conservation and interpretation of the areas rich historic environment, ensure the preservation of archaeological earthworks by maintaining grassland, encourage restoration and interpretation of the historic chase landscape and Whaddon Park and maintain key views of and from Whaddon and Nash.
Heritage Assets	The area falls within part of Whaddon Conservation Area and Nash Conservation Area. The open agricultural landscape is important to the setting of the Conservation Areas of both Whaddon and Nash – where long distance views into and out of the villages, across large areas of farmland reflect the agricultural history of the areas. An important green infrastructure asset close to the growth city of Milton Keynes. Irregular historic field pattern boundaries preserve the lines of former woodlands and the Queen's Park which is an oval shape to the south west of Whaddon. There is a clear historic settlement pattern of isolated farms. This also provides an important recreational value with footpaths and bridleways including the North Buckinghamshire Way/ Midshires Way national trail; and recreational value of College Wood open access land. The area also contains the Grade II listed Whaddon Hall, an early 19th century house built on the site of a former manor, overlooks relicts of Whaddon Park, now in agricultural use. ***Summary:*** *It is imperative to maintain the characteristics of Whaddon and Nash Conservation Areas including long distance views of these areas from the surrounding countryside. There are also several listed building in both Nash and Whaddon including Whaddon Hall*
Biodiversity ecology/ geology	**Forward to 2020: Buckinghamshire and Milton Keynes Biodiversity Action Plan (BMKBAP)** Biodiversity Opportunity Areas (BOAs) are the most important areas for biodiversity in the county. BOAs represent a targeted landscape-scale approach to conserving biodiversity and the basis for an ecological network. Whaddon Chase is identified in Buckinghamshire and Milton Keynes as a BOA and it will be one of the areas of focus for priority habitat creation work. There are many native woodland sites located across the area. There is a concentration of Biodiversity Action Plan (BAP) quality woods south of Nash and Whaddon Fens including a large fen north of College Wood Lowland Meadows. There are also several small areas of lowland meadow spread across the area. In terms of hedgerows, there are concentrations of pre 18th century enclosures around Little Horwood and Nash and these may contain species rich hedgerows. There is a large parkland site at Whaddon Ponds and a few potential BAP priority ponds in the area. Fields with existing ridge and furrow are found around Nash

	and Salden. Whaddon Chase was an ancient hunting forest. SMRs are Snelshall Benedictine Priory and Whaddon Bowl Barrow. The area does not contain any sites internationally designated for nature conversation purposes. There are no SSSIs within the area designated for geodiversity, nor are there any Regionally Important Geological Sites (RIGS). ***Summary:*** *although the area does not contain Internationally recognized designations it does contain a significant area of national biodiversity importance. There are significant features of biodiversity and ecological significance that require sensitive management and could restrict development capacity.*
Green Infrastructure	**MKC GI Study** The Milton Keynes Green infrastructure Study, 2018, includes areas of 'landscape scale' opportunities which can provide access to high quality greenspace and protect historical assets as the wider area takes on future growth. One of the strategic projects identified in the MKC study focused on access and heritage restoration across the former royal hunting forest of Whaddon Chase to the west of the city. This project is partnered with Milton Keynes Council, Parks Trust, Milton Keynes Development Partnership and Parish Councils. The project is within a distinctive historic landscape and aims to improve links between existing settlements and new communities and provide a multifunctional GI network for existing residents. Deficiency in accessible GI is most prominent in this area around Winslow and Buckingham. The needs of communities on the west side of Milton Keynes, Buckingham and Winslow must be addressed to counter this deficiency and to help buffer the associated pressures of growth from outside the county and the major growth planned around the south west of Milton Keynes. Opportunities to create new and enhance existing greenspaces and to provide access links between these sites have been identified for the Action Area such as Whaddon Chase.: ***Summary:*** *there is a notable lack of larger areas of accessible greenspace in the arc around the south and west of Milton Keynes; this deficit will be exacerbated as Milton Keynes expands. This places great emphasis on the work to make Whaddon Chase more accessible to the West of Milton Keynes and enhance its historic landscape*
Soil and Agricultural Land Quality	Much of the area is defined as predominately Grade 3. Further assessment would be required to be able to ascertain whether the Grade 3 land was 3a (BMV) or 3b land. In this context land classified as Best and Most Versatile (BMV) is protected strongly through the application of planning policy in order to retain the highest yielding agricultural land for agricultural purposes. There are no areas within the Plan area that are susceptible to groundwater pollution, however the entire Plan area is designated as a groundwater and surface water nitrate vulnerable zone.

	Summary: *there are no significant issues with either agricultural land quality or ground contamination that require further advanced assessments other than normal Development Management requirements.*
Air Quality / Noise Quality	Although the area does not contain an Air quality Management Plan there is a degree of air pollution and noise pollution form traffic on A421. Any proposed development within the proximity of the A421 corridor would be subject to comprehensive air and noise assessments. ***Summary:*** *Assessment of overall noise and air quality for this area did not raise any specific significant issues that require further assessment notwithstanding normal noise and air mitigation assessment*
Transport	Buckinghamshire County Council Countywide Traffic Model A comparison of the Do Something (DS or VALP growth) against the Do Minimum (DM or background growth) shows relatively little difference in travel time in Milton Keynes. However, on the western edge of the town, close to the A421, some significant travel time increases are observed both on the A421 and connecting minor roads. Travel time increases are relatively slight on the A421, within Buckinghamshire, compared to the DM (up to 6%), although the A421 immediately east of the county boundary experiences relatively significant travel time increases in the PM peak (up to 150%) on the approach to the Coddimoor Lane/ Whaddon Road/ A421 roundabout. On roads adjoining the A421 there are moderate to significant increases in travel time as a result of increases in demand flow on these links and the A421. These increases arise as a result of the additional development in the DS scenario. The increases in demand lead to additional queuing and congestion on the minor arms of junctions along the A421 as both the capacity for traffic exiting the minor arm is reduced, and the demand flow increases. Notable travel time increases occur on Coddimoor Lane (up to 300%), Shucklow Hill in the AM peak (up to 100%), and Whaddon Road in the PM peak (up to 80%), comparing the DS with the DM. Run 1 of the mitigated scenario includes the Bletchley Bypass but excludes dualling of the A421. In this scenario there are relatively slight travel time decreases on Stoke Road, between Newton Longville and the A4146 (up to 60%), as two-way demand flows fall by more than 1000 vehicles. However, the inclusion of the alternate route further increases demand flow on the A421, leading to a worsening of congestion than that experienced in the DS scenario. Run 2 of the mitigated scenario includes dualling the A421 between Buckingham and Milton Keynes but excludes the Bletchley Bypass. In this scenario, the increase in capacity on the A421 leads to relatively slight improvements in travel time (up to 80%) on the corridor. However, this has the effect of inducing additional demand on the route, which leads to further travel time increases on the adjoining minor roads, compared with the DM. ***Summary:*** *there are significant travel time increases at the eastern end of the*

	corridor near to Milton Keynes. Neither mitigation run 1 nor run 2 reduces these impacts to any great extent, as both the Bletchley Bypass and dualling of the A421 are not modelled together. If both schemes were brought forward this may increase capacity on the corridor.
General Infrastructure Capacity	**Water Cycle Study (WCS):** Whaddon is served by Cotton Valley WwTW. There is sufficient capacity within the WwTW to serve growth in the area for the whole VALP period. In terms of the foul sewerage capacity there would be upgrades required to infrastructure/treatment upgrades to serve area, but no significant constraints to the provision of this infrastructure have been identified. For surface water network capacity, infrastructure and/or treatment upgrades will be required to serve the area and major constraints have been identified. A 900mm trunk main from Old Stratford to Kiln Farm Milton Keynes was laid a and commissioned in 2016 and designed to supply 28,000 new dwellings in the Milton Keynes and Aylesbury Vale area. **School capacity:** Currently the proposed development at Salden Chase secures a reserve site for a 3FE Secondary School and could seek to make this bigger if needed. This could be triggered if more growth was to be identified in Whaddon Chase. Primary school provision will also be made available as part of the proposed development however this is to accommodate the development capacity so further primary provision would be required for the area. **Sport & Leisure:** Proposed Draft VALP Policy I2 requires that open space provision is set at 2.4 hectares of strategic open space per 1,000 population. Areas proposed for allocated adjacent to Milton Keynes would need equivalent to an additional 3 badminton court hall or 0.74 four court sports halls, additional 2.17 swimming pool lanes, two community centres, 0.31 of artificial pitch, 8 grass pitches and 3 cricket wickets and 7 tennis courts. However, this will ultimately depend on the distribution of the housing developments. **Health :** Milton Keynes CCG commissions health care services for residents within the Milton Keynes area. Its geographic area of responsibility covers all the wards in Milton Keynes plus the wards of Great Brickhill and Newton Longville in Aylesbury Vale. Due to the amount of committed development already around Milton Keynes and the proposed site allocation at Salden Chase, Milton Keynes CCG would seek contributions towards the cost of providing additional health care facilities within their administrative area. This is due to the impact on several existing GP practices in Milton Keynes CCG (Drayton Road, Hilltops, Parkside, Westcroft and Whaddon). Acute care access is either at Milton Keynes, Stoke Mandeville or Northampton hospitals. ***Summary:*** *The overall assessment of WwTW Sewerage System Capacity Assessment is that the area can be accommodated with improvements to the infrastructure/treatment upgrades however, there have been no significant constraints that would prejudice the area from coming forward.* *Good accessibility to facilities in Milton Keynes and Bletchley would need to be supported by making provision for on-site provision to serve new TOD*

	communities. *Although the area is served by several smaller GP's including Whaddon, die to the cumulative impact form other development in the south and west of Milton Keynes further contributions would be required to mitigate this.*

National/ sub-national infrastructure projects	
Oxford-Cambridge Growth Arc (the Arc)	General context: Milton Keynes Council is committed to realising the city's potential as the hub of the Cambridge-Milton Keynes-Oxford growth corridor, responding positively to the aspirations of the Council's MK Futures 2050 programme, the Council Plan 2016-2020 and the NIC Report 'Partnering for Prosperity', to expand the City to a population of approximately 500,000 people by 2050. VALP will provide an aspirational growth level that will be supported by and contribute towards the prosperity and connectivity aims of the growth ARC.
East-West Rail (Partnering for Prosperity – a new deal for the Cambridge-Milton Keynes-Oxford Arc) – National Infrastructure Commission Report	1. The proposed East West Rail scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects. One of the main characteristics with a TOD approach is to maximise interconnected communities centered around transport nodes. 3. Ensure that strategic infrastructure, including new elements of East West Rail are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. Winslow Station has been consented and will form a focus for future growth. This will also provide opportunity for the TOD communities to access East West rail and the connectivity it brings.
Expressway (Partnering for Prosperity – a	1. The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must

new deal for the Cambridge-Milton Keynes-Oxford Arc) – National Infrastructure Commission Report	also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030 3. Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. One of the route options within the corridor will serve this area and create a catalyst for future growth and connectivity. Due to this area's proximity to the corridor clear benefits can be drawn considering the governments CAMKOX growth agenda.

Local Growth Allocations	
Plan: MK, 2019	No allocations have been made for this area in the adopted Plan: MK 2019 Local Plan
VALP	The south eastern edge of the option area abuts the VALP allocation at NEAV.
Central Beds Local Plan	N/A
South Northants Local Plan	N/A
Bucks CC Minerals & Waste Local Plan 2016-36	Whaddon Chase is within the White Limestone Minerals Safeguarding Area
MKC Site Allocations Plan, 2018	N/A
Neighbourhood Plans	Great Horwood Parish Neighbourhood Plan 2014–2031. The Neighbouhood Plan allocated 4 housing sites within the plan period.

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth

Principle 1: A commitment to inclusive growth

Situated within the corridor already served by a major trunk road. Connections to Winslow station to access east west rail. Readdress commuting traffic form local TOD borne traffic. Opportunity to enhance mass transit with Salden Chase and into Bletchley

Principle 2: Build sustainability into everything the city does

Considerable sensitivity would need to be afforded considering any development in Whaddon Chase however, its s proposed site allocation and has been assessed accordingly.

Opportunity on a large scale to further the sustainable construction agenda Milton Keynes has previously committed too. Due to opportunities for non car borne travel because of proximity to east west rail and edge of MK location opportunities to extend mass transit and create good quality green corridors and landscaping due to critical mass. This area would also benefit from coming forward with Area 10

Principle 3: Connected Growth and Mobility and Principle

This are would benefit from the critical mass of coming forward with Area 10 however, due to its location it could come forward and provide a sustainable interconnected series of mixed use communities that would benefit from modal choice within walking distance and offer good proximity to services. Due to the proximity of the A421 this area could also be potentially considered for a Park & Ride site. As the area abuts the built-up area of Milton Keynes the grid road system could also be safeguarded. Clear links with Salden Chase and further to Bletchley and the East West services there make this area attractive for connected growth opportunities

Principle 4: Mobility for All

With the proximity of the East West rail and the expressway a series of interconnected TOD communities including Area 10 could provide a pedestrian friendly environment by reducing car movements within the communities themselves and enhancing legibility to services like the MK Mass Transit that could potentially connect to Winslow Station, a series of pedestrian and cycleway links into the urban area of Milton Keynes and enhanced legibility to Whaddon Chase itself.

Principle 5: Economic growth that provides jobs for all

It would be envisaged that this area would provide a highly desirable location for investors due to its connectivity and proximity to Whaddon Chase. This type of location could provide a good mixture of housing types, employment opportunities, leisure and retail.

Principle 6: Provide a range of homes that work for everybody

The desirable location and critical mass could provide a positive impact in housing affordability delivery. Due to its location this area could provide a genuine mixed community feel from first time buyers to family housing. The critical mass would also support infrastructure provision in support of new residential communities.

Principle 7: Keep Milton Keynes Green and Beautiful

The biggest constraint in terms of landscape is that of Whaddon Chase and its setting. Although development is already proposed there through VALP this needs to be sensitively considered along with landscape vistas towards and from the chase. If the area came forward along with area 10 and area 7 it could provide a green corridor around the South West of Milton Keynes and almost act as a buffer from further expansion in the future.

Principle 8: Create better places and communities that work for everyone

If this area comes forward as part of a series of TOD communities, there would be opportunities to create communities at a 'human scale' using Neighbourhood Centres and transport hubs without the dominance of the car. Mass Transit would be promoted and interconnectivity between communities and the Wider Milton Keynes urban area including the redways developed. The critical mass would also present opportunities to consider online deliver collections points and coworker hubs along with a number of other smart technologies to improve service and facility availability to a wider community network.

Due to the proximity of the other areas and potential critical mass there could also be opportunities to lobby for existing public transport routes to be diverted into the new TOD community's due top footfall potential and increases patronage.

Principle 9: Build stronger centres

- N/A

Principle 10: Provide Leadership and Direction

The Spatial Option lies wholly within Aylesbury Vale Council area. The Strategy for 2050 is clear that where the vision for the future of Milton Keynes includes development located outside of the borough boundary, the delivery of that development will be for the local planning authorities in those areas to determine through their own local planning processes. Development here will, therefore require co-operation and joint working between the local authorities to deliver the necessary connections and infrastructure to support inclusive and transformational growth.

The Strategy suggests that any new delivery mechanism created for Milton Keynes should have the capability of being expanded to cover adjacent authorities (or parts of those areas) in order to share the mutual benefits of growth.

Conclusions

This area has been considered to deliver an estimated 10,000 homes as part of North Aylesbury Vale.

If are 10 and 9 are considered together and given the proximity of Milton Keyes urban area and area 7 and its proximity to Milton Keynes urban area including Bletchley, growth on a transformational scale could occur that could provide a wider sustainable transport network that connects at a local level and at a strategic level to East West rail.

Opportunities to enhance and extend the MK Mass Transit offer into this area could lead to transformational growth by providing the opportunity to enhance placemaking and the

relationship between built up area and countryside.

In terms of constraints, the area isn't heavily constrained by national or regional designations and doesn't suffer significant flooding, however the area does contain the A421 which would have a noise impact and would be a major consideration in the location of on any potential development,

There are two Conservation Areas with a good number of listed buildings of importance to consider and a 'Made' Neighbourhood Plan allocating sites for housing and include restrictive policies.

The sensitive landscape character of Whaddon Chase is a significant constrain and needs to be treated as such. Development should not breach the Shenley Ridge which is a significant feature on the skyline when looking north-east from the Whaddon area. This is a consideration that has been accounted for in the proposed site allocation in proposed draft VALP.

The A421 will suffer from substantial delays in accommodating the proposed MKC and VALP growth going forward into the future without substantial infrastructure interventions such as the Bletchley Bypass and the dualling on the A421. However, depending on the route of the expressway, some of this infrastructure to unlock growth could be found centrally.

Finally, the site falls within a Biodiversity Opportunity Areas (BOAs) which is categorised as the most important areas for biodiversity in the county and significant portions of the area lie within both the Sand and Gravel Safeguarding and the Limestone Safeguarding area in the Milton Keynes Minerals Local Plan.

Spatial Option 10 West MK towards Beachampton

The area straddles both Milton Keynes Council (MKC) administrative area and Aylesbury Vale District Council (AVDC) administrative area with the majority of the area within AVDC. The eastern part of the area within MKC abuts the Western Expansion Area. The southern section of area abuts Spatial Option 9 which is identified as a 'New TOD Communities' (Transit-Orientated Development) area in the MK2050 Strategic Growth Study, 2019.

Constraints Assessment (primarily based on evidence base for Plan:MK)	
Flood Risk	**SFRA 2015:** The area is identified by the River Great Ouse that flows through Passenham in the north and the Calverton Brook than flows form the River Great Ouse in a southern direction into the middle of the area. Both of these watercourses are within Flood Zone 3 with high likelihood of flooding although the Flood Zone envelope itself is narrow. There have been two flood events in area: • Lower Weald, which flooded in Easter 1998 from Calverton Brook, due to insufficient culvert capacity. Historic Records of Surface Water Flooding • Passenham, which flooded in July 2007 due to excess surface water runoff and the drainage system overwhelmed. Source: **Surface Water Management Plan (SWMP), 2016: t**he Spatial Option area includes the Calverton Critical Drainage Catchment. Surface water ponding occurs in areas such as Lower Weald as a result of surface water flow paths following the decline in elevation. Surface water flow paths are largely constrained to the floodplains of the ordinary watercourses previously mentioned. This therefore limits the potential for surface water flooding to both residential areas and critical infrastructure. The residential area of Lower Weald is shown to be at greatest risk of surface water flooding within the CDC, along with farmland. ***Summary:*** *The area does not contain significant fluvial flood risk and only surface water flood risk along the river corridors of the Great Ouse and the Calverton Brook. The area is also not within a Flood Risk Area. In terms of surface water flood risk in Calverton, there are 11 residential and 5 non-residential properties are at high risk,11 residential and 7 non-residential properties are at medium risk and 15 residential and 15 non-residential properties are at low risk. There are no measures to address flood risk in this area due to limited groundwater and no risk of surface water flooding in Calverton.*
Landscape Character	**MKC Landscape Character Assessment (MKCLCA)** The MKCLCA classifies the landscape of the borough into Landscape Character

	Types (LCTs) and Landscape Character Area (LCAs), where LCAs are a subdivision of the LCT. This spatial option falls within the following classifications: To a lesser extent LCA 2c Ouse Urban River Valley, In the main 3b LCA 3b Weald Clay Plateau Farmland with Tributaries. **Key characteristics of LCA** 2c include: pasture, parkland and various restored mineral workings containing lakes, scrapes, wetlands and a range of scrub and plantation planting. **Landscape condition:** The condition of the landscape is moderate due to the impact of urban development and the widespread change in land cover as a result of gravel extraction. As a result, there is only relic remains of the historic field patterns. The extent of semi-natural habitat cover and its active management has increased as a result of the restoration of gravel workings and the creation of the Ouse Valley Park along the river corridor. The area is still used as grazing land but use of the area for informal recreation has been encouraged by surfacing pre-existing paths to enable public access. Cricket bat willows, with a mixed age structure, form a strong element of the riverside landscape, and are still harvested for cricket bat production. Historic field patterns remain between the A5 and the Grand Union Canal and east of the Iron Trunk around Manor Farm at Old Wolverton and are still used for livestock grazing. **Development considerations**: Prevent built development in the floodplain and where mineral extraction is essential support the creation of wet woodland for restoration in appropriate locations, to provide a mosaic of habitats. For example, a section of the Ouse Valley Park at Old Wolverton is undergoing a scheme to create an area of 'floodplain forest' habitat following gravel extraction. The Parks Trust will manage the 48 hectare site as a nature reserve accessible to the public. **Key characteristics of 3b** include a mix of arable and pasture, but sheep grazing is the main land use. The valley slopes include prominent examples of ridge and furrow. Woodland cover is mainly concentrated at Oakhill Wood, which once formed part of the wider medieval royal hunting ground of Whaddon Chase, but is now predominantly a coniferous plantation with some beech. There are smaller coverts on the boundary with Aylesbury Vale. The land rises gently from the built edge of Milton Keynes to the 'Shenley Ridge' and offers panoramic views to the west over Aylesbury Vale. A small tributary of the Great Ouse, Calverton Brook, has created a steep sided valley with an intimate character. **Landscape condition**: The condition of the landscape is moderate as a result of localised land cover change and ongoing development on the western edge of Milton Keynes which has reduced the extent of the rural setting of Milton Keynes. Tree cover tends to be over mature. Semi natural habitats are considered well linked although there is little obvious management. Tranquility is disrupted by the urban edge. **Development considerations:** Generally restrict built development in the area retaining the primary use for agriculture and informal recreational and protect and enhance the historic setting and structure of villages and hamlets including

	views to the villages and the retained open spaces within them, particularly where there is pressure from the expansion area development of Milton Keynes. Where built development or restoration of buildings is considered appropriate, indigenous materials should be used to maintain and enhance the character of both existing villages and individual farms and properties. Where mineral extraction is proven to be essential ensure restoration benefits biodiversity targets appropriate to the character area. Prevent development that could detract from local landmarks including village churches. The WEA Framework ensures a strong parkland edge to residential development particularly on the western edge of the expansion area in order to reduce the visual impact of this development on the surrounding countryside. These landscape areas and other areas of parkland will be managed by the Parks Trust to provide a strong natural buffer between the new urban areas and the retained rural areas. **Landscape Sensitivity Study** A Landscape Sensitivity Study to Residential Development in MK and adjoining areas was published in October 2016 which assessed 30 areas for their capacity to absorb new residential development. This are is covered by sensitivity land area(s): 23 Grove Farm Valley (which is characterised as undulating clay plateau in Aylesbury Vale) and 24 Shenley Plateau (which is characterised as Clay Plateau Farmland and Tributaries). ***Summary:*** *The area is significantly covered by sensitive land and contains significant landscape features that could be detrimentally harmed by any form of development. The area has a significant relationship with the River Ouse valley which helps and has a number of fields with a medieval pattern.* *The Landscape Sensitivity assessment of Area 23 and 24 concluded that residential development would result in a significant adverse change in landscape character. Key characteristics and qualities of the landscape are vulnerable to change from development. This attractive land area is surprisingly peaceful despite its proximity to Milton Keynes with far reaching views across the wide valley.*
Heritage Assets	Passenham Conservation Area: Passenham is a small rural hamlet in the extreme south-east of South Northamptonshire adjacent to the Buckinghamshire boundary. It sits within water meadows associated with the River Great Ouse, which lies to the south of the settlement. Passenham was an important medieval village, larger than today's settlement. The built form is predominantly limestone with plain red clay tile roofing. Barns and outbuildings are also common due to the agricultural nature of the settlement. These are usually single storey with some later converted for residential use. The Grade I listed tithe barns at the Manor House are a particularly distinctive feature of the area. Calverton Conservation Area: Calverton is the collective name for a series of four hamlets located along the east side of a shallow valley through which flows a tributary of the River Great Ouse. The hamlets are Upper Weald, Middle Weald, Lower Weald and Calverton. Calverton is also the specific name for the manorial nucleus which includes Manor Farm and All Saints church. It is distinct as a settlement from Lower Weald, although the two lie so close together that

	the tendency is to consider them together. Lower Weald Calverton has 31 listed building addresses and structures and a large number of unlisted buildings and structures that are integral to the Conservation Areas character. ***Summary:*** *although there are no scheduled ancient monuments or designated landscape areas or historic parks or gardens within the area several Conservation Areas exist and there are a number of listed buildings including . a grade 1 listed building and many other grade 2 listed buildings in Calverton. These settlements would require significant landscape buffering to maintain the integrity of their characters and this would potentially have a detrimental impact on this area coming forward.*
Biodiversity ecology/ geology	The area does not contain any sites internationally designated for nature conversation purposes. There are no SSSIs within the area designated for geodiversity, nor are there any Regionally Important Geological Sites (RIGS). The Forward to 2020: Buckinghamshire and Milton Keynes Biodiversity Action Plan (BMKBAP) refers to a network of MK Wildlife Sites throughout the area including: • Old Limestone Quarry • Beachampton Grove • School Furze and Lake There is also a network of Local Wildlife Sites throughout the area including habitat types such as Lowland calcareous grassland and wet woodland Local Biodiversity Areas identify where the greatest opportunities for habitat creation lie, enabling the efficient focusing of resources to where they will have the greatest positive conservation impact. The two that have been identified in the BMKBAP are: • MK Local Biodiversity Opportunity Area • Ouse Valley Local Biodiversity Opportunity Area ***Summary:*** *Although the area does not contain and Nationally significant or regionally significant designations, locally 2 areas have been recognised for additional resource to enhance habitat creation.*
Green Infrastructure	The Milton Keynes Green infrastructure Study, 2018, includes areas of 'landscape scale' opportunities which can provide access to high quality greenspace and protect historical assets as the wider area takes on future growth. The River Great Ouse corridor is one of these areas whose enhancement could provide a water management function, storing water upstream to reduce downstream flood risk, and helping to reduce nitrification surface water flow from agricultural land. One of the principles that relate to this area and other areas of potential growth in MK is the recognition that GI creation and improvement is coordinated with activities cross-border. The study also alludes to the priorities for the area to include connectors that

	establish connection over the Great Ouse running north-south from the area to the Ouse Valley. ***Summary**: It is imperative to work cross boundary to ensure meaningful GI connection which could have a multitude of benefits including flood risk management on the river Great Ouse. To maximise this opportunity this site would need to be delivered along with Area 9 to ensure a comprehensive GI strategy*
Soil and Agricultural Land Quality	Much of the area is defined as predominately Grade 3. Further assessment would be required to be able to ascertain whether the Grade 3 land was 3a (BMV) or 3b land. In this context land classified as Best and Most Versatile (BMV) is protected strongly through the application of planning policy in order to retain the highest yielding agricultural land for agricultural purposes. There are no areas within the Plan area that are susceptible to groundwater pollution, however the entire Plan area is designated as a groundwater and surface water nitrate vulnerable zone. This is because the groundwater is considered to have high nitrate concentrations (over 50 mg/l nitrate). ***Summary**: There are no significant issues with either agricultural land quality or ground contamination that require further advanced assessments other than normal Development Management requirements.*
Air Quality / Noise Quality	Due to the distance from any potential emitter of noise or air pollution such as a main road, railway line, flight paths there are no considerations that require further assessment at this stage. ***Summary:** Assessment of overall noise and air quality for Milton Keynes did not raise any issues that require further assessment within this area*
Transport	It would be assumed that the area would be accessed via the A5 via Watling Street and the A422. The road layout at the Western Expansion Area would also inform access arrangements to Watling Street and these may well be required to form a grid pattern. The transport modelling undertaken for the preparation of Plan:MK considered the cumulative effects of existing committed growth and that planned in Plan:MK. It showed a significant increase in traffic, particularly car journeys from outside Milton Keynes to central Milton Keynes as a result of the borough growing more jobs than housing. Particularly relevant to the spatial option, it found a worsening situation in both AM and PM peaks, with entry point links (A5 and A422 especially in relation to SEMK2 scenario). An overall 28% growth in traffic accessing CMK is forecasted from 2016 base case to 2031 reference case which will also affect the A422 both northbound and southbound. Inward commuting along the A5 Watling Street/A422 corridor/A509 is currently worse in the am peak than the pm peak. Works at Old Stratford are expected to come forward as part of future Towcester development requirements (Extra lane in A422 approach, lane widening on A508 approach) which will provide more network capacity.

	Calverton Lane/Fairways U15 Is likely to be brought forward as 'works in kind' by WEA developers but not before 2019/20 and will be required before any progress can be made on H3 dualling. Double roundabouts replaced with large single roundabout ***Summary:*** *the relative remoteness of this area would require significant highway infrastructure to ensure connectivity. The area on its own would struggle to deliver this connectivity and appropriate mitigation to the local network which does suffer peak hour congestion particularly around the A5/A422 area. If the area was brought forward with Area 9 further opportunities would be created in achieving appropriate physical access to the A421 and grid road networks connecting to the rest of the Milton Keynes urban area.*
General Infrastructure Capacity	**Water Cycle Study (WCS): t**he area does not contain a WRC (Water Recycling Centre) so only generic observations from the WCS can be made in terms of water resource and water quality impacts on the area and instead policy observations can be made with regard to the River Great Ouse and Calverton Brook (a main river and an ordinary watercourse respectively flowing through or in close proximity to the site boundary): • Watercourses should not be culverted or straightened, as these activities cause deterioration of their quality; • Where watercourses have in the past been culverted or straightened, reinstatement to a more natural landscape should form part of the development; • Each development should enhance the quality of the local watercourse, and • For main rivers, a minimum easement of 8 meters from the top of bank of a main river is required to allow maintenance of the watercourse. For ordinary watercourses a minimum easement of 3 meters is required to allow for maintenance. Where possible a larger easement should be provided. **Schools – school capacity -** School Place Planning Forward View, 2017 The area falls within the North West School Place Planning area. Schools that fall within the areas catchment are: • Fairfields Primary School – recently expanded as part of Western Expansion Area to 630 places • Russell Street Infant School • St Mary and St Giles CE Junior School • Watling Academy Secondary School • St. Thomas Aquinas Catholic Primary School • Bishop Parker Catholic School • St Mary Magdalene Catholic Primary • St Bernadette's Catholic Primary • St Monica's Catholic Primary • St. Pauls Catholic Secondary School

	Currently for the area, the balance of places is negative for both primary and secondary sectors. For the Western Expansion Area, a Secondary school and 3 more primary schools are proposed. **Sport & Leisure -** Milton Keynes Sport & Active Communities Strategy 2014-2023 - The strategy identifies a new Community Sports Pavilion and Pitches x 2 planed for the Western Expansion Area **Health -** The nearest existing GP surgeries are: • Stonedean Practice Health Centre, Stony Stratford • Stony Medical Centre, Stony Stratford The nearest dentists are the Stony Dental Practice Acute care access is either at Milton Keynes or Northampton hospitals. ***Summary:*** *The WCS illustrates that there are no barriers to water resource or quality if the above requirements are met.* *There are a significant number of schools that serve the area and with the new schools at Western Expansion Area this will increase capacity however, there is currently a negative balance of school places for both primary and secondary school sectors. If the area came forward it would need to need to readdress this balance and therefore, the area would significantly benefit from being delivered as part of area 9 and a TOD Community.* *If the area came forward with Area 9 as part of a TOD Community further sports and leisure facilities may be required due to additional demand. Further analysis would be required to ascertain how much capacity is being provided at the Western Expansion Area.* *Currently facilities are provided in Stony Stratford however, a health centre is being provided for as part of the Western Expansion Area which provides more capacity in the area. It would be envisaged that if this area came forward along with area 9 as part of TOD Community that further primary health capacity may need to be provided.*

National/ sub-national infrastructure projects	
Oxford-Cambridge Growth Arc (the Arc)	General context: Milton Keynes Council is committed to realising the city's potential as the hub of the Cambridge-Milton Keynes-Oxford growth corridor, responding positively to the aspirations of the Council's MK Futures 2050 programme, the Council Plan 2016-2020 and the NIC Report 'Partnering for Prosperity', to expand the City to a population of approximately 500,000 people by 2050. Milton Keynes Council's Strategy for 2050 will provide a framework for how the aspirational levels of growth supported by the Council should be delivered, to be translated

	into future reviews of the Local Plan. Policy DS0 in Plan:MK therefore commits to an early review with the intention that a draft plan containing strategic policies will be submitted to Government for examination no later than the end of 2022.
East-West Rail (Partnering for Prosperity – a new deal for the Cambridge-Milton Keynes-Oxford Arc) - National Infrastructure Commission Report	1. The proposed East West Rail scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects 3. Ensure that strategic infrastructure, including new elements of East West Rail are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. Although the area is not located in close proximity to the east-west rail route and therefore direct impact would be difficult to ascertain any large scale development in the area (similarly to the western expansion area) could still make a significant contribution in terms of the overall trip budget approach to ensure successful modal shift and assisting with the implementation of the Mass Rapid Transit to improve links to East West rail.
Expressway (Partnering for Prosperity – a new deal for the Cambridge-Milton Keynes-Oxford Arc) - National Infrastructure Commission Report	1. The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly-defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030 3. Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. This area does not directly affect the expressway although its

	proximity to the A422 to Buckingham could have an impact on the expressway route depending on which option is preferred. It would be assumed that the area would be accessed by the A422 and A5 Watling Street so any additional loads on this network would need to consider the wider expressway.

Local Growth Allocations	
Plan:MK, 2019	No allocations have been made for this area in the adopted Plan:MK 2019 Local Plan
VALP	No allocations have been made in the current adopted AVDC Local Plan 2004 or for the proposed Vale of Aylesbury Local Plan Modifications Stage 2019
Central Beds Local Plan	N/A
South Northants Local Plan	Part 1 plan, West Northants Joint Core Strategy, adopted 2014. JCS review underway, consultation on Issues in Oct 2019 including a call for sites. Development is currently focussed on the main towns of Northampton, Brackley, Daventry and Towcester. Part 2 plan for S Northants, the Inspector's report is awaited. No additional significant development allocated close to the boundary with Milton Keynes
MKC Minerals Local Plan, 2017	Much of the area lies within both the Sand and Gravel Safeguarding Area and the Limestone Safeguarding area. Mineral resources within Milton Keynes that are of national importance are limited to sand and gravel. Sand and gravel resources recognised as being of economic value within Milton Keynes include the river terrace, sub-alluvial and glaciofluvial (glacial) deposits. Limestone (used as building / roofing stone) is recognised as being of local importance given its use in conservation of historic building and structures, conservation areas and supporting local distinctiveness. The area had a site that had planning permission for sand and gravel extraction - A1: Calverton/Passenham Extension This resource yields an estimated circa 250,000 tonnes to be worked at an approximate rate of 75,000 tonnes per annum. The site has an estimated operational life is 4-5 years. The site has been assessed through the Mineral and Waste Local Plan as has not previously flooded but is at risk of future flooding, although sand and gravel extraction is water compatible development. There are potential for adverse impacts on heritage assets. Further site investigation would be required to accompany the planning application. Site is adjacent to Passenham Conservation Area and located just over 300m from Calverton Conservation Area. The closest listed building to the site boundary is

	the Grade II listed Dovecote approximately 130m from the site. Due to the proximity of the allocated site to sensitive receptors in the village of Passenham any planning application and accompanying site working scheme will need to include a satisfactory site layout (including screening and stand-offs where necessary) and management scheme that clearly demonstrates that it can adequately minimise and mitigate the impacts of the proposed development on nearby sensitive receptors and heritage assets, including the properties and land constituting the Passenham Conservation Area. The site is suitable as its both deliverable and adequately meets plan objectives and vision. Policy 3 Site-specific allocations for the extraction of sand and gravel Proposals for the extraction of sand and gravel at the following sites will be permitted in accordance with other relevant local plan policies: Primary - River Great Ouse south of Manor Farm Wolverton A1: Calverton/Passenham Extension (approx. yield 0.25Mt)
MKC Waste DPD, 2007	Calverton (Extension to Passenham Quarry). This facilities capacity was 338,000 cubic metres and had a 5-year life. It used to take 67,600 cubic metres of inert waste per annum but has since ceased operation. Allocations for Waste have been made in Bletchley and Old Wolverton.
MKC Site Allocations Plan, 2018	No allocations have been made for this area in the MKC Site Allocations Plan, 2018
Neighbourhood Plans	There are no 'Made' Neighbourhood Plans or 'Plan under preparation' for this area.

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth

Principle 1: A commitment to inclusive growth

As a relatively remote area, on the edge of the Milton Keynes urban area, where car-borne journeys currently predominate, development here would need to be able to connect to the new rapid transit network in order to be able to influence and contribute to a transformational change in mobility to public transport.

Principle 2: Build sustainability into everything the city does

If this option could be brought forward in conjunction with Spatial Option 9, then a sustainable form of development here could bring commercial space, housing, jobs, parks and civic uses within walking distance of transit stops. The Strategy for 2050 however, also includes a commitment to maintain, enhance and extend the high quality landscaping that MK currently enjoys and development in this area would result in the significant loss of landscape character and open countryside.

Principle 3: Connected Growth and Mobility and Principle 4: Mobility for All

As per Principle 2, if this option could be brought forward as part of an extended Spatial Option 9 area, bringing it into the area of a new TOD community, then there are opportunities for it to contribute to the delivery of a new connected community. Without such links, however, this Option area is relatively remote and poorly connected to the existing transport network unless it could be served by a feeder network of buses.

Principle 5: Economic growth that provides jobs for all

The Spatial Option does not fall within any of the potential economic growth locations identified the Strategy for 2050. As a currently rural and relatively remote location, it is not located close to or easily accessible from existing areas of economic growth. Due to the area's landscape sensitivity large scale buildings and development would be unlikely to be acceptable in this location. As above, if the area could be connected to the rapid transit network then there would be opportunities to better connect this area and its residents to employment opportunities in the surrounding areas.

Principle 6: Provide a range of homes that work for everybody

Due to the Option's location and relative remoteness from existing town and local centres and transport hubs, it may be best suited to families who need space to grow, subject to the provision of schools and other facilities to support their needs.

Principle 7: Keep Milton Keynes Green and Beautiful

The loss of the valued and sensitive landscape in this area would run counter to the aims of this principle. Should development to the north and south of this Option area come forward, then this location would form a valuable green corridor from the built up area out to the open countryside to the west.

Principle 8: Create better places and communities that work for everyone

As for Principle 7 above, development in this area would run counter to the aim to minimise the impact for development on the natural and built historic environment. Unless the area is brought forward as part of a TOD community or with significantly enhanced public transport links, development here is unlikely to reduce car dominance. The location would, however, help to support the development of a healthy neighbourhood due to access to the countryside, good air quality and opportunities for outdoor recreation.

Principle 9: Build stronger centres

- N/A

Principle 10: Provide Leadership and Direction

The Spatial Option lies partly within Aylesbury Vale Council area and abuts South Northants council area. The Strategy for 2050 is clear that where the vision for the future of Milton Keynes includes development located outside of the borough boundary, the delivery of that development will be for the local planning authorities in those areas to determine through their own local planning processes. Development here will, therefore require co-operation and joint working between the local authorities to deliver the necessary connections and infrastructure to support

inclusive and transformational growth.

The Strategy suggests that any new delivery mechanism created for Milton Keynes should have the capability of being expanded to cover adjacent authorities (or parts of those areas) in order to share the mutual benefits of growth.

Conclusions

Opportunities to enhance and extend the MK Mass Transit offer into this area could lead to transformational growth by providing the opportunity to enhance placemaking and the relationship between built up area and countryside. The area isn't heavily constrained by national or regional designations and doesn't suffer significant flooding. The sensitive landscape character of this option area is, however, a significant constraint. Development would breach the Shenley Ridge which is a significant feature on the skyline when looking north-east from the Whaddon area. Wholesale expansion over the Ridge has been resisted in the past as it would introduce urban development into the rural Whaddon Chase. Due to the slope, opportunities to screen or limit the impact of development on views from the west would be limited.

Development associated with this area would require significant 'start up' infrastructure costs associated with physical distance to main points of access and trunk roads. Due to the relative remoteness from the rest of Milton Keynes and existing infrastructure any proposed development may require large investment into alterative transport modes form the start to assist with trip budget/traffic flow and congestion issues.

There are limited opportunities to contribute towards east west rail or expressway due to proximity of the area and due to the relative sensitivity of the landscape character development should be restricted in the area. There are several Conservation Areas apparent and would need to be protected.

Finally, significant portions of the area lies within both the Sand and Gravel Safeguarding and the Limestone Safeguarding area in the Milton Keynes Minerals Local Plan. This includes current operational sites.

Spatial Option 11 North West towards South Northants

This Spatial Option is located immediately to the north of Stony Stratford, and is centred on land either side of the A5 south of Pottersbury. It primarily focusses on land within South Northamptonshire Council area.

Identified in the MK 2050 Strategic Growth Study as a potential new TOD community, the area seeks to unlock the potential of the "A5 Northern Gateway" to deliver growth.

Constraints Assessment (primarily based on evidence base for the West Northants Joint Core Strategy and the emerging South Northants Part 2 Local Plan)	
Flood Risk	**Level 1 SFRA 2019 –** the SFRA shows that the southern part of the Option area, south of Passenham, in the river Great Ouse floodplain is subject to a greater than or equal to 1 in 30 chance of flooding in any one year. Parts of the Option area also appears to be at high risk of surface water flooding. The SFRA assesses a local plan site at the Former Furtho Pit, Cosgrove Road, Cosgrove - located south of the village of Cosgrove with the A5 running along the southern boundary of the site and the A508 along the western boundary of the site. There are a number number of watercourses within and close to the site boundary and the River Great Ouse flows past the southern and eastern boundaries of the site. The Buckingham Branch of the Grand Union Canal runs through the centre of the site. The majority of the site is located within Flood Zone 1, although the land directly beside the Dogsmouth Brook is within Flood Zone 2 and Flood Zone 3. For this site, surface water flood risk is associated primarily with the watercourses across the site, and there is limited other ponding on the site. There is some surface water flooding associated with the A5, which could affect access and egress to the site. ***Summary:*** *parts of the Spatial Option may be constrained by fluvial flooding from the River Great Ouse and its tributaries to the far south of the area, and surface water flood risk will also need to be managed in any development.*
Landscape Character	The eastern edge of the Spatial Option adjoins the Tove Valley Special Landscape Area (SLA) and the Whittlewood forest and Hazleborough Forest SLA lies to the north. In the **Northamptonshire Current Landscape Character Assessment**, the Tove Valley falls within LCA17b, River Tove floodplain; 6a, Tove Catchment in Undulating Claylands and 8a, Whittlewood Plateau. **Character Area 6 – Undulating Claylands**: extending across the south eastern perimeter of the county this area forms the broad upper catchment areas of the Tove to the west and Nene to the east. Land use is mixed arable and pasture creating a patchwork of fields. Smaller scale fields are generally confined to the valley areas. Although not a well wooded landscape, the combination in some areas of small belts of woodland, together with shelterbelts and tree cover associated with farmsteads, and also hedgerow trees, can coalesce to give the impression of a well treed landscape. This is a

	quiet, rural landscape, well settled with numerous small villages evident across the landscape. Beyond the villages, the scattered farmsteads emphasise the focus on agricultural production. **Development considerations:** new development, change and land management practices should be controlled or encouraged to conserve the simplicity of this generally quiet and settled rural landscape. Intrusion of development onto the more elevated sections and interfluves within the Undulating Claylands should be resisted to retain the open and unobstructed views to the wider landscape. Further areas of broadleaved woodland planting may be appropriate, particularly in the lower valley areas to emphasise the landform pattern and its undulating form that derives from the succession of valleys and interfluves. **Character Area 8 – Low Wooded Clay Ridge**: the ridge follows the south-eastern boundary of the county. Extensive areas of woodland cover include important areas of ancient woodland. The woodland is an important element in defining the character of these landscapes, with the bold skyline of the wooded ridge clearly recognisable from the surrounding more open lowlands. Fields are often contained within species rich hedgerows and mature hedgerows trees that further contribute to the well wooded character. The strong woodland enclosure, and limited settlement and roads, often evokes a sense of remoteness and tranquillity. **Development considerations**: new development, change and land management should be controlled to conserve and enhance the simplicity and boldness of the landscape. The distinctive wooded skylines should remain unbreached. In particular, care should be taken to ensure that the significant heritage and nature conservation interest of the ancient woodlands is not adversely affected and that opportunities are sought to enhance and extend the woodland. **Character Area 17 – River Valley Floodplain**: the river course and the associated low lying, flat and relatively narrow floodplain, contained by gently rising valley slopes, are the principal defining features of this Landscape Type. Within this clearly recognisable form, a simple pattern of characteristics are present comprising an agricultural landscape with a mix of pasture and arable, together with more limited areas of neutral and calcareous grassland. Woodland cover is sparse, limited to intermittent mainly linear belts of woodland adjacent to sections of the watercourses, and along active or dismantled railways, and roads and canals passing through the landscape. Fields vary in size contained either by hedgerows, which are often gappy, or with no boundaries adding to the generally open character of the floodplain. **Development considerations:** new development, change and land management practices should be controlled or encouraged to conserve and enhance the simplicity of the open mixed farming and pastoral landscapes that characterise many sections of the River Valley Floodplains. The enhancement of hedgerows to strengthen their visual contribution to the landscape as well as their biodiversity value should also be encouraged. Opportunities for further recreation and leisure sites to serve local communities and visitors should be sensitively sited and designed to take account of the need to retain the open

	and simple character of the floodplain. **Landscape Sensitivity Study to Residential Development 2016:** part of the Spatial Option around Cosgrove village is assessed under Area 26. The Sensitivity of this area is high. The Study found that residential development would result in a significant adverse change in landscape character. Key characteristics and qualities of the scenic river valley are vulnerable to change from development, particularly the setting of the village of Cosgrove which sits in a unique position at the confluence of the River Great Ouse and the River Tove and the Grand Union Canal. The rivers and canal offer high recreational amenity value. ***Summary:*** *the eastern part of the Spatial Option around Cosgrove is particularly sensitive to new development. The central and western parts are impacted by noise and visual intrusion from the A5 and associated development.*
Heritage Assets	There are a number of listed buildings in the settlements of Old Stratford, Passenham and Deanshanger. There is a scheduled ancient monument 1013660 'Motte and Bailey Castle' Deserted Village and Monastic Grange at Old Wolverton ***Summary:*** *There is limited historic interest outside the existing settlements*
Biodiversity ecology/ geology	The Northants Biodiversity Character Strategy and Guidelines assessment, places the Spatial Option area in character area 3, Boulder Clay Woodlands and within sub character area 3a, Whittlewood and Hazelborough Forests. The strategy seeks to conserve and restore lowland woodlands as well as providing buffers to existing lowland mixed woodlands, where habitat creation is not possible, to protect them from potentially damaging environmental influences. Whittlewood Forest SSSI lies to the north of the Spatial Option. ***Summary:*** *on the basis of current evidence, it is considered that the ecological assets and constraints are capable of being accommodated in line with the mitigation hierarchy set out in Plan:MK policies in such a way as to result in a net gain to biodiversity*
Green Infrastructure	The River Nene Regional Park (2008) Northamptonshire Environmental Character and Green Infrastructure Suite identifies a strategic sustainable movement network. The Grand Union Canal Blue Way links Northants with Milton Keynes along the northern extent of the Spatial Option and there is a Green Way identified along the southern extent of the Option. The Option area is crossed by or close to three local GI corridors: Farthingstone – Towcester–Milton Keynes; Nether Heyford -Milton Keynes Grand Union Canal Spur and the Buckingham to Milton Keynes corridor. ***Summary:*** *the Option's location presents opportunities for growth to create new strategic GI links to connect to the existing corridors both into MK and out into Northamptonshire.*

Soil and Agricultural Land Quality	It has not been possible to determine the agricultural land quality of this area.
Air Quality	The Spatial Option is not covered by an AQMA however, development on greenfield land is likely to increase car journeys and therefore emissions which would impact air quality in the area. The A5 runs through the Option area and would be a localized source of air and noise pollution. ***Summary**: there are no specific issues relating to air quality within the area.*
Transport	The MK 2050 Strategic Growth Study, 2019 considers the transport issues and opportunities for this Option. Strategic growth in this area is predicated on the realignment of the A5D further to the east by an extension of the A5 dual carriageway. The Study notes that the A5 'Northern Gateway' into the urban area of Milton Keynes suffers from significant congestion and is a constraint on planned growth, the junction is subject to a series of physical constraints which reduce opportunities for new connections to be made. The confluence of three key radial routes around Milton Keynes – the A5, A508 and A422 – results in a severe bottleneck restricting all vehicular movements into and out of the urban area. In order to function effectively over the long term -and to accommodate rapid transit movements the Study advocates provision of a grade-separated junction. The A5(D) and the 'old A5' Watling Street are the only routes into MK from the north-west and there are, therefore, limited locations where connections could be made to enable strategic growth opportunities. Consideration should be given to safeguarding these connections in the short-medium term to avoid closing down longer term growth opportunities The Study proposes using the existing A5 south of Pottersbury to provide "*a prioritised or segregated RT route through the heart of a new mixed use centre - the growth location is not fixed in terms of scale or extent (this is subject to the growth conversations between authorities, but we recommend that any new community here should include a minimum quantum of development to support a full suite of local retail and community facilities and justify the provision of its own secondary school. There is also the potential for a P&R here, linked to the RT network, to pick up radial movements from the A422/A5/A508 that currently create a bottleneck at the A5 Roundabout."* The Study acknowledges the risk that allocation of piecemeal development sites (including employment land currently in the draft local plan for South Northants) which fail to 'design in' or safeguard land or infrastructure routes, will compromise the delivery of a realigned A5D to be realigned that can provide an effective long term strategic connection north of MK for future transit. Rail: the nearest station is Wolverton on the West Coast Mainline. Extension of MRT into the Option area would provide access to the station and to Milton Keynes and Bletchley further to the south. *Summary: the Spatial Option, if brought forward in line with the aspirations in the MK 2050 Strategic Growth Study, has the potential to alleviate the existing*

	bottleneck on the A5 by delivering a comprehensive re-design of the existing junction and integrating the area with a MK rapid transit network. such changes would support a new mixed use community and would enhance the area's attractiveness for further economic investment.
General Infrastructure Capacity	**Sewerage and Wastewater Treatment**: the Water Cycle Study prepared for the West Northants Joint core Strategy did not specifically address the situation in this Option area as no growth was planned here. **Social Infrastructure:** limited existing provision due to the small scale of the settlements in the area at present. **Summary**: The rural location of this spatial option means, the small scale settlements and lack of associated services, facilities and employment opportunities would require very significant investment in physical and social infrastructure in order to be able to support additional growth.

National/ sub-national infrastructure drivers and projects	
Oxford-Cambridge Growth Arc (the Arc)	General context: Milton Keynes Council is committed to realising the city's potential as the hub of the Cambridge-Milton Keynes-Oxford growth corridor, responding positively to the aspirations of the Council's MK Futures 2050 programme, the Council Plan 2016-2020 and the NIC Report 'Partnering for Prosperity', to expand the City to a population of approximately 500,000 people by 2050. Milton Keynes Council's Strategy for 2050 will provide a framework for how the aspirational levels of growth supported by the Council should be delivered, to be translated into future reviews of the Local Plan. Policy DS0 in Plan:MK therefore commits to an early review with the intention that a draft plan containing strategic policies will be submitted to Government for examination no later than the end of 2022.
East-West Rail	1. The proposed East West Rail scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects. 3. Ensure that strategic infrastructure, including new elements of East West Rail are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. One of the main characteristics with a TOD approach is to maximise interconnected communities centered around transport nodes. This Spatial

	Option, being located to the north of Milton Keynes, is not directly connected to East West Rail and is rather remote from it although the introduction of MRT would provide improved connections to Wolverton and Milton Keynes rail stations with the opportunity to then connect to East West Rail at Bletchley.
Expressway	The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030 3) Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The Spatial Option area lies outside the preferred corridor within which a route for the Expressway is to be identified.

Local Growth Allocations & Settlement Hierarchy	
Plan:MK, 2019	N/A
VALP	N/A
Central Beds Local Plan	N/A
South Northants Local Plan	Consultation on Proposed Modifications ended on 18 November 2019. Policy AL5 allocates land at former Furtho Pit, Old Stratford/Cosgrove for 16ha of mixed employment floorspace. Access is to be from a new roundabout junction from the A508; and development must provide new footpaths and cycleways that link to existing networks including to a proposed new adjoining country park and using the existing pedestrian crossing over the A5 linking to Old Stratford. A transport assessment and travel plan is required to assess the transportation implications of the proposed development (including noise from the A5 and A508) and to identify appropriate mitigation measures
MKC Minerals Local Plan, 2017	N/A
Northamtonshire Minerals & Waste	Site M5, Passenham Extension South is allocated in the Northamptonshire Minerals and Waste Local Plan, update 2017. Located in proximity to the village of Deanshanger (and also Beachampton in Buckinghamshire), the site

LP, update 2017	(which comprises two separate parts) is separated from Deanshanger by the A422. The Spatial Option falls within a sand and gravel safeguarding area
MKC Site Allocations Plan, 2018	N/A
Neighbourhood Plans	

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth

Principle 1: A commitment to inclusive growth

The Spatial Option could unlock the growth potential of the A5 northern Gateway to Milton Keynes, providing a focus for new residential end employment growth linked to the development of the MK rapid transit network.

Principle 2: Build sustainability into everything the city does

Comprehensive design and development of the Spatial Option area and access to an MK rapid transit network could maximise the attractiveness and efficiency of land use in this location. The scale of growth potential at this Option could create a new mixed-use community that meets the day to day needs of its residents as well as providing sustainable transport modes to the wider Milton Keynes urban area.

Principle 3: Connected Growth and Mobility

With growth in this location, car usage is likely to increase in the short-term at least even with opportunities to extend the MK rapid transit network. Repurposing or redesigning the A5D Northern Gateway junction provides an opportunity to improve traffic flows whilst building in access to rapid transit, improving the area's long term strategic connections into MK.

Principle 4: Mobility for All

Growth in this location would need to be at significant scale in order to deliver a critical mass of development from the scale of allocations and existing sites. Connection to the MRT would be needed to achieve a significant shift away from the use of the car..

Principle 5: Economic growth that provides jobs for all

Location of the Spatial Option on a key strategic, north-south route between Milton Keynes and the Midlands make it an attractive location for economic investment, especially with improved connections to the job market in Milton Keynes and the wider area.

Principle 6: Provide a range of homes that work for everybody

The critical mass that development of this Spatial Option could bring means that new development in this area would increase opportunities for access to affordable homes to meet

the needs of a broad sector of the population. Due to its location this area could provide a genuine mixed community feel from first time buyers to family housing. The critical mass would also support infrastructure provision in support of new residential communities.

Principle 7: Keep Milton Keynes Green and Beautiful

Development here could provide opportunities to deliver new strategic GI connections to the surrounding landscape scale GI opportunity areas identified in the MK Green Infrastructure Study. The eastern part of the Option area, around Cosgrove is [particularly sensitive to development and consideration should be given to focussing development away from this higher quality area.

Principle 8: Create better places and communities that work for everyone

Development of a TOD community here, could create new local centres and transport hubs without the dominance of the car. Connectivity to rapid transit would be essential as would new routes to improve interconnectivity between communities and the wider Milton Keynes urban area. The Spatial Option could come forward together with Option 12 (North of Milton Keynes) but could equally stand-alone given its location on the strategic road network.

The large scale development would require infrastructure to be provided in tandem with new residential development in order to ensure that the new communities have access to a wide choice of facilities and services within walking or cycling distance without increasing stress on existing services and facilities in adjoining settlements.

Principle 9: Build stronger centres - Not applicable to this option.

Principle 10: Provide leadership and direction

The Spatial Option lies within South Northants council area. The Strategy for 2050 is clear that where the vision for the future of Milton Keynes includes development located outside of the borough boundary, the delivery of that development will be for the local planning authorities in those areas to determine through their own local planning processes. Development here will, therefore require co-operation and joint working between the local authorities to deliver the necessary connections and infrastructure to support inclusive and transformational growth.

The Strategy suggests that any new delivery mechanism created for Milton Keynes should have the capability of being expanded to cover adjacent authorities (or parts of those areas) in order to share the mutual benefits of growth.

Conclusions

The unlocking of strategic growth in respect of land to the north west of MK in the MK 2050 Strategic Growth Study, is predicated on a strategic infrastructure proposition to realign the A5D further to the east by an extension of the A5 dual carriageway. The Spatial Option is centred around land either side of the existing A5 south of Pottersbury and the Growth Study envisages the A5 route being which redesigned to provide a prioritised or segregated RT route through the heart of a new mixed use centre.

There is also the potential for a P&R here, linked to the MK rapid transit network, to pick up radial

movements from the A422/A5/A508 that currently create a bottleneck at the A5 Roundabout.

There is a risk that emerging local plan allocations in this part of South Northants may prejudice or run counter to cross-border green and grey infrastructure proposals which may arise from the MK growth strategy as well as compromising the ability to provide an effective long term strategic connection north of MK for future transit based around the A5D.

Spatial Option 12 North Milton Keynes

This Spatial Option comprises an extensive area of land north of the River Great Ouse and Linford Lakes area to the north of the Milton Keynes Urban Area. The M1 forms the eastern boundary of this Option.

Constraints Assessment (primarily based on evidence base for Plan:MK)	
Flood Risk	**SFRA 2015 –** the River Great Ouse and its floodplain lie immediately south of the Spatial Option, flood zone 3b (functional floodplain). Part of the southern part of the Option area will fall within the area. Overall, large parts of the area are within Flood Zones 2 and 3 and significant mitigation measures are likely to be needed. The area is also subject to surface water flooding with areas of high risk running generally north-south across the area and particularly in relation to the railway line, where surface water has been shown to collect behind railway embankments, where tributaries of the River Tove flow across the route of the railway. Development on greenfield land increases surface run-off and can increase the risk of flooding if appropriate mitigation measures are not implemented. Longer term there may be substantial pressures on water resources, although there is scope to introduce water efficiency measures in new development. The **Surface Water Management Plan** identifies a Critical Drainage Catchment around Haversham which lies within the Option area mainly as a result of the topography of the area which declines steeply in elevation from ~100mAOD in the north and west of the CDC to ~60mAOD in the east and south. As a result of the slope, surface water flow paths typically flow from the north to the south resulting in an increased risk of surface water flooding in area including the High Street. In addition to the surface water flood risk in the east of the CDC, the residential area of Wolverton Road (to the west of the CDC) is also found to be potentially at high risk of surface water flooding, though surface water flows are largely constrained to highways in this area. There are three watercourses within this CDC, two of which are managed by the Bedford Group of Drainage Boards and one which forms a short tributary of the River Ouse. ***Summary:*** *the Spatial Option is constrained by fluvial flooding from the River Great Ouse to the far south of the area, and surface water flood risk will also need to be managed in any development.*
Landscape Character	**Landscape Character Types (LCT):** the spatial Option falls within three Landscape Character Types – LCT 1 - Clay Plateau Farmland; LCT 2 - River Valley and LCT 5 - Undulating Clay Farmland. **Key characteristics of LCT 1 include:** Gently undulating plateau landscape; large to medium scale mixed woodlands, linking with the extensive woods of

	Yardley Chase and Salcey Forest in Northamptonshire. More isolated woodlands within Hanslope Clay Plateau Farmland LCA 1b. Extensive areas of woodland in Northamptonshire form a backdrop to this LCT; medium to large arable fields with clipped hedges; areas of pasture and smaller fields closer to the settlements; sparsely settled rural landscape crossed by minor roads (with the exception of the M1 in LCA 1b); extensive views over neighbouring valleys **LCA1b Hanslope Clay Plateau Farmland:** a number of large ancient semi-natural woods but limited connections; gentle slopes falling from centre to east, west and south; limited settlement except for large village of Hanslope - prominent church spire; remote area crossed by minor roads, dissected by M1; some open views to the west. **Landscape condition:** moderate - the impact of built development is localised, with development evident around Hanslope and Hanslope Park and along the M1 Corridor, resulting in fragmentation to the key landscape characteristics and fragmentation of field pattern across the LCA. The extent of semi-natural woodland survival is scattered. Species within the woodlands are varied and the age structure is mixed. **Development considerations:** generally restrict development in the area retaining primary use for agriculture and recreation; protect the historic setting of the villages; development should protect local landmarks (such as views of Hanslope church spire); development to consider wooded skyline of Northamptonshire; visual mitigation of M1 to be considered through buffer woodland planting. **Key characteristics of LCT 2 include:** areas of pasture close to the river; open field patterns with ditches and wire fences; limited access to the river in rural areas and few crossing points; the river is inconspicuous within the landscape, marked only by scattered trees; tranquil character. **LCA 2C, Ouse Urban River Valley characteristics**: the floodplain to the north of Milton Keynes was significantly affected by extensive mineral extraction. However over the past 25 years, a restored landscape has been established, including lakes and semi natural vegetation which have important wildlife and recreational uses. Land uses comprise a relatively complex mosaic of small to medium scale mixed land types. These include pasture, parkland and various restored mineral workings containing lakes, scrapes, wetlands and a range of scrub and plantation planting, for example at Linford Lakes. There are a number of industrial archaeological features of interest. **Landscape Condition**: moderate due to the impact of urban development and the wide spread change in land cover as a result of gravel extraction. As a result there is only relic remains of the historic field patterns. The extent of semi-natural habitat cover and its active management has increased as a result of the restoration of gravel workings and the creation of the Ouse Valley Park along the river corridor. Cricket bat willows, with a mixed age structure, form a strong element of the riverside landscape, and are still harvested for cricket

bat production.

Development Considerations: Prevent built development in the floodplain

Key characteristics of LCT 5 include: undulating lowland landscape sloping down towards the river valley floor; secondary valleys provide local enclosure; large scale arable fields; pasture on lower slopes and near settlements; occasional stone walls to fields boundaries and limestone in fields; paddocks on village margins; limited impact from built development; tranquil and remote; general absence of visual detractors except for wind turbines and pylons to the east side of the LCT and railway line to the west.

LCA 5a – Ouse Undulating Clay Farmland: lying north and south of the River Great Ouse, the area comprise an undulating landscape with panoramic views. Landmark church spires or towers are characteristic of the areas, with the spire of the 14th century church of St Peter & St Paul dominating the southern approach to Olney.

LCA5c – Tove Undulating Clay Farmland: a tranquil farmland area with few roads and isolated farms. The West Coast Main Line passes through the area with the cuttings, gantries and bridges creating a strong linear built element

through the landscape. Land cover is mostly arable with pasture on the lower slopes. The historic field pattern is varied, with areas of ridge and furrow. Woodland cover is minimal.

Landscape condition: moderate due to the fragmentation of hedgerow field boundaries and the loss of historic field pattern in places. The presence of the railway line corridor also disrupts the landscape pattern of the area. Tree cover is limited and there is little connectivity between semi natural habitats.

Development considerations: restrict built development in the area retaining the primary role for agriculture and recreation. Protect the historic setting and structure of the villages including views to the villages and the retained open spaces within them. Use of appropriate indigenous building materials to maintain and enhance the character of the existing villages. Prevent development that could detract from local landmarks including village churches and views from historic locations such as Cowper's Alcove. Proposed development within or adjacent to the Ouse Valley should be accompanied by a landscape and visual assessment as part of any planning application, and that the design and heights of new developments take fuller account of their wider landscape setting.

Landscape Sensitivity Study to Residential Development 2016: the Spatial Option is addressed in two areas appraised in this study – areas 27, Castlethorpe and 28 Haversham Plateau.

Area 27, Castlethorpe was found to be of moderate sensitivity, with the Study finding that there are likely to be limited opportunities to accommodate

residential development without a significant adverse change in landscape character. Castlethorpe is vulnerable to change from development in this area as extensive residential development has the potential to affect the setting of

	the village. Large scale development in this area would be constrained by the potential impact on the landscape character of the Tove and Ouse River valleys and also on the setting of Cosgrove. The village is vulnerable to change from development to the north because of the potential for coalescence with the village of Hanslope. The more open and relatively flat landscape to the south east of Castlethorpe is more suitable for development. Area 28, Haversham Plateau was found to be of moderate sensitivity with the Study finding there to be opportunities to accommodate residential development without a significant adverse change in landscape character. The relatively flat topography on the lower south east facing slopes and the wooded areas north of the River Great Ouse reduces the visibility of the landscape area. Development should be located on the lower slopes facing Milton Keynes, and adjacent to the 20th century settlement edge of Haversham. Development should enhance integration of this area of Haversham with the surrounding landscape. Development should be avoided on the higher plateau landscape which has more intervisibility with the surrounding landscape and contains a network of PRoW, and ancient woodland. The closer grained landscape along the Ouse tributary to the west of the land area is more sensitive to residential development. The old village of Haversham and the hamlet of Little Linford are vulnerable to change from development through coalescence. ***Summary:*** *despite the impact of gravel workings in the floodplain and the presence of the M1 and West coast mainline, the landscape character overall is moderate. In terms of landscape sensitivity there is greater capacity for new development in the Haversham Plateau area than around Castlethorpe to the north. Any new development would need to have careful regard to the setting of the historic villages.*
Heritage Assets	The area contains several archaeological notifications sites, an Ancient Monument called “Moated Site at Manor Farm” and several Grade 1 and 2 listed buildings . ***Summary:*** *There is historic interest in this area which could be affected by development. The extent of this will depend on how the development proposal takes this into account.*
Biodiversity ecology/ geology	The southern part of the Spatial Option includes or immediately adjoins the Great Linford Gravel Pits and River Ouse biological notification sites as well as the River Ouse wildlife corridor. The Option area is currently mostly greenfield land so there will be some additional impacts on biodiversity, the extent of would have to be determined should a detailed proposal come forward. There would be opportunities to extend the existing Linear Parks system into the area. ***Summary:*** *on the basis of current evidence, it is considered that the ecological assets and constraints are capable of being accommodated in line with the mitigation hierarchy set out in Plan:MK policies in such a way as to result in a net gain to biodiversity*
Green	The MK Green Infrastructure Study identifies a number of broad ‘landscape

Infrastructure	scale' opportunities areas reflecting the area's location within the OxCAm Arc and likely future pressures for growth. The Study suggests that the scale and ambition of development needs to be met with equally ambitious plans for enhancing green infrastructure, including the creation of strategic scale natural and semi-natural habitats that are primarily for biodiversity, as well as continued efforts to strengthen the broader landscape value through smaller interventions. The 'landscape scale' opportunity areas have been identified taking into consideration the Buckinghamshire and Milton Keynes Biodiversity Opportunity Areas as well as connecting with key links from neighbouring authorities. The Spatial Option is essentially surrounded by three such opportunity areas - 6, the River Great Ouse Corridor; 7, the Grand Union Canal and River Tove Corridor and 8, Yardley Chase to Grafham Water. ***Summary:*** *the Option's location at the heart of three landscape scale GI opportunity areas presents opportunities for the creation of new strategic GI links within any development to connect into these wider corridors.*
Soil and Agricultural Land Quality	Much of the spatial option is agricultural land quality Grade 3 with areas of Grade 2 around Haversham to the south of the area. Further assessment would be required to be able to ascertain whether the Grade 3 land was 3a (BMV) or 3b land. ***Summary:*** *whilst important to note the presence of BMV land, the lack of survey data means that classification of agricultural land is not robust. This is unlikely to be a factor preventing development in this option area although design of any development should take BMV into account so that poorer quality land will be used in preference to that of a higher quality.*
Air Quality	The Spatial Option is not covered by an AQMA however, development on greenfield land is likely to increase car journeys and therefore emissions which would impact air quality in the area. The M1 marks the eastern boundary of the area and would be a localized source of air and noise pollution. ***Summary:*** *there are no issues relating to air quality in this location.*
Transport	Transport modelling undertaken for Plan:MK identified that, as a result of the greater jobs growth than housing growth forecast in the 2031 Reference Case, car journeys from the rest of Milton Keynes to central Milton Keynes would increase by 28% between 2016 and 2031, with car journeys from outside Milton Keynes to central Milton Keynes increasing 46%. Development of this Option scale would require significant improvement of the local road network. The MK2050 Growth Study comments that growth in this location would need to include a new link road connection from the A422/A5/A508 through to the A509/A422 further east. The new link road would also connect to a new M1 junction which is also advocated in the Study. As well as mitigating the impact of new development on traffic through existing villages, the new links would also benefit the existing settlements. Opportunities for vehicular connections between this Option and Milton Keynes are limited – opportunities to connect between Wolverton and the M1, would impact on established strategic green infrastructure. Due to the

	floodplain, new connections would be complex and costly to construct and would not connect directly into the MK north-south grid corridors due to previous local plan expansion sites being built across the northern connection points of these grid corridors. The primary connection into MK would need to be via a new connection into the V6 Grafton Street adjacent to Wolverton rail station. The Growth Study proposes serving the Option area by MRT, via the new road connection to the V6. The area would be served by a primary 'RT loop' and would provide walkable catchments for residents, with stops providing key nodes for mixed use centres providing commercial and community facilities for the day to day needs for what would be a large residential population. Rail: the nearest stations are either Wolverton or Milton Keynes, both on the West Coast Mainline. Development of MRT would provide access to the station from any new development here. *Summary: the Option is currently poorly connected to the strategic road network and would require very significant investment in new transport infrastructure, including MRT in order to ensure a high level of connectivity to the Milton Keynes urban area and to prevent the local, rural roads being overrun. A large scale development would be required in this Option in order to provide the critical mass necessary to support such infrastructure investment.*
General Infrastructure Capacity	**Sewerage and Wastewater Treatment:** the Option is served by WRCs at Castlethorpe and Hanslope, which are two of three WRCs identified in the Water Cycle Study as having headroom but receiving significant growth. Both were scoped in for Water Quality Assessment, with the Study concluding that neither WRC would require new permit conditions. **Social Infrastructure:** limited existing provision due to the small scale of the settlements in the area at present. Residents currently need to travel to Milton Keynes/ Wolverton in order to meet the majority of their day to day needs. **Education:** there are primary schools at Castlethorpe, Haversham and Hanslope. The nearest secondary school would be in Woverton or north Milton Keynes. Large scale development in this location would need to provide sufficient schools to meet its own needs which could also benefit existing communities by providing more choice. **Health:** the area is currently served by GP practices in Wolverton and Milton Keynes. As with education, development would need to provide sufficient facilities to meet its own needs. **Summary**: The rural location of this spatial option means, the small scale settlements and lack of associated services, facilities and employment opportunities would require very significant investment in physical and social infrastructure in order to be able to support additional growth.

National/ sub-national infrastructure drivers and projects

Oxford-Cambridge Growth Arc (the Arc)	General context: Milton Keynes Council is committed to realising the city's potential as the hub of the Cambridge-Milton Keynes-Oxford growth corridor, responding positively to the aspirations of the Council's MK Futures 2050 programme, the Council Plan 2016-2020 and the NIC Report 'Partnering for Prosperity', to expand the City to a population of approximately 500,000 people by 2050. Milton Keynes Council's Strategy for 2050 will provide a framework for how the aspirational levels of growth supported by the Council should be delivered, to be translated into future reviews of the Local Plan. Policy DS0 in Plan:MK therefore commits to an early review with the intention that a draft plan containing strategic policies will be submitted to Government for examination no later than the end of 2022.
East-West Rail	1. The proposed East West Rail scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects. 3. Ensure that strategic infrastructure, including new elements of East West Rail are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. One of the main characteristics with a TOD approach is to maximise interconnected communities centered around transport nodes. This Spatial Option, being located to the north of Milton Keynes, is not directly connected to East West Rail and is rather remote from it although the introduction of MRT would provide improved connections to Wolverton and Milton Keynes rail stations with the opportunity to then connect to East West Rail at Bletchley.
Expressway	The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030 3) Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The Spatial Option area lies outside the preferred corridor within which a route

	for the Expressway is to be identified.

Local Growth Allocations & Settlement Hierarchy	
Plan:MK, 2019	No allocations. **Settlement hierarchy**: all settlements in the Spatial Option area fall within Tier 3 where any development would generally come forward through neighborhood plans or within the settlement boundary.
VALP	N/A
Central Beds Local Plan	N/A
South Northants Local Plan	N/A
MKC Minerals Local Plan, 2017	N/A
Minerals & Waste LP, 2014 (CBC, Luton & Bedford Borough Councils)	N/A
MKC Site Allocations Plan, 2018	N/A
Neighbourhood Plans	Castlethorpe Neighborhood Plan, made October 2017 - includes a housing allocation south of the village. Hanslope Neighbourhood Plan, made October 2019 – includes allocations for 3 sites, delivering some 155 dwellings in total. Haversham cum Little Linford Neighbourhood Plan – area designated in February 2017.

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth
Principle 1: A commitment to inclusive growth As a relatively remote area on the northern edge of the Milton Keynes urban area, and with the severance effect of the River Great Ouse river corridor and flood plain, development here would need to be able to connect to the new rapid transit network in order to be able to influence and contribute to a transformational change in mobility to public transport. Whilst this area could a

focus for a significant amount of future growth, it will be imperative to improve its connections to the Milton Keynes urban area to the south. The MK 2050 Growth Study acknowledges that this Spatial Option (the North MK TOD proposition in the Study) "*will only achieve good*

growth objectives if it delivers the above infrastructure. As the level of funding to deliver this infrastructure will not be possible through conventional development models, and the current planning system presents a number of difficulties in allocating, consenting and bringing forward this scale of strategic growth as a single entity, the North of MK TOD growth proposition would only be supported under a new delivery model."

Principle 2: Build sustainability into everything the city does

Comprehensive design and development of the site, along with higher densities could reduce the impact of development of the land and maximise the efficiency of land use. However, the site is located on greenfield land and so there will be no reuse of previously developed land and no brownfield sites before greenfield sites

In order to meet the targets in the Strategy for 2050 for carbon neutral and carbon negative development, development in this area would need to be supported by improved public transport and links to a mass rapid transit network in order to significantly reduce car-borne journeys.

Principle 3: Connected Growth and Mobility

Car usage is likely to increase in the short-term at least even with opportunities to extend the MRT. As noted in Principle 1 above new connections into the Milton Keynes urban area and beyond are a prerequisite for development here. The area is close to Wolverton Railway Station which may encourage sustainable transport. Development here may also provide an opportunity for a new railway station at Castlethorpe. There will be significant constraints to overcome when planning infrastructure delivery taking account of the flood zone and numerous heritage assets.

Principle 4: Mobility for All

Growth in this location would need to be at significant scale in order to deliver a critical mass of development from the scale of allocations and existing sites. Connection to the MRT would be needed to achieve a significant shift away from the use of the car..

Principle 5: Economic growth that provides jobs for all

Without connections to a MRT network and improved road connections to the M1 (or possibly a new M1 junction serving the area), the relatively remote location of this Spatial Option is likely to impact on its desirability as a location for new economic investment. New employment floorspace within this area would, however, be necessary to create a sustainable community and prevent it becoming a dormitory settlement.

Principle 6: Provide a range of homes that work for everybody

The critical mass that development of this Spatial Option could bring means that new development in this area would increase opportunities for access to affordable homes to meet the needs of a broad sector of the population. Due to its location this area could provide a genuine mixed community feel from first time buyers to family housing. The critical mass would also support infrastructure provision in support of new residential communities.

Principle 7: Keep Milton Keynes Green and Beautiful

Development here could provide opportunities to deliver new strategic GI connections to the surrounding landscape scale GI opportunity areas identified in the MK Green Infrastructure Study. The scale of development required to support the necessary investment in infrastructure would however result in the loss of a large area of open countryside on the edge of the Milton Keynes urban area.

Principle 8: Create better places and communities that work for everyone

Development of a TOD community here, could come forward as a series of linked communities at a 'human scale' creating new local centres and transport hubs without the dominance of the car. Mass Transit would be essential as would new routes to improve interconnectivity between communities and the wider Milton Keynes urban area.

The large scale development would require infrastructure to be provided in tandem with new residential development in order to ensure that the new communities have access to a wide choice of facilities and services within walking or cycling distance without increasing stress on existing services and facilities in adjoining settlements.

Principle 9: Build stronger centres - Not applicable to this option.

Principle 10: Provide leadership and direction - Not applicable to this option

Conclusions

The Spatial Option has a number of potential landscape constraints, including flood risk from the river Great Ouse in the south and the impact on landscape character, particularly around the existing settlements.

The MK 2050 Strategic Growth Study identifies this Option area as a new Transit Oriented Development community (TOD) with the potential to deliver some 20,000 homes. Acknowledging that development in this area would be a significant generator of movements into and out of Milton Keynes, as well as east-west and north-south journeys into the wider area and beyond, the Growth Study recognises that such scale of growth would require strategic connections to the wider highway network – M1, A508/A5, A509 and A422; otherwise the existing rural lanes and villages will be overrun with traffic movements.

The Spatial Option is essentially severed from the Milton Keynes urban area by the floodplain of the River Great Ouse, and so the Growth Study acknowledges that it should only come forward if it delivers a significant range of infrastructure, which would require the prior development of a new delivery model. The area has potential as a new TOD, but significant risk as to its delivery.

Spatial Option 13 North East MK beyond Newport Pagnell

The option covers a large area of predominantly open countryside straddling the A509 and part of the A422. The area includes the settlements of Sherington and Chicheley and adjoins Tyringham and Filgrave.

Constraints Assessment (primarily based on evidence base for Plan:MK)	
Flood Risk	The south-west part of the option area includes River Great Ouse **as** it flows west then north from Newport Pagnell towards Olney. **SFRA 2015 -** Parts of the area (Sherington, parts of the Chicheley, east of Tyringham) are at low to medium risk of surface water flooding. The SFRA notes that surface water is shown to pond in natural low points within the fluvial floodplains, in particular of the River Great Ouse which is likely to account for this. **Surface Water Management Plan, 2016**: the Spatial Option area includes the Sherington Critical Drainage Catchment, where flood sources are surface water, ordinary watercourses and groundwater. The SWMP notes that typically surface water flood risk in Sherington is constrained to highways, however there are residential areas which may also be at risk of surface water flooding such as Ley's View, a cul-de-sac located off the High Street near Water Lane. Whilst the area may not be affected by a 3.3% AEP event, the area may be significantly affected by a 0.1% AEP event. The CDC also has an ordinary watercourses running through it which may combine with pluvial sources and exacerbate flooding. The BGS groundwater dataset suggests that there is the potential for groundwater flooding to occur at the surface. ***Summary:*** *Constrained to the west by the flood plain of the River Great Ouse, the majority of this Spatial Option is at low to medium risk of surface water flooding. Sherington, in particular, is a Critical Drainage Catchment due to a higher level of risk from surface water flooding.*
Landscape Character	**Milton Keynes Landscape Character Assessment, 2016** classifies the landscape of the borough into Landscape Character Types (LCTs) and Landscape Character Area (LCAs), where LCAs are a subdivision of the LCT. This spatial option falls within the following classifications: LCT 2, River Valley and specifically LCA2b, the Ouse Rural River Valley; LCT 3, Clay Plateau Farmland with Tributaries, specifically, 3a North Crawley Clay Plateau Farmland and LCT 5, Undulating Clay Farmland, specifically, LCA5b Ouse Undulating Clay Farmland. **Key characteristics of LCT2** include: areas of pasture close to the river; open field patterns with ditches and wire fences; limited access to the river in rural areas and few crossing points; the river is inconspicuous within the landscape, marked only by scattered trees; tranquil character.

	LCA2b consists of the River Great Ouse valley floor and defines the western and south-western edge of this option. Much of the land is pasture and there are limited settlements and crossing points in the area, with the bridge at Olney being one of them. **Landscape condition**: good due to the low impact of built development, mixed age of tree cover and extent of semi-natural habitat. The area is described as having '*coherent visual unity*' . **Development considerations** include preventing development in the floodplain. **Key characteristics of LCT3 include:** an elevated clay plateau, incised by small tributaries creating a rolling landform. Elevation ranges from approximately 80m to 108m AOD. Large fields predominate in LCA 3a - predominantly arable with some pasture and small pockets of isolated broadleaved woodlands and mature hedgerow trees. The area is sparsely settled with small villages and isolated farms. Long distance and panoramic views across open areas and a tranquil agricultural landscape. **LCA3a:** comprises the eastern part of the option area and comprises a large undulating plateau bisected by small watercourses which create enclosed valleys. Large scale arable fields creating a remote empty feeling. It is a relatively isolated area, elevated above the surrounding landscape but sloping gently towards the west. Ridges offer panoramic views to the north over the Ouse Valley, west over Milton Keynes and south to the Greensand Ridge. **Landscape condition:** moderate due to localized land cover change and the fragmentation of some hedgerow field boundaries resulting in the interruption of landscape pattern. The limited built development and roads retain the area's tranquility. **Development considerations** include: include restricting development in the area; protecting historic setting and structure of villages, including preventing development that could detract from local landmarks **Key characteristics of LCT5 include:** undulating lowland landscape sloping down towards the river valley floor; secondary valleys provide local enclosure; large scale arable fields; pasture on lower slopes and near settlements; occasional stone walls to fields boundaries and limestone in fields; paddocks on village margins; limited impact from built development; tranquil and remote; general absence of visual detractors except for wind turbines and pylons to the east side of the LCT and railway line to the west. **LCA5a and b:** lying north and south of the River Great Ouse, the area comprise an undulating landscape with panoramic views. Landmark church spires or towers are characteristic of the areas, with the spire of the 14th century church of St Peter & St Paul dominating the southern approach to Olney. **Landscape condition**: moderate due to fragmentation of historic field patterns and woodland. Visual impact of the pylons and wind farm also lowers landscape condition. Unsympathetic development on the edge of villages has

	affected their setting in the landscape. **Development considerations** include restricting development in the area; protecting historic setting and structure of villages, including preventing development that could detract from local landmarks; use of indigenous material for new development; development to be accompanied by a landscape and visual assessment and take account of the wider landscape setting. **A Landscape Sensitivity Study to Residential Development in MK and adjoining areas** was published in October 2016 which assessed 30 areas for their capacity to absorb new residential development. Sherington and its immediate surroundings is identified as Area 1 and the assessment concludes that its sensitivity is **high** and that residential development would result in a significant adverse change in landscape character. Key characteristics and qualities of the landscape, including its tranquil rural character, the undulating landscape and the far reaching views to the surrounding countryside, make it vulnerable to change from development. ***Summary**: the landscape condition of the Spatial Option is moderate to good, with a tranquil rural character that would be significantly impacted by large scale development., the landscape around Sherington is highly sensitive to new development. there is also a risk that large scale development here would contribute to increasing coalescence between the Newport Pagnell and Olney, creating a continuous ribbon of development north from Milton Keynes.*
Heritage Assets	There is a Conservation Area at Sherington and two Scheduled Ancient Monuments, one to the south of the village – a moated site at Caves Manor and the other bowl Barrow to the east. The Village and Conservation Area Appraisal in 1972 notes that "*In spite of infilling and growth over the years Sherington still retains much of the open structure and basic shape laid down in about 1300. The surrounding countryside flows into the heart of the village at numerous points and these also afford good views outward over the pleasant landscape".* The appraisal also notes the importance of the fields to the north, south and west of the church both from an archaeological and landscape point of view as well as to the setting of the conservation area. There is a Scheduled Ancient Monuments at Filgrave – a deserted mediaeval village and, further to the west, a group of ring ditches to the north of Tyringham. The option area includes 2 Grade II* Historic Parks and Gardens: • Chicheley Hall, the C18 formal gardens, designed by George London c 1700, surrounding a slightly later country house, set within a small park. Located south of the A422 and east of Chicheley village, and • Tyringham, covering an extensive area around Tyringham Hall, another late C18 landscape park, probably laid out by Humphry Repton c 1793, surrounding a late C18 country house by Sir John Soane, with early C20

	formal gardens by C F Rees, c 1910, and Edwin Lutyens, 1924-8. ***Summary:*** *there is a significant presence of heritage assets in this area, including 2 Historic Park and Gardens. Additionally, there are important historic views into and out of the historic settlements which should be retained.*
Biodiversity ecology/ geology	The Spatial Option area does not contain any sites internationally designated for nature conversation purposes. There are no SSSIs within the area designated for geodiversity, nor are there any Regionally Important Geological Sites (RIGS).The closest nationally designated biodiversity site is located 2.7km to the north west of Olney, which is the Yardley Chase SSSI. There is a **Wildlife Corridor** along the A509,along the A422 east of Chichelely and to the south of the area along the Ouse Valley. There are a number of areas of ancient woodland throughout the option area, including a sizeable area at Hill Plantation. The **Bucks & Milton Keynes Biodiversity Action Plan (BAP) identifies** a number of priority habits that are characteristic of the area. There is a key area of BAP Priority Habitat to the west of the option area around Tyringham Hall (improved grassland); and the Ouse Valley Biodiversity Opportunity Area (BOA) which comprises floodplain grazing marsh mixed with lowland wood-pasture and parkland lies to the south of the area. ***Summary****: there are no nationally designated assets but there are a number of priority habitats within the area.*
Green Infrastructure	The Milton Keynes Green infrastructure Strategy, 2018, includes areas of 'landscape scale' opportunities which can provide access to high quality greenspace and protect historical assets as the wider area takes on future growth. The River Great Ouse corridor is one of these areas whose enhancement could provide a water management function, storing water upstream to reduce downstream flood risk, and helping to reduce nitrification surface water flow from agricultural land. The strategy also identifies a number of GI connections that are needed to include missing links. Broadly following the Ouse valley to the west of the spatial option area, the strategy suggests a number of new connections to the north of the Milton Keynes urban area to improve linkages between a number of lakes which could provide opportunities to extend the existing linear park network from the north into Milton Keynes. ***Summary:*** *development in this area could present an opportunity to create new landscape scale strategic GI links to the River Great Ouse corridor and the wider GI network.*
Soil and Agricultural Land Quality	Much of the spatial option area is defined as predominately Grade 3 with area of Grade 2 land to the south. Further assessment would be required to be able to ascertain whether the Grade 3 land was 3a (BMV) or 3b land. **Summary:** *whilst BMV land needs to be recognised, the lack of survey data means that classification of agricultural land is not robust. This is unlikely to be*

	a factor preventing development in this option area.
Air Quality	No air quality issues
Transport	The A509 (Wellingborough to Milton Keynes) is a key sub-regional route and one of the primary radial routes into Milton Keynes, passing north-south through the spatial option area. The A509 impacts include traffic pressures currently dominated by peak hour commuting travel but also include significant levels of HGV movements travelling between the A14 and M1. The A422 provides an alternative east-west link to the A421 for traffic travelling from the Buckingham area to Bedford for connections to the A6 and A1. The transport modelling undertaken for the preparation of Plan:MK considered the cumulative effects of existing committed growth and that planned in Plan:MK. It showed a significant increase in traffic, particularly car journeys from outside Milton Keynes to central Milton Keynes as a result of the borough growing more jobs than housing. Particularly relevant to the spatial option, it found a worsening situation in both AM and PM peaks, with entry point links (A421, A5, A509, A422 and M1 junctions) generally more stressed alongside the internal central MK network due to the greater levels of in commuting. ***Summary**: Key strategic routes pass through the Option area – the A509 and A422. These routes are likely to come under greater stress as a result of existing planned growth to the east of the M1 in Plan:MK. Large scale development here would need to achieve a connection to the Mk rapid transit network although adding more stops to the linear connection to Olney could slow journey times, potentially reducing the benefits that rapid transit offers.*
General Infrastructure Capacity	**Water Cycle Study, 2017**: the Sherington Water Recycling Centre (WRC) lies within the Option area, when assessed against the 'insignificant' level of growth planned for the WRC's area in PlanMK up to 2031, the WMP concludes that this WRC has sufficient headroom. The capacity would need to be reassessed were significant growth to be planned for this area. Water Supply Strategy - based on the level of growth in Plan:MK, the WCS concluded that, there would be adequate water resources to cater for growth over the plan period. However, it has identified long term limitations on further abstraction from the raw water resources supplying the Borough. It will therefore be necessary to manage water demand from all new development in order to achieve long term sustainability in terms of water resources. In the **School Place Planning Forward View, 2019** , this spatial option falls within the North planning area which covers the rural part of the borough to the north east of the M1. Within the spatial option area there is a primary school at Sherington. The nearest secondary school is in Olney. in 2023, the evidence shows a positive balance of school places at primary level and a deficit of 20 secondary school places, although this has resolved to a positive balance in 2024. Further growth in this Option area would need to address school provision, not just for secondary places but also to provide additional primary school places close to the new development to enable as many pupils

	as possible to walk or cycle to school. The nearest GP surgeries to this area are in Olney or Newport Pagnell. Significant new development will require consideration of the capacity of the current GP provision and access to acute care either at Milton Keynes, Bedford or Northampton hospitals. ***Summary:*** *The rural location of this spatial option means that it has limited potential to contribute to Milton Keynes' growth objectives as it currently stands Whilst benefitting from access to the A509 and the A422, the small scale settlements and lack of associated services, facilities and employment opportunities would require very significant investment in physical and social infrastructure in order to be able to support additional growth.*

National/ sub-national infrastructure drivers and projects	
Oxford-Cambridge Growth Arc (the Arc)	**General context:** Milton Keynes Council is committed to realising the city's potential as the hub of the Cambridge-Milton Keynes-Oxford growth corridor, responding positively to the aspirations of the Council's MK Futures 2050 programme, the Council Plan 2016-2020 and the NIC Report 'Partnering for Prosperity', to expand the City to a population of approximately 500,000 people by 2050. Milton Keynes Council's Strategy for 2050 will provide a framework for how the aspirational levels of growth supported by the Council should be delivered, to be translated into future reviews of the Local Plan. Policy DS0 in Plan:MK therefore commits to an early review with the intention that a draft plan containing strategic policies will be submitted to Government for examination no later than the end of 2022.
East-West Rail	1. The proposed East West Rail scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects. 3. Ensure that strategic infrastructure, including new elements of East West Rail are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The spatial option area does not lie within the area to be served by East-West Rail, however, wider growth within the Arc could lead to further pressures for north-south traffic movements along the A509 and east-west along the A422.

Expressway	The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030 3) Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The spatial option area is outside of the preferred corridor within which a route for the Expressway is to be identified, however, as with East-West Rail above, wider growth within the Arc could lead to further pressures for north-south traffic movements along the A509.

Local Growth Allocations	
Plan:MK, 2019	No allocations for this Spatial Option area
VALP	N/A
Central Beds Local Plan	N/A
South Northants Local Plan	Part 1 plan, West Northants Joint Core Strategy, adopted 2014. JCS review underway, consultation on Issues in Oct 2019 including a call for sites. Development is currently focussed on the main towns of Northampton, Brackley, Daventry and Towcester. Part 2 plan for S Northants, the Inspector's report is awaited. No additional significant development allocated close to the boundary with Milton Keynes
MKC Minerals Local Plan, 2017	River Great Ouse, river terrace deposits are a Minerals Secondary Focus area to the west of the area. To the south, there is the Primary Minerals focus Area of the River Great Ouse sub-alluvial river terrace and the sand and gravel quarry at Lathbury. The area has no site specific allocations for minerals extraction.
MKC Site Allocations Plan, 2018	No allocations for this area – the Site Allocations Plan does not include sites outside of the Milton Keynes urban area.
Neighbourhood Plans	**Sherington Neighbourhood Plan:** the plan allocates two sites for housing – NP7 to the north west of the village, for up to 36 dwellings and NP8, Water

	Lane, to the south west of the village centre for up to 9 dwellings.

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth

Principle 1: A commitment to inclusive growth

Inclusive and transformational growth means connecting more people to the available economic opportunities and for there to be a significant long term growth in the area's economy as well as in the number of new homes. This area does not currently have a large population nor employment base, for it to be a focus of future growth would require a significant amount of new development and the improvement of its connections to the Milton Keynes urban area to the south (as well as to Northampton to the north and Bedford to the east).

Principle 2: Build sustainability into everything the city does

In order to meet the targets in the Strategy for 2050 for carbon neutral and carbon negative development, development in this area would need to be supported by improved public transport and links to the rapid transit network in order to significantly reduce car-borne journeys. Providing stopping points on a rapid mass transit link from Milton Keynes north to Olney to serve development in this area, may result in slower travel times and a reduction in the effectiveness of the rapid transit link.

Principle 3: Connected Growth and Mobility & Principle 4: Mobility for All

Growth in this location will require improved connections to Milton Keynes and, in order to achieve a significant shift away from the use of the car, a connection to the MK mass rapid transit network.

Principle 5: Economic growth that provides jobs for all

The Spatial Option does not fall within any of the potential economic growth locations identified the Strategy for 2050. As a relatively rural location, it is not located close to or easily accessible from existing areas of economic growth. As above, if the area could be connected to the rapid transit network then there would be opportunities to better connect this area and its residents to employment opportunities in the surrounding areas, although as noted in Principle 2, providing additional stopping points on the rapid transit network to serve this area could reduce the network's overall speed and attractiveness.

Principle 6: Provide a range of homes that work for everybody

The small scale of the existing settlements in this area and the consequent limited range of services and facilities to meet every day needs mean that the area is unlikely to be attractive to or practical for elderly, young families or young professionals. Only with significant new development (likely to be on the scale of a self-supporting new settlement) could this area deliver to this Principle.

Principle 7: Keep Milton Keynes Green and Beautiful

The part of the Option area around Sherington is classified as having high sensitivity to new development, and the landscape character is one of small settlements in a tranquil rural setting. Large scale development in this location would not be compatible with the landscape objectives

now this Principle.

Principle 8: Create better places and communities that work for everyone

Growth in this area would need to create a new settlement or significantly expand an existing village in order to be deliver the homes, job and facilities to support sustainable communities.

Principle 9: Build stronger centres & Principle 10: Provide leadership and direction

Not applicable to this option.

Conclusions

Due to the small scale of existing settlements in this area and the associated lack of physical and social infrastructure, large scale growth in this location would need to fund and deliver all of the necessary infrastructure.

Whilst the area could be connected to a rapid transit link from Olney into Milton Keynes, it is remote from the east-west growth axis to the south of Milton Keynes.

The area has strong landscape character, significant heritage assets and high sensitivity to development. As such, significant growth would result in irreversible change to its character.

Spatial Option 14 Olney, north of Milton Keynes

The area includes the town of Olney and its immediate surrounds.

For the assessment of this spatial option it has been assumed that the Olney bypass would be in place (east or west route option) at the time of future growth to 2050.

Constraints Assessment (primarily based on evidence base for Plan:MK)	
Flood Risk	The area is exposed to medium and high risk of flooding from river sources, as a result of the channel and flood plain of the River Great Ouse which wraps around the south and east of Olney town (flood zone 3b). Other tributaries extend northwards of the village which also present some risk of flooding (flood zone 3). Some areas of the Parish are also exposed to high risk of surface water flooding, particularly along the banks of the River Great Ouse. **SFRA 2015 -** Access to Olney from Bridge Street in the south of the settlement is within Flood Zone 3 associated with the Great Ouse and there are isolated properties along the Great Ouse within Flood Zone 3, including the Mill at Wolverton Mill (SP79504113) and Gallards Farm (SP86794638). The eastern edge of Olney associated with the River Great Ouse is likely to experience a greater severity and frequency of flooding, due to the effects of climate change. **Surface Water Management Plan, 2016**: the Spatial Option area includes the Olney Critical Drainage Catchment, where the SWMP recommends that measures to address flooding risk include: • Tanked permeable paving or tanked geocellular storage to be retrofitted across the vehicle parking areas/play areas at Olney Junior and Middle School. • Increased capacity of drainage systems. • Borough-wide options which would benefit this CDC to include planning policies to influence development, social change, education and awareness. ***Summary**: there is a medium to high risk of flooding from fluvial and surface water sources around the south and east of Olney from the River Great Ouse. Mitigation measures to address surface water flood risk should be implemented as part of any new development.*
Landscape Character	**Milton Keynes Landscape Character Assessment, 2016** classifies the landscape of the borough into Landscape Character Types (LCTs) and Landscape Character Area (LCAs), where LCAs are a subdivision of the LCT. This spatial option falls within the following classifications: LCT 2, River Valley and specifically LCA2b, the Ouse Rural River Valley and LCT 5, Undulating Clay Farmland and specifically, LCA5a and to a lesser part, 5b Ouse Undulating Clay

	Farmland. **Key characteristics of LCT2** include: areas of pasture close to the river; open field patterns with ditches and wire fences; limited access to the river in rural areas and few crossing points; the river is inconspicuous within the landscape, marked only by scattered trees; tranquil character. **LCA2b** consists of the River Great Ouse valley floor and defines much of the southern and eastern part of this spatial option. Much of the land is pasture and there are limited settlements and crossing points in the area, with the bridge at Olney being one of them. **Landscape condition**: good due to the low impact of built development, mixed age of tree cover and extent of semi-natural habitat. The area is described as having '*coherent visual unity*' . **Development considerations** include preventing development in the floodplain. **Key characteristics of LCT5 include:** undulating lowland landscape sloping down towards the river valley floor; secondary valleys provide local enclosure; large scale arable fields; pasture on lower slopes and near settlements; occasional stone walls to fields boundaries and limestone in fields; paddocks on village margins; limited impact from built development; tranquil and remote; general absence of visual detractors except for wind turbines and pylons to the east side of the LCT and railway line to the west. **LCA5a and b:** lying north and south of the River Great Ouse, the area comprise an undulating landscape with panoramic views. Landmark church spires or towers are characteristic of the areas, with the spire of the 14th century church of St Peter & St Paul dominating the southern approach to Olney. **Landscape condition**: moderate due to fragmentation of historic field patterns and woodland. Visual impact of the pylons and wind farm also lowers landscape condition. Unsympathetic development on the edge of villages has affected their setting in the landscape. **Development considerations** include restricting development in the area; protecting historic setting and structure of villages, including preventing development that could detract from local landmarks; use of indigenous material for new development; development to be accompanied by a landscape and visual assessment and take account of the wider landscape setting. **A Landscape Sensitivity Study to Residential Development in MK and adjoining areas** was published in October 2016 which assessed 30 areas for their capacity to absorb new residential development. The western part of this Spatial Options lies within Sensitivity Area 30, and the assessment concludes that its sensitivity is **high** and that new development would have a significant adverse change in landscape character, the south facing slopes to the south of the area have high intervisibility with the Ouse

	river valley which is vulnerable to change. Limited development could be accommodated on the lower slopes to the north of the area, adjoining Olney Business Park. Development should avoid higher ground. To the west of Olney, development should maintain the existing visual containment created by the field boundary vegetation and woodland cover. ***Summary:*** *the western part of the Spatial Option which is at less risk from fluvial flooding is, however, highly sensitive to new development. Careful consideration will be needed as to the location, design and layout of any growth in this area.*
Heritage Assets	**Olney Conservation Area:** defined by dense cluster of listed buildings including the medieval outline of the town. **Scheduled Ancient Monuments:** one north of the town comprises the remains of an Iron Age and Roman settlement which can be identified both through aerial photography and excavation. Remains may also be present on adjacent land, including a number of linear features that may extend outwards beyond the scheduled area creating a zone around the SAM located on land east of the A509. SAM is currently recorded as 'at risk' on the national register maintained by Historic England as a result of damage to buried remains by ploughing. Second SAM is Olney Bridge, south of the town representing historic river crossings and providing evidence of the origins of Olney as a market town on a crossing of the Great Ouse and possibly a minor inland port. There are no designated landscape areas or historic parks or gardens within the spatial option area. ***Summary****: the Option area includes a number of important heritage assets which would need to be respected in any development but which would not necessarily be a contains on well-planned future growth.*
Biodiversity ecology/ geology	The Spatial Option area does not contain any sites internationally designated for nature conversation purposes. There are no SSSIs within the area designated for geodiversity, nor are there any Regionally Important Geological Sites (RIGS).The closest nationally designated biodiversity site is located 2.7km to the north west of Olney, which is the Yardley Chase SSSI. The SSSI condition assessment, last completed in 2013, suggests that the site is deemed to be in unfavourable but improving condition. There is a network of **Wildlife Corridors** to the west, south and east of the spatial option area, including Emberton Country Park to the south of Olney town. There is a **Local Wildlife Site** to the south west of the Olney settlement boundary. The **Bucks & Milton Keynes Biodiversity Action Plan (BAP) identifies** a number of priority habits that are characteristic of the area. There is a key area of BAP Priority Habitat in the option area (neutral grassland); a Biological Notification

	Site (BNS) on the River Ouse, sw of Olney and the Ouse Valley Biodiversity Opportunity Area (BOA) which comprises floodplain grazing marsh mixed with lowland wood-pasture and parkland. ***Summary:*** *the priority habitats and key biodiversity assets are focused on the River Great Ouse and its floodplain and would, therefore , be unlikely to be directly impacted by growth here. A larger resident population in the Option area could, however, increase recreational pressures on these assets and this may require future management. Recreation pressure could be offset by developing new strategic GI as part of any large scale growth to provide a range of alternative places for leisure and recreation activities.*
Green Infrastructure	The Milton Keynes Green infrastructure Study, 2018, includes areas of 'landscape scale' opportunities which can provide access to high quality greenspace and protect historical assets as the wider area takes on future growth. The River Great Ouse corridor is one of these areas whose enhancement could provide a water management function, storing water upstream to reduce downstream flood risk, and helping to reduce nitrification surface water flow from agricultural land. The study also identifies a number of GI connections that are needed to include missing links. Affecting the spatial option area, the study suggests a number of new connections to the north of the Milton Keynes urban area to improve linkages between a number of lakes which could provide opportunities to extend the exiting linear park network from the north into Milton Keynes. ***Summary****: large scale growth in this location has the potential to contribute to new strategic GI connecting to the River Great Ouse corridor and making wider connections to the MK urban area.*
Soil and Agricultural Land Quality	Much of the spatial option area is defined as predominately Grade 3 with a concentration of Grade 2 land to the north towards Warrington. Further assessment would be required to be able to ascertain whether the Grade 3 land was 3a (BMV) or 3b land. There are no areas within the Plan area that are susceptible to groundwater pollution, however the entire Plan area is designated as a groundwater and surface water nitrate vulnerable zone. This is because the groundwater is considered to have high nitrate concentrations (over 50 mg/l nitrate). ***Summary: wh****ilst BMV land needs to be recognised, the lack of survey data means that classification of agricultural land is not robust. This is unlikely to be a factor preventing development in this option area.*
Air Quality	Existing air quality issues in the Plan area are closely linked to traffic and congestion on the A509, a key haulage route which bisects Olney town centre. An AQMA is in place for Olney High Street, however, the concentration of nitrogen dioxide within the Olney AQMA has fallen over the last 3 years to below the objective level (40 ug/m3 annual mean). In 2017 the maximum recorded level was 36 ug/m3. Should this concentration be maintained or fall further, the AQMA will be revoked within the next two years. The DfT has an

	Automatic Traffic Counter just south of Bridge Street in Olney that counts and classifies every passing vehicle. There has been no significant increase in traffic flows through Olney over the last seven years; the annual average daily traffic (AADT) count is approximately 17,000 vehicles/day. ***Summary:*** *whilst recent improvements mean that the AQMA for Olney may be revoked in the near future, it will remain important that further growth in this area does not increase traffic movements through the area to the detriment of air quality. Implementation of a connection to a MK rapid transit network would provide an efficient alternative mode of travel to the private car which may assist ion continuing to reduce emissions here.*
Transport	The A509 (Wellingborough to Milton Keynes) is a key sub-regional route and one of the primary radial routes into Milton Keynes, passing north-south through the spatial option area and directly through Olney town centre. The A509 impacts include: • Traffic pressures currently dominated by peak hour commuting travel but also include significant levels of HGV movements travelling between the A14 and M1. • A509 impacts on Olney town centre in terms of traffic safety, environmental quality and general congestion – hence the benefit that a bypass could bring. • Planning for a significant scale of growth in this location could support an extension of an MK Rapid Transit network • There are existing parkland assets in the area (Emberton Country Park and the River Great Ouse corridor). The transport modelling undertaken for the preparation of Plan:MK considered the cumulative effects of existing committed growth and that planned in Plan:MK. It showed a significant increase in traffic, particularly car journeys from outside Milton Keynes to central Milton Keynes as a result of the borough growing more jobs than housing. Particularly relevant to the spatial option, it found a worsening situation in both AM and PM peaks, with entry point links (A421, A5, A509, A422 and M1 junctions) generally more stressed alongside the internal central MK network due to the greater levels of in commuting. ***Summary****: the A509 is already subject to peak hour stress and further development not just in this Option but to the north and south of Olney will be likely to see this worsen. The delivery of the bypass and links to the MK rapid transit network could be an effective way to alleviate increasing traffic pressure here.*
General Infrastructure Capacity	**Water Cycle Study, 2017**: the Olney Water Recycling Centre (WRC) is identified as one of two WRCs in Milton Keynes borough that do not have sufficient flow capacity and/or require tighter permit controls (within the limits of conventional treatment) to accept all future development proposed within Plan:MK to 2031. Some intervention is required to accommodate the growth to ensure that the increased wastewater flow discharged does not impact on the current quality of the receiving watercourses, their associated ecological

	sites and also to ensure that the watercourses can still meet with Water Framework Directive (WFD) requirements. Plan:MK Policy FR1 requires a site specific FRA for development within CDCs to demonstrate, amongst others, that the development will not increase the flood risk to the CDC and where possible will provide an improvement to the existing situation. Water Supply Strategy - based on the level of growth in Plan:MK, the WCS concluded that, there would be adequate water resources to cater for growth over the plan period. However, it has identified long term limitations on further abstraction from the raw water resources supplying the Borough. It will therefore be necessary to manage water demand from all new development in order to achieve long term sustainability in terms of water resources. In the **School Place Planning Forward View, 2017** , this spatial option falls within the North planning area which covers the rural part of the borough to the north east of the M1. Within the spatial option area there is a secondary school and infant school at Olney and a primary school at Emberton (the closure of which has recently been announced). In 2023, the evidence shows a positive balance of school places at primary level and a deficit of 14 secondary school places. Further growth in this location would need to address school provision, not just for secondary places but also to consider whether there might be a need to consolidate and/or relocate primary school places to enable as many pupils as possible to walk or cycle to school. There is a GP surgery in Olney which is likely to serve the surrounding area. Significant new development will require consideration of the capacity of the current GP provision and access to acute care either at Milton Keynes or Northampton hospitals. ***Summary:*** *further growth in this location would need to contribute to investment in new and extended facilities to serve new residents, which could also provide benefits for existing residents in terms of access to a wider range of services and facilities to meet their day to day needs.*

National/ sub-national infrastructure drivers and projects	
Oxford-Cambridge Growth Arc (the Arc)	**General context:** Milton Keynes Council is committed to realising the city's potential as the hub of the Cambridge-Milton Keynes-Oxford growth corridor, responding positively to the aspirations of the Council's MK Futures 2050 programme, the Council Plan 2016-2020 and the NIC Report 'Partnering for Prosperity', to expand the City to a population of approximately 500,000 people by 2050. Milton Keynes Council's Strategy for 2050 will provide a framework for how the aspirational levels of growth supported by the Council should be delivered, to be translated into future reviews of the Local Plan. Policy DS0 in Plan:MK therefore commits to an early review with the intention that a draft plan containing strategic policies will be submitted to Government for examination no later than the end of 2022.

East-West Rail	1. The proposed East West Rail scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. Maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects. 3. Ensure that strategic infrastructure, including new elements of East West Rail are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The spatial option area does not lie within the area to be served by East-West Rail. A connection to a MK rapid transit network has the potential speed up journeys from the area to the railway stations at Milton Keynes (not on East West Rail) and Bletchley.
Expressway	The proposed Expressway scheme must be built as quickly as possible to unlock land for new homes and provide a better service for those who already live across the arc. They must also be futureproofed with the capacity to expand. Local areas must work collaboratively to make the most of these new opportunities, thinking more boldly than before, both now and in the long-term. 2. To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030 3) Ensure that strategic infrastructure, including new elements of the Oxford-Cambridge Expressway are planned and developed, to achieve net gains in biodiversity and natural capital across the arc. The spatial option area is outside of the preferred corridor within which a route for the Expressway is identified.

Local Growth Allocations and Settlement Hierarchy	
Plan:MK, 2019	No allocations for this Spatial Option area **Settlement Hierarchy:** Olney is a Tier 2 key settlement in Plan:MK due to the range of services it provides to meet the day to day needs of its residents.
VALP	N/A
Central Beds Local Plan	N/A
South Northants	Part 1 plan, West Northants Joint Core Strategy, adopted 2014. JCS review

Local Plan	underway, consultation on Issues in Oct 2019 including a call for sites. Development is currently focussed on the main towns of Northampton, Brackley, Daventry and Towcester. Part 2 plan for S Northants, the Inspector's report is awaited. No additional significant development allocated close to the boundary with Milton Keynes
MKC Minerals Local Plan, 2017	River Great Ouse, river terrace deposits are a Minerals Secondary Focus area. The are no site specific allocations for minerals extraction within this area.
MKC Site Allocations Plan, 2018	No allocations for this area – the Site Allocations Plan does not include sites outside of the Milton Keynes urban area.
Neighbourhood Plans	**Olney Neighbourhood Plan, made July 2017**, covers the whole of Olney parish area which sites within this Spatial Option area. The Neighbourhood Plan allocates 3 sites (one to the north east, two to the west, to deliver 300 new homes. A further site to the west of the town is identified as a strategic reserve site for future development. **Emberton Neighbourhood** Plan – under preparation; the Neighbourhood Area for Emberton Parish area was designated in 2016. Consultation on a draft plan took place at the start of 2019.

Draft Strategy for 2050 – Assessment against the 10 Principles for Growth

Principle 1: A commitment to inclusive growth

Inclusive and transformational growth means connecting more people to the available economic opportunities and for there to be a significant long term growth in the area's economy as well as in the number of new homes. Whilst this area could be the focus of future growth, it will be important to improve its connections to the Milton Keynes urban area to the south (as well as to Northampton to the north). Delivery of bypass would improve the speed and efficiency of road links from this area to Milton Keynes at the same time as resolving existing air quality and environmental problems associated with the current route of the A509.

Principle 2: Build sustainability into everything the city does

In order to meet the targets in the Strategy for 2050 for carbon neutral and carbon negative development, development in this area would need to be supported by improved public transport and links to the rapid transit network in order to significantly reduce car-borne journeys. Whilst the delivery of the bypass will improve air quality, meeting one of sustainable development outcomes, it could have the effect of encouraging use of the private car for journeys by improving journey times. Due to the environmental constraints, particularly flood risk associated with the River Great Ouse, development in this area is likely to be restricted to land to the west of Olney.

Principle 3: Connected Growth and Mobility & Principle 4: Mobility for All

Growth in this location will require the delivery of the bypass for Olney and, in order to achieve a significant shift away from the use of the car, a connection to the MK mass rapid transit network. Of the two options, for a possible bypass route, the western alignment would have the least

environmental constraints and would support connections to Olney High Street. A western alignment would also help to enable further development to the west of the town to 2050 which could provide a critical mass of population to support wider sustainable benefits including public transport and a strategic approach to green infrastructure provision.

Principle 5: Economic growth that provides jobs for all

The Spatial Option does not fall within any of the potential economic growth locations identified the Strategy for 2050. As a relatively rural location, it is not located close to or easily accessible from existing areas of economic growth. As above, if the area could be connected to the rapid transit network then there would be opportunities to better connect this area and its residents to employment opportunities in the surrounding areas.

Principle 6: Provide a range of homes that work for everybody

With improved public transport links, the area could be attractive to older households as well as to families needing space to grow.

Principle 7: Keep Milton Keynes Green and Beautiful

Given the existing parkland assets in the area (Emberton Country Park and the River Great Ouse corridor), growth in this area could deliver new and enhanced green infrastructure.

Principle 8: Create better places and communities that work for everyone

The existing town of Olney provides a walkable, attractive place, where residents have access to a range of every day services and facilities as well as access to nature and opportunities for active lifestyles. The challenge will be to ensure that those services and facilities expand in line with future growth so that the town maintains its character as a local centre serving the needs of its residents and those in the rural hinterland. Improved transport links, both for public transport and for rapid transit will enhance the opportunities for residents to access jobs and other services in Milton Keynes.

Principle 9: Build stronger centres & Principle 10: Provide leadership and direction

Not applicable to this option.

Conclusions

Development and associated traffic growth in this area has the potential to impact on the fabric and setting of Olney town and its heritage assets in particular. A particular area of sensitivity to increased traffic flows is Olney town centre where air quality is improving but could be impacted by a significant rise in traffic through the High Street. The delivery of a bypass would help to address this issue. New development could lead to incremental changes in landscape character and quality stemming from the loss of landscape features and visual impact. Olney is likely to be susceptible to change due to its historic village core and innate landscape value.

Sites of biodiversity importance have the potential to come under increasing pressures from future development which will lead to an increase in the population of Olney and the surrounding

area. This includes through direct loss of habitat through development and recreational impacts on biodiversity networks, which could be further intensified through the effects of climate change. However, there are opportunities for net biodiversity gains through habitat creation and integration via new green infrastructure networks in the area.

The delivery of the bypass could encourage a growth in car borne journeys by reducing congestion, and consideration should therefore be given to the extension of the MK rapid transit network to serve Olney in order to enhance opportunities for more sustainable modes of transport.