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North Central Bedfordshire Growth Options Study Appendix 5 part 2

July 2017

Location ID: N14 **Potton West** Name:

Location area:	93.2 hectares
Proportion within Study Area:	100%
Typology:	Small village extension, not in close proximity to public transport interchange
Assumed net density:	30 dwellings per hectare
Assumed total net capacity:	1,678 dwellings
Estimated net capacity 2015-2035:	900 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	×
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	×
Urban extensions	(<100 m from top tier settlement and not within urban area)	×
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	Yes
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	Yes
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	
Major employment areas (2.0 km)	No
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Moderately likely

A minority of the site has been submitted by promoters through the Call for Sites process. The rest of the site comprises 'missing site(s)', and therefore the land availability is currently unknown. However, we are not specifically aware of any opposition by the promoters.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Moderately likely

Not within 1.2km of existing public transport interchange, and not within 1.0km of existing strategic road. Development of this scale is likely to require moderate improvements to existing transport infrastructure, but none are currently planned. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Less likely

Location offers poorer access to quality of life attractions (cultural, sports, leisure and/or natural assets), and less convenient access to employment and amenities. Moderate average residential sales values are likely to reflect the local character of the area.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Less likely (no change from current assessment)

There are no known regeneration / employment / infrastructure projects planned that would significantly change the likelihood of demand from the current assessment.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Low

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / \pounds 750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Small village extension (93.2 ha) to the west of Potton. The site lies 3.5km east of Sandy Train Station at its southwesternmost point (accessed via the B1042) where Great Northern operate train services between London King's Cross and Peterborough.

National Cycle Network (NCN) route 12 can be accessed from Sandy, but is around 4.0km from the proposed site location.

Indicative traffic conditions

The potential growth option is accessible via Sandy Road to the south and Potton Road to the north. To the east of the site, speed reductions greater than or equal to 30% are apparent on Everton Road, Myers Road, King Street and Hatley Road close to key junctions with the B1040, as well as on the B1040 (Gamlingay Road) itself. Further west of the option, speed reductions are evident on the B1042 High Street, towards the south of Sandy, and on the A1 and A603. Additional speed reductions are also seen to the south west, on a number of key routes in Biggleswade, including the A6001 and B658 to the north west of the town.



Speed differentials	≥ 30% speed reduction	$20\% \le$ speed reduction < 30%	$10\% \le$ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway 	A Road	B Road	— Minor Road	— Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Southern routes towards North Hertfordshire, Stevenage and Welwyn Hatfield	35%	A1
Eastern routes towards South Cambridgeshire and Cambridge	23%	A1, A428
Western routes towards Milton Keynes	15%	A421, A603, B1042
North-Western routes towards Bedford	13%	B1042, A603, A1, A421
Northern routes towards Huntingdonshire	7%	A1
South-Western routes towards Luton	7%	A1, A6, A507, B658
North-Eastern routes	0%	N/A
South-Eastern routes	0%	N/A

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 003.





Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:



Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	1 (0.01 collisions per ha)
Serious	0 (0.00 collisions per ha)	Serious	9 (0.10 collisions per ha)
Slight	7 (0.08 collisions per ha)	Slight	20 (0.21 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R3	A428 Widening (Between A1 and Caxton Gibbet)	Medium (50%)
R14	A1 East of England Improvements	Medium (50%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
P11	Interchange at Sandy	Medium (50%)

Similar to sites N10, N11, N12 and N13, the location's proximity to the A1 and A428 offers the possibility for opportunities to arise resulting from the potential improvements of the A428 towards Cambridge (R3), allowing for a greater level of access between the city and the A1. There is also an opportunity to tie housing growth to the strategic Highways England work (R14) which is investigating areas of improvement on the A1.

Further, the interchange improvements at Sandy Station (P11) and the East West Rail link (P2, P3), which is proposed to pass through Sandy, is predicted to offer greater access to employment via public transport.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Opportunities to link into EWR scheme. Park and Ride capacity enhancements at Sandy.
- Improved cycle parking facilities at existing and future public transport interchanges.
- Explore options to improve connectivity with North Hertfordshire, Stevenage, Welwyn and Hatfield. Opportunities linked to the A1 improvements scheme.
- Provide cycle connection to the National Cycle Route 12.

Location ID:	N15	Name:	Potton South

Location area:	17.5 hectares
Proportion within Study Area:	100%
Typology: Small village extension, not in close p to public transport inte	
Assumed net density:	30 dwellings per hectare
Assumed total net capacity:	315 dwellings
Estimated net capacity 2015-2035:	315 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	×
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	×
Urban extensions	(<100 m from top tier settlement and not within urban area)	×
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	Yes
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	No
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	Yes
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	Yes
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)		
Major employment areas (2.0 km)	No	
Town centres and major out of centre retail parks (0.8 km)	No	
Publicly accessible open spaces (1.2 km)	Yes	
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes	
Lower, middle or primary schools (1.0 km)	Yes	
Local / neighbourhood centres (0.4 km)	No	
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes	
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes	

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Moderately likely

A minority of the site has been submitted by promoters through the Call for Sites process. The rest of the site comprises 'missing site(s)', and therefore the land availability is currently unknown. However, we are not specifically aware of any opposition by the promoters.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Moderately likely

Not within 1.2km of existing public transport interchange, and not within 1.0km of existing strategic road. Development of this scale is likely to require moderate improvements to existing transport infrastructure, but none are currently planned. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers poorer access to quality of life attractions (cultural, sports, leisure and/or natural assets), and less convenient access to employment and amenities. Moderate average residential sales values are likely to reflect the local character of the area. However, a smaller amount of housing growth may be supported.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

There are no known regeneration / employment / infrastructure projects planned that would significantly change the likelihood of demand from the current assessment.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / \pounds 750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Small village extension (17.5 ha) south of Potton. The site lies approximately 6km from Sandy Train Station (via the B1042) where Great Northern operate train services between Peterborough and London King's Cross.

National Cycle Network (NCN) route 12 can be accessed from Sandy, but is around 6.0km from the proposed site location.

Indicative traffic conditions

The potential growth option is accessible via Biggleswade Road. To the north and north east, speed reductions greater than or equal to 30% are evident on Everton Road, King Street, Myers Road and Hatley Road, close to key junctions with the B1040. Further west of the option, speed reductions are seen on a number of roads close to Sandy, including the A1, A603 and B1042. More speed reductions are also apparent on a number of roads in Biggleswade, including the A6001 and B658 to the north west of the town.



Speed differentials	≥ 30% speed reduction	$20\% \le \text{speed}$ reduction < 30%	$10\% \leq \text{speed}$ reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway 	 A Road 	 B Road 	 Minor Road 	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Southern routes towards North Hertfordshire, Stevenage and Welwyn Hatfield	29%	A1, B1042
Western routes towards Milton Keynes	15%	A603, A421
Eastern routes South Cambridgeshire and Cambridge	15%	A1, A428, B1040
South-Western routes towards Luton	13%	A1, A6, A507, B1042, B658
North-Western routes towards Bedford	13%	A603, B1042
South-Eastern routes	8%	A1
Northern routes towards Huntingdonshire	7%	A1
North-Eastern routes	0%	N/A

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 003.





Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:		Based on a	Based on assumed future conditions:		
0 - 60,000		0 - 60,000			
60,000 - 120,000		60,000 - 1	20,000		
> 120,000		> 120,000			

Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	2 (0.11 collisions per ha)	Serious	5 (0.29 collisions per ha)
Slight	2 (0.11 collisions per ha)	Slight	11 (0.63 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R3	A428 Widening (Between A1 and Caxton Gibbet)	Medium (50%)
R5	Biggleswade Eastern Relief Road	Confirmed (100%)
R14	A1 East of England Improvements	Medium (50%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
P8	Interchange at Biggleswade	Medium (50%)
P11	Interchange at Sandy	Medium (50%)

Given this location's proximity to both Sandy and Biggleswade, it is likely to benefit from interchange improvements at the rail stations in both towns (P8, P11). Similarly, the proposed East West Rail link (P2, P3) is proposed to pass to the north of this option through Sandy, which provides an opportunity to expand access to employment via public transport.

Further, there is also the potential for opportunities to arise as a result of the widening of the A428 between the A1 and Caxton Gibbet (R3), and on a more local level the Biggleswade Eastern Relief Road (R5), and an opening to encompass housing growth within the A1 East of England Improvements study (R14), which is investigating improvements along the A1 corridor.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Opportunities to link into EWR scheme. Park and Ride capacity enhancements at Sandy.
- Improved cycle parking facilities at existing and future public transport interchanges.
- Explore options to improve connectivity with North Hertfordshire, Stevenage, Welwyn and Hatfield. Opportunities linked to the A1 improvements scheme.
- Provide cycle connection to the National Cycle Route 12.

Location ID:	N16	Name:	Biggleswade North
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Location area:	51.1 hectares
Proportion within Study Area:	100%
Typology:	Small urban infill site / extension, in close proximity to public transport interchange
Assumed net density:	55 dwellings per hectare
Assumed total net capacity:	1,686 dwellings
Estimated net capacity 2015-2035:	1,200 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	×
Village extensions	(<100 m from existing non top-tier settlement)	×
Growth in transport corridors	<pre>(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)</pre>	\checkmark
Urban extensions	(<100 m from top tier settlement and not within urban area)	~
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	\checkmark

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No	
Historic environment	Conservation Area		
Biodiversity	Priority Habitat Inventory	Yes	
Biodiversity	Locally designated wildlife site	No	
Biodiversity	Local Nature Reserve	No	
Biodiversity	Local geological site	No	
Landscape	Locally identified sensitive landscape	No	
Air quality	Air Quality Management Area	No	
Soil quality	Grade 1, 2 or 3 agricultural land	Yes	
Water quality	Source Protection Zone 1 or Zone 1c	No	
Flood risk	Flood Zone 2	No	
Flood risk	Flooding from surface water (1 in 100 year)	Yes	
Energy infrastructure	High voltage electricity line 400 m buffer zone	No	
Mineral resources	Mineral Safeguarding Area	Yes	
Open space, sport & recreation	Sustrans national cycle route	Yes	
Open space, sport & recreation	Publicly accessible open space	Yes	

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	Yes
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Within 1.2km of existing public transport interchange and 1.0km of existing strategic road. Existing Biggleswade railway station is one stop away from the planned East-West Rail interchange at Sandy (Medium/50% likelihood of delivery by 2035). Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers moderate access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

Housing demand may increase in line with the regeneration of Biggleswade town centre. The existing Biggleswade railway station is one stop from the planned Sandy East-West Rail interchange (Medium/50% likelihood of delivery by 2035).

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Moderately likely

High level viability modelling suggests that development at the assumed density exceeds the Threshold Land Value at current costs and values with lower than policy compliant affordable housing provision. Assumed density: 55 dwellings per net developable hectare (Small urban infill site / extension, in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Less likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density could not offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare, even with zero affordable housing provision.

OVERALL VIABILITY ASSESSMENT

Low

Transport

Small urban infill site/extension (51.1 ha) north of Biggleswade and lying adjacent to the East Coast Mainline. The southernmost portion of the site is located at a distance of around 2.0km from Biggleswade Train Station, where Great Northern operate train services between London King's Cross and Peterborough.

National Cycle Network (NCN) route 12 runs through the site and serves Biggleswade to the immediate south, albeit this part of NCN 12 is discontinuous and does not currently provide access beyond Biggleswade in either direction.

Indicative traffic conditions

The potential growth option is accessible via Furzenall Road and Potton Road to the south and south east. Immediately to the south of the site, speed reductions greater than or equal to 20% are apparent on close to the junction of Potton Way/Stratton Way. Further south, speed reductions are also evident near to Biggleswade Town Centre. To the west, speed reductions can also be observed on the A6001 and B658, close to the roundabout with the A1.



Speed differentials	≥ 30% speed reduction	$20\% \le$ speed reduction < 30%	$10\% \le$ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway 	A Road	B Road	— Minor Road	 Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Southern routes towards Stevenage and Welwyn Hatfield	27%	A6001, A1
South-Eastern routes towards North Hertfordshire	25%	A1, A6001
North-Western routes towards Bedford	14%	A1, A603
South-Western routes towards Luton	9%	A6, A507, B658
Northern routes towards Huntingdonshire	8%	A1
Western routes towards Milton Keynes	8%	A1, A603, A421
North-Eastern routes towards South Cambridgeshire and Cambridge	7%	A1, A428
Eastern routes	2%	B1040, B1042

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 005.

Commuter travel mode split



Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:



Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	1 (0.02 collisions per ha)	Serious	11 (0.22 collisions per ha)
Slight	11 (0.22 collisions per ha)	Slight	76 (1.49 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R3	A428 Widening (Between A1 and Caxton Gibbet)	Medium (50%)
R5	Biggleswade Eastern Relief Road	Confirmed (100%)
R14	A1 East of England Improvements	Medium (50%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
P8	Interchange at Biggleswade	Medium (50%)
P11	Interchange at Sandy	Medium (50%)

Due to the proximity of Biggleswade, and the relatively short distance to Sandy, there are likely to be benefits arising from interchange improvements at the rail stations in both towns (P8, P11). Similarly, the proposed East West Rail link (P2, P3) is proposed to pass to the north of this option through Sandy, which provides an opportunity to expand access to employment via public transport.

There are also opportunities to be gained as a result of improvements made to the A428 between the A1 and Caxton Gibbet (R3), and the Biggleswade Eastern Relief Road (R5), and an opening to join up housing growth with strategic plans such as the A1 East of England (R14).

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network improvements to improve connections to town centre, North Herts and Sandy
- Cycle infrastructure improvements linked to National Cycle Route 12 and rail stations.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID:	N17	Name:	Sutton-Biggleswade
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Location area:	324.0 hectares
Proportion within Study Area:	100%
Typology:	Large urban infill site / extension, not in close proximity to public transport
Assumed net density:	44 dwellings per hectare
Assumed total net capacity:	8,554 dwellings
Estimated net capacity 2015-2035:	2,000 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	×
Village extensions	(<100 m from existing non top-tier settlement)	×
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	×
Urban extensions	(<100 m from top tier settlement and not within urban area)	✓
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	
Historic environment	Conservation Area	
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	Yes
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	Yes
Flood risk	Flooding from surface water (1 in 100 year)	
Energy infrastructure	High voltage electricity line 400 m buffer zone	
Mineral resources	Mineral Safeguarding Area	
Open space, sport & recreation	Sustrans national cycle route	
Open space, sport & recreation	Publicly accessible open space	

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)		
Major employment areas (2.0 km)	Yes	
Town centres and major out of centre retail parks (0.8 km)	No	
Publicly accessible open spaces (1.2 km)	Yes	
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes	
Lower, middle or primary schools (1.0 km)	Yes	
Local / neighbourhood centres (0.4 km)	No	
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes	
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes	

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Less likely

Not within 1.2km of existing public transport interchange, and not within 1.0km of existing strategic road. Development of this scale is likely to require significant improvements to existing transport infrastructure, but none are currently planned. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers poorer access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values, although there are some pockets of higher value.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

Housing demand may increase in line with employment opportunities associated with this large site. There may be some demand for a more aspirational housing offer relative to the current area.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Low

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 44 dwellings per net developable hectare (Large urban infill site / extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / \pounds 750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Large urban infill site/extension (324 ha) abridging Biggleswade (to the west) and Sutton (to the North West). The westernmost portion of the site is located at a distance of around 3.5km from Biggleswade Train Station, where Great Northern operate train services between Peterborough and London King's Cross.

National Cycle Network (NCN) route 12 is also located 3.5km from the western perimeter of the site. However, this segment of the route appears to be discontinuous and does not extend beyond Biggleswade and therefore does not serve any other locations.

Indicative traffic conditions

The potential growth option is accessible via High Street to the north, Sutton Road to the east, and Biggleswade Road to the south. To the south west of the option, speed reductions greater than or equal to 20% are evident on Dunton Lane, London Road (A6001) and Holme Court Avenue, to the north west of Stratton Business Park. Further speed reductions are also evident on the A6001 and B658, close to the roundabout with the A1.



Speed differentials	≥ 30% speed	$20\% \le \text{speed}$	$10\% \le \text{speed}$	10% < speed	No speed
	reduction	reduction < 30%	reduction < 20%	reduction	reduction
Road type	 Motorway 	A Road	B Road	— Minor Road	— Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
South-Western routes towards Luton	21%	A1, A507, A6, B658
Southern routes towards Stevenage and Welwyn Hatfield	18%	A1
Western routes towards Milton Keynes	17%	A1, A603, A421
North-Western routes towards Bedford	16%	A1, A603
South-Eastern routes towards North Hertfordshire	14%	A1
North-Eastern routes towards South Cambridgeshire and Cambridge	7%	A1, A428, B1040
Northern routes towards Huntingdonshire	4%	A1
Eastern routes	3%	B1042

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 006.

Commuter travel mode split



Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:		Based on assumed futu	Based on assumed future conditions:	
0 - 60,000		0 - 60,000		
60,000 - 120,000		60,000 - 120,000		
> 120,000		> 120,000		

Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	1 (0.00 collisions per ha)	Serious	6 (0.02 collisions per ha)
Slight	4 (0.01 collisions per ha)	Slight	24 (0.07 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R3	A428 Widening (Between A1 and Caxton Gibbet)	Medium (50%)
R5	Biggleswade Eastern Relief Road	Confirmed (100%)
R14	A1 East of England Improvements	Medium (50%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
P8	Interchange at Biggleswade	Medium (50%)
P11	Interchange at Sandy	Medium (50%)

Similar to site N16, there are opportunities to be gained in this location as a result of rail improvements at Biggleswade and Sandy (P8, P11), in addition to the proposed East West Rail link (P2, P3), which is envisaged to allow for greater access to employment via public transport, particularly to Cambridge, Bedford and Milton Keynes. Further, it is likely this location will benefit from improvements such as the Biggleswade Eastern Relief Road and the widening of the A428 between the A1 and Caxton Gibbet, again allowing for better access.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network improvements to improve connections to town centre, North Herts and Sandy
- Cycle infrastructure improvements linked to National Cycle Route 12 and rail stations.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID: N18 Name	: Broom	
Location area:	25.3 hectares	
Proportion within Study Area:	100%	
Typology:	Small village extension, not in close proximity to public transport interchange	
Assumed net density:	30 dwellings per hectare	
Assumed total net capacity:	455 dwellings	
Estimated net capacity 2015-2035:	455 dwellings	



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	×
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	×
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	No
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	Yes
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	No
Lower, middle or primary schools (1.0 km)	No
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	No
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes
Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Moderately likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road. Development of this scale is likely to require moderate improvements to existing transport infrastructure, but none are currently planned. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers moderate access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values, although there are some pockets of higher value.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

There are no known regeneration / employment / infrastructure projects planned that would significantly change the likelihood of demand from the current assessment.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / \pounds 750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Small village extension (25.3 ha) to the southeast of Broom and located around 2.0km southwest of Biggleswade. Biggleswade is the closest train station at a distance of approximately 3.5km from the site, where Great Northern operate train services between Peterborough and London Kings Cross.

National Cycle Network (NCN) route 12 is located at a distance of around 2.5km from the site, although this is a noncontinuous portion of the route which only serves Biggleswade.

Indicative traffic conditions

The potential growth option is accessible via Southill Road and Gypsy Lane. Speed reductions greater than or equal to 30% are apparent on Southill Road, close to the junction with Gypsy Lane, and on High Road to the North West. To the north east of the option, speed reductions are also apparent on Gypsy Lane between Southill Road and the B658. Further north east, significant speed reductions are also evident on B658, between Gypsy Lane and the A1, and also on the A6001.



Speed differentials	≥ 30% speed reduction	$20\% \le$ speed reduction < 30%	$10\% \le$ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway 	A Road	B Road	— Minor Road	— Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
North-Western routes towards Bedford	22%	A603, B658
Western routes towards Milton Keynes	15%	A507, A603, A421, B658
South-Eastern routes towards North Hertfordshire and Stevenage	14%	A1
Northern routes towards Huntingdonshire	12%	A1
South-Western routes towards Luton	11%	A507, A6, B658
North-Eastern routes towards South Cambridgeshire	9%	A1, A428
Eastern routes	9%	B658
Southern routes towards Welwyn Hatfield	8%	A1

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 004.



Commuter travel mode split

Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:		В	Based on assumed future conditions:	
0 - 60,000		0) - 60,000	
60,000 - 120,000		6	50,000 - 120,000	
> 120,000		>	> 120,000	

Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	0 (0.00 collisions per ha)	Serious	2 (0.08 collisions per ha)
Slight	1 (0.04 collisions per ha)	Slight	5 (0.20 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R3	A428 Widening (Between A1 and Caxton Gibbet)	Medium (50%)
R14	A1 East of England Improvements	Medium (50%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
P8	Interchange at Biggleswade	Medium (50%)

Due to the option's proximity to both Biggleswade and the A1, it is likely to benefit from improvements made at Biggleswade station (P8) and from the widening of the A428 between the A1 and Caxton Gibbet (R3), due to its relationship with the A1. Further, as the East West Rail link is proposed to route through Sandy (P2, P3), there is the opportunity to provide greater access to employment via public transport.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network improvements to improve connections to town centre, North Herts and Sandy
- Cycle infrastructure improvements linked to National Cycle Route 12 and rail stations.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID: N	19 N	lame:	Biggleswade So	uth
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Location area:	97.1 hectares
Proportion within Study Area:	100%
Typology:	Large urban infill site / extension, in close proximity to public transport interchange
Assumed net density:	55 dwellings per hectare
Assumed total net capacity:	3,204 dwellings
Estimated net capacity 2015-2035:	2,000 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	×
Village extensions	(<100 m from existing non top-tier settlement)	×
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	✓
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	\checkmark

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	Yes
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	Yes
Open space, sport & recreation	Sustrans national cycle route	
Open space, sport & recreation	Publicly accessible open space	Yes

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)		
Major employment areas (2.0 km)	Yes	
Town centres and major out of centre retail parks (0.8 km)	No	
Publicly accessible open spaces (1.2 km)	Yes	
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes	
Lower, middle or primary schools (1.0 km)	Yes	
Local / neighbourhood centres (0.4 km)	No	
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes	
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes	

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The majority of the site has been submitted by promoters through the Call for Sites process. The rest of the site comprises 'missing site(s)', and therefore the land availability is currently unknown. However, we are not specifically aware of any opposition by the promoters.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Within 1.2km of existing public transport interchange and 1.0km of existing strategic road. Existing Biggleswade railway station is one stop away from the planned East-West Rail interchange at Sandy (Medium/50% likelihood of delivery by 2035). Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers moderate access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

Housing demand may increase in line with employment opportunities associated with this large site, as well as the regeneration of Biggleswade town centre, A1 East of England improvements (Medium/50% likelihood of delivery by 2035). The existing Biggleswade railway station is one stop from the planned Sandy East-West Rail interchange (Medium/50% likelihood of delivery by 2035).

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 55 dwellings per net developable hectare (Large urban infill site / extension, in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Large urban infill site/extension (97.1 ha) south of Biggleswade. The majority of the site lies between the A1 (to the north and east) and the East Coast Mainline (to the west), although the westernmost portion of the site sprawls across to the western side of the railway line. The closest train station is Biggleswade which is proximate at a distance of 1.0km from the north of the proposed site, and where Great Northern operate train services between Peterborough and King's Cross.

National Cycle Network (NCN) route 12 connects the site into Biggleswade to the north, but does not extend beyond in any direction.

Indicative traffic conditions

The potential growth option is accessible via Langford Road to the west and the A1 to the east. To the north east, several roads including the A6001, Holme Court Avenue and Saxon Drive are subject to speed reductions greater than or equal to 20%. To the west, Southill Road, close to the junction with Gypsy Lane is subject to similar speed reductions. Further speed reductions can be found to the north west of the option, on the A6001 and B658 close to the roundabout with the A1.





Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
South-Eastern routes towards North Hertfordshire and Stevenage	25%	A1
Northern routes towards Huntingdonshire	20%	A1
Eastern routes	13%	A1, A505
North-Western routes towards Bedford	11%	A1, A603
South-Western routes towards Luton	10%	A507, A6, B659
Western routes towards Milton Keynes	7%	A1, A421, A507, B659
Southern routes towards Welwyn Hatfield	7%	A1
North-Eastern routes towards South Cambridgeshire and Cambridge	7%	A1, A428

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 006.

Commuter travel mode split



Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:



Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	2 (0.02 collisions per ha)
Serious	1 (0.01 collisions per ha)	Serious	5 (0.05 collisions per ha)
Slight	9 (0.09 collisions per ha)	Slight	27 (0.28 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R3	A428 Widening (Between A1 and Caxton Gibbet)	Medium (50%)
R12	Biggleswade South A1 Junction	Confirmed (100%)
R14	A1 East of England Improvements	Medium (50%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
P8	Interchange at Biggleswade	Medium (50%)

This location is likely to gain the most benefit from improvements that have been made at the Biggleswade South Junction of the A1 (R12), due to it being located in the immediate vicinity. Further, as the A1 is located in the immediate vicinity of the site, there is an opportunity to link housing growth at this site to the Highways England A1 East of England study (R14), which is looking at potential improvements along the A1 corridor. Further, the widening of the A428 between the A1 and Caxton Gibbet (R3) is important, due to its role in providing access to employment in South Cambridgeshire and Cambridge.

Additionally, the rail improvements proposed at Biggleswade (P8) will provide greater public transport opportunities, whilst East West Rail (P2, P3) will provide a larger scale role in providing access to employment from the nearby station at Sandy.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network improvements to improve connections to town centre, North Herts and Sandy
- Cycle infrastructure improvements linked to National Cycle Route 12 and rail stations.
- Improved cycle parking facilities at existing and future public transport interchanges.

Location ID:	N20	Name:	South of Biggleswade
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Location area:	35.9 hectares
Proportion within Study Area:	100%
Typology:	Small urban extension, not in close proximity to public transport interchange
Assumed net density:	30 dwellings per hectare
Assumed total net capacity:	646 dwellings
Estimated net capacity 2015-2035:	646 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	×
Village extensions	(<100 m from existing non top-tier settlement)	×
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	\checkmark
Urban extensions	(<100 m from top tier settlement and not within urban area)	~
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	No
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	Yes
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	No
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	No
Lower, middle or primary schools (1.0 km)	No
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	No
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises a single site submitted by promoter(s) through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road. Within 1.0km of planned A1 East of England improvements (Medium/50% likelihood of delivery by 2035). Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers moderate access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

Housing demand may increase in line with A1 East of England Improvements (Medium/50% likelihood of delivery by 2035).

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 30 dwellings per net developable hectare (Small urban extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / \pounds 750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Small village extension (35.9 ha) around 1.0km south of Biggleswade to the eastern side of the A1. Biggleswade is the closest train station at a distance of 3.0km from the site, where Great Northern operate train services between London King's Cross and Peterborough.

National Cycle Network (NCN) route 12 is located 1.5km from the site, but only serves Biggleswade and is of little benefit to the site as other routes, such as the A6001, provide quicker and more direct access to the town centre.

Indicative traffic conditions

The potential growth option is accessible via the A1 to the west. To the north, speed reductions greater than or equal to 20% can be found on a number of roads close to Stratton Business Park, including the A6001 London Road, Dunton Lane and Holme Court Avenue. Further speed reductions can be found to the north west of the option, on the A6001 and B658 close to the roundabout with the A1.



Speed differentials	≥ 30% speed reduction	$20\% \le$ speed reduction < 30%	$10\% \le$ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway 	A Road	B Road	— Minor Road	— Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
North-Western routes towards Bedford	27%	A1, A603
Northern routes towards Huntingdonshire	19%	A1
Southern routes towards Stevenage and Welwyn Hatfield	16%	A1
South-Eastern routes towards North Hertfordshire	14%	A1
South-Western routes towards Luton	12%	A1, A507, A6
North-Eastern routes towards South Cambridgeshire and Cambridge	10%	A1, A428
Western routes towards Milton Keynes	2%	A1, A421, A507
Eastern routes	0%	N/A

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 006.

Commuter travel mode split



Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:		Based on assumed fu	iture conditions:
0 - 60,000		0 - 60,000	
60,000 - 120,000		60,000 - 120,000	
> 120,000		> 120,000	

Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	0 (0.00 collisions per ha)	Serious	4 (0.11 collisions per ha)
Slight	0 (0.00 collisions per ha)	Slight	15 (0.42 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R3	A428 Widening (Between A1 and Caxton Gibbet)	Medium (50%)
R12	Biggleswade South A1 Junction	Confirmed (100%)
R14	A1 East of England Improvements	Medium (50%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
P8	Interchange at Biggleswade	Medium (50%)

Similar to Site N19, this location is likely to benefit greatly from the improvements made to the Biggleswade South A1 Junction (R12). Further, the close proximity of the A1 provides an opportunity to link housing growth in this location to the Highways England A1 East of England study (R14), which is identifying potential improvements that can be made along the A1 corridor.

Further, the presence of the proposed East West Rail link (P2, P3) through Sandy is envisioned to provide greater access to employment via public transport, particularly to Cambridge, Bedford and Milton Keynes. In the short term, there are likely to be benefits arising from the creation of an interchange at Biggleswade station (P8).

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network improvements to improve connections to town centre, North Herts, Sandy and Bedford
- Cycle infrastructure improvements linked to National Cycle Route 12
- Improved cycle routes to, and cycle parking facilities at, existing and future public transport interchanges.

Location ID: N21 Name: Shefford West

Location area:	51.8 hectares
Proportion within Study Area:	100%
Typology:	Small village extension, not in close proximity to public transport interchange
Assumed net density:	30 dwellings per hectare
Assumed total net capacity:	932 dwellings
Estimated net capacity 2015-2035:	932 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	×
Village extensions	(<100 m from existing non top-tier settlement)	~
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	×
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	Yes
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	
Major employment areas (2.0 km)	No
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	No
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The majority of the site has been submitted by promoters through the Call for Sites process. The rest of the site comprises 'missing site(s)', and therefore the land availability is currently unknown. However, we are not specifically aware of any opposition by the promoters.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road. Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values, although there are some pockets of higher value.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

There are no known regeneration / employment / infrastructure projects planned that would significantly change the likelihood of demand from the current assessment.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / \pounds 750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Small village extension (51.8 ha) to the west of Shefford and south east of Chicksands. The site is located 5.5km from Arlesey train station where Great Northern provide train services between Peterborough and London King's Cross.

National Cycle Network (NCN) route 12 commences 4.0km east of the site at Henlow, which connects with Arlesey, Baldock and Letchworth Garden City.

Indicative traffic conditions

The potential growth option is accessible via Ampthill Road (A507) to the North West, Priory Road and Rectory Road to the west and Greenway through the centre of the option. Immediately to the north of the site, the roundabout at which the A600, Ampthill Road and the A507 adjoin, there are speed reductions greater than or equal to 20%. Similar speed reductions are apparent to the north west of the option, close to the centre of Shefford, and to the east at two roundabouts where Shefford Road, Ivel Road and Hitchin Road join the A507. Further west, significant speed reductions (greater than or equal to 30%) are evident, particularly where the A507 crosses the A6.



Speed differentials	≥ 30% speed	$20\% \le \text{speed}$	$10\% \le \text{speed}$	10% < speed	No speed
	reduction	reduction < 30%	reduction < 20%	reduction	reduction
Road type	 Motorway 	A Road	B Road	— Minor Road	— Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
South-Eastern routes towards North Hertfordshire, Stevenage, East Hertfordshire and Welwyn Hatfield	37%	A507, A1, A600
South-Western routes towards Luton and Dacorum	18%	A507, A6
Southern routes towards St Albans	15%	A1, A600
North-Western routes towards Bedford	11%	A600, A507, A6
North-Eastern routes towards South Cambridgeshire and Huntingdonshire	7%	A507, A1
Western routes towards Milton Keynes	7%	A507
Eastern routes	3%	A507
Northern routes	2%	A600

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 011.

Commuter	travel	mode	split



Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:



Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	1 (0.02 collisions per ha)	Serious	5 (0.10 collisions per ha)
Slight	9 (0.17 collisions per ha)	Slight	28 (0.54 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R14	A1 East of England Improvements	Medium (50%)
R15	A1(M) Junctions 6-8 Smart Motorway	High (75%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
Р7	Interchange at Arlesey	Medium (50%)

Though the infrastructure projects listed are a considerable distance from this site, there are still opportunities to be gained. The proposed interchange improvements at Arlesey (P7) offer the potential to improve accessibility to public transport, whilst improvements on the A1 (R15) are likely to benefit those travelling south east of the option.

Similarly, though the East West Rail link does not run in close proximity to this option, there are opportunities to access the line via the East Coast Mainline, allowing for greater access to employment.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network enhancements to Arlesey station and towards North Herts
- Park and Ride capacity enhancements at Biggleswade and Arlesey.
- Enhance cycling connectivity with the National Cycle Route 12 and additional cycle parking capacity at key transport interchange (i.e. Arlesey).
- Cycle infrastructure improvements linked to National Cycle Route 12.

Location ID:	N22	Name:	Shefford South-Clifton
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Location area:	60.9 hectares
Proportion within Study Area:	100%
Typology:	Small village extension, not in close proximity to public transport interchange
Assumed net density:	30 dwellings per hectare
Assumed total net capacity:	1,096 dwellings
Estimated net capacity 2015-2035:	1,096 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	×
Village extensions	(<100 m from existing non top-tier settlement)	~
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	×
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	Yes
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	Yes
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	Yes

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	
Major employment areas (2.0 km)	No
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The majority of the site has been submitted by promoters through the Call for Sites process. The rest of the site comprises 'missing site(s)', and therefore the land availability is currently unknown. However, we are not specifically aware of any opposition by the promoters.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road. Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values, although there are some pockets of higher value.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

There are no known regeneration / employment / infrastructure projects planned that would significantly change the likelihood of demand from the current assessment.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / \pounds 750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Small village extension (60.9 ha) to the south and east of Shefford and west of Clifton. The site is located 3.5km from Arlesey train station where Great Northern provide train services between Peterborough and London King's Cross.

National Cycle Network (NCN) route 12 commences 2.5km east of the site at Henlow, which connects with Arlesey, Stotfold, Baldock and Letworth Garden City.

Indicative traffic conditions

The potential growth option is accessible via Hitchin Road to the east, and the A507 to the south. To the west and south east of the option, speed reductions greater than or equal to 20% are apparent close to two roundabouts where Shefford Road, Ivel Road and Hitchin Road join the A507. To the north, similar speed reductions are evident close to the centre of Shefford. Further east of the option, significant speed reductions can be seen on the A507, Clifton Road and High Street (B659), to the south of Henlow. Additional speed reductions are also apparent on the A507 and A6, to the west of the option and on the A600 to the south east.



Speed differentials	≥ 30% speed reduction	$20\% \le \text{speed}$ reduction < 30%	10% ≤ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway 	A Road	 B Road 	— Minor Road	— Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
South-Eastern routes towards North Hertfordshire, Stevenage, East Hertfordshire and Welwyn Hatfield	33%	A600, A1, A507
South Western routes towards Luton and Dacorum	23%	A507, A6
Western routes towards Milton Keynes	20%	A507
North-Western routes towards Bedford	11%	A507, A600, A1
North-Eastern routes towards South Cambridgeshire and Huntingdonshire	6%	A507, A1
Northern routes	3%	A600
Southern routes towards St Albans	2%	A507, A1
Eastern routes	2%	A507

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 011.

Commuter travel mode split



Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:



Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	4 (0.07 collisions per ha)	Serious	8 (0.13 collisions per ha)
Slight	15 (0.25 collisions per ha)	Slight	55 (0.90 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R14	A1 East of England Improvements	Medium (50%)
R15	A1(M) Junctions 6-8 Smart Motorway	High (75%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
P7	Interchange at Arlesey	Medium (50%)

Though the infrastructure projects listed are a considerable distance from this site, there are still opportunities to be gained. The proposed interchange improvements at Arlesey (P7) offer the potential to improve accessibility to public transport, whilst improvements on the A1 (R15) are likely to benefit those travelling south east of the option.

Similarly, though the East West Rail link does not run in close proximity to this option, there are opportunities to access the line via the East Coast Mainline, allowing for greater access to employment, particularly to key areas such as Cambridge, Bedford and Milton Keynes.
Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network enhancements to Arlesey station and towards North Herts
- Park and Ride capacity enhancements at Biggleswade and Arlesey.
- Enhance cycling connectivity with the National Cycle Route 12 and additional cycle parking capacity at key transport interchange (i.e. Arlesey).
- Cycle infrastructure improvements linked to National Cycle Route 12.

Location ID: N23 Name: Meppershall

Location area:	30.3 hectares
Proportion within Study Area:	100%
Typology:	Small village extension, not in close proximity to public transport interchange
Assumed net density:	30 dwellings per hectare
Assumed total net capacity:	545 dwellings
Estimated net capacity 2015-2035:	545 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	×
Village extensions	(<100 m from existing non top-tier settlement)	~
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	×
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	Yes
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	
Major employment areas (2.0 km)	No
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	No
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road. Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and less convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values, although there are some pockets of higher value.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

There are no known regeneration / employment / infrastructure projects planned that would significantly change the likelihood of demand from the current assessment.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / \pounds 750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Small village extension (30.3 ha) to the north and east of Meppershall. The site is located 5.5km from Arlesey train station where Great Northern provide train services between Peterborough and London King's Cross.

National Cycle Network (NCN) route 12 commences 4.0km north-east of the site at Henlow, which connects with Arlesey, Stotfold, Baldock and Letworth Garden City.

Indicative traffic conditions

The potential growth option is accessible via Shefford Road to the west, Chapel Road to the east and Fildyke Road to the south. Speed reductions greater than or equal to 20% are apparent at the junction of High Street, Shefford Road and Fildyke Road. To the north and north east of the option, similar speed reductions can be observed on both Shefford Road and Chapel Road, which adjoin the A507. Further to the north east, significant speed reductions are also evident on the A507, Clifton Road and High Street (B659), to the south of Henlow.



Road type

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
South-Eastern routes towards North Hertfordshire, Stevenage and Welwyn Hatfield	49%	A600, A507, A1
Western routes towards Milton Keynes	14%	A507
South-Western routes towards Luton	12%	A507, A6
North-Western routes towards Bedford	8%	A600
North-Eastern routes towards Huntingdonshire, South Cambridgeshire and Cambridge	7%	A507, A1
Eastern routes	5%	A507
Northern routes	3%	A600
Southern routes towards St Albans	2%	A600, A1, A507

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 013.





Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing condit	Based on existing conditions: Based on assumed future condition		future conditions:
0 - 60,000		0 - 60,000	
60,000 - 120,000		60,000 - 120,000	
> 120,000		> 120,000	

Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	0 (0.00 collisions per ha)	Serious	4 (0.13 collisions per ha)
Slight	1 (0.03 collisions per ha)	Slight	11 (0.36 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R14	A1 East of England Improvements	Medium (50%)
R15	A1(M) Junctions 6-8 Smart Motorway	High (75%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
Р7	Interchange at Arlesey	Medium (50%)

Similar to site N22, though the infrastructure projects listed are a considerable distance from this site, there are still opportunities to be gained. The proposed interchange improvements at Arlesey (P7) offer the potential to improve accessibility to public transport, whilst improvements on the A1 (R14, R15) are likely to benefit those travelling south east of the option.

Similarly, though the East West Rail link does not run in close proximity to this option, there are opportunities to access the line via the East Coast Mainline at Sandy, allowing for greater access to employment.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network enhancements to Arlesey station and towards North Herts
- Park and Ride capacity enhancements at Biggleswade and Arlesey.
- Enhance cycling connectivity with the National Cycle Route 12 and additional cycle parking capacity at key transport interchange (i.e. Arlesey).
- Cycle infrastructure improvements linked to National Cycle Route 12.

Location ID: N24 Name: Henlow-Clifton

Location area:	35.4 hectares
Proportion within Study Area:	100%
Typology:	Small village extension, not in close proximity to public transport interchange
Assumed net density:	30 dwellings per hectare
Assumed total net capacity:	637 dwellings
Estimated net capacity 2015-2035:	637 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	×
Village extensions	(<100 m from existing non top-tier settlement)	~
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	×
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	Yes
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	Yes
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	Yes
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	Yes

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	
Major employment areas (2.0 km)	No
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	No
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road. Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and less convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values, although there are some pockets of higher value.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

There may be some demand for a more aspirational housing offer relative to the current area.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / \pounds 750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Small village extension (35.4 ha) to the west, north and northwest of Henlow. The southernmost portion of the site lies around 1.6km from Arlesey Train Station, where Great Northern operate train services between Peterborough and London King's Cross.

National Cycle Network (NCN) route 12 commences in close proximity to the southernmost portion of the proposed site, which connects with Arlesey, Stotfold, Baldock and Letworth Garden City.

Indicative traffic conditions

The potential growth option is accessible via a number of different routes including: Langford Road (B659) to the east, Stockbridge Road, to the north, and Clifton Road and the A507 to the south. To the south of the option, speed reductions greater than or equal to 30% are evident on the B659, Clifton Road and the A507, to the south of Henlow. Similar speed reductions are also present to the west and east of the option on the A507, notably near to Shefford and Arlesey.



Speed differentials	≥ 30% speed reduction	$20\% \le$ speed reduction < 30%	$10\% \le$ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway 	A Road	 B Road 	— Minor Road	— Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
South-Eastern routes towards North Hertfordshire and Stevenage	42%	A507, A1
South-Western routes towards Luton	14%	A507, A6
Eastern routes	9%	A507
Western routes towards Milton Keynes	8%	A507
Northern routes towards Huntingdonshire	8%	A507, A600, A1
North-Western routes towards Bedford	7%	A600
Southern routes towards Welwyn Hatfield	7%	A507, A1
North-Eastern routes South Cambridgeshire	5%	A507, A1

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 010.



Commuter travel mode split

Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:



Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	1 (0.03 collisions per ha)	Serious	13 (0.37 collisions per ha)
Slight	17 (0.48 collisions per ha)	Slight	37 (1.05 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R14	A1 East of England Improvements	Medium (50%)
R15	A1(M) Junctions 6-8 Smart Motorway	High (75%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
P7	Interchange at Arlesey	Medium (50%)

Similar to sites N22 and N23, though the infrastructure projects listed are a considerable distance from this site, there are still opportunities to be gained. The proposed interchange improvements at Arlesey (P7) offer the potential to improve accessibility to public transport, whilst improvements on the A1 (R14, R15) are likely to benefit those travelling south east of the option.

Correspondingly, though the East West Rail link does not run in close proximity to this option, there are opportunities to access the line via the East Coast Mainline, allowing for greater access to employment.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network review with a view to enhancing connectivity with North Hertfordshire (Hitchin and Stevenage) and Arlesey station
- Park and Ride capacity enhancements at Arlesey.
- Enhance cycling connectivity with the National Cycle Route 12 and additional cycle parking capacity at key transport interchange (i.e. Arlesey).
- Cycle infrastructure improvements linked to National Cycle Route 12.
- Improved cycle parking facilities at existing and future public transport interchanges.

	Location ID:	N25	Name:	Henlow Airfield
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Location area:	217.6 hectares
Proportion within Study Area:	100%
Typology:	Large village extension, not in close proximity to public transport interchange
Assumed net density:	44 dwellings per hectare
Assumed total net capacity:	5,745 dwellings
Estimated net capacity 2015-2035:	2,000 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	×
Village extensions	(<100 m from existing non top-tier settlement)	~
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	×
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	Yes
Historic environment	ent Conservation Area	
Biodiversity	ersity Priority Habitat Inventory	
Biodiversity	Locally designated wildlife site	Yes
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	Yes
Flood risk Flooding from surface water (1 in 100 year)		Yes
Energy infrastructure High voltage electricity line 400 m buffer zone		No
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	sport & Sustrans national cycle route	
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)		
Major employment areas (2.0 km)	No	
Town centres and major out of centre retail parks (0.8 km)	No	
Publicly accessible open spaces (1.2 km)	Yes	
Secondary or upper schools and further or higher education establishments (2.0 km)		
Lower, middle or primary schools (1.0 km)	Yes	
Local / neighbourhood centres (0.4 km)	No	
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes	
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes	

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Less likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road. Development of this scale is likely to require significant improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

There may be some demand for a more aspirational housing offer relative to the current area.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Low

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 44 dwellings per net developable hectare (Large village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All or part of the site is understood to be brownfield land (former airfields), however, the site is treated as greenfield land for the purpose of this study High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / £750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Small village extension (76.4 ha) north of Henlow Camp, south west of Henlow and south east of Shefford. The site lies around 2.5km from Arlesey Train Station, where Great Northern operate train services between Peterborough and London King's Cross.

National Cycle Network (NCN) route 12 commences in Henlow, at a distance of 1.2km from the proposed site, which connects with Arlesey, Stotfold, Baldock and Letworth Garden City.

Indicative traffic conditions

The potential growth option is accessible via Bedford Road (A600) to the west, and Hitchin Road (B659) to the east. To the south of the option, speed reductions greater than or equal to 30% are evident on Hitchin Road, close to the junction with the A600. Similar speed reductions can also be found on the A507, to the north, close to the south east of Shefford, south of Henlow, and north of Arlesey.



Speed differentials	≥ 30% speed reduction	$20\% \le$ speed reduction < 30%	$10\% \le$ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway 	A Road	 B Road 	— Minor Road	— Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
South-Eastern routes towards North Hertfordshire, Stevenage and Welwyn Hatfield	39%	A600, A507, A1
Western routes towards Milton Keynes	23%	A507
South-Western routes towards Luton	12%	A507, A6
North-Western routes towards Bedford	10%	A507, A600
North-Eastern routes towards Huntingdonshire, South Cambridgeshire and Cambridge	6%	A507, A1
Eastern routes	5%	A507
Northern routes	3%	A600
Southern routes towards St Albans	2%	A600, A507, A1

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 013.



Commuter travel mode split

Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:



Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	0 (0.00 collisions per ha)	Serious	2 (0.03 collisions per ha)
Slight	5 (0.07 collisions per ha)	Slight	19 (0.25 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R14	A1 East of England Improvements	Medium (50%)
R15	A1(M) Junctions 6-8 Smart Motorway	High (75%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
P7	Interchange at Arlesey	Medium (50%)

Similar to sites N22, N23 and N24, though the infrastructure projects listed are a considerable distance from this site, there are still opportunities to be gained. The proposed interchange improvements at Arlesey (P7) offer the potential to improve accessibility to public transport, whilst improvements on the A1 (R14, R15) are likely to benefit those travelling south east of the option.

Equally, though the East West Rail link does not run in close proximity to this option, there are opportunities to access the line via the East Coast Mainline, allowing for greater access to employment.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Explore opportunities to provide a high-quality link service through North Hertfordshire to Luton.
- Bus network review with a view to enhancing connectivity with North Hertfordshire (Hitchin and Stevenage) and Arlesey station
- Park and Ride capacity enhancements at Arlesey.
- Enhance cycling connectivity with the National Cycle Route 12 and additional cycle parking capacity at key transport interchange (i.e. Arlesey).
- Cycle infrastructure improvements linked to National Cycle Route 12.

Location ID:	N26	Name:	Henlow Camp-Lower Stondon
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Location area:	36.1 hectares
Proportion within Study Area:	100%
Typology:	Small village extension, not in close proximity to public transport interchange
Assumed net density:	30 dwellings per hectare
Assumed total net capacity:	650 dwellings
Estimated net capacity 2015-2035:	650 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements (>1 km from existing top-tier settlement and >2000 capacity)		×
Village extensions	(<100 m from existing non top-tier settlement)	~
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	×
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	
Biodiversity	Priority Habitat Inventory	No
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	Yes
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	Yes
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	
Major employment areas (2.0 km)	No
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	No
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road. Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

There may be some demand for a more aspirational housing offer relative to the current area.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / \pounds 750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

N26 - Henlow Camp - Lower Stondon

Small village extension (36.1 ha) to the south and south west of Henlow Camp. The site is around 5.0km from Arlesey Train Station, where Great Northern operate train services between Peterborough and London King's Cross.

National Cycle Network (NCN) route 12 commences in Henlow, at a distance of around 4.0km from the proposed site, which connects with Arlesey and Stotfold. The route also provides access to Baldock and Letworth Garden City, although quicker and more direct alternatives are likely to be used by cyclists travelling to/from these locations to the proposed site.

Indicative traffic conditions

The potential growth option is accessible via Shillington Road and Fakeswell Lane to the west, and the A600 Bedford Road to the east. Immediately to the west of the site, speed reductions greater than or equal to 20% are apparent on Station Road and Hillside Road. To the north, similar speed reductions are evident on Hitchin Road (B659), close to the junction of the A600. Further speed reductions can also be observed on the A600 to the south towards Hitchin.



Speed differentials	≥ 30% speed reduction	$20\% \le$ speed reduction < 30%	$10\% \le$ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway 	- A Road	B Road	— Minor Road	— Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
South-Eastern routes towards North Hertfordshire, Stevenage and Welwyn Hatfield	40%	A600, A507, A1
Western routes towards Milton Keynes	23%	A507
South-Western routes towards Luton	12%	A507, A6
North-Eastern routes towards Huntingdonshire, South Cambridgeshire and Cambridge	10%	A507, A1
North-Western routes towards Bedford	8%	A600, A507
Northern routes	4%	A600
Southern routes towards St Albans	2%	A600, A507, A1
Eastern routes	1%	A507

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 013.

Commuter travel mode split



Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:



Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	1 (0.03 collisions per ha)
Serious	0 (0.00 collisions per ha)	Serious	2 (0.06 collisions per ha)
Slight	2 (0.06 collisions per ha)	Slight	8 (0.22 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R14	A1 East of England Improvements	Medium (50%)
R15	A1(M) Junctions 6-8 Smart Motorway	High (75%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
P7	Interchange at Arlesey	Medium (50%)

Similar to sites N22, N23, N24 and N25, though the infrastructure projects listed are a considerable distance from this site, there are still opportunities to be gained. The proposed interchange improvements at Arlesey (P7) offer the potential to improve accessibility to public transport, whilst improvements on the A1 (R14, R15) are likely to benefit those travelling south east of the option.

Further, though the East West Rail link does not run in close proximity to this option, there are opportunities to access the line via the East Coast Mainline, allowing for greater access to employment.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Bus network review to improve connections to Arlesey and towns in North Herts
- Park and Ride capacity enhancements at Arlesey.
- Enhance cycling connectivity with the National Cycle Route 12 and additional cycle parking capacity at key transport interchange (i.e. Arlesey).
- Cycle infrastructure improvements linked to National Cycle Route 12.

Location ID:	N27	Name:	North of Church End
Location ID.	112/	Humen	

Location area:	158.2 hectares
Proportion within Study Area:	100%
Typology:	Large new settlement / village extension, in close proximity to public transport
Assumed net density:	55 dwellings per hectare
Assumed total net capacity:	5,221 dwellings
Estimated net capacity 2015-2035:	2,000 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	\checkmark
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	×
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	\checkmark

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	Yes
Historic environment	Conservation Area	Yes
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	No
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	Yes
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	Yes
Open space, sport & recreation	Sustrans national cycle route	Yes
Open space, sport & recreation	Publicly accessible open space	No

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	
Major employment areas (2.0 km)	
Town centres and major out of centre retail parks (0.8 km)	
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	
Lower, middle or primary schools (1.0 km)	
Local / neighbourhood centres (0.4 km)	
NHS primary healthcare (GPs) and hospitals (1.2 km)	
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	
Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Moderately likely

A minority of the site has been submitted by promoters through the Call for Sites process. The rest of the site comprises 'missing site(s)', and therefore the land availability is currently unknown. However, we are not specifically aware of any opposition by the promoters.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Within 1.2km of existing public transport interchange and 1.0km of existing strategic road. Within 1.0km of planned Arlesey Relief Road (High/75% likelihood of delivery by 2035). Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

Housing demand may increase in line with employment opportunities associated with this large site, the Arlesey Relief Road (High/75% likelihood of delivery by 2035), as well as employment growth in Cambridge. Average residential sales values do not currently reflect access to quality of life attractions (cultural, sports, leisure and/or natural assets) and convenience of access to employment and amenities, offering the potential to appeal to a broader market.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 55 dwellings per net developable hectare (Large new settlement / village extension, in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Moderately likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density could only offer contributions towards local infrastructure and abnormal cost items of over $\pm 30,000$ per residential unit / $\pm 750,000$ per net developable hectare with lower than policy compliant levels of affordable housing provision.

OVERALL VIABILITY ASSESSMENT

Medium

Transport

Large new settlement/village extension (158.2 ha) east of Arlesey and west of Stotfold. The westernmost tip of the site is located just 600m from Arlesey Train Station, where Great Northern operate train services between London King's Cross and Peterborough. Meanwhile, the southwest of the site lies adjacent to the A507.

National Cycle Network (NCN) route 12 passes through the site connecting to Arlesey and Henlow to the west, and with Stotfold, Baldock and Letchworth Garden City to the east.

Indicative traffic conditions

The potential growth option is accessible via the A507 to the west and Arlesey Road to the south. Immediately to the west and south of the site, speed reductions greater than or equal to 30% are evident on the A507, Stotfold Road and Arlesey Road, close to the key junction where these roads meet. Similar speed reductions are also apparent to the west of the site, to the south of Henlow, and also to the south east, where Norton Road and Tansy Avenue forms a roundabout with the A507.



Speed differentials	≥ 30% speed reduction	$20\% \le \text{speed}$ reduction < 30%	$10\% \le$ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway 	A Road	 B Road 	— Minor Road	— Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
South-Eastern routes towards North Hertfordshire and Stevenage	41%	A507, A1
Western routes towards Milton Keynes	16%	A507
South-Western routes towards Luton	13%	A507, A6
North-Western routes towards Bedford	11%	A507, A600
Northern routes towards Huntingdonshire	8%	A507, A1
Southern routes towards Welwyn Hatfield	7%	A507, A1
North-Eastern routes towards South Cambridgeshire	2%	A507, A1, A505
Eastern routes	2%	A507, A505

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 010.

Commuter travel mode split



Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:



Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	3 (0.02 collisions per ha)	Serious	6 (0.04 collisions per ha)
Slight	4 (0.03 collisions per ha)	Slight	34 (0.21 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R13	Arlesey Relief Road	High (75%)
R14	A1 East of England Improvements	Medium (50%)
R15	A1(M) Junctions 6-8 Smart Motorway	High (75%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
Р7	Interchange at Arlesey	Medium (50%)

Due to the location of this option, it is likely to benefit greatly from interchange improvements at Arlesey (P7). Similarly, though the East West Rail link (P2, P3) is a considerable distance from this location, there are opportunities to be sought, as the link will be easily accessible via the East Coast Mainline, allowing for greater access to employment.

Further, this location is likely to benefit from improvements on the A1, particularly the smart motorways scheme between junctions 6-8 (R15), as it is envisaged that this will create additional capacity for access to key employment areas on the A1 corridor. It is also likely that this area of housing growth will form a key relationship with the Arlesey Relief Road, as growth areas continue to expand.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Explore opportunities to provide a high-quality link service through North Hertfordshire to Luton.
- Bus network review with a view to enhancing connectivity with North Hertfordshire (Hitchin and Stevenage).
- Park and Ride capacity enhancements at Arlesey.
- Improved cycle routes to, and cycle parking facilities at, existing and future public transport interchanges.

Location ID: N28 Name: Stotfold West

109.0 hectares
100%
Small village extension, not in close proximity to public transport interchange
30 dwellings per hectare
1,962 dwellings
1,200 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements (>1 km from existing top-tier settlement and >2000 capacity)		×
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	×
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building		
Historic environment	Conservation Area		
Biodiversity	Priority Habitat Inventory	Yes	
Biodiversity	Locally designated wildlife site	No	
Biodiversity	Local Nature Reserve	No	
Biodiversity	Local geological site	No	
Landscape	Locally identified sensitive landscape	No	
Air quality	Air Quality Management Area		
Soil quality	Grade 1, 2 or 3 agricultural land		
Water quality	Source Protection Zone 1 or Zone 1c		
Flood risk	Flood Zone 2		
Flood risk	Flooding from surface water (1 in 100 year)		
Energy infrastructure	High voltage electricity line 400 m buffer zone		
Mineral resources	Mineral Safeguarding Area		
Open space, sport & recreation	Sustrans national cycle route		
Open space, sport & recreation	Publicly accessible open space		

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)		
Major employment areas (2.0 km)	No	
Town centres and major out of centre retail parks (0.8 km)	No	
Publicly accessible open spaces (1.2 km)	Yes	
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes	
Lower, middle or primary schools (1.0 km)	Yes	
Local / neighbourhood centres (0.4 km)	No	
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes	
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes	

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The majority of the site has been submitted by promoters through the Call for Sites process. The rest of the site comprises 'missing site(s)', and therefore the land availability is currently unknown. However, we are not specifically aware of any opposition by the promoters.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road. Within 1.0km of planned Arlesey Relief Road (High/75% likelihood of delivery by 2035). Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

Housing demand may increase in line with the Arlesey Relief Road (High/75% likelihood of delivery by 2035), as well as employment growth in Cambridge. Average residential sales values do not currently reflect access to quality of life attractions (cultural, sports, leisure and/or natural assets) and convenience of access to employment and amenities, offering the potential to appeal to a broader market.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / \pounds 750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Small village extension (109 ha) to the west and north of Stotfold. The easternmost part of the site lies close to the A1, while the southernmost part is adjacent to the A507. The closest train station is Arlesey at a distance of around 2.0km, where Great Northern operate train services between Peterborough and London King's Cross.

National Cycle Network (NCN) route 12 passes through the site connecting to Arlesey and Henlow to the west, and with Stotfold, Baldock and Letchwork Garden City to the east.

Indicative traffic conditions

The potential growth option is accessible via Astwick Road to the north east, Arlesey Road and the A507 to the south. To the west of the site, speed reductions of greater than or equal to 30% are evident on the A507 and Arlesey Road. To the east, similar reductions are apparent on a number of key roads through Stotfold, including Regent Street, Astwick Road, Hitchin Road and Rook Tree Lane. Further speed reductions can also be seen to the south east, where the A507, Tansy Avenue and Norton Road converge at a five-armed roundabout.



Speed differentials	≥ 30% speed reduction	$20\% \le$ speed reduction < 30%	$10\% \le$ speed reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway 	A Road	 B Road 	— Minor Road	— Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
South-Eastern routes towards North Hertfordshire, Stevenage and East Hertfordshire	28%	A507, A1
South-Western routes towards Luton	17%	A507, A6
Western routes towards Milton Keynes	16%	A507
Southern routes towards Welwyn, Hatfield	14%	A507, A1
North-Western routes towards Bedford	10%	A507, A600
Eastern routes	9%	A507, A505
North-Eastern routes towards South Cambridgeshire and Cambridge	4%	A507, A1, A505
Northern routes towards Huntingdonshire	2%	A507, A1

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 014.

Commuter travel mode split



Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:		Based o	Based on assumed future conditions:		
0 - 60,000		0 - 60,0	000		
60,000 - 120,000		100,000	0 - 120,000		
> 120,000		> 120,0	000		

Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:

Based on existing conditions:	Based on assumed future conditions:	
0 - 75,000	0 - 75,000	
75,000 - 215,000	75,000 - 215,000	
> 215,000	> 215,000	

Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	2 (0.02 collisions per ha)	Serious	9 (0.08 collisions per ha)
Slight	12 (0.11 collisions per ha)	Slight	37 (0.34 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R13	Arlesey Relief Road	High (75%)
R14	A1 East of England Improvements	Medium (50%)
R15	A1(M) Junctions 6-8 Smart Motorway	High (75%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
P7	Interchange at Arlesey	Medium (50%)

Similar to site N27, this location is likely to benefit from interchange improvements at Arlesey (P7) due to its close proximity. Similarly, though the East West Rail link (P2, P3) is a considerable distance from this location, there are opportunities to be sought, as the link will be easily accessible via the East Coast Mainline, allowing for greater access to employment.

Further, this location is likely to benefit from improvements on the A1, particularly the smart motorways scheme between junctions 6-8 (R15), as it is envisaged that this will create additional capacity for access to key employment areas on the A1 corridor. It is also likely that this area of housing growth will form a key relationship with the Arlesey Relief Road, as growth areas continue to expand.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Explore opportunities to provide a high-quality link service through North Hertfordshire to Luton.
- Bus network review with a view to enhancing connectivity with North Hertfordshire (Hitchin and Stevenage).
- Park and Ride capacity enhancements at Arlesey.
- Improved cycle routes to, and cycle parking facilities at, existing and future public transport interchanges.

Location ID:	N29	Name:	Arlesey-Fairfield Park
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Location area:	292.8 hectares
Proportion within Study Area:	100%
Typology:	Large new settlement / village extension, not in close proximity to public transport
Assumed net density:	44 dwellings per hectare
Assumed total net capacity:	7,730 dwellings
Estimated net capacity 2015-2035:	2,000 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	\checkmark
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	✓
Urban extensions	(<100 m from top tier settlement and not within urban area)	×
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	Yes
Biodiversity	Locally designated wildlife site	Yes
Biodiversity	Local Nature Reserve	No
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	Yes
Water quality	Source Protection Zone 1 or Zone 1c	No
Flood risk	Flood Zone 2	No
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	No
Open space, sport & recreation	Sustrans national cycle route	No
Open space, sport & recreation	Publicly accessible open space	Yes

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)	No
Major employment areas (2.0 km)	Yes
Town centres and major out of centre retail parks (0.8 km)	No
Publicly accessible open spaces (1.2 km)	Yes
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes
Lower, middle or primary schools (1.0 km)	Yes
Local / neighbourhood centres (0.4 km)	No
NHS primary healthcare (GPs) and hospitals (1.2 km)	Yes
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)	Yes

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Less likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road. Development of this scale is likely to require significant improvements to existing transport infrastructure, even after taking into account the planned Arlesey Relief Road (High/75% likelihood of delivery by 2035). Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

Housing demand may increase in line with employment opportunities associated with this large site, the Arlesey Relief Road (High/75% likelihood of delivery by 2035), as well as employment growth in Cambridge. There may be some demand for a more aspirational housing offer relative to the current area.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Low

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 44 dwellings per net developable hectare (Large new settlement / village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / \pounds 750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Large new settlement/village extension (292.8 ha) south of Arlesey, south west of Stotfold and north west of Letchworth Garden City with the East Coast Mainline located just beyond the site's western boundary.

Arlesey provides the nearest train station for those located to the north and centre of the site, at a distance of 1.5km from the northernmost point, where Great Northern operate train services between London King's Cross and Peterborough. However, Letchworth Garden City Train Station (North Hertfordshire) is closer to the southern part of the site at a distance of around 2.5km, where Great Northern operate train services between Cambridge and London King's Cross as well as an additional stopping service to Moorgate (London); all routes go via Hitchin and Stevenage.

National Cycle Network (NCN) route 12 runs through Arlesey, Stotfold and Letchworth Garden parallel to the north and western perimeters of the site at a distance rarely greater than 1.5km, providing access to Henlow, Baldock and Stevenage as well as the locations aforementioned.

Indicative traffic conditions

This potential growth option is accessible via Hitchin Road and Arlesey High Street to the west, and Arlesey New Road to the south. The A507, which is situated to the north/east of this option, reveals speed reductions greater than or equal to 30% near Arlesey Station and near the A1 on an existing approach to the A507/Norton Rd junction. Further west to the growth option, speed reductions are also apparent along the A600 Bedford Road close to Ickleford and Hitchin.



Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
South-Eastern routes towards North Hertfordshire and Stevenage	41%	A1, A600
Western routes towards Milton Keynes	21%	A507
North-Western routes towards Bedford	14%	A507, A600, A1
South-Western routes towards Luton	8%	A600, A505
Southern routes towards Welwyn Hatfield	7%	A507, A1
Northern routes towards Huntingdonshire	5%	A507, A1
North-Eastern routes towards South Cambridgeshire	4%	A507, A1, A505
Eastern routes	0%	N/A

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 010.

Commuter travel mode split



Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:



Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	1 (0.00 collisions per ha)	Serious	4 (0.01 collisions per ha)
Slight	21 (0.07 collisions per ha)	Slight	50 (0.17 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R13	Arlesey Relief Road	High (75%)
R14	A1 East of England Improvements	Medium (50%)
R15	A1(M) Junctions 6-8 Smart Motorway	High (75%)
P7	Interchange at Arlesey	Medium (50%)

This growth option will require integration with the adopted Arlesey Cross Masterplan.

The provision of a relief road (Transport infrastructure investment ID: R13) connecting the High Street to the A507 is very likely to result in an important relationship between housing delivery at this location and enhanced transport infrastructure.

This location will benefit from local junction improvements and Arlesey Interchange improvements (Transport infrastructure investment ID: P7) linked to Arlesey Cross Masterplan. There is also an opportunity to link housing delivery at this location with the Highways England scheme (Transport infrastructure investment ID: R14) that is exploring options to provide a more modern highway connection for the A1 (M).

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Explore opportunities to provide a high-quality link service through North Hertfordshire to Luton.
- Bus network review with a view to enhancing connectivity with North Hertfordshire (Hitchin and Stevenage).
- Park and Ride capacity enhancements at Arlesey and Letchworth.
- Improved cycle routes to, and cycle parking facilities at, existing and future public transport interchanges.

Location ID: N30 Name: Stotfold East

Location area:	33.1 hectares
Proportion within Study Area:	100%
Typology:	Small village extension, not in close proximity to public transport interchange
Assumed net density:	30 dwellings per hectare
Assumed total net capacity:	596 dwellings
Estimated net capacity 2015-2035:	596 dwellings



Spatial options

Which spatial options does the location meet the criteria for?

New settlements	(>1 km from existing top-tier settlement and >2000 capacity)	×
Village extensions	(<100 m from existing non top-tier settlement)	✓
Growth in transport corridors	(<1.2km from railway stn, guided busway stop or park & ride facility, or <1km from A-road or motorway)	\checkmark
Urban extensions	(<100 m from top tier settlement and not within urban area)	×
Urban intensification around public transport hubs	(<1.2 km from railway stn, guided busway stop or park & ride facility)	×

Constraints

Which types of secondary constraint are present within the location?

Historic environment	Listed Building	No
Historic environment	Conservation Area	No
Biodiversity	Priority Habitat Inventory	No
Biodiversity	Locally designated wildlife site	
Biodiversity	Local Nature Reserve	Yes
Biodiversity	Local geological site	No
Landscape	Locally identified sensitive landscape	No
Air quality	Air Quality Management Area	No
Soil quality	Grade 1, 2 or 3 agricultural land	
Water quality	Source Protection Zone 1 or Zone 1c	
Flood risk	Flood Zone 2	
Flood risk	Flooding from surface water (1 in 100 year)	Yes
Energy infrastructure	High voltage electricity line 400 m buffer zone	No
Mineral resources	Mineral Safeguarding Area	
Open space, sport & recreation	Sustrans national cycle route	
Open space, sport & recreation	Publicly accessible open space	Yes

Access to services and facilities

Which services and facilities are present within indicative walking distance of the location?

Railway stations, guided busway stops and park and ride facilities (1.2 km)		
Major employment areas (2.0 km)	No	
Town centres and major out of centre retail parks (0.8 km)	No	
Publicly accessible open spaces (1.2 km)	Yes	
Secondary or upper schools and further or higher education establishments (2.0 km)	Yes	
Lower, middle or primary schools (1.0 km)		
Local / neighbourhood centres (0.4 km)		
NHS primary healthcare (GPs) and hospitals (1.2 km)		
Bus stops, inc. stops on non-guided sections of guided busway (0.8 km)		

Deliverability

Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period?

Highly likely

The entirety of the growth location comprises sites submitted by promoters through the Call for Sites process.

Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period?

Highly likely

Not within 1.2km of existing public transport interchange, but within 1.0km of existing strategic road. Within 1.0km of planned A1 East of England improvements (Medium/50% likelihood of delivery by 2035). Development of this scale is likely to require minor improvements to existing transport infrastructure. Any known critical strategic utilities requirements are significantly funded.

Is there likely to be current demand for this scale of development in this location?

Moderately likely

Location offers good access to quality of life attractions (cultural, sports, leisure and/or natural assets), and moderately convenient access to employment and amenities. These factors are reflected in what are moderate average local residential sales values.

Is there likely to be <u>potential future</u> demand for this scale of development in this location, if planned regeneration, employment, and infrastructure projects are delivered?

Moderately likely (no change from current assessment)

Housing demand may increase in line with A1 East of England Improvements (Medium/50% likelihood of delivery by 2035), and employment growth in Cambridge. Average residential sales values do not currently reflect access to quality of life attractions (cultural, sports, leisure and/or natural assets) and convenience of access to employment and amenities, offering the potential to appeal to a broader market.

OVERALL DELIVERABILITY ASSESSMENT (see decision flowchart in Methodology section)

Medium

Viability

Viability of cleared and serviced development parcel

Highly likely

High level viability modelling suggests that development at the assumed density with policy compliant affordable housing exceeds the Threshold Land Value at current costs and values. Assumed density: 30 dwellings per net developable hectare (Small village extension, not in close proximity to public transport interchange)

Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period?

Highly likely

All of the growth location is understood to be greenfield High level viability modelling suggests that development at the assumed density with policy compliant affordable housing could offer contributions towards local infrastructure and abnormal cost items of over £30,000 per residential unit / \pounds 750,000 per net developable hectare.

OVERALL VIABILITY ASSESSMENT

High

Transport

Small village extension (33.1 ha) east of Stotfold adjacent to the A1 (M) just north of junction 10. The closest train station to the site is Baldock at a distance of around 3.5km, where Great Northern provide train services between Cambridge and London King's Cross via Letchworth Garden City, Hitchin and Stevenage. Arlesey Train Station is around 5.0km with Great Northern providing services between London King's Cross and Stevenage.

National Cycle Network (NCN) route 12 can be reached just beyond the site's western boundary which provides access to Stotfold, Arlesey and Henlow to the west, and Letchworth Garden City, Baldock and Stevenage to the south.

Indicative traffic conditions

The potential growth option is accessible via the A507 to the south and Mill Lane to the west. To the south west of the site, speed reductions greater than or equal to 30% can be observed on the A507, Norton Road and Tansy Avenue, close to the roundabout where they converge. To the south east, similar speed reductions can be observed on the A507 approaching Baldock, and on the A1 travelling southbound.



Speed differentials	≥ 30% speed reduction	$20\% \le \text{speed}$ reduction < 30%	$10\% \le \text{speed}$ reduction < 20%	10% < speed reduction	No speed reduction
Road type	 Motorway 	- A Road	— B Road	— Minor Road	— Other Road

Recorded journey to work O-D movements in the vicinity of this location suggest that car/van trips are likely to be added to the road network as shown below:

Route	Traffic distribution ¹	Main roads likely to be affected
Southern routes towards Stevenage and Welwyn, Hatfield	37%	A1
Western routes towards Milton Keynes	26%	A507
South-Western routes towards Luton	16%	A507, A6
North-Western routes towards Bedford	12%	A507, A600, A1, A603
South-Eastern routes towards North Hertfordshire and East Hertfordshire	5%	A1, A507
North-Eastern routes towards South Cambridge and Cambridge	4%	A1, A505
Northern routes	0%	N/A
Eastern routes	0%	N/A

¹ Based on at least 75% of car/van trips originating in Central Bedfordshire Middle Super Output Area 010.

Commuter travel mode split



Indicative number of jobs within 60 minutes by public transport in relation to the closest bus stop to the potential housing area:

Based on existing conditions:		Based on assumed f	Based on assumed future conditions:	
0 - 60,000		0 - 60,000		
60,000 - 120,000		60,000 - 120,000		
> 120,000		> 120,000		

Indicative number of jobs within 30 minutes by road in relation to the centre of the potential housing area:



Personal Injury Collisions (PICs)¹

	Perimeter (200mt) ²		Perimeter (1,000mt) ²
Fatal	0 (0.00 collisions per ha)	Fatal	0 (0.00 collisions per ha)
Serious	3 (0.09 collisions per ha)	Serious	14 (0.42 collisions per ha)
Slight	18 (0.54 collisions per ha)	Slight	36 (1.09 collisions per ha)

¹ Years reviewed: 2011, 2012, 2013, 2014 and 2015.

² PICs on existing road network within a perimeter that is set 200 and 1,000 metres outside each housing area.

Transport infrastructure investment

Key transport infrastructure investment for which it is likely to be a relationship with this growth option:

ID	Name	Likelihood of delivery by 2035
R14	A1 East of England Improvements	Medium (50%)
R15	A1(M) Junctions 6-8 Smart Motorway	High (75%)
P2	East West Rail (Western Section – Phase 2)	High (75%)
Р3	East West Rail (Central Section)	Medium (50%)
P7	Interchange at Arlesey	Medium (50%)

Due to the site's proximity to the A1, it is likely to benefit greatly from the A1 (M) Smart Motorway improvements between junctions 6 and 8 (R15), which is envisaged to provide better access to the south east. Additionally, there is an opportunity to link housing growth at this location to the Highways England A1 East of England study (R14), which is aimed at investigating improvements on the A1 corridor.

Further, as the site is located near to Arlesey, there are opportunities for greater access to public transport resulting from interchange improvements at Arlesey station (P7). Similarly, though East West Rail (P2, P3) is proposed to pass a considerable distance away to the north of this option, there are opportunities for greater access to employment, as the line will be linked to the East Coast Mainline at Sandy.

Potential transport interventions

Potential transport interventions to improve the relative performance of this growth option are shown below:

- Explore opportunities to provide a high-quality link service through North Hertfordshire to Luton.
- Bus network review with a view to enhancing connectivity with North Hertfordshire (Hitchin and Stevenage).
- Park and Ride capacity enhancements at Arlesey and Letchworth.
- Improved cycle routes to, and cycle parking facilities at, existing and future public transport interchanges.