

Proposed Submission Version Local Plan

PART A - About You

1. Please complete the following:

Please note the email address (if provided below) will be sent a full copy of the submitted response and a unique reference number.

Name of person completing the form: John Coxon

Email address: [REDACTED]

2. What type of respondent are you? Please select one option only.
If you are an agent please select the type of client you are representing.

A Developer / Landowner

3. Please provide your contact details:

	Contact details
Organisation name (if applicable)	Emery Planning
Agent name (if applicable)	John Coxon
Address 1	[REDACTED]
Address 2	[REDACTED]
Postal Town	[REDACTED]
Postcode	[REDACTED]
Telephone number	[REDACTED]

PART B - Representation Form 1

1. To which part of the Local Plan does this representation relate?

From the drop down list please select one option.

DEV1 Housing Delivery

2. What does your comment relate to? Please select one option.

Both of the above

If a paragraph or policy sub-number then please use the box below to list. (For example - Policy MD2.1 part 3 or paragraph 10.2.13 etc as applicable).

Please see attached representations

3. Do you consider the Draft Local Plan to be: Please select one option in each row.

	Yes	No
Legally Compliant	X	
Sound		X
Compliant with the Duty to Co-operate		X

4. If you have answered 'No' to any of the options in the above question then please give details in the box below of why you consider the Draft Local Plan is not legally compliant or is unsound or fails to comply with the duty to co-operate.

Please be as precise as possible.

Please see attached representations

5. If you answered 'Yes' to any of the options in question 3 then please give details in the box below the reasons why you support the legal compliance or soundness of the Draft Local Plan or its compliance with the duty to co-operate.

Please be as precise as possible.

Please see attached representations

6. Please set out what modification(s) you consider necessary to make the Draft Local Plan legally compliant or sound, having regard to the test you have identified above where this relates to soundness. (NB please note that any non-compliance with the duty to co-operate is incapable of modification at examination).

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7. If your representation is seeking a modification, do you consider it necessary to participate at the oral part of the examination? Please select one option.

Yes, I wish to participate at the oral examination

If you wish to participate at the oral part of the examination, please outline why you consider this to be necessary:

We wish to attend the hearings to make oral submission, respond to the Inspector's questions and respond to the Council's case. The issues are complex and there is a need for detailed examination of the evidence.

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- File: Warrington UPSVLP - Wain Homes Rep - part 2.pdf - [REDACTED]

Comments/file description

Part 1 - Statement with appendices EP1 - EP4

Part 2 - Appendices EP5 - EP 8

You have just completed a Representation Form for DEV1 Housing Delivery.

Please select what you would you like to do now?

Complete another Representation Form on a different policy or part of the plan (**Part B**)

PART B - Representation Form 2

1. To which part of the Local Plan does this representation relate?

From the drop down list please select one option.

GB1 Warrington's Green Belt

2. What does your comment relate to? Please select one option.

Both of the above

If a paragraph or policy sub-number then please use the box below to list. (For example - Policy MD2.1 part 3 or paragraph 10.2.13 etc as applicable).

Please see attached representations

3. Do you consider the Draft Local Plan to be: Please select one option in each row.

	Yes	No
Legally Compliant	X	
Sound		X
Compliant with the Duty to Co-operate	X	

4. If you have answered 'No' to any of the options in the above question then please give details in the box below of why you consider the Draft Local Plan is not legally compliant or is unsound or fails to comply with the duty to co-operate.

Please be as precise as possible.

Please see attached representations

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Part 2 - Appendices EP5 - EP 8

You have just completed a Representation Form for GB1 Warrington's Green Belt.

Please select what you would you like to do now?

Complete another Representation Form on a different policy or part of the plan (**Part B**)

PART B - Representation Form 3

1. To which part of the Local Plan does this representation relate?

From the drop down list please select one option.

MD2 South East Warrington Urban Extension

2. What does your comment relate to? Please select one option.

Both of the above

If a paragraph or policy sub-number then please use the box below to list. (For example - Policy MD2.1 part 3 or paragraph 10.2.13 etc as applicable).

Please see attached representations

3. Do you consider the Draft Local Plan to be: Please select one option in each row.

	Yes	No
Legally Compliant	X	
Sound		X
Compliant with the Duty to Co-operate	X	

4. If you have answered 'No' to any of the options in the above question then please give details in the box below of why you consider the Draft Local Plan is not legally compliant or is unsound or fails to comply with the duty to co-operate.

Please be as precise as possible.

Please see attached representations

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Please see attached representations

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Comments/file description

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Part 2 - Appendices EP5 - EP 8

You have just completed a Representation Form for MD2 South East Warrington Urban Extension

Please select what you would you like to do now?

Complete another Representation Form on a different policy or part of the plan (**Part B**)

PART B - Representation Form 4

1. To which part of the Local Plan does this representation relate?

From the drop down list please select one option.

MD3 Fiddlers Ferry

2. What does your comment relate to? Please select one option.

Both of the above

If a paragraph or policy sub-number then please use the box below to list. (For example - Policy MD2.1 part 3 or paragraph 10.2.13 etc as applicable).

Please see attached representations

3. Do you consider the Draft Local Plan to be: Please select one option in each row.

	Yes	No
Legally Compliant	X	
Sound		X
Compliant with the Duty to Co-operate	X	

4. If you have answered 'No' to any of the options in the above question then please give details in the box below of why you consider the Draft Local Plan is not legally compliant or is unsound or fails to comply with the duty to co-operate.

Please be as precise as possible.

Please see attached representations

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Please be as precise as possible.

Please see attached representations

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Please be as precise as possible.

Please see attached representations

7. If your representation is seeking a modification, do you consider it necessary to participate at the oral part of the examination? Please select one option.

Yes, I wish to participate at the oral examination

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Comments/file description

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Part 2 - Appendices EP5 - EP 8

You have just completed a Representation Form for MD3 Fiddlers Ferry.

Please select what you would you like to do now?

Complete another Representation Form on a different policy or part of the plan (**Part B**)

PART B - Representation Form 5

1. To which part of the Local Plan does this representation relate?

From the drop down list please select one option.

Plan as a whole

2. What does your comment relate to? Please select one option.

None of the above

If a paragraph or policy sub-number then please use the box below to list. (For example - Policy MD2.1 part 3 or paragraph 10.2.13 etc as applicable).

Duty to Cooperate

3. Do you consider the Draft Local Plan to be: Please select one option in each row.

	Yes	No
Legally Compliant	X	
Sound		
Compliant with the Duty to Co-operate		X

4. If you have answered 'No' to any of the options in the above question then please give details in the box below of why you consider the Draft Local Plan is not legally compliant or is unsound or fails to comply with the duty to co-operate.

Please be as precise as possible.

Please see attached representations

5. If you answered 'Yes' to any of the options in question 3 then please give details in the box below the reasons why you support the legal compliance or soundness of the Draft Local Plan or its compliance with the duty to co-operate.

Please be as precise as possible.

Please see attached representations

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Please be as precise as possible.

Please see attached representations

7. If your representation is seeking a modification, do you consider it necessary to participate at the oral part of the examination? Please select one option.

Yes, I wish to participate at the oral examination

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We wish to attend the hearings to make oral submission, respond to the Inspector's questions and respond to the Council's case. The issues are complex and there is a need for detailed examination of the evidence.

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Comments/file description

Part 1 - Statement with appendices EP1 - EP4

Part 2 - Appendices EP5 - EP 8

You have just completed a Representation Form for Plan as a whole.

Please select what you would you like to do now?

Complete another Representation Form on a different policy or part of the plan (**Part B**)

PART B - Representation Form 6

1. To which part of the Local Plan does this representation relate?

From the drop down list please select one option.

Plan as a whole

2. What does your comment relate to? Please select one option.

Both of the above

If a paragraph or policy sub-number then please use the box below to list. (For example - Policy MD2.1 part 3 or paragraph 10.2.13 etc as applicable).

Plan period

3. Do you consider the Draft Local Plan to be: Please select one option in each row.

	Yes	No
Legally Compliant	X	
Sound		X
Compliant with the Duty to Co-operate	X	

4. If you have answered 'No' to any of the options in the above question then please give details in the box below of why you consider the Draft Local Plan is not legally compliant or is unsound or fails to comply with the duty to co-operate.

Please be as precise as possible.

Please see attached representations

5. If you answered 'Yes' to any of the options in question 3 then please give details in the box below the reasons why you support the legal compliance or soundness of the Draft Local Plan or its compliance with the duty to co-operate.

Please be as precise as possible.

Please see attached representations

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Please see attached representations

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Yes, I wish to participate at the oral examination

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Comments/file description

Part 1 - Statement with appendices EP1 - EP4

Part 2 - Appendices EP5 - EP 8

You have just completed a Representation Form for Plan as a whole.

Please select what you would you like to do now?

Complete another Representation Form on a different policy or part of the plan (**Part B**)

PART B - Representation Form 7

1. To which part of the Local Plan does this representation relate?

From the drop down list please select one option.

Plan as a whole

2. What does your comment relate to? Please select one option.

Both of the above

If a paragraph or policy sub-number then please use the box below to list. (For example - Policy MD2.1 part 3 or paragraph 10.2.13 etc as applicable).
Chapter 10 - Site allocations

3. Do you consider the Draft Local Plan to be: Please select one option in each row.

	Yes	No
Legally Compliant	X	
Sound		X
Compliant with the Duty to Co-operate	X	

4. If you have answered 'No' to any of the options in the above question then please give details in the box below of why you consider the Draft Local Plan is not legally compliant or is unsound or fails to comply with the duty to co-operate.

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Please see attached representations

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Comments/file description

Part 1 - Statement with appendices EP1 - EP4

Part 2 - Appendices EP5 - EP 8

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Please select what you would you like to do now?

Complete the final part of the form, Customer 'About You' questions and submit response **(Part C)**



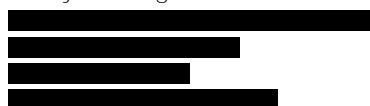
Local Plan Representations

Warrington Updated Proposed Submission Version Local
Plan 2021-2038

For: Wain Homes (North West) Ltd

Emery Planning Project No. 19-202

Emery Planning



unlocking development opportunities

Project : 19-202
Document : Warrington Updated
Proposed Submission
Version Local Plan 2021-
2038
Client : Wain Homes (North
West) Ltd
Date : November 2021
Author : John Coxon

This report has been prepared for the client by Emery Planning with all reasonable skill, care and diligence.

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Emery Planning Partnership Limited
trading as Emery Planning.

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1. Introduction

1.1 Emery Planning is instructed by our clients, Wain Homes (North West) Ltd (hereafter referred to as 'Wain Homes'), to prepare and submit representations to the consultation on the Warrington Updated Proposed Submission Version Local Plan (UPSVLP).

1.2 These representations should be read in conjunction with the submissions to the UPSVLP made by Lichfields on behalf of a consortium of developers and housebuilders, of which Wain Homes is a member. These representations supplement those submissions, and also set out Wainhomes objections the distribution of development, site selection methodology and promotion of omission sites. A summary of Wain Homes representations is set out below:

- The proposed housing requirement is insufficient to meet the needs of the borough, in particular the need to align economic growth with housing growth, and to meet the need for affordable housing.
- The Council has overestimated its housing land supply, particularly from SHLAA sites, and insufficient flexibility has been provided. Additional site allocations are needed.
- There is a need to designate safeguarded land. The Council approach to calculating its future needs and land supply is fundamentally flawed.
- **The distribution of development is not justified. The Council's decision not to apportion any development to Burtonwood, due to alleged highways constraints, is not supported by any evidence.**
- The site selection process is not robust, and it does not follow a logical methodology. The site allocations are not justified.
- The allocation of the Fiddlers Ferry site does not accord with the evidence base. The release of greenfield Green Belt land in a very narrow gap between Widnes and Warrington would have a significant impact upon the Green Belt. There is also insufficient evidence to demonstrate that the site is viable, or that it will deliver during the plan period.

1.3 Our client is promoting two omission sites which are suitable as allocations to meet the identified shortfall in housing land supply, and to meet the needs of Burtonwood. They are:

- Land at Lumber Lane, Burtonwood (see Appendix EP1); and,
- Land at Runcorn Road, Moore (see Appendix EP2) - part of the former draft allocation: Warrington South West urban extension.

2. National Planning Policy and Guidance

National Planning Policy Framework (the Framework)

2.1 The Framework sets out the Government's planning policies for England and how these are expected to be applied. The purpose of the planning system is to contribute to the achievement of sustainable development. The Framework, taken as a whole, constitutes the Government's view of what sustainable development in England means in practice for the planning system.

2.2 Paragraph 11 requires plans and decisions to apply a presumption in favour of sustainable development. For plan-making this means that:

a) plans should positively seek opportunities to meet the development needs of their area, and be sufficiently flexible to adapt to rapid change;

b) strategic policies should, as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas, unless:

i. the application of policies in the Framework that protect areas or assets of particular importance provides a strong reason for restricting the overall scale, type or distribution of development in the plan area; or

ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in the Framework taken as a whole.

2.3 Paragraph 35 provides the following in relation to soundness:

35. Local plans and spatial development strategies are examined to assess whether they have been prepared in accordance with legal and procedural requirements, and whether they are sound. Plans are 'sound' if they are:

a) Positively prepared – providing a strategy which, as a minimum, seeks to meet the area's objectively assessed needs [19]; and is informed by agreements with other authorities, so that unmet need from neighbouring areas is accommodated where it is practical to do so and is consistent with achieving sustainable development;

b) Justified – an appropriate strategy, taking into account the reasonable alternatives, and based on proportionate evidence;

c) Effective – deliverable over the plan period, and based on effective joint working on cross-boundary strategic matters that have been dealt with rather than deferred, as evidenced by the statement of common ground; and

d) Consistent with national policy – enabling the delivery of sustainable development in accordance with the policies in this Framework.

21. *Where this relates to housing, such needs should be assessed using a clear and justified method, as set out in paragraph 61 of this Framework.*

National Planning Practice Guidance (PPG)

2.4 The PPG was launched in March 2014. It replaced a number of practice guidance documents that were deleted when the PPG was published. Local Plan making is addressed under Section 12.

3. Duty to Cooperate

3.1 We consider that the Council has failed to comply with the Duty to Cooperate, specifically in relation to how the Council has approached the settlement of Burtonwood.

3.2 As a contextual point, the Council presents a Statement of Common Ground within the evidence base. However, this is an unsigned document which is not agreed by any other parties. Therefore, the Council has reached this stage (the second Regulation 19 consultation) without having formally reached common ground with neighboring authorities on the content of the plan. This is surprising given that the Council has reached common ground with other neighboring authorities in respect of their plans.

3.3 As detailed within our representations to Policy DEV1 in respect of the distribution of development, the Council seeks to justify its decision not to distribute any new housing to the settlement of Burtonwood (and to delete the allocation in the previous Regulation 19 version) with reference to alleged highways impacts of the Bold Forest Garden Suburb. Therefore, the Council is claiming that a significant cross boundary issue exists. However, if there is a significant cross-boundary highway issue arising from the Bold Forest Garden Suburb which constrains allocations in Warrington (despite the absence of evidence that this is the case), then the Council has failed to comply with the Duty to Cooperate for the following reasons:

- Firstly, the Council has failed to work jointly with St Helens Council to identify the extent of the issue, and to consider whether it can be overcome through mitigation measures. No evidence on the alleged impact is presented as part of the evidence base.
- Secondly, the Council's approach is inconsistent with the evidence presented to the St Helens Local Plan examination. The evidence of St Helens Council does not raise any issues in terms of the impact upon Burtonwood. As far as we are aware Warrington Council has not contested the robustness of that evidence.
- Thirdly, if there was likely to be an impact upon Burtonwood as a result of allocations in St Helens (of such significance that it necessitated Warrington Borough Council to alter its Local Plan) then it could have been expected that Warrington Borough Council would have objected to the St Helens Local Plan. However, the Statement of Common Ground between Warrington Council and St Helens Council submitted to the St Helens Local Plan examination references the Bold Forest Garden Suburb at paragraphs 4.19 and 4.20, but does not raise the possibility of severe impacts or suggest that it may constrain future development in Burtonwood or any other part of Warrington. It simply commits the parties to continue working together to understand that impacts and to agree the details of any necessary mitigation through the masterplanning process (bearing in mind that the principle and quantum of

development would be established by the allocation). A copy of the Statement of Common Ground submitted to the St Helens Local Plan examination is provided at Appendix EP3.

- 3.4 The position agreed in the St Helens Local Plan examination appears to contradict the position set out at paragraph 4.33 of the draft Statement of Common Ground that Warrington Council has published as part of the evidence base of the UPSVLP, which states that *“WBC is particularly concerned about the potential impact on residents in Burtonwood”*. It remains to be seen whether St Helens Council will agree with that position, and if it does agree, presumably this then needs to be raised with the Inspector examining the St Helens Local Plan.
- 3.5 Taking account of all the evidence, we consider that there is no evidence to suggest that Burtonwood is unable to accommodate allocations because of the Bold Forest Garden Suburb. **The Council's decision appears to be a flawed planning judgement** made in the absence of any technical evidence, which results in this aspect of the plan not being justified. However, if there is a cross-boundary issue which is so serious that it prevents any future development in Burtonwood, as Warrington Council claims, then this should have been raised and properly considered through under Duty to Cooperate. It has not been, and therefore Council has failed to comply with the duty.

4. Plan period

4.1 Paragraph 20 of the Framework makes clear that strategic policies are those which make provision for housing, employment and other types of growth:

“Strategic policies should set out an overall strategy for the pattern, scale and quality of development, and make sufficient provision for:

a) housing (including affordable housing), employment, retail, leisure and other commercial development;

b) infrastructure for transport, telecommunications, security, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat);

c) community facilities (such as health, education and cultural infrastructure); and

d) conservation and enhancement of the natural, built and historic environment, including landscapes and green infrastructure, and planning measures to address climate change mitigation and adaptation.”

4.2 Paragraph 22 of the Framework states:

“Strategic policies should look ahead over a minimum 15 year period from adoption, to anticipate and respond to long-term requirements and opportunities, such as those arising from major improvements in infrastructure. Where larger scale developments such as new settlements or significant extensions to existing villages and towns form part of the strategy for the area, policies should be set within a vision that looks further ahead (at least 30 years), to take into account the likely timescale for delivery.”

4.3 Paragraph 22 therefore has two very clear requirements:

- Strategic policies must cover at least a 15-year plan period from adoption.
- In instances where larger scale developments form part of the strategy, policies should be set within a vision that looks further ahead (at least 30 years).

4.4 The UPSVLP fails to meet the requirements on both counts. We discuss this further below.

15-year plan period from adoption

- 4.5 The proposed plan period for the Warrington Local Plan is 2021 to 2038. The base date, primarily used for the monitoring of the housing and employment land supply, is 1 April 2021, and therefore the end date of the strategic policies relating to housing and employment land supply is 31 March 2038. This means for the strategic policies to cover at least 15-years from adoption, it must be adopted by 31 March 2023.
- 4.6 The Council's current schedule for the adoption of the Warrington Local Plan is set out in the September 2021 version of the Local Development Scheme. This projects that the plan will be adopted in July 2023. Therefore, even on the Council's **own optimistic schedule, the plan will not** cover a 15-year plan period from adoption. The plan is therefore unsound as it is inconsistent with national planning policy. To make the plan sound, the plan period must be extended.
- 4.7 The housing trajectory at Appendix 1 of the plan appears to run to 2039, in conflict with the proposed end date of the plan of 2038 as set out in the policies. However, even if the end date is adjusted to 2039, this may still not be long enough. That would mean the plan needs to be adopted by 31 March 2024. The Council needs to be realistic about how long an examination may take, considering the almost inevitable need for main modifications and further public consultation, and apply a cautious approach (to avoid the need for further changes during the examination). Local Plans can be subject to examination lasting multiple years. For example, the Cheshire East Local Plan Strategy (a neighbouring authority) was submitted in May 2014, but not adopted until July 2017 - more than 3 years after submission. The Halton Delivery and Allocations Plan (another neighbouring authority) was submitted for examination in March 2020, but the examination is still ongoing and at the time of writing the content of main modifications is still yet to be agreed, let alone has the consultation commenced. **Halton's** plan is still several months from adoption.
- 4.8 Other examples of significantly extended examinations include the Birmingham Development Plan and the Local Plans for Bath and North East Somerset, Wiltshire, Central Bedfordshire, Cambridge and South Cambridgeshire; all of which took much longer than 2 years between submission and adoption.
- 4.9 The potential for an extended examination is particularly relevant to Warrington given the significant issues of soundness that have been raised through representations over the years.

4.10 Applying this to the PFE, if the examination of the plan takes 2 years following submission in March 2022, the plan would not be adopted until after 1st April 2024. That would mean that the plan period would need to be extended to at least 2040 to provide a 15-year plan period from adoption for the strategic policies for housing and employment. If there is any prospect of the examination taking longer than that, then the plan period would need to be extended even further.

Vision that looks further ahead (at least 30 years)

4.11 Paragraph 61-083 of the PPG clarifies when paragraph 22 of the Framework should apply. It states:

“Paragraph 22 of the National Planning Policy Framework indicates that where the proposed local plan strategy incorporates larger scale developments such as new settlements or significant extensions to existing villages and towns, policies should be set within a vision that looks further ahead (at least 30 years) to take into account the likely timescale for delivery.”

This policy requirement would need to be applied where most of the development arising from larger scale developments proposed in the plan will be delivered well beyond the plan period, and where delivery of those developments extends 30 years or longer from the start of the plan period.

Where the policy applies, the authority will need to ensure that their vision reflects the long-term nature of their strategy for the plan or those larger scale developments. It is not anticipated that such visions would require evidence in addition to that already produced to support the plan.”

4.12 Applying that to Warrington, two of the allocations have delivery timeframes which extend beyond the plan period. These are:

- The proposed allocation of the South East Warrington Urban Extension for around 2,400 homes in the Plan period up to 2038, and a further 1,800 homes beyond the Plan period; and,
- The proposed allocation of Fiddlers Ferry for 1,300 homes in the Plan period up to 2038, with a further 450 homes beyond the Plan period.

4.13 These are larger scale developments which will still be delivering well beyond the plan period, even on the Council's optimistic delivery assumptions. If more realistic delivery assumptions are

applied, as advocated by our client, then the scale of development to come forward beyond the current plan period would be increased further.

- 4.14 The policies of the Warrington Local Plan should therefore be set within a vision that looks further ahead (at least 30 years), to take into account the likely timescale for delivery. However, the UPSVLP does not set out any vision looking beyond 2038. There is very little consideration of housing and employment needs and supply beyond the end of the plan period. As set out in our response to Policy GB1, the analysis of the housing need and supply position beyond the plan period set out at paragraphs 4.1.24 – 4.1.33 of the UPSVLP is inadequate and flawed. Save for identifying that some sites will continue to deliver beyond the plan period, there is no realistic vision or direction for how future needs may be met in the future is provided.

5. Policy DEV1 – Housing Delivery

Housing requirement

- 5.1 Wain Homes object to the proposed housing requirement and considers that the figure is insufficient to meet needs, including the need to align housing and economic growth, and the need for affordable housing.
- 5.2 Wain Homes' representations in relation to the housing requirement are addressed in the submissions of Lichfields made on behalf of the consortium of developers and housebuilders, of which Wain Homes is a constituent party. Those submissions conclude that the UPSVLP seeks to pursue the minimum housing requirement derived from the Standard Method, but pays little regard to the need to boost the supply of housing, tackling the affordability issues, aligning the housing requirement with the Plan's economic aspirations or seeking to boost the supply of affordable housing to meet existing needs. Detailed analysis is set out in the Technical Paper accompanying the representations of the consortium, including reasoned justification for boosting to the housing requirement to 1,015dpa over the Plan period.

Housing Distribution

- 5.3 Part 4 of the policy states that:

"A minimum of 801 homes will be delivered on allocated sites to be removed from the Green Belt adjacent to following outlying settlements:

- a. Croft – minimum of 75 homes*
- b. Culcheth – minimum of 200 homes*
- c. Hollins Green – minimum of 90 homes*
- d. Lymm – minimum of 306 homes*
- e. Winwick – minimum of 130 homes"*

- 5.4 Whilst we support the principle of providing a level of development to the outlying settlements to meet development needs, we consider that the failure to provide any allocations or safeguarded land in Burtonwood is not justified.

5.5 The Development Options and Site Assessment Technical Report explains that the Council considered 3 options in relation to the distribution of housing from Green Belt release:

(1) All Green Belt Release accommodated adjacent to main urban area

(2) Majority of Green Belt Release accommodated adjacent to main urban area with 'incremental growth' in outlying settlements

(3) Green Belt release adjacent to main urban area complemented by a sustainable extension to one or more outlying settlements and incremental growth to remaining settlements

5.6 Paragraphs 2.22 and 2.23 of the Technical Report explain that the difference for the outlying settlements between options 2 and 3 was 1,000 or 1,400 dwellings:

"2.22 Under Option 2, the Council has used the approximate capacity of 1,000 homes to be allocated to the outlying settlements. This is based on a benchmark of 10% growth in each settlement, which the Council considers can be accommodated by existing infrastructure (with expansion of existing infrastructure if necessary) and which will not impact on the overall character of the settlement.

2.23 Under Option 3, the Council has assumed that one settlement will be expanded to provide an additional 1,400 homes with the other settlements subject to 'incremental growth'. This will broadly account for half of the required Green Belt release."

5.7 The Technical Report then goes on to claim at paragraph 2.24 that an option of any higher growth to the outlying settlements would be *"unreasonable"* on the basis that *"the environmental impacts would be more significant than other options and could be difficult to mitigate"*. There is no specific evidence for any of the settlements which demonstrates that this is the case (in relation to any technical matter). This is simply a very vague, generalised assumption based on the notion that more development equals harm. It is also claimed that *"the Council considers that such an option would not accord with the Plan's Objectives and could undermine the regeneration of the main Warrington urban area."* Taking these two points in turn:

- It is not clear how providing housing to meet the development needs of the outlying settlements, including meeting the need for affordable housing, would 'not accord with the plan's objectives'.
- It is not clear how additional development within the outlying settlements would 'undermine the regeneration of the main Warrington Urban Area' any more than any

other spatial option (i.e. allocating Green Belt land on the edge of Warrington). If anything, it would be less harmful than the options pursued.

- 5.8 Therefore, the reasons given for considering a higher option for the outlying settlements are spurious and without any substantive evidence.
- 5.9 It is also not clear how the eventual distribution has been arrived at in terms of the overall figure for the outlying settlements. Option B is selected, which is for 1,000 homes, but then the plan only allocates sites for 801 dwellings.
- 5.10 Furthermore, the Council's approach to the outlying settlements fails to consider their individual needs, such as the need for affordable housing, and the need to maintain local services and facilities which serve the outlying settlements and their rural hinterlands. There is no substantive analysis to demonstrate that 1,000 homes in the outlying settlements will meet these needs (let alone the reduced figure of 801 as actually proposed in the UPSVLP).
- 5.11 In relation to the individual breakdown for each settlement, again there is a lack of any evidence to support the proposed distribution. There does not appear to be any substantive assessment of the needs and capacity of each settlement to inform how development should be apportioned. The Council should have considered housing needs including the need for affordable housing, local infrastructure and environmental capacity for each settlement.
- 5.12 Our specific concerns in relation to the distribution to Burtonwood are discussed below.

Burtonwood

- 5.13 In the Publication Version of the plan published in 2019, Policy DEV1 proposed the following:

"4. A minimum of 1,085 homes will be delivered on allocated sites to be removed from the Green Belt adjacent to following outlying settlements:

a. Burtonwood – minimum of 160 homes

b. Croft – minimum of 75 homes

c. Culcheth – minimum of 200 homes

d. Hollins Green – minimum of 90 homes

e. Lymm – minimum of 430 homes

f. Winwick – minimum of 130 homes" (our emphasis)

5.14 It was therefore considered by the Council that there was a need to allocate land to provide 160 dwellings in Burtonwood, and that there were exceptional circumstances to justify the release of Green Belt in the settlement. However, the 2021 UPSVLP now proposes no allocations or Green Belt release in Burtonwood. There is no justification for this change of approach.

5.15 Paragraph 3.11 of the Development Options and Site Assessment Technical Report sets out the exceptional circumstances in relation to the release of Green Belt in the outlying settlements which do remain in the UPSVLP. It states:

"The Council considers that Exceptional Circumstances exist for each of these proposed allocations to be removed from the Green Belt. In addition to contributing to Warrington's overall development needs, each site will increase housing choice, provide affordable housing and support the vitality and viability of local services in the respective settlements."

5.16 These exceptional circumstances would apply equally to Burtonwood.

5.17 The deletion of the proposed allocation at Burtonwood is then addressed at paragraphs 3.11 – 312 of the Technical Report, which state:

"Two sites that were included in the previous Proposed Submission Version of the Local Plan are no longer being proposed for allocation:

- *Burtonwood – this site has been removed given the uncertainty of the Bold Forest Garden Suburb urban extension that is proposed in St Helens. This could have significant implications on the local highways network in Burtonwood, albeit the impacts will not be understood until the site allocation has been confirmed and more detailed proposals for the urban extension come forward later the Plan Period of the St Helens Local Plan. Without an understanding of these impacts it is not considered appropriate to make an allocation in Burtonwood.*
- *Lymm – Massey Brook Lane – the site promoter has requested that the site is withdrawn from the Local Plan process.*

Given the reduction in the proposed headline housing requirement, it is not considered that the loss of these sites has a material impact on the Plan's spatial strategy. It is therefore not proposed to allocate any additional sites in the outlying settlements."

5.18 Therefore, the Council's justification for deleting the allocation in Burtonwood is an alleged highways impact arising from the Bold Forest Garden Suburb urban extension that is proposed in St Helens. In response:

- Warrington Council does not present any evidence whatsoever to suggest that the Bold Forest Garden Suburb urban extension that is proposed in St Helens would result in a highways impact that could somehow be acceptable for the Bold Forest Garden Suburb, but would mean that no further development can come forward in Burtonwood. Even if there were demonstrable issues, the Council has failed to consider whether these can be overcome through mitigation measures.
- The Council's approach is inconsistent with the evidence presented to the St Helens Local Plan examination. The evidence of St Helens Council does not raise any issues in terms of the impact upon Burtonwood:
 - The Bold Forest Garden Suburb Transport Review, which forms part of the evidence base for the St Helens Local Plan examination (examination document ref: TRA005) makes no mention of any potential highways capacity issues in Burtonwood, and nor does it suggest that highways capacity will be significantly constrained in Burtonwood or any other nearby area in the immediate future. We enclose a copy of the Bold Forest Garden Suburb Transport Review at Appendix EP4.
 - No other part of the evidence base for the St Helens Local Plan indicates that there will be specific highways impacts affecting Burtonwood. A copy of the St Helens Local Plan Transport Impact Assessment is also enclosed at Appendix EP5.
- As detailed in our response to the Duty to Cooperate, if there was likely to be an impact upon Burtonwood as a result of allocations in St Helens (of such significance that it necessitated Warrington Borough Council to alter its Local Plan) then it could have been expected that Warrington Borough Council would have objected to the St Helens Local Plan. However, the Statement of Common Ground between Warrington Council and St Helens Council submitted to the St Helens Local Plan examination references the Bold Forest Garden Suburb at paragraphs 4.19 and 4.20, but does not raise the possibility of severe impacts or suggest that it may constrain future

development in Burtonwood or any other part of Warrington. It simply commits the parties to continue working together to understand that impacts and to agree the details of any necessary mitigation. A copy of the Statement of Common Ground submitted to the St Helens Local Plan examination is provided at Appendix EP3.

- 5.19 Therefore, the reasons given are spurious and are not supported by any documentary evidence. They also contradict the evidence of St Helens Council and the agreed position between the two authorities as presented to the St Helens Local Plan examination.
- 5.20 The second part of the justification is that the loss of these sites does not have a 'material impact on the Plan's spatial strategy'. This contradicts the Council's position on its own spatial strategy. The Council's own evidence (even under the chosen option 2) identifies a need to allocate land and release Green Belt in these settlements to meet development needs. If allocating land in the outlying settlements does not have any impact on the spatial strategy, then the exceptional circumstances would not exist for Green Belt release in any of the settlements.
- 5.21 The Council's decision not to provide any allocations in Burtonwood fails to have any regard to local development needs, including the need for affordable housing, the sustainability of Burtonwood and the need to support and maintain the village's services and amenities in the future.
- 5.22 The Council's decision also fails to consider whether there are sustainable options for meeting development needs in Burtonwood. Our client is proposing the allocation of a parcel of land to the north of Burtonwood (south of Lumber Lane) adjacent to the allocation that was proposed in the 2019 version of the plan under Policy OS1. Collectively, **the Council's evidence** finds that **this parcel makes a 'moderate' contribution to the openness and main purposes of the Green Belt** (2016 Green Belt Assessment, parcel ref: BW3). We consider that the contribution is even less than **'moderate'** - the land is effectively a triangle that adjoins the urban area but is surrounded by permanent road infrastructure on all sides, including roads and housing to two sides. The site represents a logical opportunity to round off the settlement and could be delivered without significant impacts upon the character of the village or harm to the wider Green Belt. Further details of our client's site are provided in Section 10 of this statement.
- 5.23 In summary, the Council's change of position in relation to Burtonwood is illogical and is not supported by any documentary evidence. There is no justification for Burtonwood to not receive

a level of development commensurate with its role and status as a sustainable settlement which serves a rural hinterland, in line with the other outlying settlements. The distribution of development is not justified and is therefore not sound.

Housing land supply

- 5.24 Wain Homes' representations in relation to housing land supply are addressed in the submissions of Lichfields made on behalf of the consortium of developers and housebuilders, of which Wain Homes is a constituent party. Those submissions conclude that the housing land supply has been over-stated in a number of areas, including delivery from SHLAA sites, densities and windfall rates.
- 5.25 In addition, we make the following further comments on behalf of Wain Homes.

SHLAA sites

- 5.26 We consider that there is a significant overreliance on SHLAA sites to deliver housing in the plan period for the following reasons:
- Firstly, there is a very significant lack of evidence underpinning the delivery of sites identified within the SHLAA. The very limited evidence provided does not justify such a significant reliance upon sites from this source.
 - Secondly, a great number of the SHLAA sites are not proposed to be allocated and do not have planning permission. There is no guarantee that a planning application will be made on a site identified in the SHLAA and / or even if they are, whether they would be approved.
 - Thirdly, identifying a site as developable in the SHLAA provides no guarantee that it will become available or that a planning permission will be implemented. The SHLAA suggests that many of the sites have problems without any guarantee that they will be overcome, yet the Council relies on all sites to deliver dwellings in the plan period.
 - Fourthly, the Council's supply includes large numbers of apartment schemes in central Warrington. This relies upon achieving densities which are not underpinned by robust evidence, and it is also unknown whether the market will be able to deliver and sustain this level of unprecedented growth throughout the plan period.

- Fifthly, the past failure of sites with the town centre and the urban area to deliver has led to significant shortfalls in the deliver of housing and, more recently, a failure to meet the Housing Delivery Test. The over-reliance upon these sources is effectively a plan to repeat past failures.
- Sixthly, the definitions of 'deliverable' and 'developable' as set out within the Framework require a site to be viable. However, the Council's own evidence on viability indicates that much of the SHLAA supply is not viable¹. Indeed, elements of the supply (such as the town centre and sites within Inner Warrington) are not even viable with 0% affordable housing. This means that:
 - If these sites do come forward, they will need to be viability tested at the planning application stage, which may cause delays; and,
 - Given that the viability is marginal for much of this supply, there may be other competing uses which are more financially attractive (including remaining in an existing use). Rising employment land values will make it even less attractive for some sites to be brought forward.
- As such, all sources of supply which are not currently viable should be discounted from the supply, in accordance with the definitions of deliverable and developable set out in the Framework.

5.27 Finally, we understand that the Council intends to publish a new SHLAA following the close of the Regulation 19 consultation. We request an opportunity to review and comment upon the new SHLAA when it is published.

Flexibility

5.28 The plan proposes to provide a flexibility factor of 10%. Notwithstanding our concerns in relation to the identified housing land supply, we consider that this is insufficient even if the supply identified had been robust.

5.29 There is a record of persistent under-delivery across Warrington, such the Housing Delivery Test has been failed (by a very significant margin). National planning policy applies the 20% buffer to

¹ See Section 8 of the Local Plan viability report

the five year requirement “*to improve the prospect of achieving the planned supply*” (paragraph 74(c) of the Framework). It seems illogical for the starting point on flexibility across the plan period to be below 20% when the record of delivery in the area has been so poor over such a prolonged period.

5.30 It can also be noted that the UPSVLP does not propose any safeguarded land. Therefore, if the 10% flexibility proves to be insufficient, which seems inevitable based upon the current makeup of the housing land supply, then there is no alternative option except to undertake a plan review.

5.31 The Guildford Local Plan is relevant to the issue of releasing Green Belt to provide flexibility in the housing land supply. A supply of 14,602 dwellings was provided against a housing requirement of 10,678 dwellings, equating to a flexibility allowance of 37%. Of the supply, some 6,742 dwellings were to be provided on sites to be released from the Green Belt. The plan was subject to an unsuccessful Challenge² which specifically addressed this point. The Judgment draws the following conclusions under *Issue 2: Was the conclusion that there were exceptional circumstances justifying the allocations of housing land, released from the Green Belt, to provide headroom of over 4000 dwellings above the 10678 OAN lawful, and adequately reasoned?*

- Once meeting the OAN is accepted as a strategic level factor contributing to “exceptional circumstances”, it follows that the provision of headroom against slippage and for flexibility to meet changes, “future-proofing” the plan, as the Inspector put it, would also contribute to such circumstances (paragraph 91).
- The headroom figure was a judgement based on the sites which were available to meet a requirement figure somewhat over 10,678, and to do so in such a way that, over the initial and subsequent years of the plan, the rolling five year housing supply, with a 20% buffer for some years, would be maintained (paragraph 96).
- As part of the total supply, the Inspector was entitled to conclude that the plan should allocate additional sites, that may be sequentially less preferable than other sites, because they were necessary allocations in order to provide the initial five year housing land supply (paragraph 101).

² Compton PC vs Guildford BC [2019] EWHC 3242 (Admin)

- The prospect that a level of housing in excess of the OAN might be achieved can contribute to exceptional circumstances if it would deliver benefits such as improving affordability or increasing the supply of affordable housing (paragraph 105).

5.32 Although we do not advocate that the specific circumstances of the plans are the same, we consider that the above key points are broadly applicable to Warrington. The plan must provide sufficient flexibility in the housing land supply and there is a need to release additional deliverable sites from the Green Belt to provide a five year housing land supply (and to avoid any artificial phasing of the requirement in early years). Even if there were to be a degree of over-provision, there would be wider benefits of providing a level of housing in excess of the minimum requirement, namely improving affordability and meeting affordable housing needs.

5-year housing land supply

5.33 The definition of "deliverable" in the Framework states:

"Deliverable: To be considered deliverable, sites for housing should be available now, offer a suitable location for development now, and be achievable with a realistic prospect that housing will be delivered on the site within five years. In particular:

a) sites which do not involve major development and have planning permission, and all sites with detailed planning permission, should be considered deliverable until permission expires, unless there is clear evidence that homes will not be delivered within five years (for example because they are no longer viable, there is no longer a demand for the type of units or sites have long term phasing plans).

b) where a site has outline planning permission for major development, has been allocated in a development plan, has a grant of permission in principle, or is identified on a brownfield register, it should only be considered deliverable where there is clear evidence that housing completions will begin on site within five years."

5.34 The PPG was most recently updated on 22nd July 2019. Paragraph 68-007 of the PPG³ provides some examples of the types of evidence, which could be provided to support the inclusion of sites with outline planning permission for major development and allocated sites without planning permission. It states:

³ Paragraph 007 Reference ID: 68-007-20190722: "What constitutes a 'deliverable' housing site in the context of plan-making and decision-taking?"

“In order to demonstrate 5 years’ worth of deliverable housing sites, robust, up to date evidence needs to be available to support the preparation of strategic policies and planning decisions. Annex 2 of the National Planning Policy Framework defines a deliverable site. As well as sites which are considered to be deliverable in principle, this definition also sets out the sites which would require further evidence to be considered deliverable, namely those which:

- have outline planning permission for major development;*
- are allocated in a development plan;*
- have a grant of permission in principle; or*
- are identified on a brownfield register.*

Such evidence, to demonstrate deliverability, may include:

- current planning status – for example, on larger scale sites with outline or hybrid permission how much progress has been made towards approving reserved matters, or whether these link to a planning performance agreement that sets out the timescale for approval of reserved matters applications and discharge of conditions;*
- firm progress being made towards the submission of an application – for example, a written agreement between the local planning authority and the site developer(s) which confirms the developers’ delivery intentions and anticipated start and build-out rates;*
- firm progress with site assessment work; or*
- clear relevant information about site viability, ownership constraints or infrastructure provision, such as successful participation in bids for large-scale infrastructure funding or other similar projects.*

Plan-makers can use the Housing and Economic Land Availability Assessment in demonstrating the deliverability of sites.”

5.35 Whilst the previous definition in the 2012 Framework considered that all sites with planning permission should be considered deliverable, the revised definition in the 2021 Framework is clear that only sites with detailed consent for major development should be considered deliverable and those with outline planning permission should only be considered deliverable where there is clear evidence that housing completions will begin in five years.

5.36 As above, the PPG has been updated to provide some examples of the type of evidence which may be provided to be able to consider that sites with outline planning permission for major development, allocated sites and sites identified on a brownfield register are deliverable.

5.37 There have been several appeal decisions which have concluded that the definition of deliverable is a closed list and therefore sites that are not within category a) or b) such as those listed above should be removed. This includes the Secretary of State's decision at Darnhall. However, in *East Northamptonshire Council v Secretary of State for Housing, Communities and Local Government*, the Secretary of State conceded that the Inspector in a decision in that authority dated 24th January 2020 had erred in his interpretation of the definition of deliverable as a closed list. The Consent Order states:

"The proper interpretation of the definition is that any site which can be shown to be 'available now, offer a suitable location for development now, and be achievable with a realistic prospect that housing will be delivered on the site within five years' will meet the definition; and that the examples given in categories (a) and (b) are not exhaustive of all the categories of site which are capable of meeting that definition. Whether a site does or does not meet the definition is a matter of planning judgment on the evidence available"

5.38 Whether the list is closed or not however, clear evidence is required for the inclusion of these sites.

5.39 The Council's current position as set out in the 2020 SHLAA is that it can demonstrate a deliverable supply of 3,524 dwellings. However, much of the supply identified by the Council does not meet the Framework's definition of deliverable, as it includes category b) sites for which no evidence (let alone the necessary 'clear evidence') has been adduced. The actual deliverable supply is therefore even less than the 3,524 dwellings stated. Furthermore, it is unclear to what extent the 5-year supply comprises types that are not viable according to the Council's own viability assessment. The Council therefore needs to:

- Adduce the clear evidence necessary to include category b) sites, or remove them from the deliverable supply.
- Identify which sites are not viable and remove them from the supply.
- Assess the 5-year supply against the housing requirement from the start of the plan period (i.e. a 2021-base date).

5.40 Only once the Council has a clear understanding of its deliverable supply can the appropriate strategic policy response be made. But from the evidence available, it is very clear that the plan would not provide a 5-year housing land supply on adoption and the supply needs to be boosted significantly by further site allocations.

Conclusions on housing land supply

- 5.41 The plan would not deliver an adequate supply of housing land to meet the proposed requirement over the plan period, and it would not deliver and maintain a 5-year supply from adoption. Additional deliverable and viable sites need to be allocated to ensure that these requirements are met.

Stepped Housing Requirement

- 5.42 Policy DEV1 proposes a phasing of the housing requirement, with a lower requirement in early years. We object to this approach for the following reasons.
- 5.43 Firstly, the proposed phasing is not consistent with housing need, which even applying the standard method equates to 816 dpa for the first 5-year period (i.e. 2021-2026). There is no evidence to suggest that the need will be less in the early years of the plan. To the contrary, the evidence points to the highest levels of housing need being present now, due to persistent failure to meet housing needs in previous years and a very significant backlog of affordable housing.
- 5.44 Secondly, the proposed phased approach is contrary to paragraph 60 of the Framework, which requires the Council to support the Government's objective of 'significantly boosting' the supply of homes by bringing forward a sufficient amount and variety of land where it is needed. The origins of the current Framework can be found in the previous Government's 2017 White Paper: *Fixing our Broken Housing Market*, which made it very clear that the cause for the broken market is simple: for too long, not enough homes have been built. The current Government's ambition is to increase the supply by 300,000 new homes annually which is, as explained in the current Government's 2020 White Paper: *Planning for the Future*, a figure which far exceeds the cumulative targets in adopted development plans (187,000 homes per annum) and current delivery (241,000 homes were built in 2018/19). The messages are clear: there is a national housing crisis and boosting the supply of housing now is a critical objective for the Government.
- 5.45 The UPSVLP is effectively proposing that unmet needs should not just persist for a longer period, but that they will continue to accumulate for the first 5 years of the plan. This is wholly unacceptable and clearly contrary to the national imperative to significantly boost supply. There is no other provision within national policy or guidance which supports the use of a stepped requirement nor any evidence to suggest the housing market is not capable of delivering significant growth required.

5.46 Thirdly, the Secretary of State can have no confidence that the higher levels of delivery in later years will ever be applied as a housing requirement. Paragraph 74 of the Framework states:

“Local planning authorities should identify and update annually a supply of specific deliverable sites sufficient to provide a minimum of five years’ worth of housing against their housing requirement set out in adopted strategic policies³⁸, or against their local housing need where the strategic policies are more than five years old³⁹.”

5.47 Therefore, when the plan is more than five years old, housing land supply will be assessed against local housing need. On this point, footnote 39 of the Framework clarifies:

“Unless these strategic policies have been reviewed and found not to require updating. Where local housing need is used as the basis for assessing whether a five year supply of specific deliverable sites exists, it should be calculated using the standard method set out in national planning guidance.”

5.48 There is therefore no guarantee that the Council will ever apply the higher housing requirement. Indeed, our experience is that LPAs with a planned housing requirement that is higher than local housing need will simply not undertake a ‘footnote 39 review’ or will determine through that review that the policies do not need updating. Recent examples include East Riding, Horsham, Ribble Valley and Hinkley & Bosworth.

5.49 To conclude, therefore, the requirement should not be phased to be reduced in the early years of the plan period. The proposed approach is contrary to national policy, in particular paragraph 60 of the Framework, and it is not an appropriate strategy based upon the evidence base. It would compound issues of housing under-delivery at a time when the backlog of needs should be being met as urgently as possible. Instead of phasing the requirement, the correct approach is to boost supply in the early years of the plan. The allocation of additional sites which are deliverable in the short term could significantly boost supply in the early years of the plan, eradicating the need to employ phasing. Insufficient consideration has been given to this potential strategy through the preparation of the plan and in particular the selection of site allocations.

6. Policy GB1 – Green Belt

General principles

- 6.1 Part 1 of the policy states: *“The Council will maintain the general extent of the Borough’s Green Belt, as defined on the Local Plan Policies Map, throughout the Plan Period and to at least 2050.”*
- 6.2 Firstly, we do not consider that sufficient Green Belt release is proposed through this plan. We address this further below, and in our response to Chapter 10 of the plan.
- 6.3 Secondly, we do not consider that the proposed Green Belt boundaries are capable of enduring beyond the current plan period. We address this further below in our response below on safeguarded land.

Land removed from the Green Belt

- 6.4 As per our representations to Policy DEV1, we consider that there is a need to allocate additional sites for housing to boost the supply of housing and meet identified needs. This will necessitate further Green Belt release. Our client proposes the following additional allocations:
- Land at Lumber Lane, Burtonwod (see chapter 11 of these representations)
 - Land at Runcorn Road, Warrington (see chapter 12 of these representations)

Safeguarded land / permanence of the Green Belt

- 6.5 Paragraph 137 of the Framework identifies that the essential characteristics of Green Belts are their openness and their permanence.
- 6.6 Paragraph 140 requires strategic policies to establish the need for any changes to Green Belt boundaries, having regard to their intended permanence in the long term, so they can endure beyond the plan period.
- 6.7 Paragraph 143 states that when defining Green Belt boundaries, plans should (amongst other requirements):
- c) where necessary, identify areas of safeguarded land between the urban area and the Green Belt, in order to meet longer-term development needs stretching well beyond the plan period:

e) be able to demonstrate that Green Belt boundaries will not need to be altered at the end of the plan period (our emphasis)

6.8 Therefore, national policy is clear on the need to ensure that Green Belt boundaries will not need to be altered at the end of the plan period (currently 2038). This is a critical aspect to achieving the intended permanence in the long term. The appropriate mechanism for achieving this is through the provision of safeguarded land.

6.9 How much safeguarded land is needed in practice was considered in detail at the Cheshire East Local Plan Strategy examination. Cheshire East is a neighbouring authority to Warrington. It was determined that sufficient safeguarded land should be made available for another full plan period following the end of the current plan period. Paragraph 99 of the Cheshire East Local Plan Strategy Inspector's report states:

"The overall amount of proposed Safeguarded Land is intended to meet longer-term development needs stretching well beyond the end of the current plan period; in fact, taking account of other sources of land, it should be sufficient for another full 15-year period beyond 2030, so that the Green Belt boundary defined in the CELPS-PC will not need to be amended until at least 2045."

6.10 It is important to note that the Cheshire East Local Plan Strategy examination was suspended to allow, amongst other reasons, further work to take place in relation to the amount of safeguarded land. This is made clear in the Further Interim Views of the Inspector which form Appendix 2 to the Inspector's report. Paragraph 49 of the Further Interim Views stated:

"The SLAN & SLTA consider various options for Safeguarded Land, including different amounts and timescales, and conclude that the identification of 200ha of land (the mid-point of a range between 155-244ha) would be sufficient to accommodate development needs for a period of 8-10 years beyond the current plan period; with other sources of land outside the Green Belt, including brownfield/recycled and windfall sites, this would meet predicted development requirements for a period of 15 years beyond 2030."

6.11 Paragraph 50 of the Further Interim Views concluded that this quantum of safeguarded land would be sufficient:

"There is little guidance available on defining the appropriate amount of Safeguarded Land, but after considering best practice, an approach which considers a 10-15 year period beyond the end of the current plan period seems reasonable in the context of Cheshire East; it strikes a reasonable balance

between avoiding the need to review the Green Belt at the end of the current plan period and avoiding unnecessary releases of Green Belt land at this time."

- 6.12 Therefore, in summary, sufficient safeguarded land should be provided to ensure that the current requirement could be carried forward to the next plan period (i.e., 2038 to 2053 based on the current plan period in the UPSVLP) without the need for Green Belt release. In practice the minimum requirement is to provide a similar amount of safeguarded land to the amount of Green Belt being released for development in this plan period. Ideally more should be provided, to allow flexibility for higher growth and to increase the permanence of the Green Belt.
- 6.13 Turning therefore to the analysis undertaken by the Council at paragraphs 4.1.24 – 4.1.33 and table 2 of the UPSVLP, this makes the following flawed assumptions:
- It projects forward a plan period of only 12 years (i.e., 2039 – 2051). Firstly, the plan is conflating the need for plans to be set within a 30-year vision (which is any event a minimum requirement) with the permanence of the Green Belt, as set out in paragraphs 137, 140 and 143 of the Framework.
 - There is a missing year in the analysis. The UPSVLP plan period extends to 2038 only. However, the Council's analysis of future needs does not take account of the year 2038/39. The table and the figures seem to be confused as to whether a projection is being made to 2050 or 2051 (i.e., 30 years from the base date).
 - The figures are based upon projecting annual household growth forward, as derived from the household projections for the years 2028-38. There is no basis whatsoever for such an approach. As a minimum, the Council ought to be working to the housing requirement proposed in the UPSVLP, which is the Government's minimum local housing need figure as derived by the standard method.
 - Including an allowance for 'additional supply within plan from flexibility' is a flawed approach. It represents double counting when considering that allowances are already made for sites which are to deliver beyond the plan period, and the proposed allowance for 'assumed brownfield development'. There will also be a need for flexibility in the future. Taken in combination with the Council's flawed assumptions in relation to housing land supply for this plan period, which assumes that the supply of SHLAA sites will

be effectively exhausted, the totality of the approach is to significantly overestimate urban capacity for the plan period and then in the future.

- 6.14 Furthermore, the UPSVLP does not provide any safeguarded land within the outlying settlements, despite the Council simultaneously determining that there are exceptional circumstances to justify Green Belt release to allocate sites in those settlements to meet needs during this plan period. There is nothing to suggest that the rural areas and outlying settlements will not continue to need new housing and land for development. The approach is contradictory and perverse. The outlying settlements should each be apportioned safeguarded land so that their needs can continue to be met beyond the plan period.
- 6.15 On the basis that the plan is proposing to allocate land in the Green Belt for 4,800 homes during the plan period (as listed at Policy DEV1), sufficient safeguarded land should be provided to accommodate this level of development in the next plan period, plus sufficient safeguarded land to meet potential future employment needs (noting that some 238ha of employment land is proposed to be designated at South East Warrington Employment Area and Fiddlers Ferry). As part of that provision, sufficient safeguarded land should be provided in the outlying villages (including Burtonwood) to ensure that their future development needs can be accommodated.

7. Policy MD2 - South East Warrington Urban Extension

7.1 The site is allocated for 4,200 homes, including 2,400 in the plan period. There is insufficient evidence to demonstrate how 2,400 homes will be achieved across the site. In terms of lead-in times, the Council's evidence should address:

- how long a planning application will take to prepare, submit and be determined;
- how long it will take for the s106 agreement to be negotiated and agreed;
- whether an allowance needs to be made for the site to be sold to a developer/housebuilder;
- how long it will take for applications for reserved matters and discharge of conditions to be made, considered and approved;
- whether there is infrastructure that needs to be put in place before the site can start delivering dwellings and how long this will take; and
- whether there are any other site-specific considerations which would affect a start on site.

7.2 The lead-in times are particularly important for the very large allocations such as this, which by their nature will have a range of issues to be addressed through applications and will need sufficient time for section 106 agreements to be executed, a start to be made and infrastructure put in place. Whilst the early phases may be further progressed, the remainder of the site to be released from the Green Belt is not part of that site and the above considerations all still apply.

7.3 It can also be noted that the delivery of the first phases of the site have not been straight forward or quick. Whilst outline planning permission was granted for 400 dwellings on the Grappenhall Heys site in 2017 (2017/29929), the first two reserved matters applications for 66 dwellings (2019/34480) and 114 dwellings (2019/34481) were refused consent in May 2019. Furthermore, the Appleton Cross site was also granted outline planning permission for 370 in 2017 (2017/29930) but, as far as we are aware, an application for reserved matters has not yet been submitted. These sites account for significant levels of delivery in the first five years of the plan. This demonstrates that there is no certainty that the remainder of the site (which does not benefit from any planning permission) will come forward as quickly as the Council anticipates.

7.4 Having regard to the above, the proposed build rates are not justified. It is not clear how these could be achieved within a realistic phasing plan and the land ownership across the site.

8. Policy MD3 – Fiddlers Ferry

- 8.1 We object to the allocation of the site at Fiddlers Ferry on a number of grounds. It can be noted that for a site of this scale and complexity, very little technical evidence is provided to support the allocation.
- 8.2 Firstly, the site allocation proposes the release of an area of Green Belt within an extremely narrow and sensitive gap between two towns. The Council's own Green Belt assessment indicates that this land makes a 'strong' contribution to the Green Belt purposes. It can also be noted that the Council deleted the proposed allocation to the south-west of the Warrington based on concerns around Green Belt impact and merger of Warrington and Runcorn. It is therefore perverse that part of the Council's solution has been to allocate land in a far narrower and more sensitive gap between Warrington and Widnes. Both decisions contradict the Council's own Green Belt Assessment.
- 8.3 Secondly, the greenfield parts of the site are not sustainable locations. They are isolated pockets of land which are distant from existing services and facilities. They are disconnected from Widnes by a very large area of employment land and, in the case of the island land to the south, a railway line and the River Mersey. It is perhaps for this reason that the allocation proposes local centres at each parcel, albeit it is far from clear that such local centres could be viably supported by the scale of development envisioned.
- 8.4 Thirdly, there are significant contamination and remediation issues which mean that 1,300 dwellings are unlikely to be realised during the plan period. The 'Regeneration Vision' document provided in the evidence base states:

"There is evidence of potential contamination relating to several historic landfills and infilled areas of land. There are also numerous bulk storage tanks used for the storage of a variety of substances. Subsurface structures include the coal plant basements, from which water was pumped out to the coal pad and then into the surface water drainage system. Similarly, water pumped from the substation and turbine hall could have entered the surface water drainage system in this way. There are also records of asbestos containing materials on site."

- 8.5 The reference to asbestos is a particular concern. Power stations can contain large quantities of asbestos which can take many years, and cost many millions of pounds, to safely remove. Furthermore, housing is proposed on the dry lagoon to the south of the site, which is made up of

pulverized fuel/fly ash. There is a clear lack of evidence in relation to the true scale of remediation required.

- 8.6 Fourthly, it is not clear if the site is viable. The Council's viability assessment indicates that the site is of marginal viability based on the full policy requirements, but there are very significant uncertainties around the scale and cost of remediation needed at this site. It is also not clear what costs would be associated with providing a suitable vehicular access the railway to the land to the south (including the need for any emergency access points). These costs do not appear to have been factored into the Council's viability assessment, and we are not aware of any study which seeks to quantify the costs of remediation or railway crossings.
- 8.7 Fifthly, the Council has also failed to provide sufficient evidence as to how the proposed lead-in times and build rates can be achieved across such a complex site. For the reasons given above, we do not consider that it is realistic to assume 1,300 dwellings from this site during the plan period.

9. Chapter 10: Site Allocations

The need for additional site allocations

- 9.1 In accordance with our representations to Policies DEV1 and GB1, we consider that there is a need to allocate additional sites and safeguarded land to make the plan sound. Two such sites are provided in sections 10 and 11 of this statement.

Site selection methodology

- 9.2 A site selection methodology is critical to the local plan process as it allows for a clear and transparent process to be followed. It also helps to ensure that the plan represents an appropriate strategy as it allows for potential sites to be tested against the Council's overall vision and objectives. The site selection process should inherently be linked with the overall strategy for the emerging local plan i.e. sites selected serve a meaningful planning purpose.
- 9.3 At paragraph 3.2 of the Development Options and Site Assessment Technical Report (September 2021), the document states that all sites in the outlying settlements making a strong contribution to the Green Belt have been discounted. It is not clear why all such sites have been discounted in principle. This is just one of many factors that should be weighed in the balance when considering whether to allocation a site for development and release it from the Green Belt.
- 9.4 The Council has identified the site allocation at Fiddlers Ferry, which relates to land that partly makes a strong contribution to the Green Belt as per the assessments carried out for the local plan evidence base. It is presumably the case that the Council concluded that the benefits of identifying this site outweighed the loss of some Green Belt that makes a strong contribution. Indeed, the Implications of Green Belt Release Report (2021) sets out mitigation measures such as landscape planting and buffers. It is not clear why the Council could not adopt a more informed and balanced assessment for other potential site allocations with due regard for the Plan's objectives and the SA/SEA when other sites have been sieved out at the first stage.
- 9.5 We consider that further consideration should be given to the impact of potential alternative on the Green Belt and what mitigation may be possible through landscape planting and buffers for instance. The same approach set out by the Council through the Implications of Green Belt Release Report (2021) should be adopted for potential alternative site allocations.

- 9.6 Having sieved 'strong' Green Belt sites, the Development Options and Site Assessment Technical Report (September 2021) says that sites were then assessed and compared, and this enabled selection for allocated sites. There is a list of sites appended and the proformas provide brief commentary on selected sites following a 'workshop'. It is not made clear what the nature and purpose of this workshop was and who was present. Notwithstanding the brevity of any assessment carried out, there is no overarching assessment as to why certain sites have then been selected as site allocations.
- 9.7 This falls short of what is required to ensure a fair and transparent site selection process that contributes to the emerging local plan overall vision and objectives. It is contrary to the PPG, which advises that all land should be assessed together as part of plan preparation to identify which sites are the most suitable and deliverable for a particular use (paragraph 3-001).
- 9.8 In the case of our client's site at Burtonwood (see section 10 of this statement), although promoted through previous consultations, it is not assessed through the updated Development Options and Site Assessment Technical Report & Site Assessment Proformas. We presume that this is because of the Council's erroneous decision not to allocate any sites in Burtonwood due to alleged highways constraints (see our response to Policy DEV1), but this is not clear. The position in Burtonwood must be re-considered and the sites properly assessed, with a view to allocating sites and providing safeguarded land to meet current and future development needs.
- 9.9 In the case of our client's site at Runcorn Road, Moore, the reason for the Council deleting the South Western Warrington Urban Extension from previous versions of the plan is the alleged impact on the Green Belt, in terms of the merging of Runcorn and Warrington. However, the decision contradicts the Council's own Green Belt Assessment. The allocation as originally proposed in the 2017 version of the plan would utilise logical and permanent physical features to define boundaries, and a clear physical and perceptual gap would be retained between the proposed allocation and Runcorn. The approach of the Council can be contrasted with Fiddlers Ferry, where the Council now seeks to allocate a site which causes a significant impact upon a more sensitive gap, as confirmed by the Council's own evidence. We discuss the South Western Warrington Urban Extension further in Section 11 of this statement.

In overall terms, the Council's site selection methodology is not robust, and the decisions taken do not reflect the evidence base. The approach is not justified.

10. Proposed omission site: Land at Lumber Lane, Burtonwood

Site location and description

- 10.1 The site is located adjacent to existing residential development in Burtonwood. It approximately 10ha in agricultural use. A location plan is appended at EP1.
- 10.2 The site adjoins the built-up area of Burtonwood to the southern and eastern boundaries comprising residential estates and an industrial estate. It is bounded by the Lumber Lane highway to the northern boundary and a field to the western boundary with residential development along Green Lane beyond. This land immediately to the west of the site was proposed for residential development under draft Policy OS1 (Burtonwood) of the previous Regulation 19 consultation.

Green Belt Considerations

- 10.3 Paragraph 140 of the Framework confirms that Green Belt boundaries should only be altered in exceptional circumstances through the preparation or review of the Local Plan. The release of Green Belt land for housing development is necessary in order to meet unmet and future housing needs of Burtonwood and the wider Borough. This comprises exceptional circumstances for the purposes of the Framework, and is accepted by the authority in proposing to release Green belt from Burtonwood in the previous Regulation 19 version, and also through the proposed allocations in the other outlying settlements.
- 10.4 Our client's site was assessed through wider parcel BW3 through the Warrington Green Belt Assessment (2016):

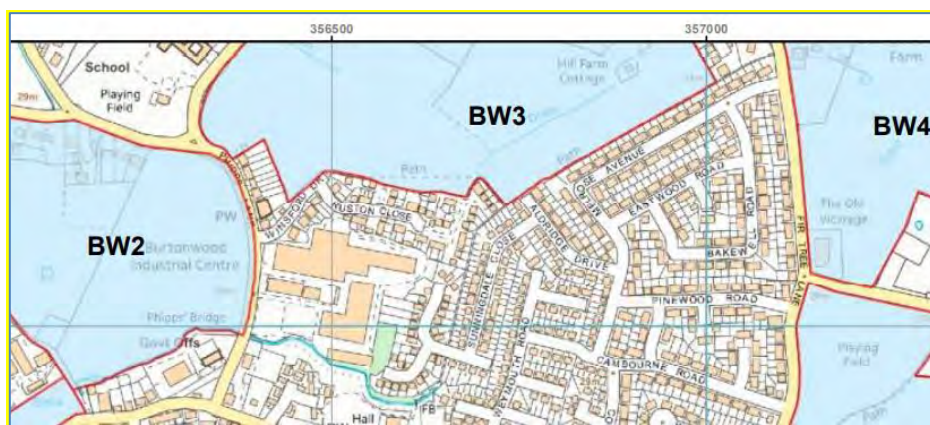


Figure 10.1: Green Belt Assessment (2016) - Parcel BW3

- 10.5 Parcel BW3 comprises a triangular parcel of land which is surrounded by housing on 2 sides and a road on the third side. It is therefore enclosed by permanent development on all sides. The Council's evidence concludes that Parcel BW3 makes a 'moderate' contribution to the openness and main purposes of the Green Belt.
- 10.6 Tyler Grange have assessed the site's contribution to the Green Belt and concluded that the site made a 'weak' contribution. This is enclosed at Appendix EP6. The Tyler Grange report assesses the site against the first four of the key purposes of the Green Belt as set out at paragraph 138 of the NPPF. The fifth was not assessed as the need for Green Belt release is accepted by the authority. The key findings are summarised below:

Main purpose	Summary assessment undertaken by Tyler Grange
To check unrestricted urban sprawl	The site is bounded by existing built development to the southern and eastern boundaries and the built-up area of Burtonwood. There is Lumber Lane to the northern boundary and residential development along Green Lane to the western boundary. These boundaries provide a robust, permanent and defensible edge such that development would not sprawl any further northwards, eastwards or westwards.
To prevent neighbouring towns merging into one another	The physical barriers provided by Lumber Lane and the built-up area of Burtonwood would contain any future development, which would be viewed as a consolidated settlement edge to Burtonwood. There are no issues in terms of the merging of settlements.
Safeguarding the countryside from encroachment	Although the site is presently open and undeveloped, it is influenced by the adjacent built development within Burtonwood and the Lumber Lane highway. With planting carried to the edges of the site, any development will assimilate with the landscape.
Preserve the setting and special character of historic towns	The site does not play a role in the setting or significance of the historic settlements.

10.7 The site is extremely well contained and is capable of being developed without resulting in unrestricted urban sprawl or coalescence of urban areas and with respect to landscape and visual matters. On this basis, the **site makes a 'weak'** (i.e. the least harmful impact if developed) contribution to the openness and main purposes of the Green Belt.

10.8 The release of Parcel BW3 would clearly not represent urban sprawl, merging of towns or encroachment into the countryside that would unacceptably weigh against its allocation. The site would have clearly defined, strong defensible boundaries that would contain development and would not encourage future sprawl. A revised Green Belt boundary of Lumber Lane to the north would ensure a defensible, permanent and readily recognisable feature to the north.

Development Options and Site Assessment Technical Report (September 2021)

10.9 The site is not assessed in the through the updated Development Options and Site Assessment Technical Report & Site Assessment Proformas. We presume that this is **because of the Council's** erroneous decision not to allocate any sites in Burtonwood due to alleged highways constraints

(see our response to Policy DEV1), but this is not clear. The position in Burtonwood must be re-considered and the sites properly assessed, with a view to allocating sites and providing safeguarded land to meet current and future development needs.

10.10 Notwithstanding, the site was assessed as part of the evidence base for previous Regulation 19 consultation version, albeit we had significant concerns with aspects of the assessment. These concerns are discussed below.

Development Options and Site Assessment Technical Report (March 2019)

10.11 The previous assessment of our client's site at Appendix 4 of the 2019 Technical Report (SHLAA Ref: 1534) draws the following conclusions:

"This site is considered to be suitable – unlikely to have a major impact on trends. The site appears to be available, considering that it was promoted by the owner. The site may be achievable in that it is in an area of moderate viability however there are known abnormal development costs due to four very small areas of potentially contaminated land in the south of the site which could be overcome.

Workshop Comments

The site is adjacent to the settlement of Burtonwood being located to the north of the settlement off of Lumber Lane. The site is considered to be in a sustainable location and is available having been promoted by the site owner. The site may be achievable as there is developer interest and known demand however there are four very small areas of potentially contaminated land in the south of the site, which could be overcome. The site has been judged to be suitable - unlikely to have a major impact on trends. As such, the site would be in accordance with the objectives set out in the draft Warrington Local Plan including objective W1 to strengthen existing neighbourhoods, W2 to facilitate the sensitive release of Green Belt, W4 to promote sustainable modes of transport, and W6 to minimise the impact of development on the environment.

After further consideration of the Council's highways officer's comments, this site has been excluded from the process as an appropriate pedestrian footway to connect the site to the existing community cannot be provided if the site is brought forward on its own. If the site is brought forward in conjunction with site ref: 1654 then the resulting site would be beyond the housing requirement for Burtonwood."

10.12 Therefore, the previous assessment was claiming that our client's site could not come forward as pedestrian footways cannot be provided. We strongly disagreed that that assessment. Should there be an issue with providing sufficient width at 144 Lumber Lane, there are numerous other solutions; including diverting the footway through the site, or even providing safe crossing point

to the eastern side of Lumber Lane which already has an appropriate footway. But in any event, the Council accepts that the issue could be addressed should the site be delivered as a wider allocation across Parcel BW3.

10.13 We also disagree with the authority's conclusion that the site could not come forward as part of a wider allocation due to the resulting development being beyond the housing requirement for Burtonwood. As addressed in our representations to Policy DEV1, there is a need to allocate of additional sites if the Council is going to meet its housing requirement. The release of Parcel BW3 would deliver a coherent extension to Burtonwood that would create significant benefits in terms of pedestrian access, permeability and open space provision. Furthermore, the housing requirement is not a ceiling, and should not be used to prevent the delivery of sustainable development in Burtonwood.

Masterplan

10.14 A masterplan has been prepared for the site by Baldwin Design. A copy is appended at EP7. The masterplan demonstrates that the site could deliver a high quality and sustainable extension to the existing built-up area of Burtonwood. It shows:

- A low-density scheme appropriate to the existing urban edge of Burtonwood with houses sited such that they positively address the public realm.
- The opportunity for extensive tree planting to the edges of the development site.
- Provision of extensive areas of on-site play and open space and retention of ecological features such as a pond.
- Desirable linkages for existing and future residents through the site and the retention of the existing public right of way along the southern boundary.

Highways

10.15 SCP have produced a Transport Technical Note (appended to this statement at EP8), and this is summarised as follows:

- The site could accommodate up to 200 dwellings in highways terms with no unacceptable impacts.
- A single point of vehicular access would be sufficient to serve the site, although there are opportunities for a second access if required.
- There are opportunities for cycle and pedestrian linkages to Lumber Lane.

- The site is well connected to the urban area of Burtonwood and there is a convenience store, post office, primary school, nursery school, church, sports fields, hairdressers, hot food take-aways, and other shops and services, all within 1km of the site.
- There are two regular bus services within Burtonwood and further school and college buses. Service 141 connects Burtonwood to St Helens and Newton-le-Willows at a frequency of 60 minutes during the daytime. This service passes along the site frontage. Bus service 329 links St Helens to Warrington via Burtonwood and operates at a frequency of 30 minutes during the daytime.
- The development would provide a frontage along Lumber Lane that is more in-keeping with an urban speed limit and will assist in reinforcing the speed limit. There are no difficulties in terms of providing the requisite visibility splays.

10.16 The Technical Note has not been updated to reflect the Council's claims regarding the impact of the Bold Forest Garden Suburb on Burtonwood, because the Council has not produced any evidence whatsoever to demonstrate that there is an adverse impact upon Burtonwood (and more specifically that the highways network cannot accommodate any additional development). Should such evidence be published then we request the opportunity to review it and make representations.

Deliverability

10.17 The site is available for development. Wain Homes is a national housebuilder based in Birchwood and is very active across the region with a proven track record in the delivery of new homes. Subject to the land being released from the Green Belt, the site could make a significant contribution to the deliverable 5-year supply of housing. Wain Homes is well placed in terms of increasing and diversifying the supply of housing through the Warrington Local Plan in a sustainable manner.

10.18 There are no constraints to the delivery of the site. Our client's site is 'deliverable' in the short-term for new housing development and is a highly logical location to meet the identified shortfall, and to meet the needs of Burtonwood.

Local infrastructure

10.19 The site is adjacent to the existing built-up area of Burtonwood with no fundamental constraints in terms of utilities and surface and foul water connections. It is near existing key services such as schools, health facilities, convenience stores and employment opportunities.

10.20 Any planning application could secure the provision of developer contributions to local services such as education and health facilities where appropriate and in accordance with planning policy requirements and the tests set out through the Community Infrastructure Levy Regulations.

Conclusions

10.21 The site is extremely well contained by existing development. It is suitable for release from the Green Belt and allocation for residential use, to meet local needs in Burtonwood and to contribute to meeting the unmet needs of the borough. The site can contribute to the 5-year housing land supply, and there are no unsurmountable constraints.

11. Proposed omission site: Land at Runcorn Road, Moore

Site location and description

- 11.1 The site comprises 12.93ha over four separate parcels of land. It is a mix of greenfield agricultural land and previously developed land (including buildings/structures).
- 11.2 The land formed part of the draft 'South Western Warrington Urban Extension' in the Preferred Development Option consultation in 2017, as shown on the below plan⁴:



Figure 11.1: Preferred Options SW Allocation – SW Development Framework document (2017)

- 11.3 Our client's land forms the majority of parcels A1, A2 and A6 on the above plan. A site location plan showing the land under the control of Wain Homes is also appended at EP2.

⁴ Warrington South West Urban Extension Framework Plan Document (June 2017)

Green Belt Considerations

11.4 Paragraph 140 of the Framework confirms that Green Belt boundaries should only be altered in exceptional circumstances through the preparation or review of the Local Plan. The release of Green Belt land for housing development is necessary in order to meet unmet and future housing needs of Warrington and the wider Borough. This comprises exceptional circumstances for the purposes of the Framework, as accepted by the Council.

11.5 Our client's land was assessed as part of wider parcel 14 in the Warrington Green Belt Assessment (2016). This concluded that:

"The GA makes a strong contribution to one purpose, a moderate contribution to three and no contribution to one. Professional judgement has been applied and the GA has therefore been judged to make a moderate overall contribution to the Green Belt. The GA supports a strong degree of openness with minimal development and the boundaries between the GA and the open countryside are unlikely to be able to prevent encroachment. However, the GA has a limited connection to the built up area and development would not result in the merging of the Warrington urban area and Runcorn."

11.6 The site is then assessed under sub-parcel R18/005. The assessment concludes that overall, the site makes a 'moderate' contribution to Green Belt purposes. It states:

"The site makes a strong contribution to one purpose [safeguarding from encroachment], a moderate contribution to one purpose [assisting in urban regeneration], a weak contribution [merging of settlements] to one purpose and no contribution to two purposes. In line with the methodology, professional judgement has been applied and the site has been judged to make a moderate overall contribution. Whilst the site supports a strong degree of openness and there is a nondurable boundary with the washed over village of Moore, it has predominantly durable boundaries the open countryside. The site makes no contribution to preventing sprawl and preserving historic towns. It makes a weak contribution to preventing towns from merging."

11.7 The evidence base clearly demonstrates that both the wider parcel, and our client's land specifically, do not make a 'strong' contribution to the Green Belt purposes, and its development would not result in the towns of Warrington and Runcorn merging. The Council's decision to delete the South Western Warrington Urban Extension, including our client's land, therefore conflicts with the Council's own evidence on the Green Belt.

- 11.8 As set out above, the site is considered capable of being developed as part of a South Western Warrington Urban Extension without resulting in unrestricted urban sprawl or coalescence of urban areas and with respect to landscape and visual matters.
- 11.9 This is further supported by the previous proposal to allocate the South Western Warrington Urban Extension in the 2017 version of the plan, and also the proposed allocation of the South Western Warrington Urban Extension under Policy MD3 of the 2019 Regulation 19 version. The inclusion of our client's site within the South Western Warrington Urban Extension would result in clearly defined, strong defensible boundaries that would contain development and would not encourage future sprawl.
- 11.10 The release of the South Western Warrington Urban Extension for housing development would help to meet the identified housing requirements for sustainable development. The revised Green Belt boundary of Moore Lane to the west and the railway line to the north (as originally set out in the 2017 South Western Development Framework) would ensure that the resultant boundary reflects defensible, permanent and readily recognisable features.

Deliverability

- 11.11 There are no site-specific constraints that would prevent the delivery of the site for residential development. These parcels could deliver as standalone residential allocations or as part of a wider South Western Warrington Urban Extension.
- 11.12 The site is available for development. Wain Homes is a national housebuilder based in Birchwood and is very active across the region with a proven track record in the delivery of new homes. Subject to the land being released from the Green Belt and any masterplanning requirements, the site could make a significant contribution to the supply of housing during the plan period.

Local infrastructure

- 11.13 The provision of developer contributions to local services such as education and health facilities could be secured at the planning application stage. A wider South Western Warrington Urban Extension could deliver new infrastructure on site as part of a comprehensive masterplan.

Conclusions

- 11.14 The South Western Warrington Urban Extension was proposed for allocation in the Regulation 18 and first Regulation 19 versions of the plan. However, the Council deleted the allocation due to its alleged impact on the Green Belt, in terms of the merging of Runcorn and Warrington. However, **this decision contradicts the Council's own Green Belt Assessment.** The South Western Warrington Urban Extension as originally proposed in the 2017 version of the plan would utilise logical and permanent physical features to define boundaries, and a clear physical and perceptual gap would be retained between the proposed allocation and Runcorn.
- 11.15 The approach of the Council can be contrasted with Fiddlers Ferry, where the Council now seeks to allocate a site which causes a significant impact upon a more sensitive gap, as confirmed by **the Council's own evidence.**
- 11.16 We therefore consider that the allocation should be re-instated as per the 2017 version of the plan, to address the identified shortfalls in housing land supply that we have identified in our response to Policy DEV1. Alternatively, the site should be safeguarded to meet future development needs.

12. Summary and conclusions

12.1 These representations should be read in conjunction with the submissions to the UPSVLP made by Lichfields on behalf of a consortium of developers and housebuilders, of which Wain Homes is a member. These representations supplement those submissions, and also set out Wainhomes objections the distribution of development, site selection methodology and promotion of omission sites.

12.2 A summary of Wain Homes representations is set out below:

- The proposed housing requirement is insufficient to meet the needs of the borough, in particular the need to align economic growth with housing growth, and to meet the need for affordable housing.
- The Council has overestimated its housing land supply, particularly from SHLAA sites, and insufficient flexibility has been provided. Additional site allocations are needed.
- There is a need to designate safeguarded land. The Council approach to calculating its future needs and land supply is fundamentally flawed.
- **The distribution of development is not justified. The Council's decision not to apportion any development to Burtonwood, due to alleged highways constraints, is not supported by any evidence.**
- The site selection process is not robust, and it does not follow a logical methodology. The site allocations are not justified.
- The allocation of the Fiddlers Ferry site does not accord with the evidence base. The release of greenfield Green Belt land in a very narrow gap between Widnes and Warrington would have a significant impact upon the Green Belt. There is also insufficient evidence to demonstrate that the site is viable, or that it will deliver during the plan period.

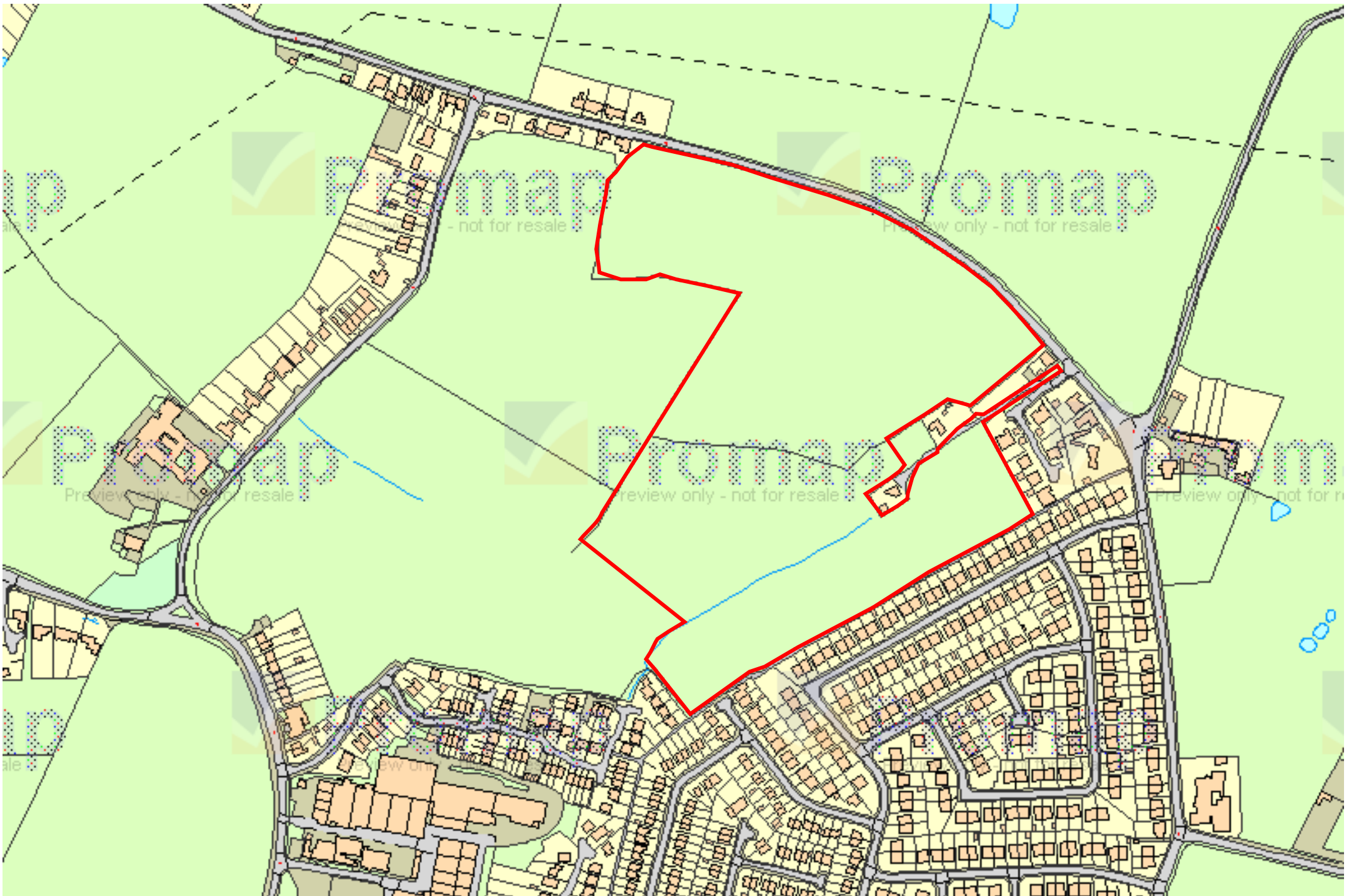
12.3 Our client is promoting two omission sites which are suitable as allocations to meet the identified shortfall in housing land supply, and to meet the needs of Burtonwood. They are:

- Land at Lumber Lane, Burtonwood (see Appendix EP1); and,
- Land at Runcorn Road, Moore (see Appendix EP2) - part of the former draft allocation: Warrington South West urban extension.

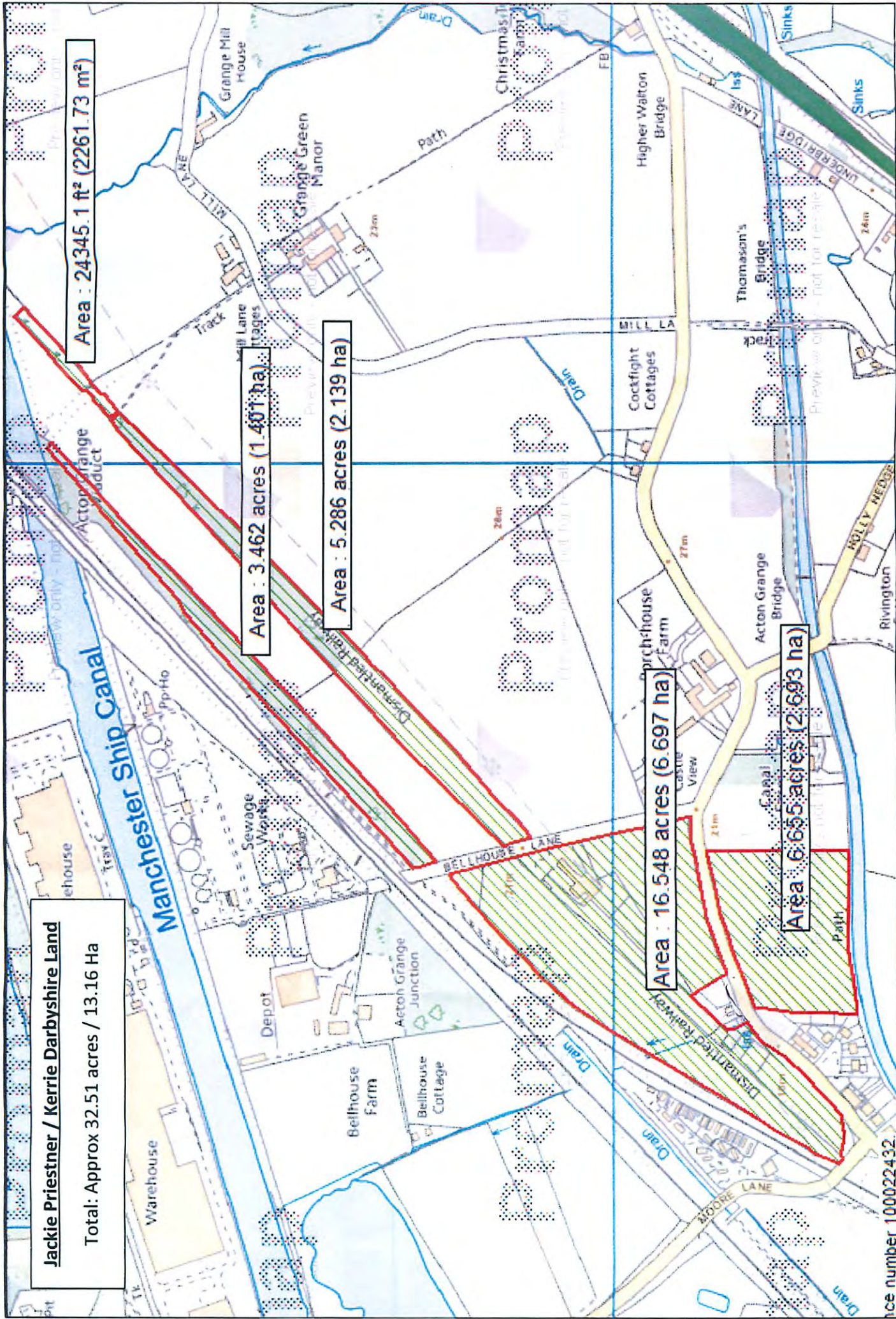
13. Appendices

- EP1. Site location plan – Land south of Lumber Lane, Burtonwood
- EP2. Site location plan – Land at Runcorn Road, Moore
- EP3. Statement of Common Ground between Warrington Council and St Helens Council (as submitted to the St Helens Local Plan examination)
- EP4. Bold Forest Garden Suburb Transport Review
- EP5. St Helens Local Plan Transport Impact Assessment
- EP6. Tyler Grange Technical Note - Land south of Lumber Lane, Burtonwood
- EP7. Masterplan – Land south of Lumber Lane, Burtonwood
- EP8. Transport Technical Note – Land south of Lumber Lane, Burtonwood

EP1



EP2



Jackie Priestner / Kerrie Darbyshire Land
 Total: Approx 32.51 acres / 13.16 Ha

Area : 24345.1 ft² (2261.73 m²)

Area : 3.462 acres (1.401 ha)

Area : 5.286 acres (2.139 ha)

Area : 16.548 acres (6.697 ha)

Area : 6.655 acres (2.693 ha)

EP3

Warrington Borough Council Draft Statement of Common Ground

March 2019



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1. Introduction

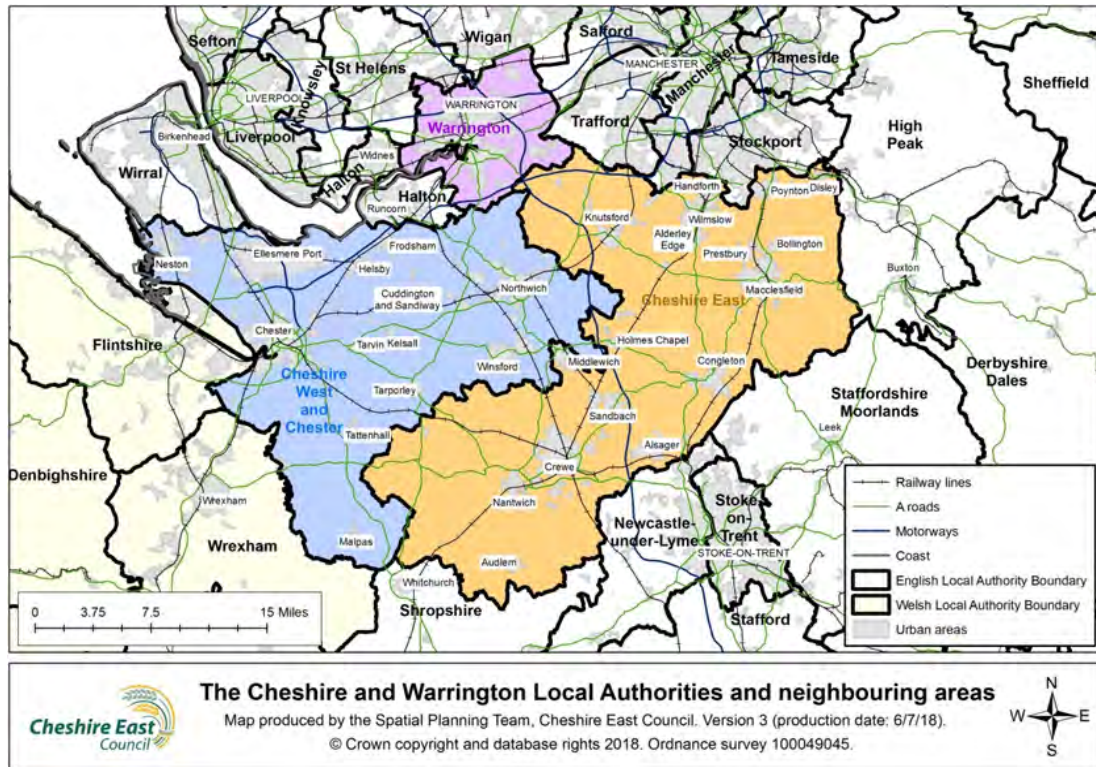
- 1.1 This draft Statement of Common Ground (SoCG) has been prepared in support of the review of the Warrington Local Plan, in accordance with the National Planning Policy Framework 2018 (NPPF).
- 1.2 The SoCG outlines the geographical area covered, the key strategic issues it addresses, the plan making authorities responsible for joint working and any additional signatories, and the management and governance arrangements for updating and agreeing the completed statement, in line with the guidance provided in National Planning Practice Guidance (NPPG).
- 1.3 Where strategic issues have been identified which require agreement or ongoing joint working with another local authority and/or statutory consultee, they are highlighted within Section 4 Strategic Planning Matters. A consolidated list of these issues is provided in Appendix 2.
- 1.4 It should be noted that whilst all strategic issues have been identified working with officers from the relevant authorities, as part of the Duty to Cooperate, no other authority has formally signed the Statement of Common Ground at this stage. The final Statement of Common Ground, with the required additional signatures, will be completed following the consultation on the Proposed Submission Version Local Plan and prior to submission to the Secretary of State for Examination.

2. Administrative area covered by the statement

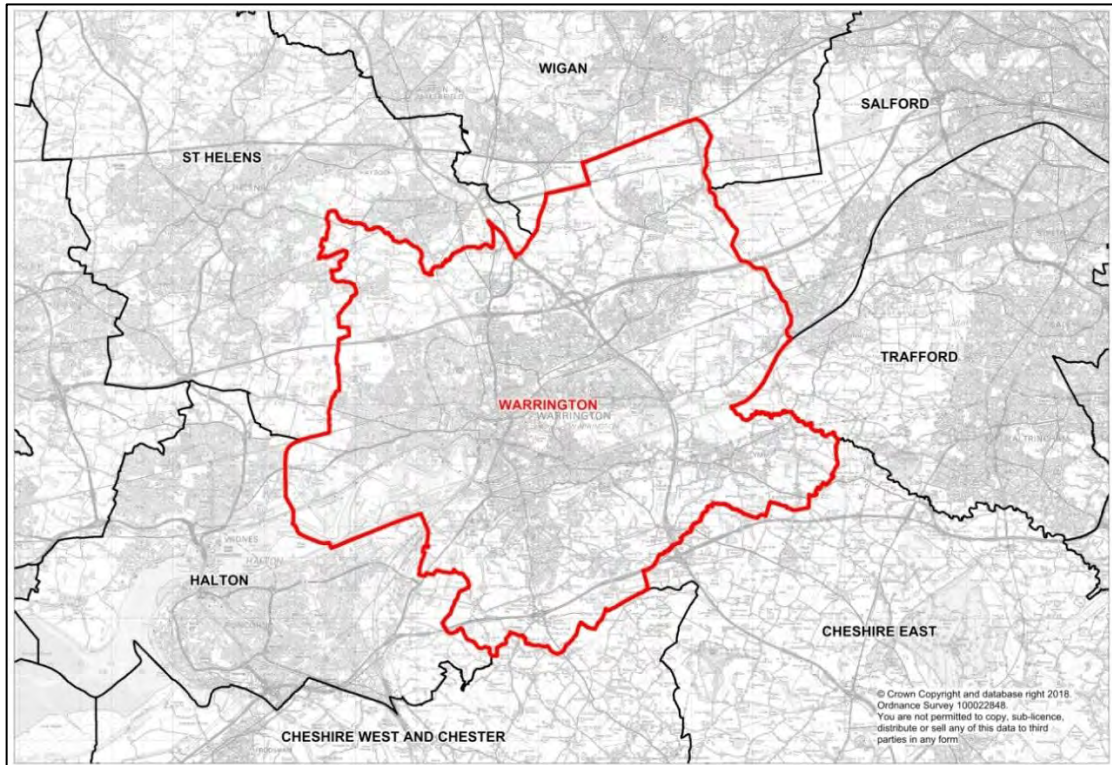
- 2.1 Warrington has a number of geographies. It shares boundaries with Cheshire East Council, Cheshire West & Chester Council, Halton Borough Council, Salford City Council, St Helens Council, Trafford Council and Wigan Council, and lies between the Greater Manchester Combined Authority (GMCA) and the Liverpool City Region Combined Authority (LCRCA). Warrington Borough Council (WBC) is also part of an economic partnership with Cheshire East Council and Chester West and Chester Council through the Cheshire and Warrington Local Enterprise Partnership (LEP). WBC shares a housing market with Halton Borough Council and St Helens Council as part of the Mid-Mersey Housing Market Area (Mid-Mersey HMA) although these authorities are now part of the Liverpool City Region.
- 2.2 The SoCG covers the administrative area of WBC. This is considered to be appropriate given the varied and functional relationships it has with a number of authorities and the fact that WBC is not preparing any joint statutory Plans. It does however identify specific allocation sites in St Helens which either will contribute to meeting Warrington's employment needs and / or which will impact on key infrastructure in Warrington.

2.3 The statement sets out how WBC is working with the relevant authorities to address strategic matters that cross administrative boundaries. It will also enable these matters to be reflected, where appropriate, in neighbouring Councils' SoCGs to which WBC will be a signatory.

2.4 **Figure 1: Cheshire and Warrington Local Authority Areas**



2.5 Figure 2: Warrington Borough Council and Neighbouring Authorities



3. Strategic Context

3.1 WBC Development Plan

Document	Stage	Date
Warrington Local Plan Core Strategy 2014 - 2027 ¹	Adopted	21 July 2014
Appleton Thorn Ward Neighbourhood Development Plan ²	Made	19 June 2017
Warrington Borough Council Local Plan 2017 – 2037	Proposed Submission Version	April 2019

3.2 The Warrington Local Plan Core Strategy, adopted on 21 July 2014, is the overarching strategic policy document in the Local Planning Framework guiding development in the borough up to 2027. However, following its adoption, a legal challenge was made by a landowner with respect to the housing policies contained within the Strategy which was successful and the High Court decision resulted in the Plan no longer having a housing target. Consequently, WBC is currently progressing with a full Local Plan Review.

3.3 WBC completed its Preferred Development Option³ (PDO) Regulation 18, Part 2 Consultation in September 2017. The responses received from this consultation have been taken into account in the preparation of the Proposed Submission Version Local Plan. The Local Plan is intended to guide development in Warrington from 2017 to 2037 and, when adopted, it will replace the Warrington Local Plan Core Strategy. It is anticipated that the Local Plan will be adopted in 2020.

3.4 WBC has worked and continues to work collaboratively with neighbouring authorities to address the cross-boundary strategic matters arising as part of the Local Plan Review. These matters are addressed within this SoCG.

3.5 Local Enterprise Partnership (LEP)

WBC together with Cheshire East Council and Cheshire West and Chester Council are part of the Cheshire and Warrington LEP. It is accepted by all the constituent LEP authorities that the LEP area is not a single Functional Economic Area for the purposes of the NPPF. Nonetheless, the LEP aspires

¹ Available at https://www.warrington.gov.uk/info/200564/planning_policy/1903/local_plan

² Available at <https://www.warrington.gov.uk/info/201369/neighbourhood-planning/2380/adopted-neighbourhood-plans>

³ Warrington's PDO is available at <https://www.warrington.gov.uk/info/201368/local-plan-2017/2274/local-plan-review>

to grow Cheshire and Warrington's GVA to £50 billion per annum by 2040 and published a Strategic Economic Plan (SEP) in 2014 intended as a road map to achieving this growth. The SEP was later updated in 2017⁴ and the update outlines that a further series of delivery plans and strategies that will cover Transport, Skills and Education, Energy, Quality of Place, Digital, Housing, and Science and Innovation will be produced that will guide development within the LEP.

3.6 Transport for the North (TfN)

TfN, comprising WBC and 18 other transport authorities in the North of England, was created as a pan-Northern Partnership Board of civic and business leaders. On April 2018 the Sub-national Transport Body (Transport for the North) Regulations 2017 came into force, establishing TfN as the first Sub-National Transport Body in the country. It aims to create a thriving North of England, where modern transport connections drive economic growth and support an excellent quality of life. TfN published its Strategic Transport Plan (STP) in early 2019. This is a statutory document.

3.7 The STP is centred on seven Strategic Development Corridors, and Warrington is part of two of these. The Central Pennines Corridor aims to improve east-west transport connectivity in order to support economic growth. It will also support, align and integrate with pre-existing Local Transport Plans. The Wales and West Corridor aims to improve connectivity and support the growth of Manchester Airport, Liverpool John Lennon Airport, Cheshire Science Corridor Enterprise Zones, Atlantic Gateway, North Wales Arc, Port of Liverpool and Crewe HS2 Hub.

3.8 Mid-Mersey Housing Market Area (Mid-Mersey HMA)

WBC along with Halton Borough Council and St Helens Council form the Mid-Mersey HMA. These authorities work in partnership and published a Mid Mersey Strategic Housing Market Assessment (SHMA) (January 2016)⁵ to establish the housing market and need in the three boroughs. Warrington's SHMA was updated in 2017⁶ to inform the Preferred Development Option consultation (Mid-Mersey SHMA Update – Warrington Addendum) taking into account updated population and household projections.

3.9 WBC has subsequently prepared a Local Housing Need Assessment in support of the Proposed Submission Version Local Plan. This reflects the new

⁴ Available at <http://www.871candwep.co.uk/content/uploads/2017/07/Revised-SEP.pdf>

⁵ Available at <https://www3.halton.gov.uk/Pages/planning/policyguidance/pdf/newdalp/evidence/SHMA-Mid-Mersey.pdf>

⁶ Available at https://www.warrington.gov.uk/info/201368/local_plan_review/2347/local_plan_review_-_supporting_documents

planning policy context established in the updated NPPF and NPPG, but still considers the context of the Mid-Mersey HMA.

- 3.10 St Helens Council and Halton Borough Council now form part of the Liverpool City Region. A housing needs assessment has been undertaken for the Liverpool City Region as a whole. This still recognises the Mid-Mersey HMA and the need for close working with WBC. St Helens have subsequently prepared a Local Housing Need Assessment in support of their Local Plan Review.

4. Strategic Planning Matters

4.1 Housing

The Proposed Submission Version Local Plan sets a minimum housing requirement of 18,600 new homes for the period between 2017 and 2037. This requirement is derived from the Council's Local Housing Need Assessment, published in April 2019. The Proposed Submission Version Local Plan provides sufficient land for an additional 10% on top of this requirement to ensure flexibility of supply.

- 4.2 The majority of new homes will be delivered within the existing main urban area of Warrington, the existing inset settlements and other sites identified in the Council's Strategic Housing Land Availability Assessment (SHLAA), which together have identified deliverable capacity for a minimum of 13,817 new homes.

- 4.3 In order to meeting Warrington's housing requirement, the following sites will be removed from the Green Belt and allocated for development:

- Garden Suburb – minimum capacity of 6,490 homes of which a minimum of 4,201 homes will be delivered in the Plan Period. This is in addition to the 930 homes within the allocation which already have consent and are included in the capacity of the existing urban area set out above.
- South West Warrington Garden Village – minimum capacity of 1,631 homes to be delivered in full in the Plan Period.
- Sites adjacent to the borough's outlying settlements - minimum of 1,085 homes.

- 4.4 Other authorities in the Mid-Mersey HMA are also progressing with the preparation of their Local Plans and together, it was agreed that each authority will either meet or exceed its objectively assessed need for housing within its boundary. The authorities will keep housing need under review and address any issues arising in the future through the Duty to Co-operate.

- 4.5 WBC has also indicated that it is not able to accommodate any unmet housing need from other adjacent Local Authorities given it requires release of Green Belt to meet its own housing requirement. Similarly, WBC will not be seeking for any other adjacent authorities to contribute to meeting its own needs in recognition of their respective Local Plans either having released Green Belt, or proposing to release Green Belt, to meet their own requirements.
- 4.6 The Cheshire and Warrington LEP is also working on a Housing Delivery Plan and Strategy which will support growth and the delivery of housing within the LEP⁷. WBC will continue to work with Cheshire East and Cheshire West and Chester Councils within the LEP to enable housing delivery to meet the needs identified through their respective Local Plans.

1. WBC, Halton Borough Council and St Helens Council, authorities which are part of the Mid-Mersey HMA, agree to meet their Objectively Assessed Need for Housing within their boroughs. The authorities will however keep housing need under review as they progress with their Local Plans and address any issues arising in the future through the Duty to Co-operate.
2. WBC is unable to accommodate any unmet housing need from other adjacent Local Authorities and will not be seeking for these authorities to meet any of its own need.

4.7 Employment

4.8 *WBC Employment Development Needs Assessment (EDNA):*

WBC commissioned an Employment Development Needs Assessment in 2016 which has subsequently been updated in 2019 to support the Proposed Submission Version Local Plan. This indicates that the Borough has a further employment land need of 362 ha to 2037.

- 4.9 The Council can demonstrate a realistic supply of 91 hectares in the urban area. The Council's masterplanning work demonstrates the potential for a further 27 hectares of employment land, primary within and in proximity to the Town Centre.
- 4.10 The Proposed Submission Version Local Plan proposes the following new employment locations to be removed from the Green Belt:
- land at M56 Junction 9 within the Garden Suburb - 116ha;
 - Land at Warrington Waterfront comprising of Port Warrington and wider land within the waterfront - together providing 99.8ha; and

⁷ <http://www.871candwep.co.uk/content/uploads/2017/07/Revised-SEP.pdf>

- a westward extension of Omega within St Helens -31.2 ha.

4.11 All of the proposed employment sites are within WBC's administrative area, apart from the westward extension of Omega which will be within St Helens. WBC has agreed with St Helens in principle that this site should contribute to meeting Warrington's employment needs, subject to resolving access issues. Further detail is provided under section 4.20 within the Strategic Sites section below.

3. WBC has agreed, in principle that the western extension of Omega in St Helens will contribute to meeting Warrington's employment needs subject to resolving access issues.

4.12 *The Cheshire and Warrington LEP:*

The SEP (2017) published by the Cheshire and Warrington LEP identifies the key opportunities that will drive the ambition to grow the sub-region economy's GVA to £50 billion per annum by 2040. These include the Cheshire Science Corridor, which lies partially in Warrington, and the opportunity to create 'Warrington New City'. This reflects the prospect for further growth within the borough and builds on Warrington's original New Town status. The LEP intends to publish a series of plans and strategies that will aid to achieve this growth. WBC will continue to work collaboratively with the partners of the LEP in order to support economic growth in the sub-region.

4.13 *Atlantic Gateway:*

WBC along with other authorities in the Liverpool City Region, Cheshire and Greater Manchester are part of the Atlantic Gateway, a privately driven initiative focused on driving growth and productivity along the corridor between Liverpool and Manchester (Atlantic Gateway and the Northern Powerhouse). The Atlantic Gateway published its Business Plan in 2012⁸ which seeks to attract investment in infrastructure, and logistics and science and innovation in order to promote sustainable economic growth in the corridor. WBC will continue to work collaboratively with the partners of the Atlantic Gateway in order to support economic growth.

4.14 Green Belt

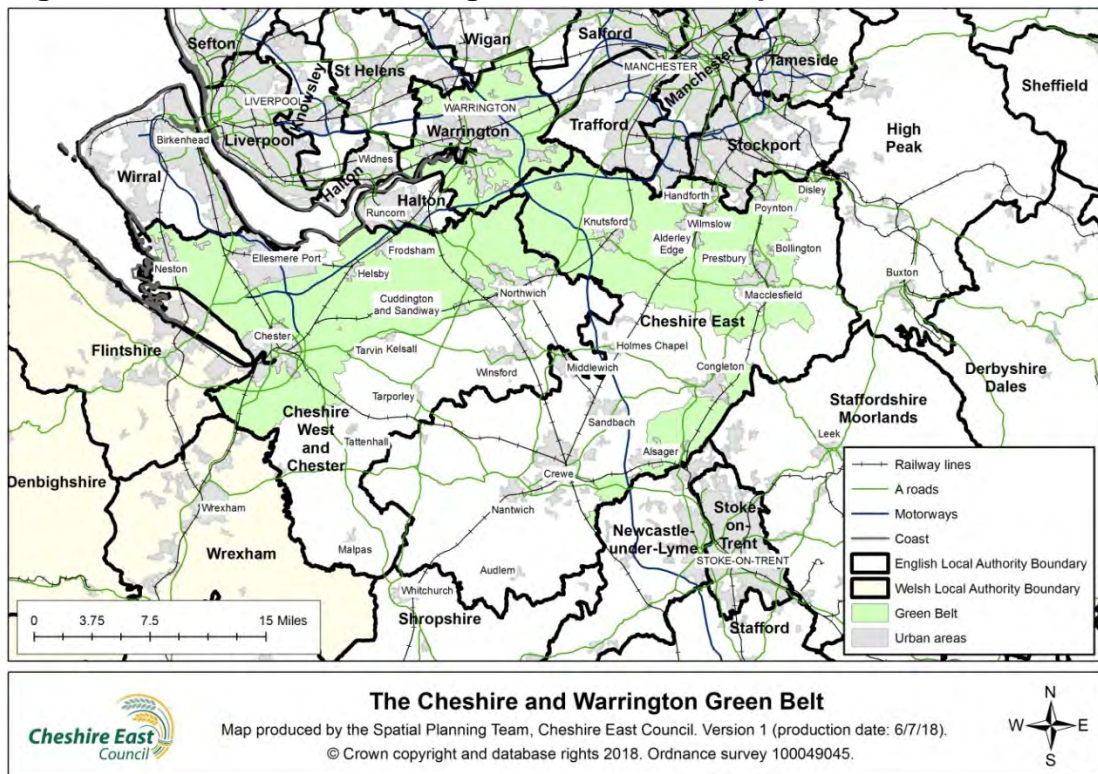
WBC shares its Green Belt boundaries with Cheshire East, Cheshire West and Chester, Halton, Salford, St Helens, Trafford and Wigan Councils. As part of WBC's Local Plan review, it became increasingly apparent that WBC is

⁸ Available at http://www.atlanticgateway.co.uk/_assets/downloads/ag-businessplan.pdf

not able to identify sufficient land to meet its housing and employment needs in accordance with the requirements of the National Planning Policy Framework without the release of Green Belt land. This meant that the Council undertook a review of its Green Belt boundaries which forms key evidence for its Local Plan Review.

- 4.15 Co-operative working is an essential part of the Green Belt review as other parcels are adjoined to the Green Belt in neighbouring authorities and for the role that the Green Belt plays in preventing the merging between towns. WBC informed neighbouring authorities of the intention to undertake a Green Belt Assessment in regular Duty to Co-operate meetings and also consulted with them regarding the methodology. All adjacent Local Authorities consulted considered WBC's Green Belt methodology to be an appropriate basis to undertake the Green Belt review. The one exception is with regard to Halton Borough Council where detailed comments will need to be addressed as part of Duty to Co-operate discussions.
- 4.16 During the Duty to Co-operate discussions, it also became clear that both WBC and Halton Borough Council are proposing adjacent Green Belt release for development which may compromise the function of the Green Belt. In Warrington's case, this is in relation to the South West Urban Extension (proposed Green Belt release for around 1,600 homes) which is situated adjacent to the Green Belt land in Halton proposed for Green Belt release. Therefore, there is a requirement for Halton Borough Council and WBC to ensure appropriate separation between the proposed Green Belt releases adjacent to the boundary between the two boroughs. WBC will continue to work with Halton Borough Council to resolve this matter as it progresses on with its Local Plan Review.

4.17 **Figure 3: Cheshire and Warrington Green Belt Map**



4. All adjacent Local Authorities have been consulted on Warrington’s Green Belt methodology and consider it an appropriate basis to undertake the Green Belt review.

The one exception is with regard to Halton where detailed concerns will need to be addressed as part of Duty to Cooperate discussions.
5. As WBC and Halton Borough Council progress with their Local Plans, there is a requirement for joint co-operative working to ensure adequate separation between the proposed Green Belt releases between the two boroughs and to address any matters arising from both authorities’ Green Belt reviews.

4.18 Strategic Housing and Employment Sites

4.19 *Garden City Suburb:*

The Proposed Submission Version Local Plan identifies the Garden Suburb as one of the areas of growth within the Preferred Development Option. It is proposed to comprise Green Belt release to provide for a new suburb of around 7,000 homes, a new neighbourhood centre and a major employment site at the junction of the M6 and M56. This site has the potential to have implications on the M6 and M56 motorway as identified by Highways England and on the road network in Cheshire East and in Cheshire West and Chester.

The southern extent of the Garden Suburb lies close to the boundary between Warrington and Cheshire East.

- 4.20 WBC has undertaken transport modelling work as recommended by Highways England to identify the likely impacts of the development on the road networks. Together with Highways England's own modelling, this has identified key mitigation requirements which have been reflected in the draft Local Plan policy wording. WBC will continue to work with Highways England as the Garden Suburb proposals are worked up in more detail to ensure that there is a full understanding of the impact of proposed development (both cumulative and individual); to agree the detail of the required mitigation measures; and to ensure that these measures are both feasible and deliverable. WBC will share the output from that work and continue to work with neighbouring authorities, including Cheshire East and Cheshire West and Chester, to address any issues arising from the allocation of the site in the Proposed Submission Version Local Plan through the Duty to Cooperate.

- | |
|--|
| <p>6. WBC will continue to work with Highways England to ensure there is a full understanding of the impact of the proposed Garden Suburb development (both cumulative and individual) and to agree the detail of the required mitigation measures.</p> <p>7. WBC will share the output from the modelling work and seek to address any issues arising from the allocation of the Garden Suburb in Cheshire East and in Cheshire West and Chester, including agreeing the mechanisms by which any mitigation measures within Cheshire East will be carried out, and in Cheshire West and Chester if required. WBC will provide information on the potential changes to commuting and migration flows arising as a result of the overall development proposed through the Local Plan particularly as they relate to Cheshire East, and provide greater clarity on their likely consequences for the transport infrastructure and networks within Cheshire East. This will form part of the same Duty to Co-operate discussions.</p> |
|--|

4.21 *Waterfront/Port Warrington/South-West Urban Extension:*

WBC has identified the Waterfront (which would open up new development in an area predominantly within the existing urban area but with Green Belt release to facilitate employment development at Port Warrington) and the South West Urban Extension (which would facilitate Green Belt release to provide a new urban extension of around 1,600 homes) as areas for development in the Proposed Submission Version Local Plan.

- 4.22 When considered with the proposed allocations in the emerging Halton Local Plan, it is apparent there are potential issues with regard to the local transport network and potential issues in respect of the relationship between residential

and employment uses. This is in addition to the Green Belt issue identified in the Green Belt section above.

- 4.23 The Council has undertaken transport modelling work to assess the impacts of the development on the transport network and will continue to work with Halton to resolve any issues arising from the allocation of these sites for development in both Local Plans through Duty to Co-operate discussions.

8. There is a requirement for Halton Borough Council and WBC to ensure strategic allocations on either side of the boundary in proximity to the Manchester Ship Canal do not prejudice key objectives of the respective local Plans.

4.24 *Omega and future employment site served by J8 M62:*

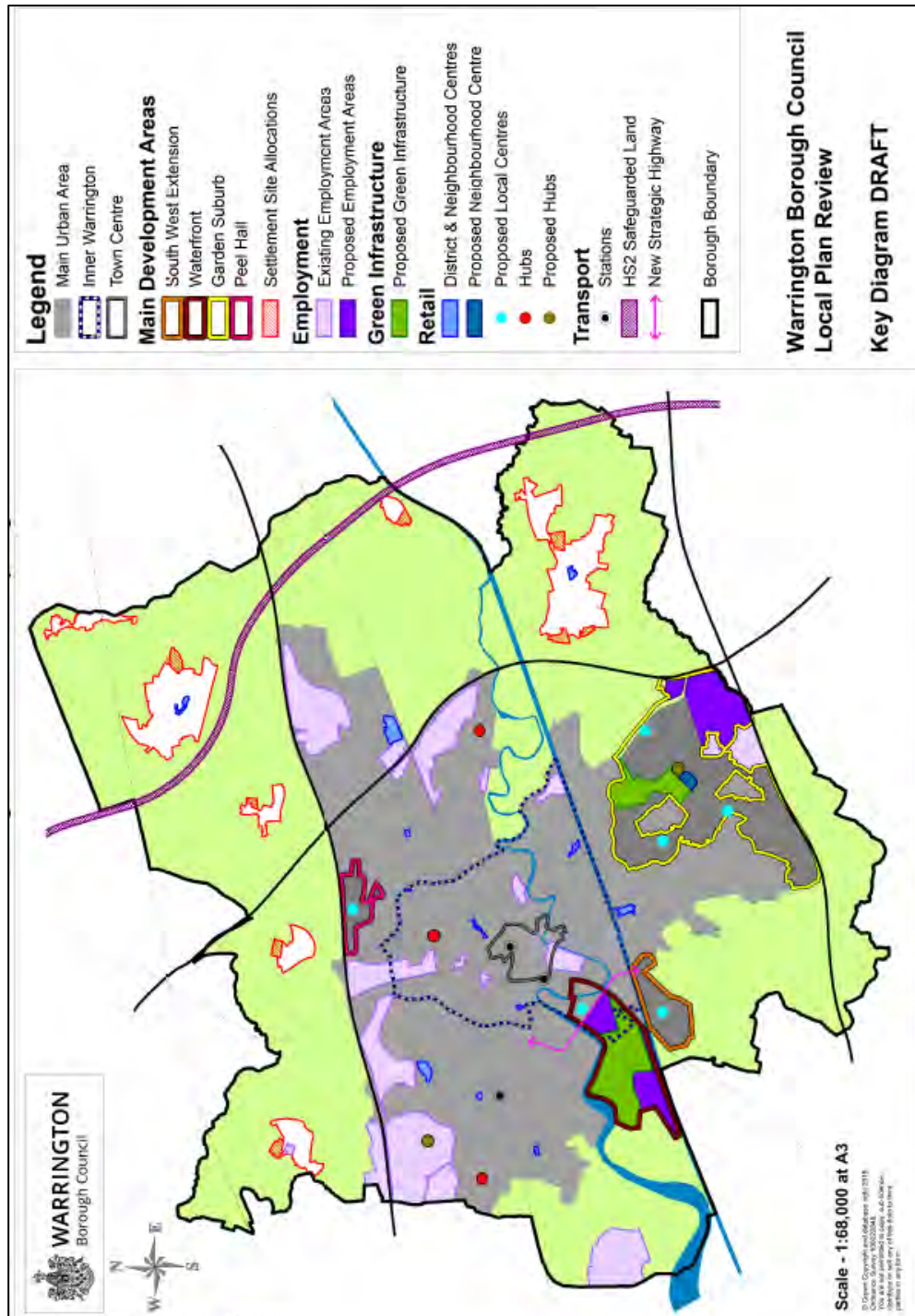
St Helens Council is currently progressing with its new Local Plan intended to guide development for the period 2020-2035. St Helens' Submission Draft Local Plan was subject to an eight week period of public consultation between January 2018 and March 2018. St Helens' Submission Draft Local Plan includes a proposal to extend Omega, an employment and housing site within WBC, westward into St Helens' boundary for employment purposes. WBC responded to this consultation agreeing that the western extension can, in principle, be part of the WBC's employment land supply in the forthcoming new Warrington Local Plan. However as the Council had undertaken a programme of improving local and strategic highway networks and the public transport network to facilitate the sustainable growth of Omega as a strategic employment and housing location, any future expansion from St Helens will need to address any additional highway issues arising. WBC is concerned about further growth at Omega over and above this extension and considers that this would require significant infrastructure improvements to the local and Strategic Road network. WBC will continue to work with St Helens, in liaison with Highways England, in order to address any matters arising from the potential allocation of this site in St Helens' Local Plan and has taken account of the proposed western extension of Omega in its transport modelling work.

9. WBC has agreed, in principle that the western extension of Omega in St Helens will contribute to meeting Warrington's employment needs, subject to addressing access issues, in liaison with Highways England. Consideration of any additional sites will require cumulative traffic assessment of the impact on J8 M62 and will require a consistent approach between the two Local Plans.

4.25 Peel Hall

WBC is proposing to allocate Peel Hall, a Green Field site but within the existing urban area, to provide a residential led development of 1,200 homes, supported by a local centre and local employment development.

4.26 **Figure 4: WBC Proposed Submission Version Local Plan Key Diagram Showing Strategic Housing and Employment Sites**



4.27 *Parkside (St Helens)*

The sites at Parkside West and East lie within St Helens Borough immediately abutting the boundary with Warrington. They have a combined area of over 200 hectares and benefit from a location at the heart of the north-west motorway network, a skilled local labour supply, and the scope for direct rail access to the West Coast Main Line and the east-west ('Chat Moss') line.

4.28 The St Helens Submission Draft Local Plan proposes to remove the Parkside sites from the Green Belt and to allocate them for a range of employment uses. Proposals have been developed to create a new link road to provide access from the sites onto junction 22 of the M6. The Submission Draft Local Plan for St Helens contains a range of policies to address the effects of the development at Parkside for example on infrastructure, local heritage and the environment.

4.29 The development will impact on key infrastructure within WBC, including the local and strategic highway network. It is therefore essential that WBC and SHBC work to ensure that these impacts are appropriately mitigated, in liaison with Highways England.

10. WBC and SHBC agree to work together, in liaison with Highways England, to consider any cross boundary infrastructure or other issues related to the development of the sites at Parkside West for a range of employment uses and Parkside East for a Strategic Rail Freight Interchange and any other rail served employment development.

4.30 *Bold Urban Extension (St Helens)*

The emerging St Helens Local Plan identifies the potential to remove over 140 hectares of land at Bold from the Green Belt, to enable it to form a future new Urban Extension, with capacity for over 2,400 new dwellings. Whilst this area is within the Borough of St Helens, it is (at its nearest point) about 1 kilometre from the border with Warrington. It is expected that the development of the site would be informed by a master plan exercise. This would consider (amongst other matters) any effects of the development on transport infrastructure in Warrington (including junction 8 of the M62), in liaison with Highways England.

11. WBC and SHBC agree to work together, in liaison with Highways England, to consider any cross boundary infrastructure or other issues related to the development of the proposed Bold Urban Extension.

4.31 Transport

4.32 *Highways England:*

Highways England is responsible for operating, maintaining and improving England's motorways and major A roads. WBC has been co-operating with Highways England in preparation of its Local Plan Review and consulted them on WBC's PDO. Highways England raised concerns regarding the breadth and depth of available transport evidence, although they noted that the Plan was in its early stages. Since then work to develop WBC Multi Modal Transport Model has been completed and WBC is working positively with Highways England on key allocations for the Local Plan, particularly the Garden Suburb. Together with Highways England's own modelling, this work has identified key mitigation requirements which have been reflected in the draft Local Plan policy wording. WBC will continue to work with Highways England as the Plan's development proposals are worked up in more detail to ensure that there is a full understanding of the impact of proposed development (both cumulative and individual); to agree the detail of the required mitigation measures; and to ensure that these measures are both feasible and deliverable.

12. WBC will continue to work with Highways England to ensure there is a full understanding of the impact of the development proposed in the draft Local Plan (both cumulative and individual) and to agree the detail of the required mitigation measures.

4.33 *Government's Road Investment Strategy: Post-2020 (RIS 2):*

The first Road Investment Strategy: 2015 to 2020 (RIS 1)⁹ covered investment in England's motorways and major roads (the 'strategic road network') during the 2015 to 2020 period. This was the initial step in a long-term programme to improve England's motorways and major roads. Highways England also published a Strategic Business Plan 2015 to 2020¹⁰ setting out how they would deliver the investment plan and performance requirements set out within the Government's RIS 1.

4.34 The Government is now in the process of developing a second RIS — known as RIS 2 — covering the period post- 2020 to continue long-term improvements to motorways and major roads. This includes commissioning a series of six new strategic studies to address the biggest challenges facing the road network. One of the studies announced was the Manchester North-

⁹ Available at <https://www.gov.uk/government/collections/road-investment-strategy>

¹⁰ Available at <https://www.gov.uk/government/publications/highways-england-strategic-business-plan-2015-to-2020>

West Quadrant study, covering junctions 8 to 18 of the M60. The study objectives were developed to assess and form a preliminary strategic case for improving the transport network in the region; define the intervention specific objectives that the study should seek to address; identify a long list of interventions which could meet the intervention specific objectives and undertake a high level assessment of the potential value for money, benefits and impacts of the different options; short list the better performing interventions; and prepare a Strategic Outline Business Case for the better performing interventions for consideration in the development of the second RIS.

4.35 *HS2/Northern Powerhouse Rail*

In autumn 2016 the government confirmed the alignment of HS2, which included the Hoo Green to Bamfurlong spur connecting the route to the West Coast Main Line (WCML) north of Culcheth. This was despite the councils continued opposition to this alignment due to it bypassing Warrington as an economic centre and the environmental impact on settlements to the east of the borough.

- 4.36 The council continues to lobby strongly for an upgrade of the WCML as an alternative to the route through the east of the borough and dialogue continues with HS2 and Department for Transport on these matters. However HS2 Ltd are currently working on the detail of the route in east Warrington in preparation for the Hybrid Bill planned for 2020. To this end the council is working with HS2 to make the case for the highest level of mitigation for residents in these areas on issues such as noise, visual impact and local accessibility of routes, should the route be constructed as the government still plan.
- 4.37 Recent announcements from Government and TfN on ‘touchpoints’ where HS2 and Northern Powerhouse Rail (NPR) services could meet, were potentially significant steps forward in the long term aim of achieving a stop on NPR around Warrington. The emerging vision for NPR which sees a stop in Warrington is set out in TfN’s recently published Draft Strategic Transport Plan as illustrated in Figure 5 below.
- 4.38 The council’s preferred outcome is for a hub station located at an enhanced Warrington Bank Quay station serving both NPR and HS2 services.

4.39 **Figure 5: Northern Powerhouse Rail Network (Draft Strategic Transport Plan)**



4.40 *The Wales and West Strategic Rail Prospectus:*

The Wales and West Strategic Rail Prospectus outlines a vision for rail investment across the North West and North Wales that builds on work by the Constellation Partnership and Growth Track 360¹¹. The vision was created by public and private sector leads from Cheshire West and Chester, North Wales, Warrington and Cheshire East, with the backing of Liverpool City Region and Manchester City Region. The ambitions in the prospectus, to provide additional rail capacity and improve connectivity, are also identified in the LEP Transport Strategy.

4.41 *Rail Services Studies*

WBC has been working with partners including Transport for Greater Manchester and Merseytravel on studies to identify improvements to services on existing rail infrastructure. The recommendations of this work are intended to inform future Transport for the North or Department for Transport investment decisions. An area of this work that is nearing completion considers the Cheshire Lines Committee line that connects Liverpool and Manchester via Sankey for Penketh, Warrington West (new station opening 2019), Warrington Central, Padgate, Birchwood, and Glazebrook stations. This is currently a very busy line suffering regular delays and overcrowding and is expected to become more so with growth proposed in both Warrington

¹¹ Available at <http://www.871candwep.co.uk/content/uploads/2018/01/AI-8-HS2-West-and-Wales-strategic-rail-prospectus-NEW-DRAFT-v11.pdf>

and Greater Manchester. The study proposes a stopping pattern that would retain semi fast services to Liverpool, Manchester and beyond and provide a metro-like service across the Borough, increasing overall capacity and improving reliability on the line.

4.42 A similar study is currently being undertaken to identify service improvements on the Chat Moss and West Coast Main Lines.

4.43 *Cheshire and Warrington LEP:*

The Cheshire and Warrington LEP has published a draft Transport Strategy¹² which sets out the priority transport investments at a local and strategic level required to support the needs of a £50 billion a year economy. This includes improvements and additions to the road and rail network and better, more co-ordinated public transport services within the LEP area. WBC will continue to work with Cheshire East and Cheshire West and Chester Councils to support the improvement of transport connectivity in order to support the LEP's growth aims.

4.44 Flood Risk and Water Management

4.45 *Warrington Borough Council as lead local flood authority:*

WBC is designated a lead local flood authority (LLFA) under the Flood & Water Management Act 2010 and has published a Local Flood Risk Management Strategy 2017 – 2023¹³. The Strategy sets out how WBC will endeavour to manage flood risk and ensures that WBC, the Environment Agency, United Utilities, other partners and neighbouring authorities work together to protect communities and business and other infrastructure from flooding. WBC will continue with its role in order to better understand and better manage flood risk within the Borough alongside other key risk management authorities

4.46 *Mersey Estuary Catchment Flood Management Plan (2009):*

The Environment Agency published the Mersey Estuary Catchment Flood Management Plan (2009)¹⁴ which gives an overview of the flood risk in the Mersey Estuary catchment (which includes Warrington, Liverpool, Wirral and St Helens) and sets out their preferred plan for sustainable flood risk management over the next 50 to 100 years. It also establishes flood risk

¹² Available on <http://www.871candwep.co.uk/content/uploads/2018/05/FINAL-Draft-Transport-Strategy-14.05.2018.pdf>

¹³ Available on <https://www.warrington.gov.uk/info/201080/streets-and-transport/2037/flood-risk-and-water-management>

¹⁴ Available at <https://www.gov.uk/government/publications/mersey-estuary-catchment-flood-management-plan>

management policies which will deliver sustainable flood risk management for the long term.

4.47 *Sankey Catchment Action Plan:*

WBC has worked with Halton Borough Council and St Helens Council to create the Sankey Catchment Action Plan which focuses on water management, water quality improvements and water dependent biodiversity within these authorities. The Plan provides for a long term integrated water management approach across the Sankey catchment. WBC will continue to work with these partners towards an integrated approach to Flood Risk Management and both authorities will include reference to this work in their respective Local Plans.

4.48 Environmental and Green Infrastructure

4.49 *Mersey Forest Partnership:*

WBC along with Halton, Knowsley, Liverpool, Sefton and St. Helens, Cheshire West and Chester Councils are part of the Mersey Forest Partnership among other various organisations, community groups and businesses. The partnership continues to deliver an ambitious strategy benefitting the economy and businesses, natural environment, health and wellbeing and the local community of Merseyside and north Cheshire. The Mersey Forest team has been working with colleagues from Woodland Trust and the other Community Forests in the North of England to prepare the plan for the Northern Forest. This is a 25 year vision to plant 50 million trees across the North of England, stretching from Liverpool to Hull; delivering up to £2.2bn of GVA in an area home to 13 million people. The Mersey Forest has also facilitated a common commitment to green infrastructure across the City Region, across the local authorities and a range of businesses, local organisations and other partners. WBC will continue to work with the Mersey Forest Partnership.

4.50 *Great Manchester Nature Improvement Area (NIA):*

The Great Manchester Wetland is a diverse landscape of water, fen, wet grassland, wet woodland and lowland raised bog. It is a Nature Improvement Area covering some 48,000 hectares, focusing on the Wetlands of Wigan (The Flashes), the mosslands of Chat Moss and Risley Moss to the west and south west of Manchester and the Mersey Wetlands corridor stretching from Rixton to Warrington. A section of the NIA stretches from Warrington into Salford. Given the cross boundary nature of the designation, there is a requirement for co-operative working between WBC, the Greater Manchester Combined Authority, Salford City Council, Trafford Borough Council and Wigan Borough Council in order to preserve and enhance this ecological network.

13. A section of the Greater Manchester Nature Improvement Area stretches from Warrington into Greater Manchester. Given the cross- boundary nature of the designation, there is a requirement for co-operative working between WBC, the Greater Manchester Combined Authority, Salford City Council, Trafford Borough Council and Wigan Borough Council, together with Natural England, in order to preserve and enhance this ecological network.

4.51 *Cheshire Local Nature Partnership:*

WBC along with Cheshire East, Cheshire West and Chester, Halton and Wirral Councils are part of the Cheshire Local Nature Partnership which along with other partners, seeks to create a vision and plan of action of how the natural environment can be taken into account in decision making. The LNP is currently undertaking a review of its strategic function and operation. WBC will continue to work within the partnership in order to improve the natural environment within the Cheshire region.

14. The Cheshire Local Nature Partnership is currently undertaking a review of its strategic function and operation. WBC is contributing to this review and is committed to strengthening its relations with the Cheshire LNP and ensuring effective strategic planning relating to nature conservation.

4.52 *Air Quality:*

The majority of Warrington has good air quality but there are areas close to the major roads and around the town centre that exceed national limits for nitrogen dioxide where two Air Quality Management Areas have been designated. In addition, there is growing concern over exposure to fine particulates (PM2.5), which meet the national targets but where levels are close to, and have marginally exceeded, the World Health Organization guideline value. An Air Quality Action Plan has been developed by WBC to try to improve nitrogen dioxide levels within problem areas and is expected to improve concentrations of PM2.5. Whilst actions mainly revolve around local transport and planning policies it is recognised that there are regional and transboundary sources outside of WBC control and that wider actions at regional and national levels can assist in improving local air quality and public health. WBC will continue dialogue with neighbouring authorities and national bodies, as appropriate, in the future in order to address air quality issues in the area.

4.53 Energy and Resources

4.54 *LEP Energy Plan:*

The Cheshire and Warrington LEP is preparing an Energy Plan which will provide a roadmap for the LEP and its partners to capitalise on the area's strengths in the Energy sector, address the challenges of transitioning successfully to a low carbon economy and putting Cheshire and Warrington at the forefront of the efforts to deliver affordable energy and clean growth as identified in the Government's Industrial Strategy Green Paper.

4.55 *Liverpool City Region Renewable Energy Capacity Study:*

WBC along with authorities in the Liverpool City Region, jointly prepared the Renewable Energy Capacity Study in 2011¹⁵. This study focussed on wind energy, and solely considered wind speeds and high-level constraints with a view to identifying areas suitable for multiple turbine installations.

4.56 *United Utilities Water Resources Management Plan and Revised Business Plan for 2015-2020*¹⁶

United Utilities published its Water Resources Management Plan and Revised business plan for 2015-2020 in 2015 which provides an assessment of the available water supplies and the demand for water by their customers over the period up to 2040. The business plan also sets out the proposed strategy for water resources and demand management to ensure that United Utilities have adequate water supplies to serve customers in the North West.

4.57 Minerals

WBC participates in the NW Aggregates Working Party and subscribes to the national Managed Aggregate Supply System through market monitoring and production of an annual Local Aggregates Assessment (LAA) in line with the requirements of the National Planning Policy Framework (NPPF), published in 2018. Matters related to minerals reserves and land banks are monitored and reported annually at this sub-regional level through the LAA. The Association of Greater Manchester Authorities (AGMA), the Merseyside authorities, including Halton (working through Merseyside Environmental Advisory Service (MEAS)), and the unitary authority of Warrington (known as the 'sub-region') are continuing to work together and have produced a combined LAA.

15. WBC agrees that it will meet its minerals apportionment target as identified in the latest annual Greater Manchester, Merseyside, Halton and Warrington – Joint Local Aggregate Assessment.

¹⁵ Part 1 available at

[http://www.knowsley.gov.uk/pdf/LC01_LiverpoolCityRegionRenewableEnergyCapacityStudy\(Stage%201\).pdf](http://www.knowsley.gov.uk/pdf/LC01_LiverpoolCityRegionRenewableEnergyCapacityStudy(Stage%201).pdf)

and part 2 available at

[http://www.knowsley.gov.uk/pdf/LC02_LiverpoolCityRegionRenewableEnergyCapacityStudy\(Stage%202\).pdf](http://www.knowsley.gov.uk/pdf/LC02_LiverpoolCityRegionRenewableEnergyCapacityStudy(Stage%202).pdf)

¹⁶ Available at <https://www.unitedutilities.com/corporate/about-us/our-future-plans/water-resources/water-resources-management-plan/>

4.58 Waste

WBC participates in the North West Waste Network, which is a body of technical expertise that advises on implications of waste planning policy and guidance and monitors and keeps up-to-date a schedule of existing (and future) significant waste management facilities for the wider region. WBC commissioned a Waste Needs Assessment as part of the Local Plan review which was published in 2017¹⁷. The assessment forecasts the amount of waste arisings likely to occur through the Local Plan period up to 2037. It also identifies a need for some additional capacity for a range of waste streams. Where waste cannot be treated or disposed of within the borough and there is a need for it to be exported, the Council has liaised with other authorities under the Duty to Co-operate to ensure that this waste is accounted for elsewhere.

16. WBC's Waste Study and Policy Review (2017) indicated the need for additional capacity for waste streams for the Local Plan period 2017 – 2037. Where waste cannot be treated or disposed of within the borough and there is a need for it to be exported, WBC will continue to liaise with other authorities under the Duty to Co-operate to ensure that this waste is accounted for elsewhere.

4.59 Health and Well-being

4.60 *Cheshire and Merseyside Sustainability and Transformation Partnership:*

WBC is part of the Cheshire and Merseyside Sustainability and Transformation Partnership along with six Merseyside authorities, Cheshire East Council, Cheshire West and Chester Council. The partnership, among other things, is working together under Local Delivery Systems to improve the health and well-being of residents across these authorities.

4.61 *Warrington and Halton NHS Foundation Trust:*

Warrington and Halton Hospital NHS Foundation Trust provides health services within Warrington and Halton. WBC is engaging with and consulting with the Trust as it progresses on its Local Plan review.

4.62 The Trust, together with the Council and other health and social care partners who form 'Warrington Together', has confirmed the requirement for a new Hospital for Warrington. The current hospital is outdated and is not able to meet the future needs of Warrington's growing and aging population. It is

¹⁷ Available at https://www.warrington.gov.uk/info/201368/local_plan_review/2347/local_plan_review_-_supporting_documents

currently reviewing the business plan for the hospital in the context of wider NHS service delivery across the north west region and in terms of its relationship with the Warrington CCG.

- 4.63 The Council is committed to working with the NHS Hospital Trust to deliver the new hospital either through redevelopment of the existing Lovely Lane Site or on a new site. This will be confirmed through a future review of the Local Plan.

4.64 *North West Boroughs Healthcare NHS Foundation Trust*

The North West Boroughs Healthcare NHS Foundation Trust provides health services in fifteen boroughs of North West England including Warrington. WBC is engaging with and consulting with the Trust as it progresses on its Local Plan review.

4.65 Digital Inclusion

4.66 *LEP Digital Plan:*

The Cheshire and Warrington LEP is preparing a Digital Plan which seeks to ensure that the sub-region has access to the digital infrastructure (superfast fibre broadband, 4G / 5G, etc) and the skills needed to use them.

4.67 *Connecting Cheshire:*

The Connecting Cheshire Partnership, made up of the four local authorities across Cheshire – Cheshire East, Cheshire West and Chester, Halton and Warrington Councils was established to deliver faster broadband to areas where it had not been commercially viable to invest previously.

4.68 Gypsy, Travellers and Travelling Showpeople

The Cheshire Partnership comprises Cheshire East, Cheshire West and Chester, Warrington and Halton Councils who work in partnership on Gypsy and Traveller issues. The group agreed in 2017 to update the Cheshire Gypsy and Traveller Accommodation Assessment (GTAA) to replace the 2014 version. The revised GTAA has now been published and it provides an evidence base to enable each local authority to comply with their requirements towards Gypsies, Travellers and Travelling Showpeople under the Housing Act 2004, the National Planning Policy Framework 2012 and Planning Policy for Traveller Sites 2015. There is an agreement from all the Authorities in the Cheshire Partnership that they will meet the need identified by borough in the GTAA.

17. All Authorities within the Cheshire Partnership agree to meet their needs as identified within the Cheshire Gypsy and Traveller Accommodation Assessment 2018

4.69 Retail

The current retail hierarchy for the borough as recognised in WBC's Warrington Local Plan Core Strategy 2014 – 2027 identifies Warrington Town Centre as a sub-regional centre, and Birchwood, Stockton Heath and Westbrook as district centres. Chapelford; Honiton Square, Penketh; Culcheth Village; Orford Lane; Lovely Lane; Latchford Village; Fearnhead Cross; Poplars Avenue/Capesthorne Road and Lymm Village are Neighbourhood Centres and there are also various Local Centres within the borough. The 2015 Retail and Leisure Study which provided supporting evidence for Warrington Local Plan Core Strategy 2014 – 2027¹⁸, indicated that borough's retail centres had no significant detrimental impacts on neighbouring town centres.

- 4.70 WBC commissioned a Retail and Leisure Study Update to support its Local Plan Review. The Study Area, which comprises 10 separate zones, stretches beyond the WBC's administrative boundaries to incorporate outlying areas, including zones within Cheshire West and Chester, Halton and St Helens. The updated study confirms there is no need for any significant additional retail provision in addition to local provision required to support the proposed strategic allocation sites – Garden Suburb; Waterfront; South West Urban Extension; and Peel Hall.
- 4.71 WBC will consult these neighbouring authorities at the publication of the Proposed Submission Draft Local Plan along with the associated supporting documents including the Retail and Leisure Study Update in order to allow any issues arising from the findings of the study to be addressed as part of future Duty to Co-Operate discussions.

5. Governance and Management

- 5.1 WBC's first Statement of Common Ground will be approved by its Executive Board at the same time as the Proposed Submission Draft Local Plan is published for consultation. Due to the need for other authorities to obtain the necessary formal approval to become additional signatories and to enable them to review the Proposed Submission Draft Local Plan, the SoCG will be initially approved as a draft document. Delegated authority will be given to the the Lead Member responsible for Planning to approve the final version which will be published when the Plan is submitted to the Secretary of State for Examination, subject to their being no substantive issues arising following the consultation.

¹⁸ Available at <https://www.warrington.gov.uk/info/200564/planning-policy/1905/evidence-base/11>

- 5.2 The Statement will then be kept under ongoing review and will be updated at key stages of the Plan making process and/or when new key strategic issues arise which require amendments to the Statement.
- 5.3 The approval of minor amendments will be delegated to the Lead Member responsible for Planning. Updates at key stages of Plan preparation and any other significant amendments will be approved by Executive Board.
- 5.4 WBC is committed to working with neighbouring authorities, statutory consultees and other key stakeholders, which are listed in Appendix 1. The Statement of Common Ground will form a basis for this engagement and it will also be updated to reflect ongoing Duty to Co-operate discussions.

Appendix 1

Working with Partners

The Council is committed to working with neighbouring authorities, statutory consultees and other key stakeholders in the strategic matters outlined within this SoCG. These partners include:

- Adjoining and other neighbouring Local Authorities - Cheshire West and Chester Council; Cheshire East Council; Halton Borough Council; Wigan Council; Trafford Council; Salford City Council, St Helens Council; Liverpool City Region Combined Authority and Greater Manchester Combined Authority.
- Highways England
- The Environment Agency
- Cheshire and Warrington Local Enterprise Partnership.
- Mersey Forest Partnership
- Cheshire Local Nature Partnership
- United Utilities
- NW Aggregates Working Party
- North West Waste Network
- Cheshire and Merseyside Sustainability and Transformation Partnership
- Warrington and Halton NHS Foundation Trust
- The North West Boroughs Healthcare NHS Foundation Trust.
- Connecting Cheshire Partnership
- The Cheshire Partnership
- Transport for the North
- Department for Transport
- Atlantic Gateway
- The Constellation Partnership
- Growth Track 360

Appendix 2

Warrington Borough Council's Key Strategic Matters

Key Strategic Matter	Agreement or outstanding issues	Partner Bodies
1. Housing Need within the Mid-Mersey Housing Market Area	WBC, Halton Borough Council and St Helens Council, authorities which are part of the Mid-Mersey HMA, agree to meet their Objectively Assessed Need for Housing within their boroughs. The authorities will however keep housing need under review as they progress with their Local Plans and address any issues arising in the future through the Duty to Co-operate.	Halton Borough Council St Helens Council
2. Housing Need across adjacent Local Authority Areas	WBC is unable to accommodate any unmet housing need from other adjacent Local Authorities and will not be seeking for these authorities to meet any of its own need.	Cheshire East Council Cheshire West and Chester Council Salford City Council Trafford Council Wigan Council Greater Manchester Combined Authority Liverpool City Region Combined Authority
3. Employment	WBC has agreed, in principle that the western extension of Omega in St Helens will contribute to meeting Warrington's employment needs subject to resolving access issues.	St Helens Council
4. Green Belt	All adjacent Local Authorities have been consulted on Warrington's Green Belt methodology and consider it an appropriate basis to undertake the Green Belt review. The one exception is with regard to Halton where detailed concerns will need to be addressed as part of Duty to Cooperate discussions.	Cheshire East Council Cheshire West and Chester Council Halton Borough Council St Helens Council

		<p>Salford City Council</p> <p>Trafford Council</p> <p>Wigan Council</p> <p>Greater Manchester Combined Authority</p>
5. Green Belt	As WBC and Halton Borough Council progress with their Local Plans, there is a requirement for joint co-operative working to ensure adequate separation between the proposed Green Belt releases between the two boroughs and to address any matters arising from both authorities' Green Belt reviews.	Halton Borough Council
6. Proposed Strategic Site Allocation - Garden Suburb	WBC will continue to work with Highways England to ensure there is a full understanding of the impact of the proposed Garden Suburb development (both cumulative and individual) and to agree the detail of the required mitigation measures.	Highways England
7. Proposed Strategic Site Allocation - Garden Suburb	WBC will address any issues arising from the allocation of the Garden Suburb in Cheshire East and in Cheshire West and Chester through Duty to Co-operate discussions.	<p>Cheshire East Council</p> <p>Cheshire West and Chester Council</p>
8. Proposed Strategic Site Allocation – Waterfront/Port Warrington/South-West Urban Extension	There is a requirement for Halton Borough Council and WBC to ensure strategic allocations on either side of the boundary in proximity to the Manchester Ship Canal do not prejudice key objectives of the respective local Plans.	Halton Borough Council
9. Proposed Strategic Site Allocation – Omega and future employment site served by J8 M62	WBC has agreed, in principle that the western extension of Omega in St Helens will contribute to meeting Warrington's employment needs, subject to addressing access issues, in liaison with Highways England. Consideration of any additional sites will require cumulative traffic assessment of the impact on J8 M62 and will require a consistent	<p>St Helens Council</p> <p>Highways England</p>

	approach between the two Local Plans.	
10. Proposed St Helens Local Plan allocation at Parkside	WBC and SHBC agree to work together, in liaison with Highways England, to consider any cross boundary infrastructure or other issues related to the development of the sites at Parkside West for a range of employment uses and Parkside East for a Strategic Rail Freight Interchange and any other rail served employment development.	St Helens Council Highways England
11. Proposed St Helens Local Plan allocation at Bold	WBC and SHBC agree to work together, in liaison with Highways England, to consider any cross boundary infrastructure or other issues related to the development of the proposed Bold Urban Extension.	St Helens Council Highways England
12. Working with Highways England	WBC will continue to work with Highways England to ensure there is a full understanding of the impact of the development proposed in the draft Local Plan (both cumulative and individual) and to agree the detail of the required mitigation measures.	Highways England
13. Great Manchester Nature Improvement Area (NIA):	A section of the Greater Manchester Nature Improvement Area stretches from Warrington into Salford. Given the cross- boundary nature of the designation, there is a requirement for co-operative working between WBC and Salford City Council in order to preserve and enhance this ecological network.	Salford City Council Greater Manchester Combined Authority Natural England
14. Engagement with Cheshire Local Nature Partnership	The Cheshire Local Nature Partnership is currently undertaking a review of its strategic function and operation. WBC is contributing to this review and is committed to strengthening its relations with the Cheshire LNP and ensuring effective strategic planning relating to nature conservation.	Cheshire Local Nature Partnership
15. Minerals	WBC agrees that it will meet its minerals apportionment target as identified in the latest annual Greater	Greater Manchester Combined Authority

	Manchester, Merseyside, Halton and Warrington – Joint Local Aggregate Assessment.	Liverpool City Region Combined Authority Merseyside Local Authorities and Halton Borough Council
16. Waste	WBC's Waste Study and Policy Review (2017) indicated the need additional capacity for waste streams for the Local Plan period 2017 – 2037. Where waste cannot be treated or disposed of within the borough and there is a need for it to be exported, WBC will continue to liaise with other authorities under the Duty to Co-operate to ensure that this waste is accounted for elsewhere.	To be confirmed
17. Gypsy and Traveller and Travelling Showpeople accommodation needs within Cheshire	All Authorities within the Cheshire Partnership agree to meet their needs as identified within the Cheshire Gypsy and Traveller Accommodation Assessment 2018	Cheshire East Cheshire West and Chester Halton Borough Council

**WARRINGTON BOROUGH COUNCIL DRAFT STATEMENT OF COMMON GROUND
(MARCH 2019) - ST HELENS COUNCIL SUGGESTED MINOR REVISIONS**

The Warrington Borough Council Draft Statement of Common Ground (March 2019), was published alongside the Warrington Proposed Submission Version Local Plan 2017 - 2037 (March 2019). The Warrington Borough Council Draft Statement of Common Ground (March 2019) and the revisions outlined below, were approved by St Helens Council's Cabinet on 18th September 2019. The revisions were proposed to be incorporated into a final Warrington Borough Council Statement of Common Ground which was due to be published when the Warrington Local Plan was submitted for examination in autumn 2020. However, in October 2020 Warrington Borough Council decided to pause work on its Local Plan. Warrington Borough Council have indicated that they hope to be able to progress with their Local Plan in the summer of 2021.

<u>Page</u>	<u>Paragraph number</u>	<u>Suggested change</u> (suggested deletions to text are struck through; suggested additions are underlined)	<u>Reason for suggested change</u>
3	2.2 (second sentence)	[The SoCG] ... does however identify specific <u>proposed</u> allocation sites in St Helens which either will / <u>would</u> contribute to meeting Warrington's employment needs and / or which will / <u>would</u> impact on key infrastructure in Warrington.	Minor change needed as St Helens Borough Local Plan is not adopted yet.
7	3.10 (third sentence)	St Helens Council have <u>has</u> subsequently prepared a Local Housing Need Assessment in support of their Local Plan Review/its <u>emerging new Local Plan.</u>	For clarity.
14	4.24 (second and third sentences)	St Helens' Submission Draft Local Plan was subject to an eight week period of public consultation between January 2018 and March 2018. St Helens' Submission Draft Local Plan includes a proposal to extend Omega, an employment and housing site within WBC, westward into St Helens' boundary for employment purposes. <u>The emerging Local Plan for St Helens was subject to a period of public consultation between January and May 2019. It includes a proposal to extend Omega (which is a strategic location for jobs and housing in Warrington) onto land which is across the Borough boundary in St Helens for employment uses. The affected land is south of the M62.</u>	For clarity and to confirm that it is the land south of the M62 which is referred to here.
14	Agreement box 9 (first sentence)	WBC has agreed, in principle that the western extension of Omega <u>on land to the south of the M62</u> in St Helens will contribute to meeting Warrington's employment needs, subject to addressing access issues, in liaison with Highways England.	For clarity and to confirm that it is the land south of the M62 which is referred to here.
16	Agreement box 10	WBC and SHBC agree to work together, in liaison with Highways England, to consider	For clarity and further

		<p>any cross boundary infrastructure or other issues related to the development of the sites at Parkside West for a range of employment uses and Parkside East for a Strategic Rail Freight Interchange and any other rail served employment development.</p> <p><u>WBC and SHBC agree to work together, in liaison with Highways England, to consider any cross boundary infrastructure or other issues related to the development of the sites at Parkside West and Parkside East for employment use. This includes provision for a Strategic Rail Freight Interchange or other rail served employment development within Parkside East.</u></p>	consistency with the emerging Local Plan policy concerning Parkside.
16	4.30	<p><i>Bold Urban Extension Garden Suburb (St Helens)</i></p> <p>The emerging St Helens Local Plan identifies the potential to remove over 140 hectares of land at Bold from the Green Belt, to enable it to form a future new <u>Garden Suburb Urban Extension</u>, with capacity for over 2,400 <u>2,900</u> new dwellings.</p>	For clarity and consistency with terms used in emerging St Helens Local Plan.
16	Agreement box 11	<p>WBC and SHBC agree to work together, in liaison with Highways England, to consider any cross boundary infrastructure or other issues related to the development of the proposed <u>Bold Urban Extension Garden Suburb</u>.</p>	For clarity and consistency with terms used in emerging St Helens Local Plan.
Appendix 2	Agreement boxes 9, 10 and 11	The wording of these boxes to be changed to reflect the revisions set out above.	For consistency.

NB This list does not include suggested typographical or similar changes

EP4



St Helens Council

BOLD FOREST GARDEN SUBURB TRANSPORT REVIEW





St Helens Council

BOLD FOREST GARDEN SUBURB TRANSPORT REVIEW

TYPE OF DOCUMENT (VERSION) CONFIDENTIAL

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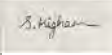






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QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Draft Report	Final Report	Final Report	
Date	31/07/2019	14/08/2019	21/08/2019	
Prepared by	SH/DJ	DJ	DJ	
Signature	 			
Checked by	AL	AL	AL	
Signature				
Authorised by	-	-	-	
Signature	-	-	-	
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1

INTRODUCTION

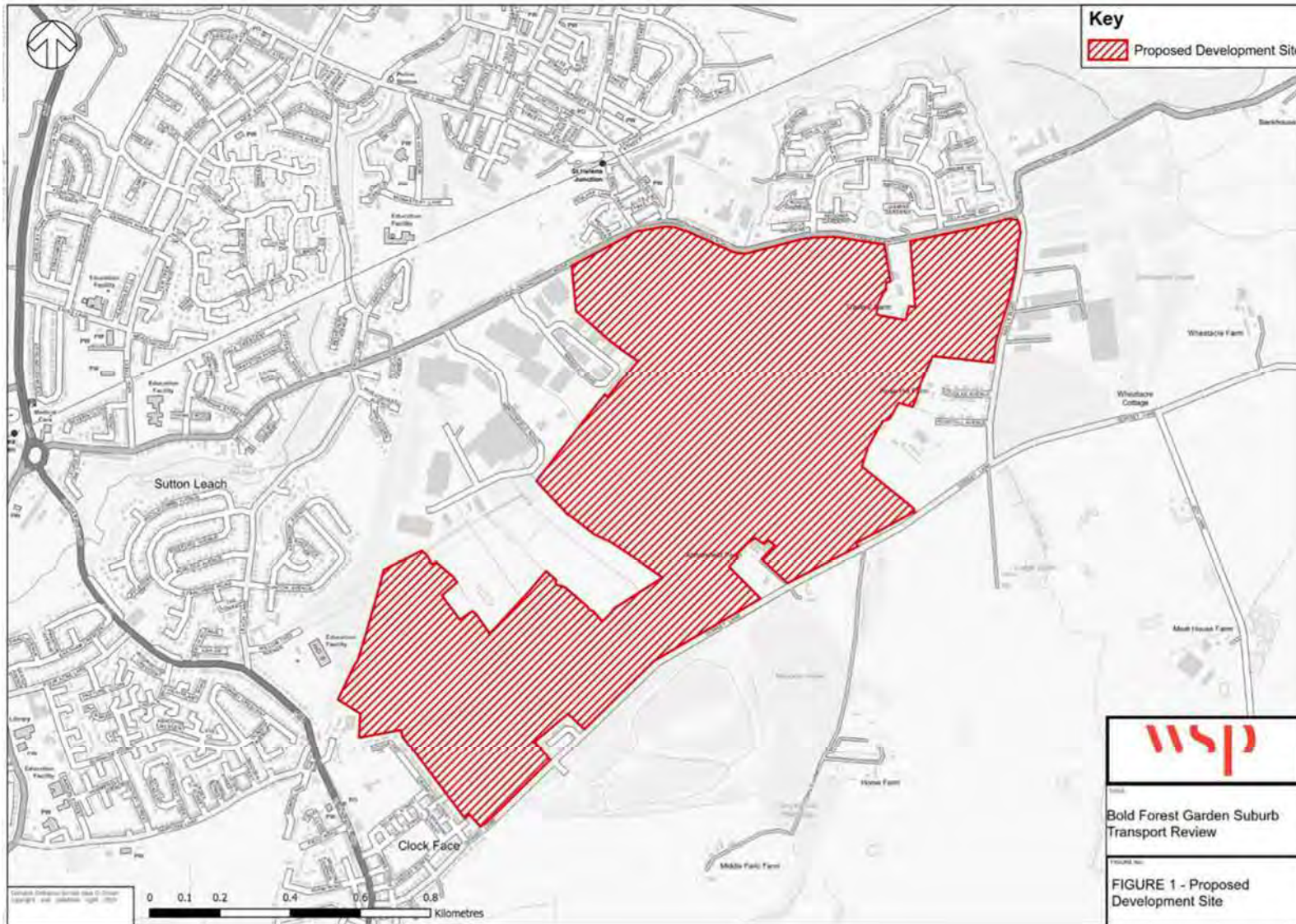


1 INTRODUCTION

- 1.1 WSP has been commissioned by St Helens Council to carry out a transport review of the proposed Bold Forest Garden Suburb, which will form part of the supporting evidence for the inclusion of the site in the St Helens Local Plan 2020-2035. The Local Plan will be submitted to the Planning Inspectorate in Autumn 2019.
- 1.2 The Local Plan identifies Bold as a key location for new housing development. The 132.86-hectare site has a proposed development capacity of 2,988 units, and would likely be supported by facilities and amenities such as a school and a neighbourhood centre.
- 1.3 This Transport Review forms the first stage in a multi-stage masterplanning process, and the intention is that a Supplementary Planning Document (SPD) will be adopted in late 2021, following a more detailed viability, infrastructure and development options assessment.
- 1.4 The Council aspires to create a unique and innovative garden suburb that will be designed around open green space and a sustainable transport system in order to create a residential area that differs from a typical housing estate. The development must be consistent with the vision, aims, objectives and policies of the 2017 Bold Forest Park Area Action Plan (BFPAAP). Connections to public transport and active travel will be placed at the core of the masterplan.
- 1.5 Figure 1-1 shows the location of the area of land that would fall under the proposed allocation. This area currently lies within the Green Belt south of St Helens and would need to have such designation repealed before the site can be allocated.
- 1.6 The transport review consisted of two key elements:
 - The development of a spreadsheet-based assessment tool to examine the likely trip generation, distribution and assignment on the local highway network, based on a core and alternative scenario; and
 - The preparation of a study report setting out the findings of a site visit and a review of local transport infrastructure, identifying likely masterplanning design requirements and identifying strategic network improvements.
- 1.7 In addition, consideration has been given to wider transport initiatives that could support development of the site, including the mass transit system currently being investigated by Warrington Council.
- 1.8 The report concludes with a summary of findings and next steps.

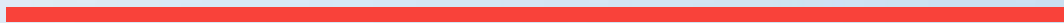


Figure 1-1 - Proposed Development Site



2

BOLD FOREST SPREADSHEET MODEL



2 BOLD FOREST SPREADSHEET MODEL

Overview

- 2.1 An Excel-based spreadsheet model has been developed to assist in testing the potential impact of the Bold Forest Garden Village development on the local and wider highway network. The spreadsheet has been designed such that the Council can easily amend various assumptions to understand the impact of changing the development mix, build out rate and modal split on the highway network. For the purposes of this report, a core scenario and an alternative scenario have been tested as a starting point.
- 2.2 The model uses base data from the 2017 St Helens SATURN model combined with TRICS, TEMPro and 2011 Census data to provide a tool that can be used to test the percentage impact of varying the quantum of development and modal split on each junction arm. It should be noted that TEMPro is based on the National Trip End Model (NTEM), which includes dwellings and employment projections at a local authority level rather than at an individual development level. Therefore the forecast traffic data used in the spreadsheet model does not specifically reflect potential interactions with traffic movements that may be associated with other Local Plan site allocations.

Network Diagram

- 2.3 A network diagram was created which represents the highway network surrounding the Bold Forest site (see **TF1 in Appendix A**). This shows turning movements at the following junctions:

Junction A – M62 Junction 7 – Signalised Gyratory

Junction B – A570 St Helens Linkway / Elton Head Road – Signalised Crossroads

Junction C – Marshalls Cross Road / Robins Lane / Scorecross – Roundabout

Junction D – Marshalls Cross Road / Elton Head Road – Signalised Junction

Junction E – Marshalls Cross Road / Mill Lane / Clock Face Road / Chester Lane – Roundabout

Junction F – Gorsey Lane / Clock Face Road – Priority Junction

Junction G – B5204 Reginald Road / Mill Lane / Leach Lane – Double mini roundabout

Junction H – B5204 Reginald Road / Helena Road – Priority Junction

Junction I – B5204 Reginald Road / Bold Road / Neills Road – Priority Junction

Junction J – Neills Road / Gorsey Lane – Priority Junction

Junction K – Gorsey Lane / Clay Lane – Priority Junction

Junction L – M62 Junction 8 – Signalised Gyratory

- 2.4 For the purposes of this study, three access points have been chosen:

- A 'gateway' to the development is suggested at Junction H (B5204 Reginald Road / Helena Road). This would involve the creation of a signalised crossroads in place of the priority junction.
- Two further access points have been chosen at Gorsey Lane (Junction M) and Clock Face Road (Junction N).

- 2.5 There are 8 entry/exit nodes in the perimeter of the study area which traffic has been distributed to/from, as follows:

- Node 1 – A570 to/from St Helens Town Centre;
- Node 2 – To/from Newton-le-Willows;
- Node 3 – M62 to/from east;
- Node 4 – A49 to/from Warrington;
- Node 5 – A569 to/from Warrington;
- Node 6 – A557 to/from Halton;
- Node 7 – M62 to/from west; and
- Node 8 – To/from Prescot.

Trip Generation

2.6 The TRICS database (version 7.6.2) has been interrogated to obtain trip rates for the following land uses, in accordance with the proposed development mix provided by the Council:

- Houses – privately owned;
- Flats – privately owned; and
- Affordable local authority housing.

2.7 The following selections were made when interrogating the TRICS database:

- Sites in England, Wales and Scotland excluding Greater London;
- Edge of town centre, suburban area or edge of town centre sites only;
- Number of houses 1000 – 500; number of apartments 50 – 200; and
- Multimodal trip rates for vehicles, pedestrians, cyclists and public transport users.

2.8 The trip rates used to test the agreed scenarios as part of this transport review are provided in the TRICS tabs. These were used to calculate the number of expected trips based on the quantum of development and development mix, which have been manually input to the trip generation tab. The trip rates and the quantum of development and development mix can be updated to test further scenarios.

2.9 The Trip Generation tab shows multimodal trip rates and the resulting numbers of pedestrian, cyclists and public transport users that could be expected. It also allows for the future adaptation of the model to show multimodal distribution; at present only vehicles are distributed on the network.

Trip Distribution and Assignment

2.10 The trips are distributed on the network according to the 2011 Census data for two Middle Layer Super Output Areas (MSOAs): St Helens 020 and St Helens 022. These output areas were chosen as they are in the immediate vicinity of the site and give an appropriate mix of housing types. The Census data gives the place of work and method of travel to work, from which assumptions are made regarding route choice – in this case the quickest route (based on journey times from Google) is presumed. Where two routes are similar in time and distance, a 50/50 split is assumed.

2.11 The trips are then assigned to the network based on these routes. The 'Trip Assignment' tab shows the turns taken to and from each entry and exit node to each of the proposed access points, with the trips distributed by percentage according to the distribution obtained from the Census data.

2.12 There are also a proportion of internal trips which are not distributed onto the network – this includes journeys within the output areas and trips to and from any non-residential development that will support the garden suburb such as schools, shops and other amenities.

Baseline Data

- 2.13 Baseline data has been obtained from the St Helens SATURN model developed by WSP. The model is based on data collected in 2017.
- 2.14 The relevant data for the study area has been extracted for the AM Peak (08:00 – 09:00) and the PM Peak (17:00-18:00), with flows shown in Passenger Car Units (PCUs) on the '2017 SATURN' diagrams.

Future Year Data

- 2.15 TEMPro growth factors have been applied to the 2017 SATURN data to obtain a baseline for 2035.
- 2.16 No localised growth figure is available for 2049 and therefore an estimation has been made by taking the percentage change from the national growth factor from 2040 to 2049 and applying it to the localised growth figure from 2040.
- 2.17 It should be noted that when considering future year scenarios that are 16 and 30 years into the future, certain wider assumptions about technology, car use and policy are made which may well be very different to actual trends. The further into the future we try to predict, the less accurate our assumptions will be.

Scenario Testing

- 2.18 Four scenarios have been tested using the spreadsheet model for the purposes of this initial transport review. The first two scenarios use a travel to work modal split as per the 2011 Census data and two further scenarios assume a significant shift towards sustainable modes of transport, in recognition of the level of ambition for the site and its setting as a garden suburb.

2011 Census Modal Split Scenario:

- 2035 with 500 units built out – modal split unchanged from 2011 – 30% affordable housing.
- 2049 assuming a build out rate of 500 units by 2035 and 80 units per year from 2035-2049, giving a total of 1,620 units – modal split unchanged from 2011 and 30% affordable housing.

Modal Shift Scenario

- 2035 with 500 units built out – modal shift towards sustainable modes assumed.
- 2049 presuming a build out rate of 80 per year to 1620 units – modal shift towards sustainable modes assumed.

Modal Split

The default travel to work modal split has been derived from 2011 Census data. From this a future scenario was derived, where an optimistic 35% modal shift towards sustainable travel is achieved. A summary of the assumed travel to work modal split in each scenario is shown in Table 2-1.

Table 2-1 - Modal Split Scenarios

Scenario	All	WFH	Metro	Train	Bus	Taxi	MC	Car Driver	Car Passenger	Cycle	Walk	Other
2011 Census	100%	0%	0%	2%	2%	1%	1%	71%	11%	1%	7%	4%
Modal Shift	100%	3%	6%	12%	10%	1%	1%	39%	8%	9%	7%	4%
Overall Modal Shift	-	+3%	+6%	+10%	+8%	0%	0%	-32%	-3%	+8%	0%	0%

- 2.19 Although optimistic, it is considered that this level of modal shift can be achieved through the creation of an innovative development that puts sustainability travel at its core. A 10% increase in rail passengers could be achieved by providing high frequency bus services between the site and St Helens Junction and Lea Green, where improvements to services and infrastructure will drive modal shift.
- 2.20 In the 5-year period from 2013 to 2018, rail patronage at Lea Green increased by 21%. The introduction of Transpennine Express services as part of the May 2018 timetable change provides fast connections to Liverpool, Manchester and beyond, and is expected to lead to a further increase in patronage.
- 2.21 Should the proposed development at Bold Forest be connected to the Warrington mass transit system that is currently being considered by Warrington Council, it could reasonably be expected that 6% of car travellers could shift to metro, based on the 12% of people in MSOA St Helens 020 and 022 who work in Warrington.
- 2.22 It has been assumed that bus patronage could increase by up to 8%. This is based on the success of the local Bus Alliance and improvements arising from the LCR bus strategy, which are having a positive impact on bus patronage.
- 2.23 Walking to work is expected to remain the same proportion of mode share, given the distances between the site and employment areas.
- 2.24 Cycling propensity is currently between 0% and 15% in St Helens 020 and 022. The government target is for this to increase to between 7% and 9%; therefore an 8% increase in cycling has been assumed. This will be achieved by embedding high-quality cycle infrastructure within the development itself and at key trip attractors, connected by high-quality cycle routes.

Results – Summary of Percentage Impact

- 2.25 The development trips were added to the future year baseline data to obtain 2035 and 2049 base plus development flows. From this, it was possible to work out the percentage impact per arm at each of the junctions on the network. A summary of the results is given below with full percentage impacts shown on **TF2-TF9** in **Appendix A**.

Junction A: M62 Junction 7 – Signalised Gyratory	
With 2011 Census Modal Split	
2035	No significant impact – max 2% A570 (N) in AM
2049	A570 (N) 7% AM, 4% PM
With Future Modal Shift Towards Sustainable Travel	
2035	No significant impact – max 1% A570 (N) in AM
2049	A570 (N) 4% AM, 2% PM

Junction B: A570 St Helens Linkway / Elton Head Road – Signalised Crossroads	
With 2011 Census Modal Split	
2035	Elton Head Rd (E): 12% AM, 7% PM, others 2% or below
2049	Elton Head Rd (E): 37% AM, 23% PM; Elton Head Rd (W): 3% AM, 6% PM
With Future Modal Shift Towards Sustainable Travel	
2035	Elton Head Rd (E): 7% AM, 4% PM, others 2% or below
2049	Elton Head Rd (E): 21% AM, 13% PM; Elton Head Rd (W): 1% AM, 3% PM

Junction C: Marshalls Cross Road / Robins Lane / Scorecross	
With 2011 Census Modal Split	
2035	Marshalls Cross Rd: 5% AM, 3% PM, others 2% or below
2049	Marshalls Cross Rd: 18% AM, 10% PM; Scorecross: 7% AM, 12% PM
With Future Modal Shift Towards Sustainable Travel	
2035	Marshalls Cross Rd: 3% AM, 2% PM, others 2% or below
2049	Marshalls Cross Rd: 10% AM, 4% PM; Scorecross: 4% AM, 7% PM

Junction D: Marshalls Cross Road / Elton Head Road – Signalised Junction	
With 2011 Census Modal Split	
2035	Marshalls Cross Rd (S): 11% AM, 7% PM; Elton Head Rd: 6% AM, 12% PM
2049	Marshalls Cross Rd (S): 29% AM, 15% PM; Elton Head Rd: 14% AM, 25% PM
With Future Modal Shift Towards Sustainable Travel	
2035	Marshalls Cross Rd (S): 2% AM, 4% PM; Elton Head Rd: 3% AM, 6% PM
2049	Marshalls Cross Rd (S): 19% AM, 11% PM; Elton Head Rd: 9% AM, 23% PM

Junction E: Marshalls Cross Road / Mill Ln /Clock Face Rd / Chester Lane - Roundabout

With 2011 Census Modal Split

2035 Mill Ln: 4% AM, 3% PM; Clock F' Rd: 7% AM, 4% PM; Marshalls Cross 2% AM, 4% PM

2049 Mill Ln: 23% AM, 18% PM; CF' Rd: 39% AM, 20% PM; Marshalls Cross 12% AM, 21% PM

With Future Modal Shift Towards Sustainable Travel

2035 Mill Ln: 5% AM, 5% PM; CF' Rd: 6% AM, 4% PM; Marshalls Cross 2% AM, 3% PM

2049 Mill Ln: 12% AM, 10% PM; Clock F' Rd: 22% AM, 11% PM; Marshalls Cross 7% AM, 11% PM

Junction F: Gorsey Lane / Clock Face Road – Priority Junction

With 2011 Census Modal Split

Clock Face Rd (N): 10% AM, 12% PM; Gorsey Lane: 16% AM, 10% PM

Clock Face Rd (N): 30% AM, 35% PM; Gorsey Lane: 48% AM, 31% PM

With Future Modal Shift Towards Sustainable Travel

Clock Face Rd (N): 5% AM, 6% PM; Gorsey Lane: 9% AM, 6% PM

Clock Face Rd (N): 16% AM, 19% PM; Gorsey Lane: 26% AM, 17% PM

Junction G: B5204 Reginald Rd / Mill Lane / Leach Lane – Double Mini Roundabout

With 2011 Census Modal Split

2035 Reginald Road: 9% AM, 4% PM; Mill Lane: 4% AM, 9% PM

2049 Reginald Road: 26% AM, 11% PM; Mill Lane: 12% AM, 28% PM

With Future Modal Shift Towards Sustainable Travel

2035 Reginald Road: 5% AM, 2% PM; Mill Lane: 2% AM, 5% PM

2049 Reginald Road: 14% AM, 6% PM; Mill Lane: 7% AM, 15% PM

Junction H – B5204 Reginald Road / Helena Road – Priority Junction

With 2011 Census Modal Split

2035	Reginald Road: 4% AM, 9% PM; Bold Road: 2% AM, 3% PM. New access point
2049	Reginald Road: 12% AM, 28% PM; Bold Road: 5% AM, 9% PM. New access point

With Future Modal Shift Towards Sustainable Travel

2035	Reginald Road: 2% AM, 5% PM; Bold Road: 1% AM, 2% PM New access point
2049	Reginald Road: 7% AM, 16% PM; Bold Road: 3% AM, 5% PM. New access point

Junction I – B5204 Reginald Road / Bold Road / Neills Road– Priority Junction

With 2011 Census Modal Split

2035	Travers Entry: 5% AM; Neills Road 3% PM; others 2% or below
2049	Travers Entry: 15% AM, 7% PM; Neills Road: 5% AM, 8% PM

With Future Modal Shift Towards Sustainable Travel

2035	Travers Entry: 3% AM; others 2% or below
2049	Travers Entry: 8% AM, 4% PM; Neills Road: 3% AM, 4% PM

Junction J – Neills Road / Gorsey Lane – Priority Junction

With 2011 Census Modal Split

2035	Gorsey Ln (E): 6% AM, 7% PM; Gorsey Ln (W): 13% AM, 7% PM; Neills Road: 3% AM
2049	Gorsey Ln (E): 17% AM, 22% PM; Gorsey Ln (W): 41% AM, 21% PM; Neills Road: 10% AM

With Future Modal Shift Towards Sustainable Travel

2035	Gorsey Ln (E): 7% AM, 4% PM; Gorsey Ln (W): 3% AM, 4% PM; Neills Road: 2% AM
2049	Gorsey Ln (E): 22% AM, 12% PM; Gorsey Ln (W): 9% AM, 12% PM; Neills Road: 6% AM

Junction K – Gorsey Lane / Clay Lane – Priority Junction

With 2011 Census Modal Split

2035	Gorsey Ln: 19% AM, 8% PM; Clay Ln (N) 9% AM, 9% PM; Clay Ln(S) 5% AM, 7% PM
2049	Gorsey Ln: 57% AM, 24 PM; Clay Ln (N) 26% AM, 28% PM; Clay Ln(S) 16% AM, 22% PM

With Future Modal Shift Towards Sustainable Travel

2035	Gorsey Ln: 10% AM, 4% PM; Clay Ln (N) 5% AM, 5% PM; Clay Ln (S) 3% AM, 4% PM
2049	Gorsey Ln: 32% AM, 13% PM; Clay Ln (N) 14% AM, 16% PM; Clay Ln (S) 9% AM, 12% PM

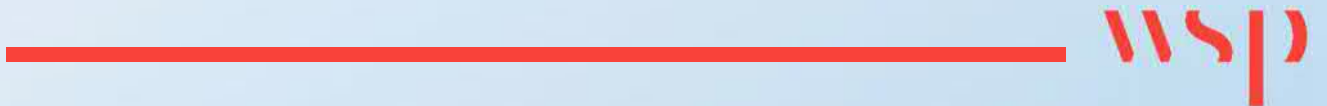
Junction L – M62 Junction 8 – Signalised Gyratory	
With 2011 Census Modal Split	
2035	Clay Lane 9% AM, 4% PM; all others 2% or below
2049	Clay Lane 28% AM, 12% PM
With Future Modal Shift Towards Sustainable Travel	
2035	Clay Lane 9% AM, 4% PM; all others 2% or below
2049	Clay Lane 16% AM, 7% PM

Initial Findings

- 2.26 The percentage impact gives an indication of which junctions are expected to experience a significant increase in traffic volume in the future year scenarios compared to the 2017 baseline flows. The level of impact will depend on how well each junction currently performs and how much capacity there is to accommodate future development traffic.
- 2.27 It is clear that traffic heading to and from the M62 Junction 8 is forecast to have a significant impact on the Neills Road/Gorse Lane priority junction and the Bold Road/Travers Entry/Neills Road priority junction, both of which are observed to have visibility issues.
- 2.28 Traffic heading to and from the M62 junction 7 is forecast to have a significant impact on the Marshalls Cross Road/Mill Lane/Clock Face Road/Chester Lane roundabout as well as the signalised junction with Elton Head Road at Lea Green station.
- 2.29 Traffic heading to and from St Helens town centre also contributes to the impact at these junctions, as well as the Marshalls Cross Road/Robins Lane/Scorecross roundabout junction.
- 2.30 A modal shift of 35% away from vehicle borne trips could play a significant role in reducing the potential impact of the development traffic on the local network. In 2035, the impact is typically reduced by between 1% and 5% at each junction; and in 2049 the impact is typically reduced by between 5% and 10% at each junction.
- 2.31 In order to determine exactly how significant the impact of development traffic could be, it is recommended that local junction modelling using ARCADY/PICADY/LinSIG is carried out, to determine a baseline and future ratio of flow to capacity at each junction.

3

EXISTING TRANSPORT CONDITIONS

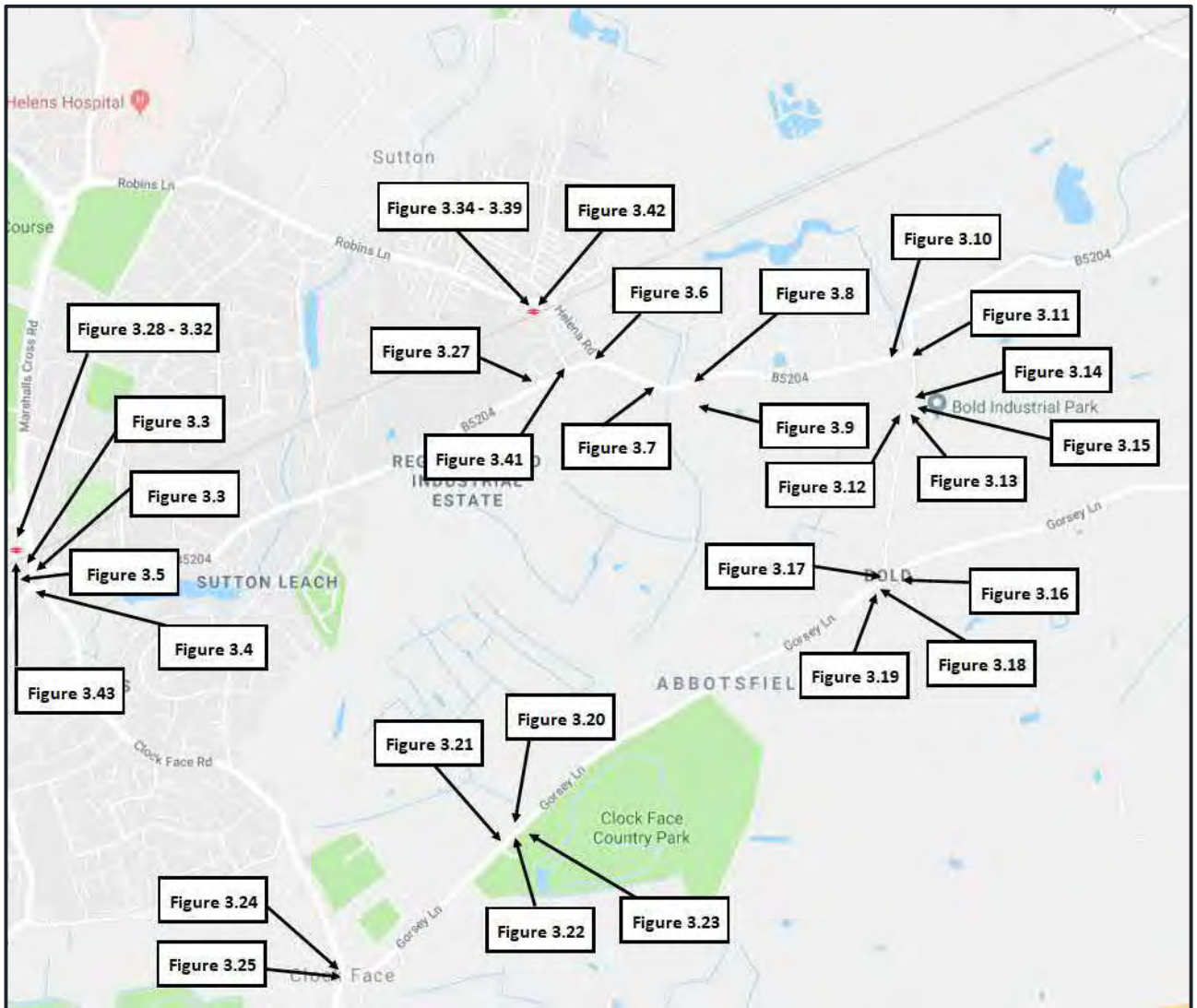


3 EXISTING TRANSPORT CONDITIONS

Overview

- 3.1 Existing transport conditions were examined via a desktop study and a site visit, which was carried out on 01/07/19 between 2pm and 5pm. The main aims of the site visit were to look at the existing transport conditions and facilities surrounding the proposed development site, as well as to identify potential access points to the proposed development site.
- 3.2 The map provided in Figure 3-1 indicates the location of where each photograph was taken.

Figure 3-1 - Photograph Locations



Highways

Linkway/Fords/Pub/Ravenhead Retail Park Roundabout

- 3.3 At this roundabout junction the traffic was backed up around the roundabout and some exits were blocked as a result of significant queuing. The multiple lane roundabout was particularly busy at the time of the site visit which could have been due to the ongoing roadworks surrounding the retail park.

Route from M62 Junction 7 (via linkway and Eton Head Road)

- 3.4 Along this section of the network the speed limit is 70mph, however, due to the construction of a roundabout, the speed limit is restricted to 40mph through the current road works section.

Bull & Dog Roundabout

- 3.5 The roundabout located near the Bull & Dog Pub has wide multiple lanes which create good visibility for both drivers and pedestrians (Figure 3-2). Initial observations suggest that the lanes have already undergone some width reduction due to white lines being put in place in order to deter vehicles from using the full width (Figure 3-3).
- 3.6 During the site visit no signalised crossing was observed for pedestrians; the only form of crossing which was provided was a small island in the middle of each arm of the roundabout which consisted of worn tactile paving (Figure 3-4).
- 3.7 The car park at the Bull & Dog Pub was identified as being underutilised and there were no visible signs displayed stating that parking is only for customers (Figure 3-5).

Figure 3-2 - Wide lanes at the roundabout near the Bull & Dog Pub



Figure 3-3 - White lines in place to reduce the width of the lanes



Figure 3-4 - Pedestrian crossing at the roundabout - dropped kerbs but no tactile paving



Figure 3-5 - Underutilised Car Park at the Bull & Dog Pub



Reginald Road

- 3.8 Along Reginald Road a housing development was identified adjacent to the proposed development site. There were a number of side streets observed leading to residential sites and the pavements with wide with grass verges.

St Helena's Road

- 3.9 During the site visit, Helena's Road was identified as a desire line from St Helens Junction Station to the proposed development site and can therefore be considered as a key gateway into the site. Whilst there was tactile paving in place at crossing points for pedestrians (Figure 3-6), there was no signalised crossing for either pedestrians or cyclists.

Figure 3-6 - Pedestrian crossing on Helena's Road



Bold Road

- 3.10 The speed limit along Bold Road was identified as 40mph (Figure 3-7), which seems high as the road is surrounded by residential properties. There was a public footpath observed which runs directly across the proposed development site (Figure 3-8 & 3-9). The residential properties adjacent to the proposed development site are set back from the edge of the road with railings acting as a physical barrier between the traffic and the residential area.

Figure 3-7 - Bold Road – 40mph Speed Limit



Figure 3-8 - Footpath across Proposed Development

Figure 3-9 - Public Footpath Entrance



Bold Road/Neill's Road Junction

- 3.11 The right turn from Bold Road to Neill's Road is difficult due to the poor visibility from the overgrown vegetation (Figure 3-10), even though the junction consists of wide lanes (Figure 3-11). It is considered that there is sufficient space for a mini roundabout in this location.

Figure 3-10 - Poor visibility on the bend due to overgrown vegetation



Figure 3-11 - Wide road with sufficient space for a mini roundabout



Neill's Road

- 3.12 Neill's Road is a narrow road with very narrow footways that are hindered by overgrown vegetation. The overgrown vegetation, coupled with bends in the road, lead to poor visibility for drivers (Figure 3-12). The speed limit was identified as 40mph. An industrial site is located on Neill's Road with access points to the site as well as to the car park servicing the industrial site (Figure 3-13, 3-14 & 3-15). Large HGVs were observed driving along Neill's Road to access the industrial site.

Figure 3-12 - Poor visibility due to overgrown vegetation and bends



Figure 3-13 - Industrial Site and Car Park Entrance



Figure 3-14 - Industrial Site Entrance



Figure 3-15 - Industrial Site Car Park



Neill's Road/Gorse Lane Junction

- 3.13 A private road was identified straight ahead from Neill's Road which was an access point to a farm (Figure 3-16), potentially having tractors or large vehicles moving in/out of here. There was poor visibility at the junction due to overgrown vegetation (Figure 3-17) and there were signs for improvements to Burtonwood Highways (Figure 3-18). Gorse Lane was observed as a narrow road with no footpath present along the north side of the road (Figure 3-19).

Figure 3-16 - Private Access to Farm



Figure 3-17 - Poor visibility with overgrown vegetation and tight bend



Figure 3-18 - Signs for improvements to Burtonwood Highways



Figure 3-19 - Narrow lanes and footway on south side; no footway on north side



Gorse Lane

- 3.14 There was no footway along the north side of the road for the majority of its length (Figure 3-20). There was a footpath identified along a section of the north side of Gorse Lane adjacent to a new housing estate; however, the footpath stops at the edge of the gardens of these properties (Figure 3-21). There is tactile paving in place at a crossing point near the newly developed houses adjacent to Clock Face Colliery Country Park (Figure 3-22 & 3-23). There was an access point identified for the riding centre along Gorse Lane. There is the potential to have an access point from Gorse Lane that connects directly through the development site to Helena's Road. The speed limit of the road was observed to be 50mph.

Figure 3-20 - Footway on south side



Figure 3-21 - Short north side footway adjacent to new housing development



Figure 3-22 - New crossing with tactile paving



Figure 3-23 - Clock Face Colliery Country Park adjacent to proposed development site



Gorsey Lane/Clock Face Road Junction

- 3.15 Difficulties in turning right from Gorsey Lane onto Clock Face Road due to high traffic levels were noted (Figure 3-24). Dropped kerbs with tactile paving were in place for pedestrians to cross the junction. The road is wide with good visibility (Figure 3-25).

Figure 3-24 - Difficulties turning right



Figure 3-25 - Wide lane with sufficient space for a cycle lane



Clock Face Road

3.16 On-street parking outside local properties means that the effective highway width is narrow. However, footways are wide, with tactile paving present on the side streets. There was a grass verge running parallel to the pedestrian footpath as far as the residential houses with some vegetation planted.

Clock Face and Marshalls Cross Road

3.17 The speed limit was 40mph with a mini roundabout present. There was an Aldi supermarket and bus lane present.

Bus Infrastructure

3.18 The proposed development site is currently served by a number of bus services (Figure 3-26):

- 32A
- 140
- 141
- 920

3.19 These services link the proposed development site with St Helens Junction Station, St Helens Town Centre and Newton-le-Willows. However, the frequency of each bus varies from 10 minutes at peak times (32A), 60 minutes at peak times (141) and 2 return journeys during the day and 1 return journey during the evening (920), as shown in Table 3-1.

Table 3-1 - Bus Routes Surrounding the Proposed Development Site

Bus Number	Route	Start/End of Service	Monday-Friday			Saturday		Sunday
			Peak Frequency	Day	Evening	Day	Evening	Day
32/32A	Clinkham Wood – Haresfinch – St Helens – Peasley Cross – St Helens Hospital – Sutton Manor – Clock Face	05:46-23:17	10	10	30	15	30	30
			20	20	30	30	30	30
			20	20	30	30	30	30
140	St Helens Bus Station – Parr – St Helens Junction – Clock Face – Bold – Bold Heath – Lingley Green Triangle	09:03-23:03	60	60	60	60	60	60
141	St Helens – Jackson Street – Morrisons (Baxter Lane) – St Helens Junction – Burtonwood – Collins Green – Earlstown – Bradlegh Estate –	08:25-23:37	60	120	60	120	60	60

	Newton-le-Willows Station							
920	St Helens – Thatto Heath – Sutton Manor – Clock Face – Parr – Haydock Industrial Estate	05:00-21:00	-	2 return journeys	1 return journey	2 return journeys	1 return journey	2 return journeys

Quality Bus Network

3.20 A Quality Partnership has been formed between Merseytravel, the bus operators and the local councils, where some bus services now form part of a Quality Bus Network. This means that certain bus services are more frequent and customers are able to use their bus ticket, regardless of the operator, on each of the routes. The bus routes which are included on this scheme and serve St Helens are:

- 10, 10A, 10B Liverpool – St Helens or Huyton
- 17 St Helens – Widnes
- 30 Sutton Manor – St Helens – Chain Lane

3.21 Table 3-2 shows the frequency at which these bus services operate on the new Quality Bus Network.

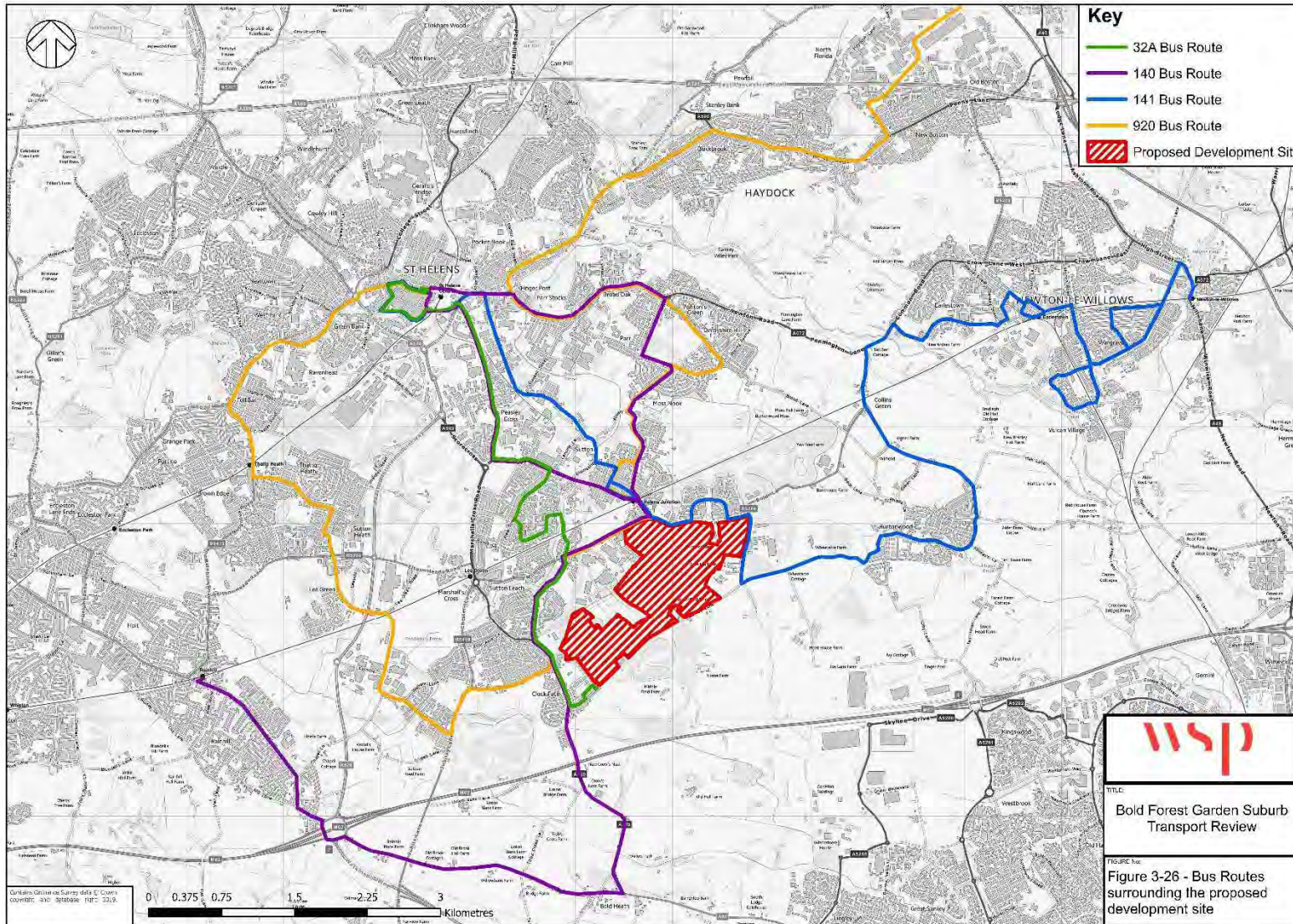
Table 3-2 - Quality Bus Network Routes

Bus Number	Frequency	Other Information
10, 10A, 10B	Approx. 4 minutes	14 buses every hour between Liverpool and St Helens
17	Approx. 10 minutes	This frequency is for Monday – Saturday daytimes
30	Approx. 10 minutes	This frequency is for Monday – Saturday daytimes

3.22 There is the opportunity to use the Quality Bus Network and divert some of the routes such as the number 30 and 17 through the proposed development site in order to create more bus services within the area to encourage the use of public transport over car use. However, further study would need to take place in order to assess the impact on journey time that diverting the bus route through the proposed development.



Figure 3-26 - Bus Routes Surrounding the Proposed Development Site



Reginald Road

- 3.23 Along Reginald Road there was a bus stop present; however, during the site visit the bus frequency within this area was low (Figure 3-27). The paint indicating to motorists that this layby is for buses is worn and difficult to read.

Figure 3-27 - Reginald Road Bus Stop



Clock Face Road

- 3.24 Near to the junction with Gorsey Lane there was a bus stop identified which was adjacent to a local corner shop and residential properties. The bus stop was set back from the edge of the road into the grass verge that runs parallel to the pedestrian footpath.
- 3.25 There was an additional bus stop located outside of Little Angels Nursery School which included a raised kerb for improved disabled and pram user access while boarding and leaving the bus.
- 3.26 There was a mini roundabout at the junction with Gartons Lane and the continuation of Clock Face Road. Again, there was another bus stop located outside of residential properties. Near to the junction with Leech Lane there was another bus stop outside of the houses on Clock Face Road with a built-up paving for improved disabled and pram user access to and from the bus.

Rail Infrastructure

- 3.27 The proposed development site is close to both St Helens Junction (Table 3-3) – approximately 13-minute walk or 4-minute cycle ride, and Lea Green Station (Table 3-4) – approximately 30-minute walk or 9-minute cycle ride.
- 3.28 Both stations offer direct services which connect to the major cities in the north west such as Manchester and Liverpool. However, in order to reach St Helens town centre which is served by St Helens Central Station, passengers need to change trains, typically at Huyton, as there are no direct trains from either station.

Table 3-3 - Rail Services from St Helens Junction

Train Route	Average Journey Time	First Train	Last Train	Number of Changes	Number of Trains per day	Train Fares from
St Helens Junction to Liverpool Lime Street	32 minutes	05:55	00:08	0 (Direct)	Approx. 35	£4.50
St Helens Junction to Manchester Piccadilly	31 minutes	05:51	23:58	0 (Direct)	Approx. 36	£8.20
St Helens Junction to Crewe	1 hour 9 minutes	05:51	16:55	0 (Direct)	Approx. 12	£15.40
St Helens Junction to Warrington Bank Quay	19 minutes	05:27	19:27	0 (Direct)	Approx. 11	£3.90
St Helens Junction to St Helens Central	26 minutes	05:55	00:08	1 change	Approx. 33	£4.60

Table 3-4 - Rail Services from Lea Green Station

Train Route	Average Journey Time	First Train	Last Train	Number of Changes	Number of Trains per day	Train Fares from
Lea Green Station to St Helens Central	1 hour 12 minutes	05:58	00:11	1	Approx. 34	£4.60
Lea Green Station to Liverpool Lime Street Station	25 minutes	05:58	00:11	0 (Direct)	Approx. 57	£2
Lea Green Station to Manchester Victoria/Manchester Piccadilly	32 minutes	05:32	23:55	0 (Direct)	Approx. 54	£3

Train Route	Average Journey Time	First Train	Last Train	Number of Changes	Number of Trains per day	Train Fares from
Lea Green to Crewe	1 hour 52 minutes	05:48	16:52	0 (Direct)	Approx. 10	£6
Lea Green to Warrington Bank Quay	22 minutes	07:27	19:24	0 (Direct)	Approx. 10	£4.60
Lea Green to Scarborough	2 hours 29 minutes	06:08	20:08	0 (Direct)	Approx. 14	£17

Lea Green Station

- 3.29 Initial observations show that the large space surrounding the station is not utilised effectively. There was no secure cycle storage located at the station - only bike stands (Figure 3-28). However, there is sufficient space (Figure 3-29) and demand for a secure cycle shed to be implemented as the bike stands were in use.
- 3.30 The road from Lea Green Station leading to the Bull & Dog pub has bollards in place, suggesting that this was once a road but is now closed to traffic (Figure 3-30).
- 3.31 Other observations included the overspill from the car park onto Elton Head Road which connects the station to the main road of Elton Head Road B5204 and Marshalls Cross Road indicating there is insufficient parking capacity. However, the high number of vehicles present could be due to the car park being misused by staff or parents from Sutton Academy.
- 3.32 Within the car park there is a taxi stand with capacity for four taxis. However, during the site visit no taxis were present and one car was occupying the space (Figure 3-31 & 3-32).

Figure 3-28 - Bicycle Stands at Lea Green Station



Figure 3-29 - Underutilised space at Lea Green Station



Figure 3-30 - Bollards preventing vehicles accessing this road



Figure 3-31 - Misuse of Taxi Stand



Figure 3-32 - Capacity for Four Taxis



St Helens Junction Station

- 3.33 Near the station entrance, along Helena’s Road, a bridge restricts the width of the footway which may make it difficult to install a full segregated cycle lane in this area (Figure 3-33).
- 3.34 Initial observations upon entering the station grounds was the poor signage, in particular the signage for directions to the car park (Figure 3-34). It is difficult to navigate to the car park as the initial signs state no entry except for buses (Figure 3-35). It was then observed that the entrance to the car park for vehicles is the same road in which the buses use to exit the station; however, there was no right of way/priority sign shown which could cause collisions between vehicles accessing the car park and buses.
- 3.35 In addition to not having a logical entry point to the car park for drivers, visibility is poor due to the vegetation on the mini roundabout blocks the drivers view of any oncoming buses which again could lead to accidents (Figure 3-36, 3-37 & 3-38). The car park at the station has large capacity but was underutilised at the time of the site visit (Figure 3-39).

Figure 3-33 - Bridge near St Helens Junction – Narrow Footway



Figure 3-34 - Poor signage for car park access



Figure 3-35 - No entry sign except for buses and overgrown vegetation



Figure 3-36 - Bus stop at St Helens Junction Station



Figure 3-37 - Car Park Entrance could cause vehicle conflict - no give way signs



Figure 3-38 - Direction in which vehicles should enter car park with no direction signs



Figure 3-39 - Underutilised car park at St Helens Junction Station



Cycle Infrastructure

- 3.36 Whilst there is some cycle infrastructure in place, many of the roads surrounding the proposed development site are suggested cycle routes (Figure 3-40).
- 3.37 Observed cycle facilities include:
- A cycle sign painted on the road observed near Helena's Road (Figure 3-41) which highlights that vehicles have priority over cyclists.
 - At Lea Green Station and St Helen's Junction Station there were bicycle storage facilities (Figure 3-42 & 3-43) which appear to be underutilised.
- 3.38 There are on-road cycle routes, off-road cycle routes and suggested cycle routes surrounding the proposed development site which connect to St Helen's town centre and other areas such as:
- Peasley Cross;
 - Sutton;
 - Moss Nook;
 - Clock Face;
 - St Helens Junction Station; and
 - Lea Green Station.

Figure 3-40 - Cycle Routes Surrounding the Proposed Development Site

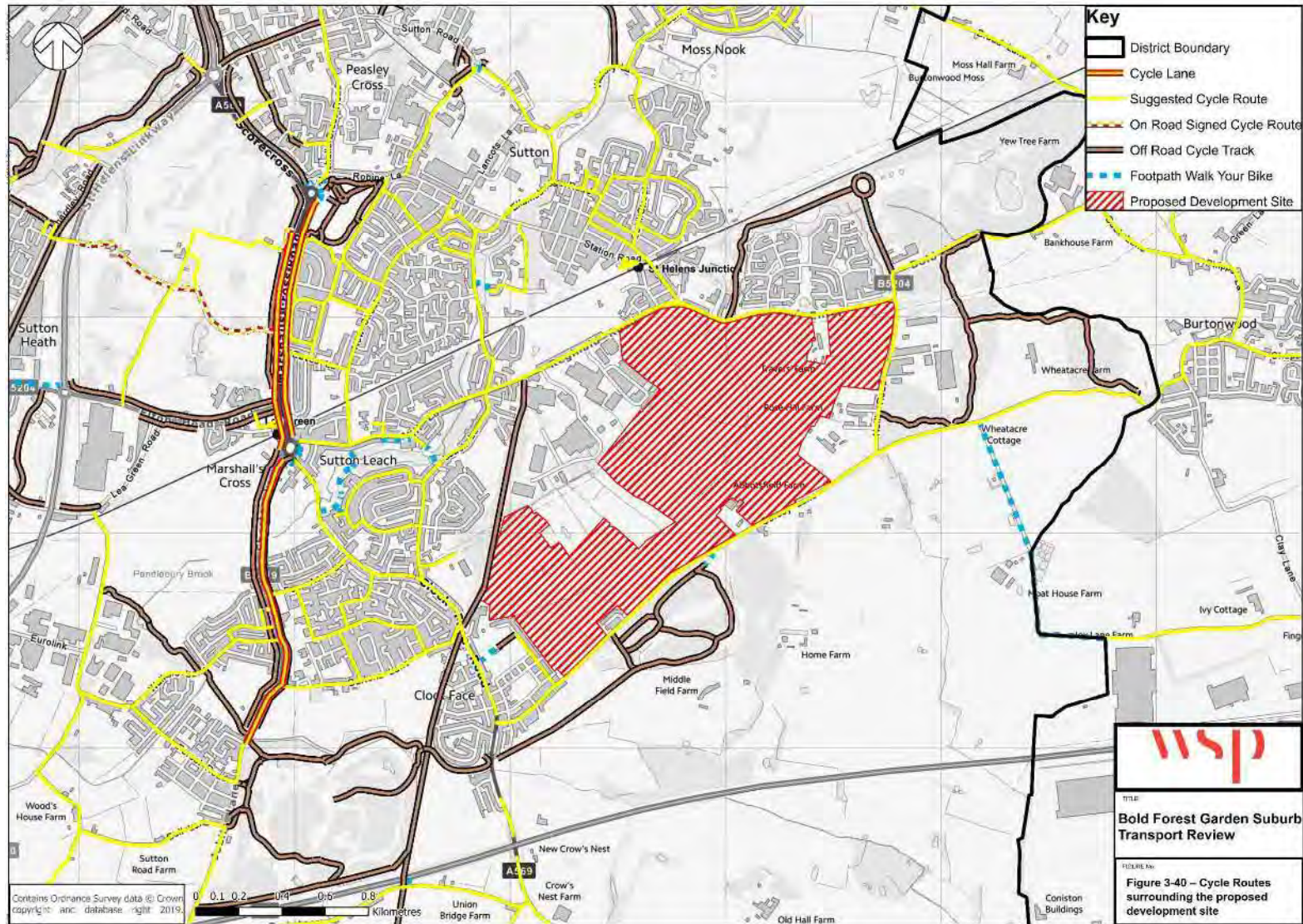


Figure 3-41 - Helena's Road Cycle Markings



Figure 3-42 - Bicycle Parking Facilities at Lea Green Station



Figure 3-43 - Bicycle Parking Facilities at St Helens Junction



4

TRANSPORT OPPORTUNITIES



4 TRANSPORT OPPORTUNITIES

Overview

- 4.1 As a result of its scale, Bold Forest provides an opportunity to do things differently from the start. There is a significant opportunity in relation to future needs and requirements, in particular climate change and sustainability. Scale provides the ability to make a meaningful difference, both in terms of inter-relationships with other sites and amenities but also in terms of ability to design the site to add cumulative value to networks from early stages.
- 4.2 At a strategic level, Bold Forest lies central to the north west's key cities of Manchester and Liverpool, being absolutely on-line in terms of its location on east-west road and rail corridors. It is also geographically central between the key centres of St Helens, Warrington and Runcorn/Widnes.
- 4.3 The site can be designed with these in mind, bearing in mind people rarely make travel decisions based on political boundaries. From a transport perspective, the opportunity of being central at both local and regional level needs to be exploited in terms of walking, cycling and public transport networks, to ensure that this primarily residential site links well with relevant employment, education and leisure amenities.
- 4.4 An important element of this is to work with potential wider transport improvements, such as the proposed transit between Warrington and Omega, which has the potential for extension to either Lea Green or St Helens.
- 4.5 In relation to rail, with the advent of Northern Powerhouse Rail there is strong potential to make more of current railway lines, which is directly relevant both in relation to the Chat Moss Line, with Lea Green and St Helens Junction as hubs, but also the Cheshire Lines Link to and from Liverpool/South Parkway with Chapelford (Warrington West), Widnes and Warrington Central all being points of future connectivity.
- 4.6 The site should not be 'ashamed' of its great access to the road network, but its scale, combined with strategic thinking in terms of connectivity, does provide a major opportunity for sustainability, particularly if layouts can be developed that orientate themselves to non-car accessibility. The most forward housing developments in Europe, such as Vauban, cited in this report have achieved significant benefits through early thinking on sustainable accessibility.
- 4.7 This section considers the specific local and strategic opportunities to facilitate multi-modal connectivity, and achieve the sustainable aspirations for the site.

Local Opportunities – Highway Network

- 4.8 There are various options which could improve the site's accessibility to and from the existing road network. However, it is particularly important to also consider the potential to remove traffic from the existing network and to provide new routes that can accommodate the level of traffic anticipated.

Access Point H – Helena's Road

- 4.9 Helena's Road has the potential to be the main gateway into the development, as the junction at Helena's Road and Bold Road is the main desire line from St Helen's Junction Station to the site. This entrance could be framed with a green space with a variety of vegetation in order to open the area up. Footways could be improved in terms of paving and greening.

Junction H: Helena's Road/Bold Road

- 4.10 The junction could potentially be reconfigured to a 4-way signalised junction with facilities for all users. There is also the option to include a cycle-only phase to prioritise cyclist movements. A segregated cycle lane could connect to St Helens Junction Station in order to promote active travel from the proposed development site. However, due to the narrowing of Helena's Road there may not be sufficient space for a fully segregated cycle lane and an on-road cycle lane may be more suitable along this section.

Junction I: Bold Road / Neill's Road

- 4.11 Along Bold Road towards the junction with Neill's Road the speed limit could be reduced from 40mph to 30/20mph in order to create a safer and more attractive environment for pedestrians and cyclists. A new roundabout junction could be created here, using development land where needed. This would increase the capacity of the junction and improve safety.

Junction J: Neill's Road / Gorse Lane

- 4.12 Visibility at this junction is currently very poor. The replanting of vegetation at each corner would allow for a visibility splay in accordance with design standards, with the inclusion of a ghost island. There is also the potential to replace the priority junction with a roundabout.

Access Point M: Gorse Lane

- 4.13 There is the opportunity to connect the proposed access point on Gorse Lane directly with the proposed access point at Helena's Road to create a direct through road from one side of the proposed development site to the other. This then provides the opportunity to reroute buses along Gorse Lane, through the housing site and connect to Helena's Road.

Junction F: Gorse Lane / Clock Face Road

- 4.14 Although the road at this junction is wide, the waiting time to turn right from Gorse Lane onto Clock Face Road was significantly higher than at the other junctions. A corner shop and a bus stop (adjacent to the corner shop) are situated close to the junction, which potentially increases the footfall of the area. Therefore, due to the busy junction and the potential to have pedestrians crossing the road the area would benefit from signalisation to allow full pedestrian movement to and from the bus stops and to provide a clear gateway into a formal residential and low speed area.

Access Point N (i): Hall Street off Clock Face Road

- 4.15 There is the opportunity to extend Hall Street (located in the residential area off Clock Face Road) to connect to the proposed development site as a western access point (7.5m in width). There would be no requirement for land acquisition as the current road ends at the start of the development site.

Access Point N (ii): Willow Tree Avenue (off Leech Lane)

- 4.16 There is the opportunity to extend Willow Tree Avenue (5.5m in width) through the development site in order to create an access point from the houses to Willow Tree Primary School. There would be no requirement for land acquisition as the current road ends at the start of the development site.

Access Point N (iii): Taunton Avenue (off Leech Lane)

- 4.17 A third option for a 5.5m or 7.5m wide access point on the west of the site is to extend Taunton Avenue through the development site. However, in order to create this link road there would be a requirement for land/property acquisition which would require negotiations with local residents and home owners.
- 4.18 Another option is to designate this access point for use by pedestrian and cyclists only. There is already a footpath in place which links to Willow Tree Avenue connecting to Willow Tree Primary School. This could be extended to the proposed development site in order to promote active travel and connect the site to a nearby educational facility.

Junction E - Marshalls Cross Road / Mill Lane / Clock Face Road / Chester Lane

- 4.19 At this roundabout there are very few pedestrian facilities, with worn tactile paving on the crossing for each arm. This area would benefit from an enhanced pedestrian crossing, especially as the area is popular with pedestrians accessing Lea Green Station.
- 4.20 There is also sufficient width on each lane to install a fully segregated cycle lane following the traffic route around the roundabout and into Lea Green Station. A more ambitious solution would be to install the cycle lane directly through the roundabout which would link directly with the train station, with cycle-only phasing to give cyclists priority at the junction.

Local Opportunities – Bus Services

- 4.21 Existing bus services could be re-routed through the proposed development site via Gorse Lane and the road through the development site from Gorse Lane to Helena's Road, in order to encourage residents to use public transport and provide a link to local rail services. In order to make this a viable option and attractive alternative to the car, the existing bus service frequency would need to be increased.
- 4.22 There is also the opportunity to add a new bus route which loops between St Helens town centre and Lea Green and St Helens Junction stations. This would provide a high frequency service to both residents of the proposed development and residents of surrounding developments, helping to reduce reliance on the car.

Local Opportunities – Walking and Cycling

- 4.23 In order to promote more active travel, it is recommended that segregated cycle lanes and pedestrian footpaths be provided throughout the proposed development site and surrounding areas. An existing public footpath runs directly through the proposed development site, which could be retained and enhanced with the provision of a cycle lane.
- 4.24 The addition of secure cycle storage facilities within the proposed development site and at rail stations would also support this. Furthermore, a cycle hire scheme would enable residents to hire bikes to use to access the station and local amenities.
- 4.25 In order to encourage more cycling in the area, a cycle-based 'Bike and Ride' initiative could encourage people to store their bicycle at the station and use the train, as it is approximately a 5-minute cycle ride from the centre of the proposed development site to St Helens Junction. Cycle infrastructure should be incorporated into the masterplan for the development site at the outset, as well as improving the cycling facilities at local rail stations and potentially also offering cycle hire services.

Strategic Opportunities – Warrington Mass Transit

- 4.26 Warrington mass transit was proposed as part of the 2019 Warrington Fourth Local Transport Plan, as a result of declining use of public transport to just 5.6% of residents for travel to work. In order to encourage more active and sustainable travel across the area and increase the use of bus and mass transit for people travelling to work to 15%, Warrington Council aspires to create a mass transit network that would help achieve this ambitious target.
- 4.27 The Council commissioned a study to investigate different modes of transport that could be considered for the mass transit network across Warrington. The two modes of transport which have been considered are Light Rail/Tram and Bus Rapid Transit Systems. Whilst the Council is still in the early feasibility stages, a Bus Rapid Transit network is currently favoured as a result of the success of similar schemes across the UK, in particular within Greater Manchester.
- 4.28 In order to successfully deliver a Bus Rapid Transit network, the scheme would need to include:
- Bus only roads – certain roads dedicated to buses only, with no access for other vehicles; and
 - Priority Junctions – provision of priority for buses at all junctions, including the junctions which intersect with public highways.
- 4.29 The proposed areas which the mass transit network would serve include:
- Lingley Mere / Omega to the proposed Garden Suburb South East Urban Extension;
 - Daresbury to Winwick;
 - Birchwood to Fiddler’s Ferry;
 - Birchwood to the proposed Garden Suburb South East Urban Extension; and
 - Lingley Mere / Omega to Birchwood.
- 4.30 There is a significant opportunity to connect the proposed development at Bold Forest Garden Suburb to the proposed mass transit network, from either Lingley Mere or Omega. If the development of the Bus Rapid Transit goes ahead, there is the opportunity to extend the network across Clock Face Country Park and Gorse Lane to connect to the proposed development site.
- 4.31 This would provide a new link between St Helens and Warrington, creating a wider catchment for job opportunities for residents living within the Bold Forest development and reducing pressures on the Strategic Highway Network, helping to achieve the sustainability ambitions set for the site.

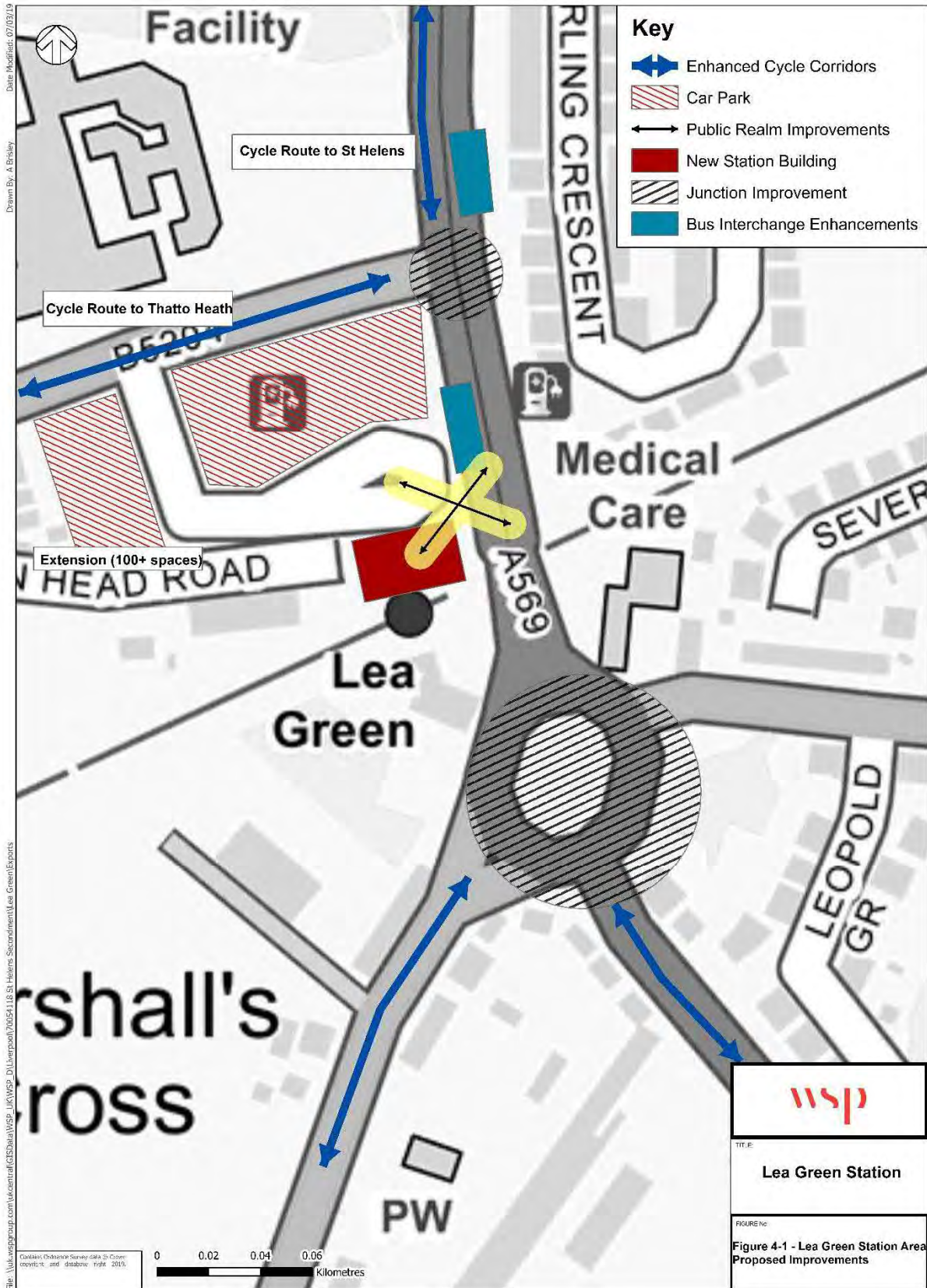
Strategic Opportunities – Omega M62 Crossing

- 4.32 WSP has been commissioned by Highways England to carry out a study that considers the possibility of creating a new road bridge over the M62 to the west of Junction 8 at Omega Business Park. The study is still in the early stages; however, should the scheme come forward it has the potential to take north/south traffic travelling towards Warrington away from the M62 Junction 8, allowing more capacity for traffic to and from the M62.

Strategic Opportunities – Eastern Region Interchange and Connectivity Scheme (ERIC)

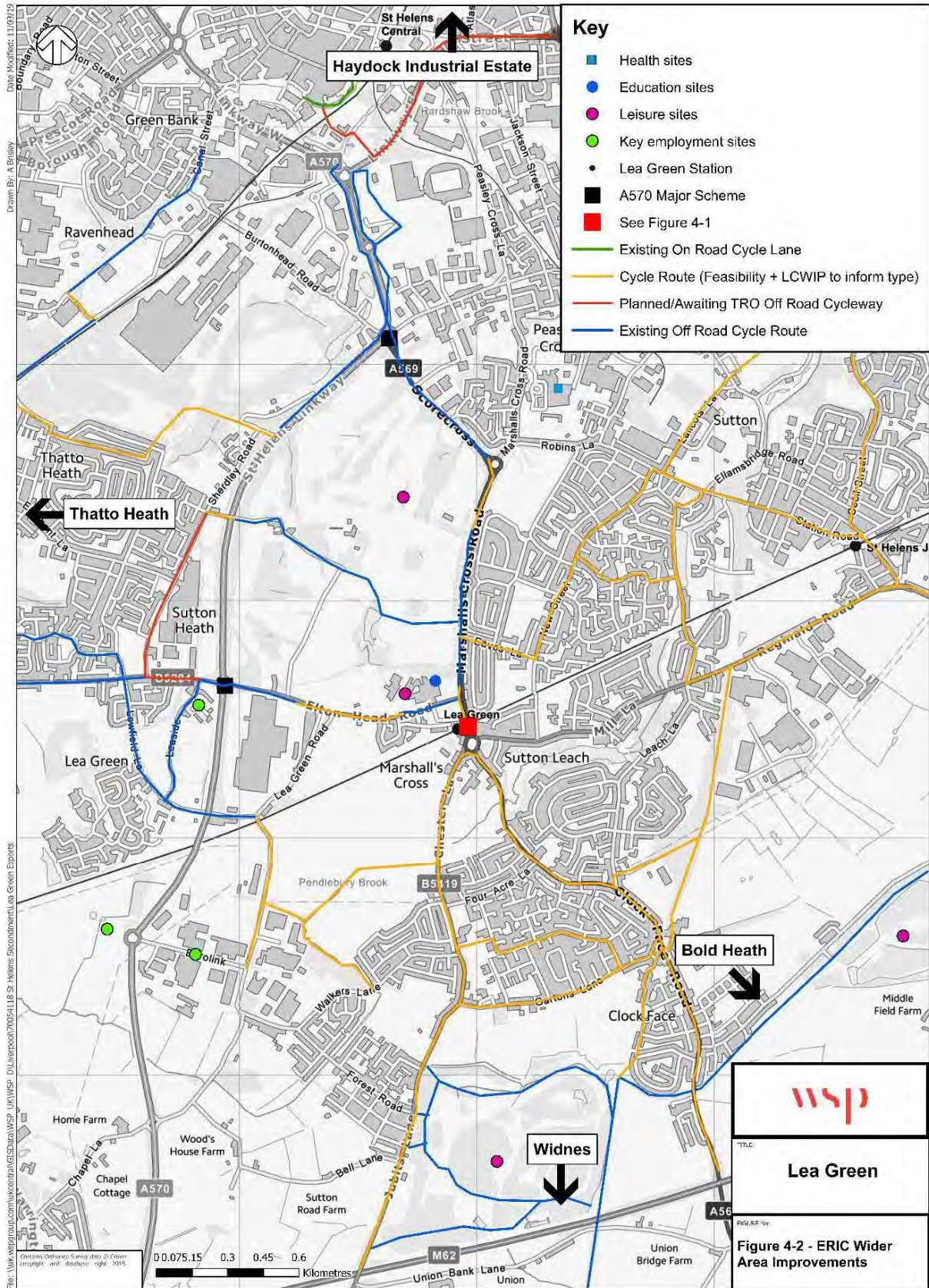
- 4.33 At Lea Green Station there are proposed improvements to upgrade the station and surrounding area as part of the Eastern Region Interchange and Connectivity Scheme (ERIC), as shown in Figure 4-1.

Figure 4-1 - ERIC: Lea Green Station Area Improvements



- 4.34 The proposed improvements include:
- Enhanced cycle corridors to St Helens and Thatto Heath, including a cycle route that not only surrounds the proposed Bold Forest development site, but which also runs through the site and connects to both Lea Green and St Helens Junction stations (Figure 4-2);
 - A car park extension to include more than 100 spaces;
 - Public realm improvements to the immediate area surrounding the station;
 - A new station building;
 - Bus interchange enhancements; and
 - Junction improvements at the B5204 and A569 junction and the Bull & Dog roundabout junction.
- 4.35 These improvements will improve the attractiveness of rail for residents of the proposed development site and the wider surrounding area, providing direct cycle access to two rail stations that offer direct, fast and frequent connections to major employment areas, including Manchester, Liverpool and Warrington.
- 4.36 Coupled with enhanced end of trip facilities, this scheme could help to increase the proportion of residents at the proposed development and in the surrounding area who use sustainable modes.

Figure 4-2 - ERIC: Wider Area Improvements



Strategic Opportunities – St Helens Rail Study

- 4.37 St Helens Council is currently considering several options for improving rail access to St Helens town centre, including the possibility of reopening the Sutton Oak line between St Helens Central and St Helens Junction, or repurposing this route as a tram line or bus rapid transit corridor.
- 4.38 It will be important to ensure that the Bold Forest masterplan takes options for the Warrington mass transit into consideration. For example, it may be beneficial to identify and protect a route through the site which could serve as a rapid transit corridor (either tram or bus) which could connect St Helens Junction, Bold Forest and Omega, creating a network across St Helens and Warrington boroughs.
- 4.39 If a heavy rail option is taken forward for the Sutton Oak line, an extension of the Warrington rapid transit network through Omega, across Bold Forest to St Helens Junction would offer additional connectivity for residents and workers across the area, including new connections to Manchester city centre by train from St Helens Junction.

5

BEST PRACTICE REVIEW



5 BEST PRACTICE REVIEW

5.1 This section provides best practice examples of suburban areas which have been transformed by incorporating sustainable ‘green’ modes of transport into the overall design at the outset of the masterplanning process. Commentary has been provided which identifies thinking and ideas that could support a similar development at Bold Forest.

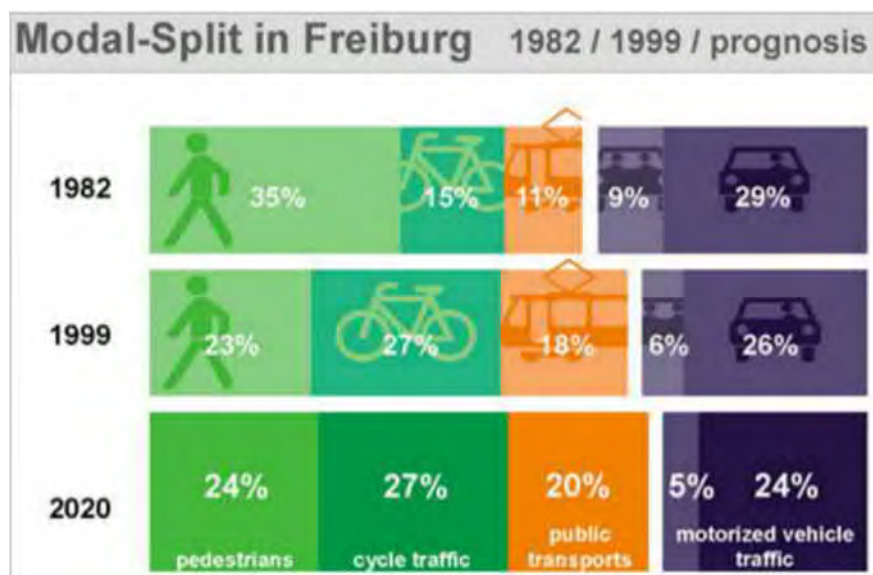
Vauban, Freiburg, Germany

5.2 Located in Freiburg, Southern Germany, Vauban is one of the world’s most sustainable living cities as a result of the district being planned and constructed around a ‘green’ transportation system. The district is surrounded by a highly connected, strategic network of pedestrian and cyclist paths, with every property within walking distance of a sustainable form of transport such as a tram or cycle lane.

5.3 In addition to being within walking distance of a transport network, every home is located within walking distance to every school, a number of businesses and shopping areas. Due to the efficient and green transportation network being so accessible, the number of cars is kept to a minimum. Not only do people have the pull of transport, jobs and retail areas being located so nearby as a reason not to drive, but car parking was not factored into the planning of the district. Therefore, the small number of residents who do own cars have to park on the outskirts of the area in a community car park and commute to their home through another form of transport.

5.4 As a result of such an extensive network of over 400km of segregated cycle paths and over 9,000 bicycle parking spaces located around Freiburg, including ‘bike and ride’ storage at various tram stations, the modal split has shifted towards sustainable modes. Figure 5-1 shows how the combined percentage of residents choosing to cycle, walk or use public transport to a destination increased from 61% in 1982 to 68% in 1999 with the predicted modal-split being at 71% by 2020.

Figure 5-1 - Modal Split in Freiburg



Source: <https://www.smartcitiesdive.com/ex/sustainablecitiescollective/words-most-successful-model-sustainable-urban-development/229316/>

- 5.5 Public transport use has seen the most significant increase, in part due to the frequency and reliability of public transport services. Trams run precisely every 7 minutes 30 seconds during rush hour (Figure 5-2). Another reason for this is the provision of subsidised train and tram tickets to residents, coupled with the lack of on-site parking.

Figure 5-2 - Freiburg Tram System



Source: Apolitical Group

The Hamptons in Worcester Park, Surrey, UK

- 5.6 The Hamptons has been transformed from an extensive area of wetlands to a sustainable green suburb, 10 miles from the centre of London. The final phase of the development had 645 houses developed, 40% of these were 'affordable homes'.

There are elements of Vauban which could be incorporated into the Bold Forest Development, in particular the strategic cycle and pedestrian network and provision of frequent, reliable public transport services that provide a viable alternative to the car. Designing the cycling and pedestrian network at the outset of the development and providing facilities such as schools on site allows residents to be within walking distance of key trip attractors. A similar high frequency public transport system could be achieved at Bold Forest with the extension of the Warrington mass transit system, as well as bus services which loop between the site, local rail stations and St Helens town centre.

- 5.7 Whilst a number of factors have contributed to the area being sustainable and 'green', transport has played a major role. The strategic transport network incorporates cycle lanes and footpaths in order to promote active sustainable travel. Cycle parking has also been improved at Worcester Park

Station, to encourage more 'bike and ride' travel. Additional incentives include residential discounts on bicycle purchases and a bicycle hire scheme.

- 5.8 Public transport has seen further improvements in respect of improving the bus services available to the area. As well as this, a car club has been formed to reduce vehicle ownership and provide flexibility to residents for longer distance trips.
- 5.9 There are large open pockets of green space running through the suburban area (Figure 5-3), to create a space of tranquillity and relaxation.

Figure 5-3 - Suburban Green Garden



Source: Berkeley Group

In order to create an innovative garden suburb, many of the elements from The Hamptons could be included in the development of Bold Forest Garden Suburb. The inclusion of a cycle and pedestrian network across the development site would encourage more active and sustainable travel. Upgrading cycle parking to secure facilities at both St Helens Junction and Lea Green stations in addition to a bicycle hire scheme would further enhance active travel. The idea of a car club or car sharing scheme within Bold Forest provides people with the opportunity to reduce overall car trips whilst also retaining the flexibility of car travel for some trips. A large open green space that is only accessible on foot or bicycle allows the Bold Forest development site to retain greenery and vegetation.

Houten, Netherlands

- 5.10 Like most Dutch cities, Houten is predominantly cycling and walking based. The design of the city encourages more people to walk and cycle to and from their homes, places of work and shops, based on a strategic network focused on cycling and walking.
- 5.11 Those who wish to travel by car must use the ring road that surrounds the outside of the city. Therefore, people travelling from one side of the city to the other must drive around the outer region of the city, increasing journey times.
- 5.12 The city has over 129km of cycle lanes, which have been constructed using red brick in order to separate them from the roads where vehicles are permitted. In order to further enhance the segregation between cyclists and drivers, bollards are in place at the entry and exit points to the cycle paths, which act as physical barriers to vehicles. The only time bicycles and vehicles share roads / lanes is in residential areas in order for residents to access their properties. Along these shared roads / lanes speeds are limited and road signs are in place which state that cyclists must be given right of way.
- 5.13 Figure 5-4 shows motorists giving way to a cyclist as cyclists have priority. Figure 5-5 shows the ring road surrounding the suburb which connects the different areas together.

Figure 5-4 - Cyclists have priority over vehicles



Source: NL Cycling

Figure 5-5 - Ring Road Surrounding Houten



Source: Google Maps

The installation of fully segregated cycle lanes, which have a distinctive pattern/brick that is different from the material used for the road, improves safety for cyclists. Within the development at Bold Forest, vehicles could be permitted to drive; however, the priority could be given to cyclists and pedestrians, encouraging more residents to travel sustainably and enhancing the overall look and feel of the development into a space that is not dominated by cars.

Curitiba, Brazil

- 5.14 Curitiba is one of the most sustainable and green cities in the world, primarily as a result of new leadership. Development shifted and focused on sustainable methods of development from transport systems, green areas and recycling initiatives (Figure 5-6).
- 5.15 The main form of transport is an integrated transport system in the form of Bus Rapid Transit (Figure 5-7). The sustainable transport system is efficient and affordable, reducing journey time by as much as 25 minutes and by having one ticket price for every journey made, regardless of the distance. The reason for the reduction in journey time has occurred not only because the buses have designated lanes that are segregated from other vehicles, they also have wider doors compared to standard buses, in order to increase the accessibility and speed in which passengers can embark and disembark (Figure 5-8).
- 5.16 This means that 28% of all trips around the city are made by bus. In addition to the Bus Rapid Transit System, a number of streets in the city centre were pedestrianised and cycle lanes follow a city wide strategic network in order to reduce congestion and emissions and promote more active and sustainable travel.

Figure 5-6 - A view of the green spaces dominating the urban area



Source: Contemporary Urbanism

Figure 5-7 - Bus Rapid Transit System



Source: ITDP

Figure 5-8 - Passengers quickly and safely disembarking the bus

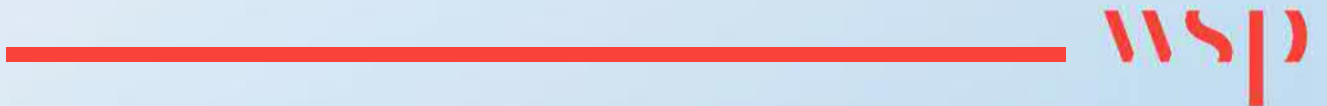


Source: Reimagine.org

The provision of a bus rapid transit system serving the Bold Forest development, potentially as an extension to the Warrington mass transit system, would cause a significant shift from car to bus, enabling more space within the development to be allocated to active travel/green space. Adapting the buses in order to create wider doors would increase the speed in which people could board and alight the bus, improving journey times.

6

CONCLUSIONS AND NEXT STEPS



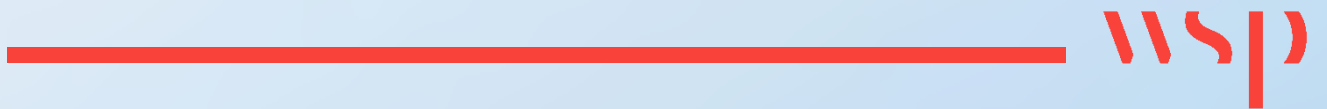
6 CONCLUSIONS AND NEXT STEPS

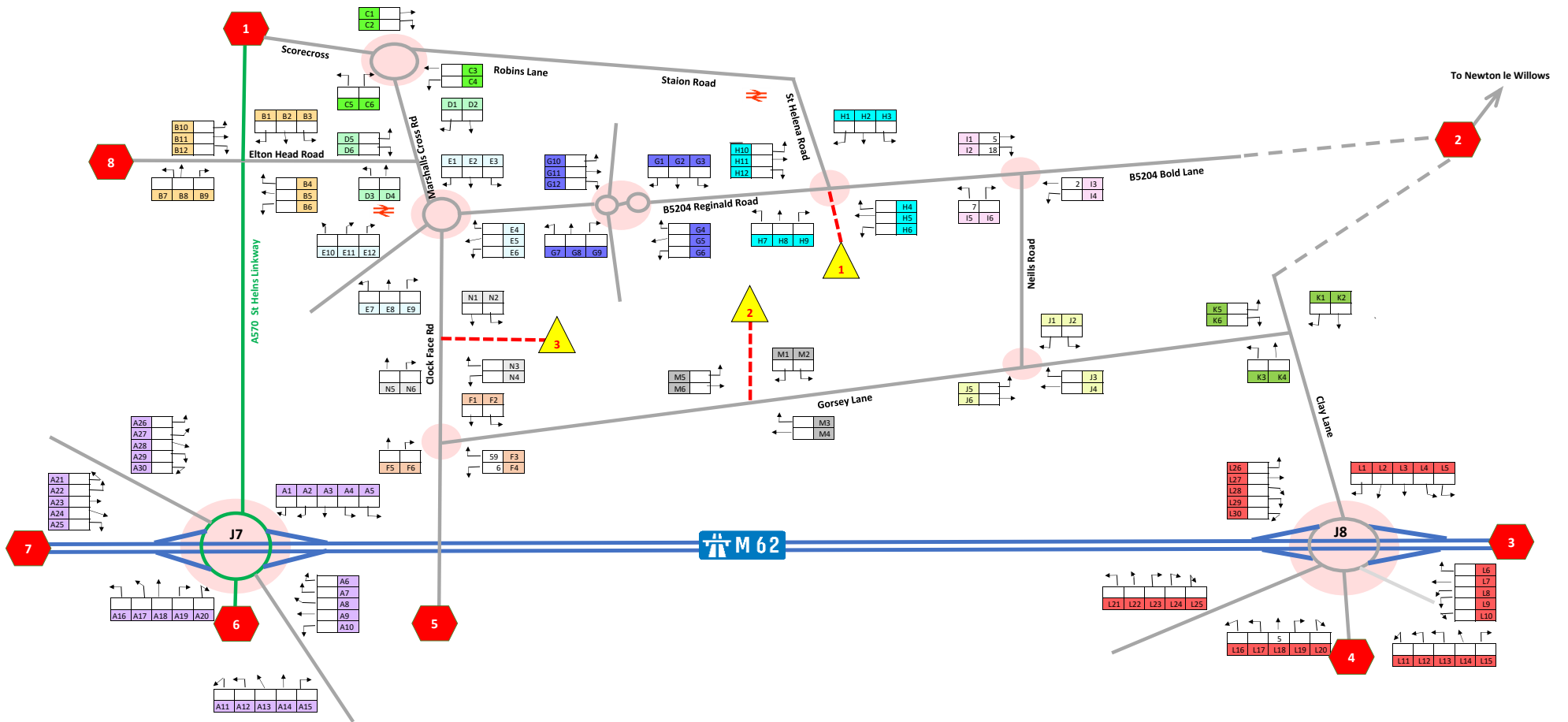
- 6.1 This review is the first stage of a much more comprehensive assessment of the proposed Bold Forest Garden Suburb from a transport perspective. The spreadsheet model developed as part of this piece of work can be taken forward and used to test emerging options and new scenarios.
- 6.2 In order to progress the project further, consideration will need to be given to forming a coherent vision and strategy for the Bold Forest Garden suburb. This vision should focus on sustainability and the innovative thinking that will drive a new type of development in the area.
- 6.3 The vision will then drive the creation of an indicative masterplan that breaks down the site into land use zones for different types of housing, retail, services, infrastructure and green space. This will also include options for vehicular access points and the internal road layout as well as active travel links and public transport routes.
- 6.4 There is an opportunity to create new through routes which serve both the development and the wider highway network, that would both mitigate the impact of development traffic and help to alleviate current congestion issues. This may lead to a betterment at some junctions as traffic is diverted via new routes that bypass junctions that are already approaching or over capacity.
- 6.5 From the initial findings, the junctions that are expected to experience the greatest percentage impact in terms of traffic flow as a result of development are:
- B5204 Reginald Road / Mill Lane / Leach Lane;
 - B5204 Reginald Road / Bold Road / Neills Road;
 - Neills Road / Gorsey Lane – Priority Junction;
 - Marshalls Cross Road / Mill Lane / Clock Face Road / Chester Lane;
 - Marshalls Cross Road / Elton Head Road;
 - Gorsey Lane / Clock Face Road; and
 - Gorsey Lane / Clay Lane.
- 6.6 In order to further understand the potential impact of development traffic, a series of local junction models will need to be created using software such as ARCADY, PICADY and LinSIG. These models can be fed by data used in the spreadsheet model and will establish a baseline and future year ratio of flow to capacity (RFC) at each junction.
- 6.7 Once it has been established which junctions may become capacity, a mitigation strategy can then be formed in which options are drawn up and tested. This may involve changes to existing junctions and/or the creation of new routes that by-pass problem areas.
- 6.8 In the creation of the Bold Forest Garden Suburb, there are opportunities to achieve a significant modal shift towards sustainable travel which would reduce the impact of the development on the local highway network.



- 6.9 Further engagement will be required with Highways England with regard to the potential impact on the Strategic Road Network (SRN).
- 6.10 There should be engagement with Warrington Council as the project moves forward to establish how Bold Forest could link into future transport plans, in particular the development of the mass transit scheme which could be of significant benefit should it be extended.
- 6.11 At all stages, stakeholder and community engagement will be required to ensure that the emerging plans are considerate towards the needs of the local community.
- 6.12 In the creation of the Bold Forest Garden Suburb, there are opportunities to achieve a significant modal shift towards sustainable travel which would reduce the impact of the development on the local highway network.

APPENDIX A



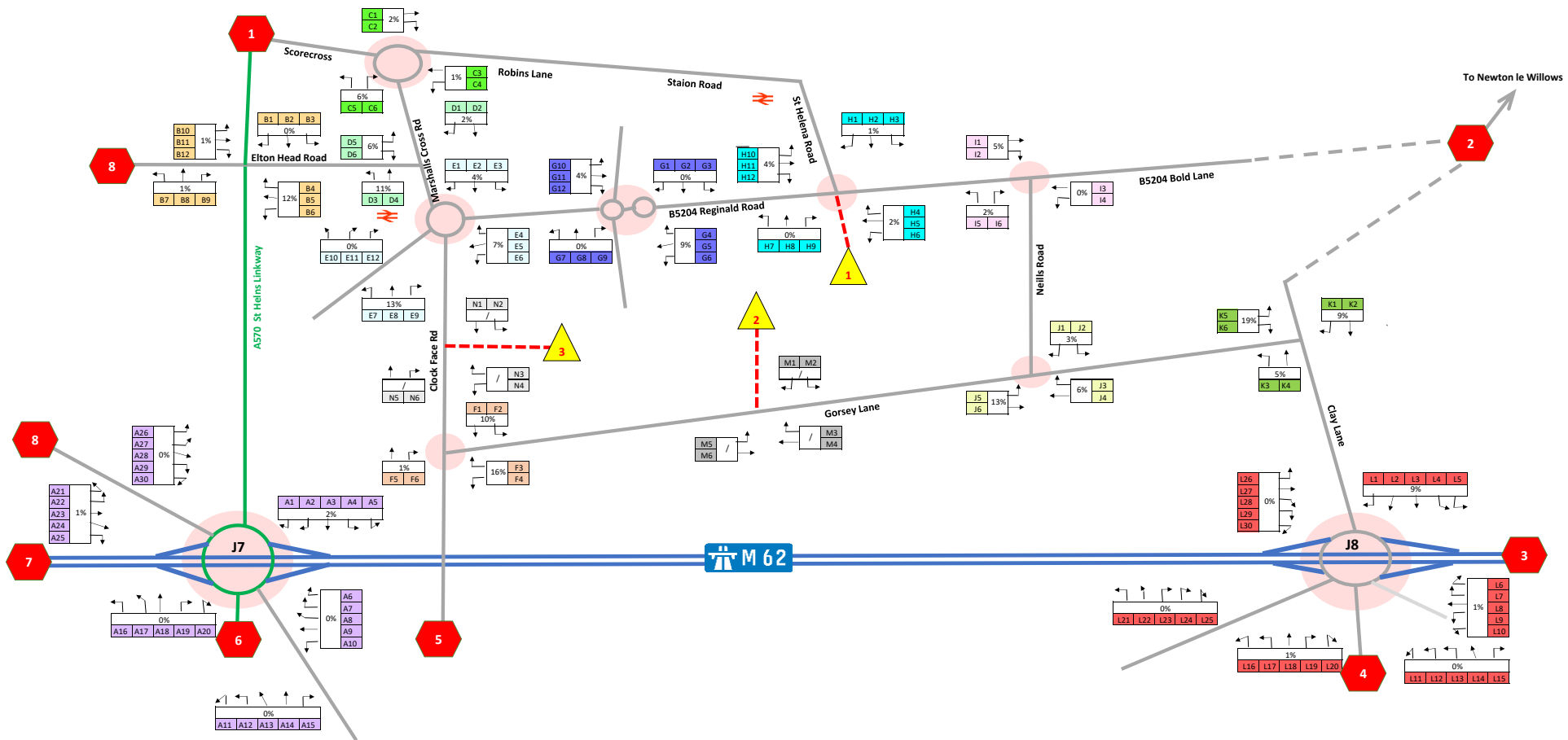




Title:
Network Diagram

Project:
Bold Forest

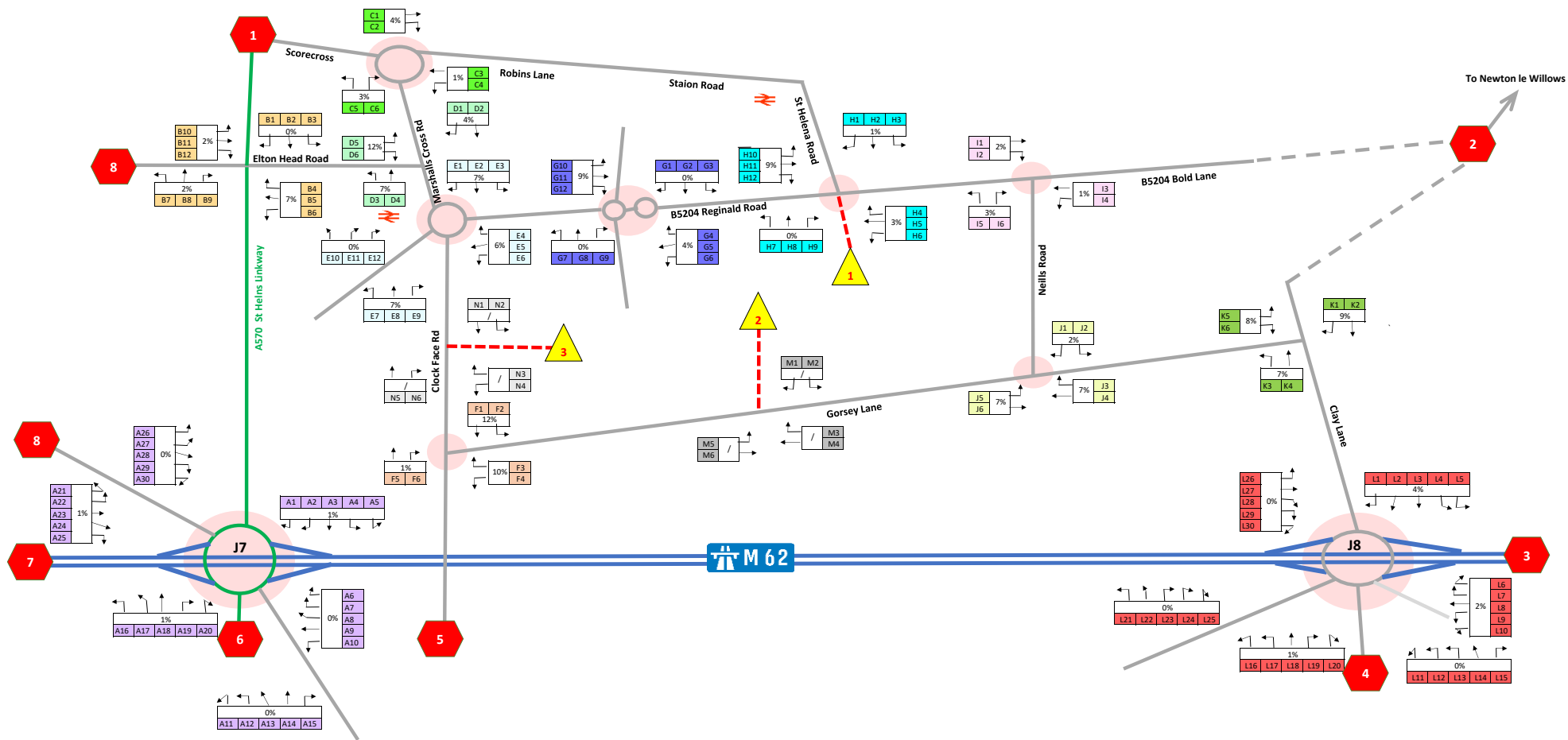
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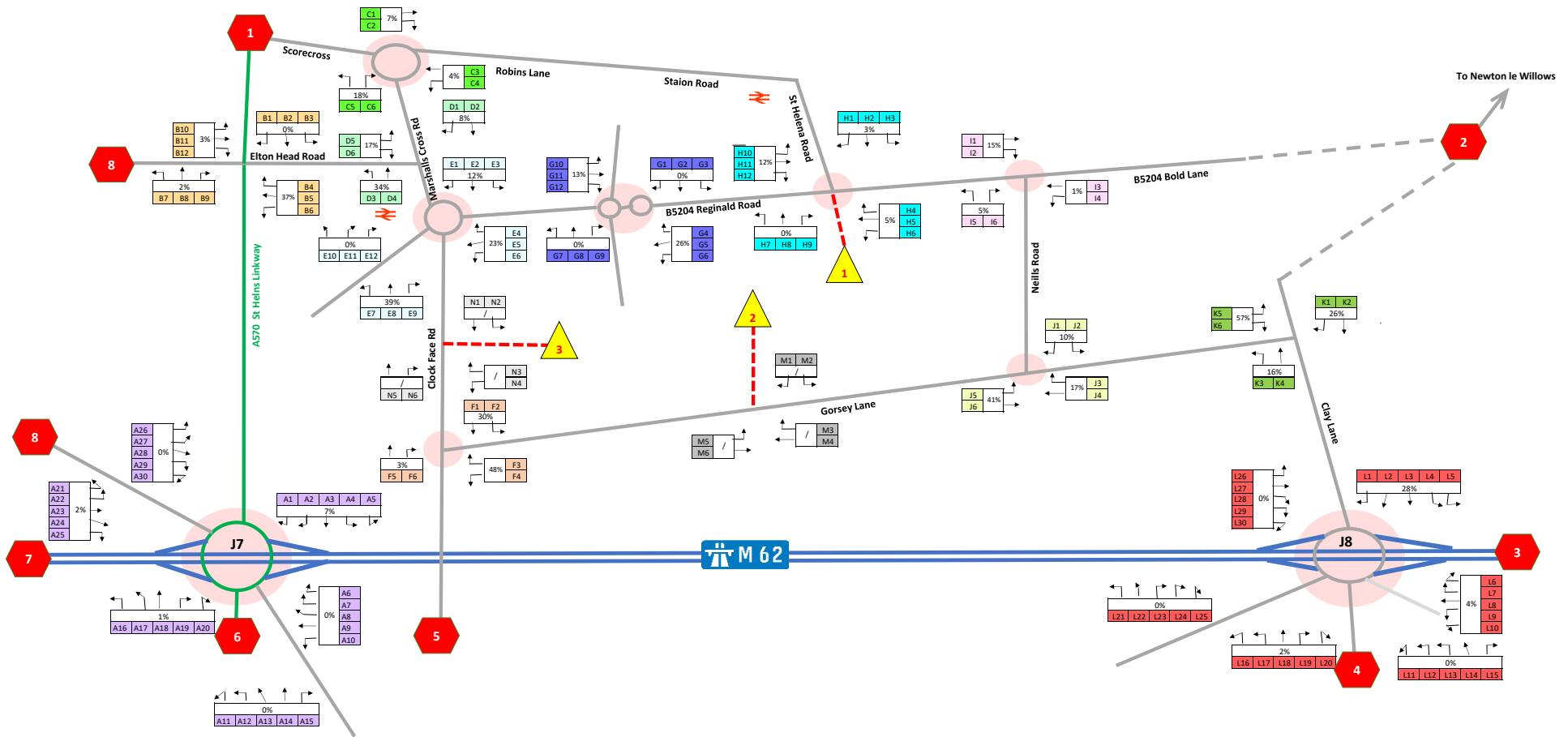





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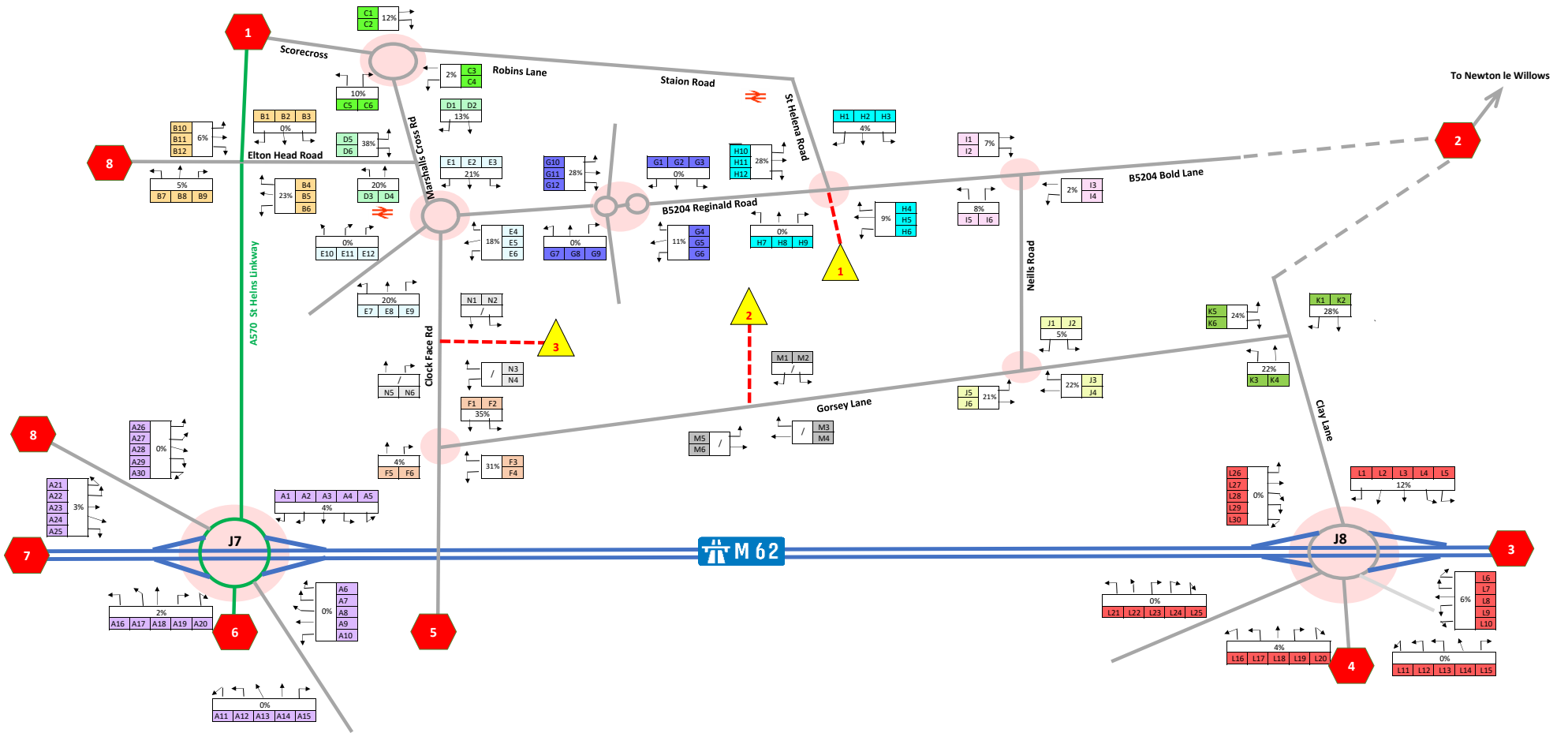





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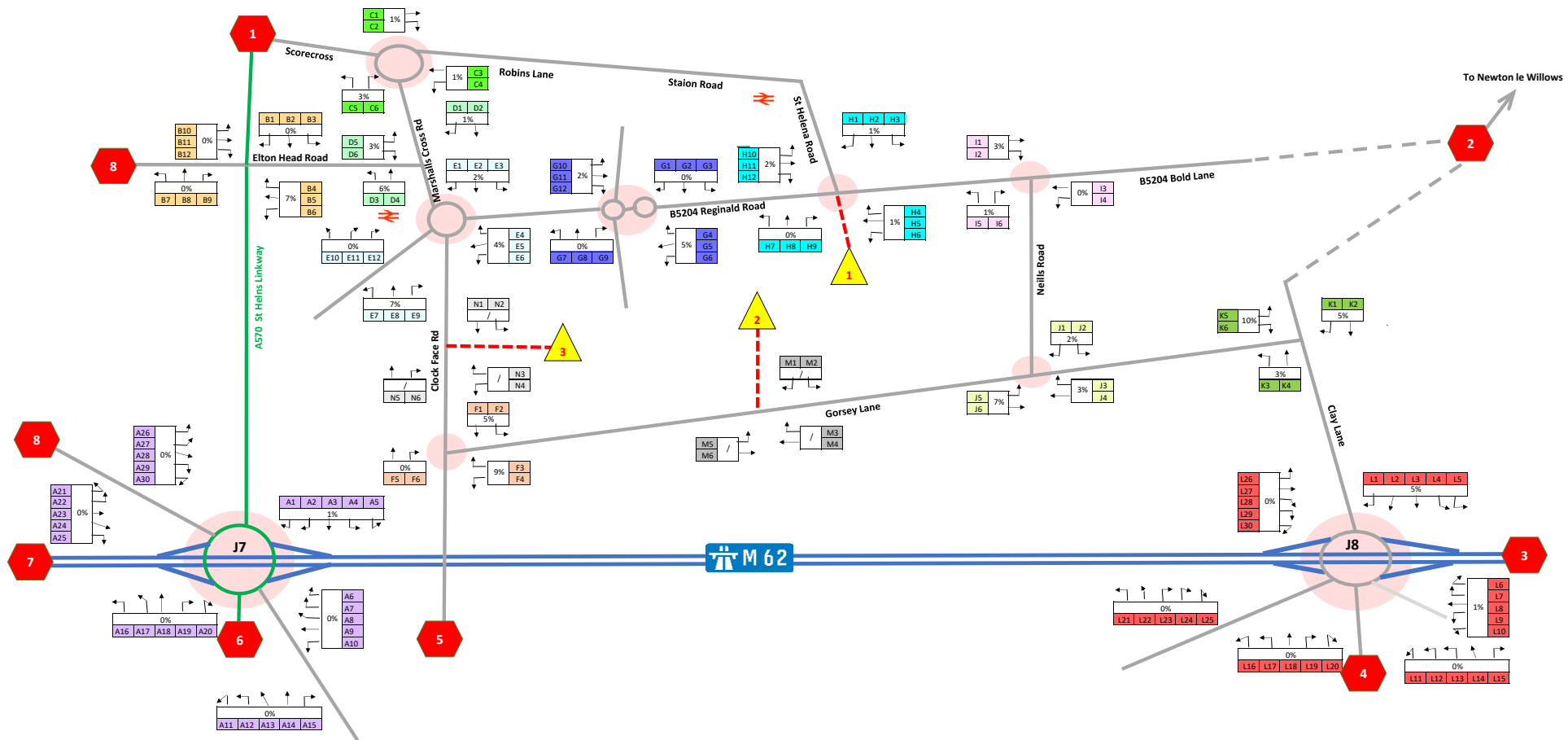





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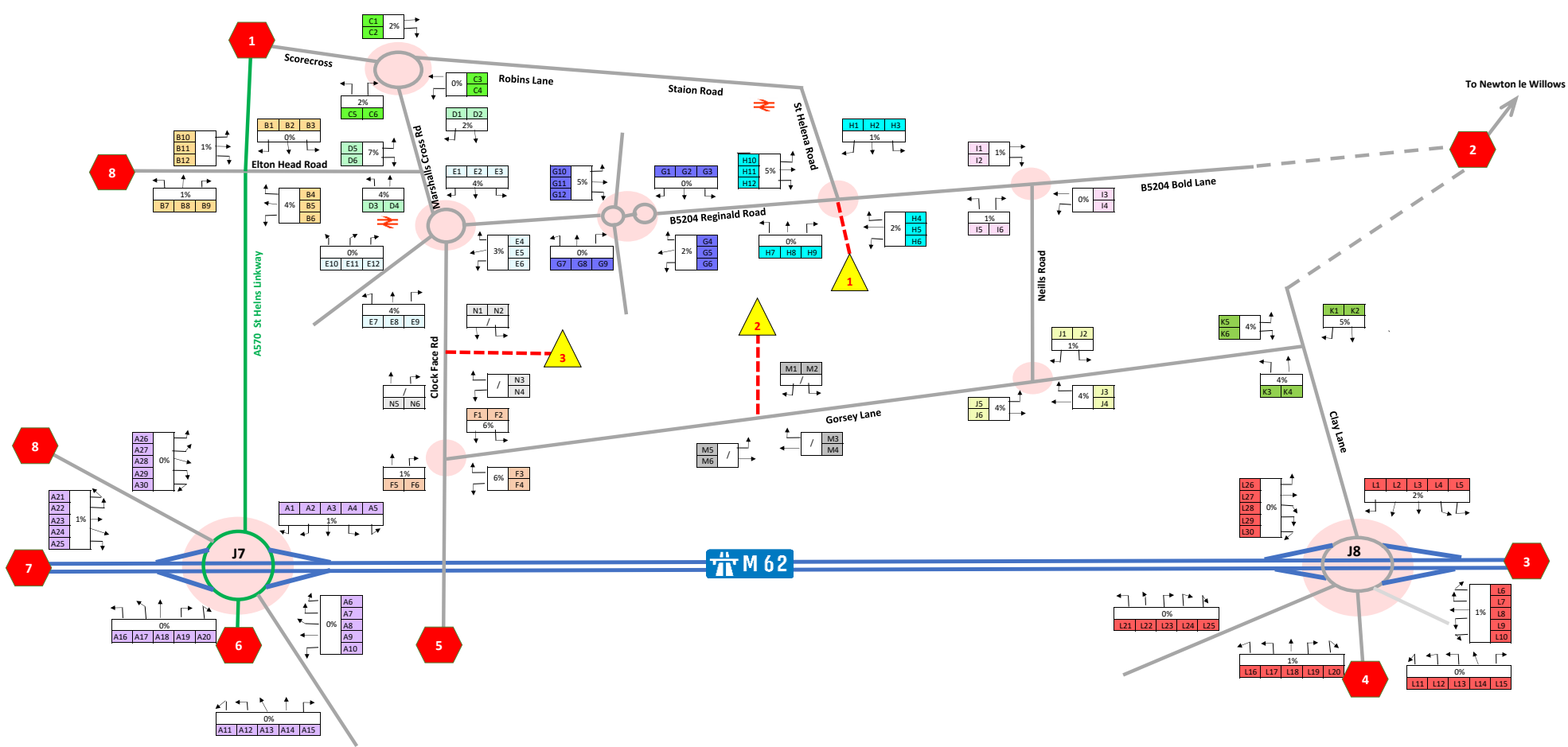




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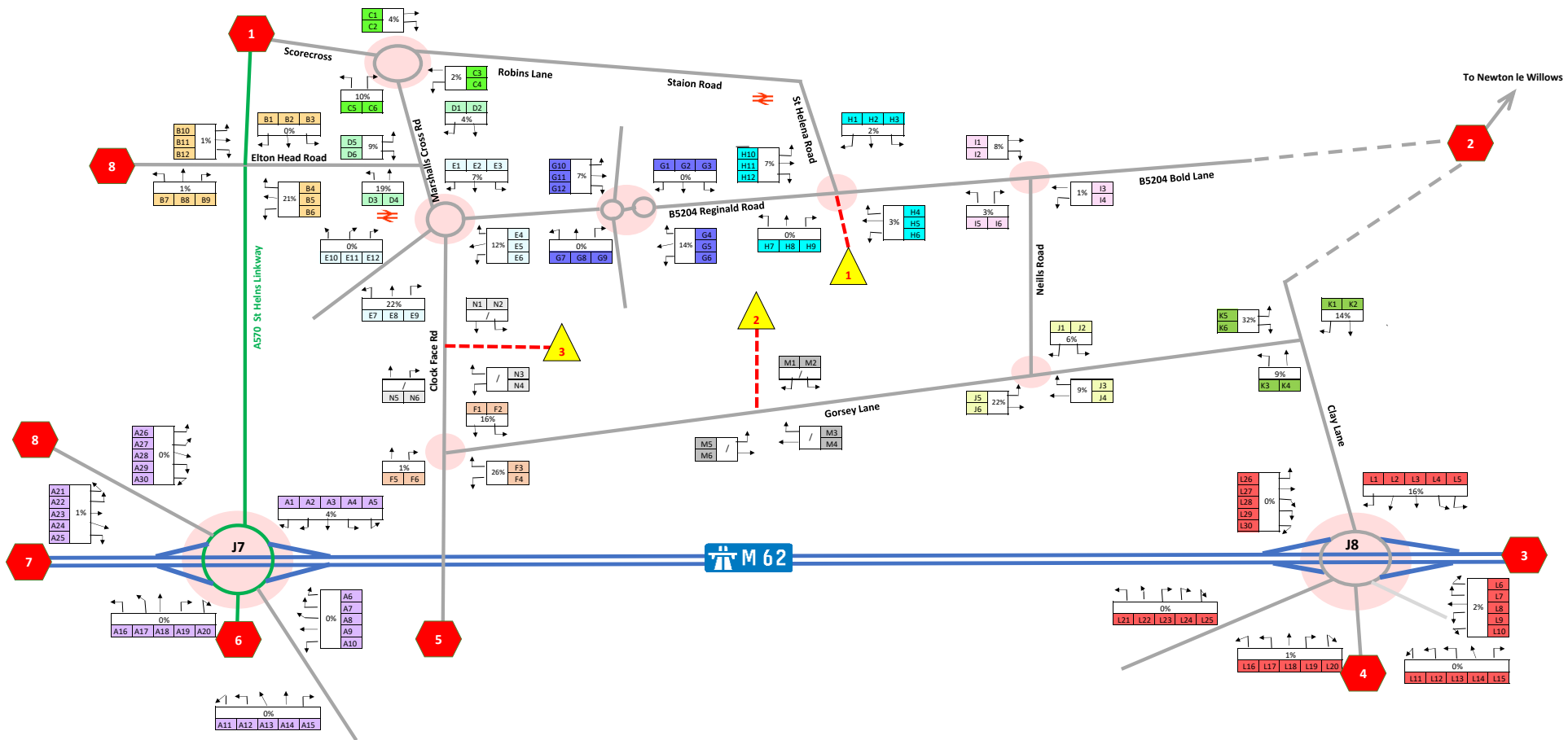
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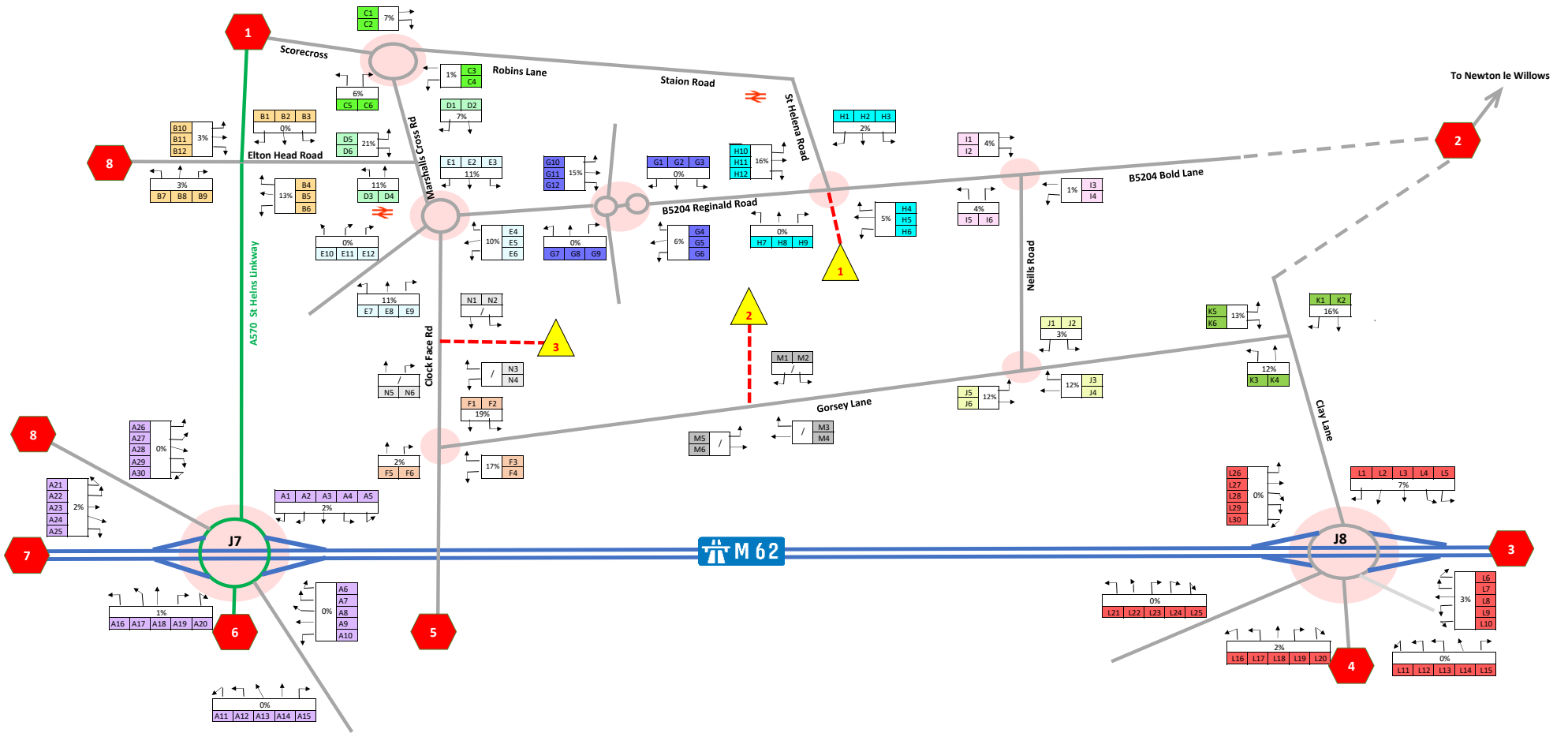





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Bold Forest

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Project:
Bold Forest

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St Helens Council

TRANSPORT IMPACT ASSESSMENT

St Helens Local Plan





St Helens Council

TRANSPORT IMPACT ASSESSMENT

St Helens Local Plan

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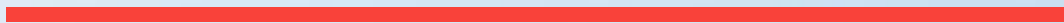
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APPENDIX B: HIGHWAY SCHEME TECHNICAL NOTES

1

INTRODUCTION



1 INTRODUCTION

1.1 BACKGROUND

- 1.1.1. St Helens Council is currently preparing a new Local Plan, which, once adopted, will replace the St. Helens Local Plan Core Strategy (2012) and the saved policies of the 1998 Unitary Development Plan. The new Local Plan will set out where different types of development will or will not be acceptable in principle, and general policies for assessing most planning applications. The proposed Submission version is due to be published in winter 2018/2019 for representations to be made on it prior to submission for examination.
- 1.1.2. The emerging Local Plan sets out the growth aspirations for the borough during the Plan Period, with an identified need for housing in the St. Helens Strategic Housing Market Assessment (2016) and its Update (2017/18) of 451 dwellings per year, and for employment land of 190ha up to 2033. The St. Helens Local Plan Preferred Options was published in December 2016 for consultation, and this proposed targets that would provide:
 - 1.1.3. An additional 10,830 dwellings (570 dwellings per year from 2014 to 2033); and a minimum of 306 hectares of employment land.
 - 1.1.4. The emerging Local Plan will set out a preferred spatial strategy for these housing and employment targets, taking account of suitable brownfield and greenfield development sites in the urban area. However, since 2008, every Strategic Housing Land Availability Assessment (SHLAA) has found that there is a shortage of available sites in the urban areas to meet housing needs. The Local Plan therefore identifies a number of greenbelt sites that the Council considers suitable for removal from the greenbelt and to be allocated for development in order to meet the needs of the Borough.
- 1.1.5. The National Planning Policy Framework (NPPF) sets out the role and contents of Local Plans, clearly setting out the need to prepare Local Plans with the objective of contributing to the achievement of sustainable development. Local Plans should be based on a proportionate evidence base, providing up to date and relevant evidence about the economic, social, and environmental characteristics and prospects of the area. In regards to transport, the NPPF states that Local Planning authorities should work with other authorities and providers to assess the quality and capacity of infrastructure for transport, including its ability to meet forecast demands.
- 1.1.6. WSP have been commissioned by St Helens Borough Council to undertake a Transport Impact Assessment (TIA) on the proposals set out in the emerging St Helens Local Plan, providing an appropriate and proportionate evidence base that considers the likely impacts of the Local Plan growth on the borough's local and strategic transport networks, and assesses what transport interventions, if any, may be required to accommodate the growth aspirations.

1.2 PURPOSE OF THE REPORT

- 1.2.1. The purpose of this report is to assess the likely transport implications and issues which may arise from the significant growth aspirations currently being determined within the emerging Local Plan, providing the transport evidence base to support the growth targets and specific proposed site allocations. The TIA specifically considers the sites suggested in the Local Plan Preferred Options (LPPO) as allocations for the period 2018 to 2033—it is not a TIA of the Proposed Submission version of the Local Plan (PSLP), and as such, the reference numbers refer to the LPPO sites, not

the PSLP sites. The analysis of the LPO allocation sites has been used to help inform the selection of sites for the PSLP, and the recommendations for improving sites has been used to inform policy. The report will also make recommendations for any requirements that may be included within the Local Plan to mitigate the transport impacts of St Helens' growth aspirations.

- 1.2.2. The expected outcome of this work is to provide a high-level assessment of the potential implications of the proposals. It is expected that more detailed highways assessments will be completed as detailed proposals for development come forward at the masterplanning and planning application stage, while the work will identify further studies, interventions, and initiatives that could be undertaken over the Plan period.

1.3 STUDY AREA

- 1.3.1. The study area encompasses the entirety of the borough of St Helens, a metropolitan borough located in the north west of England. The borough sits midway between Liverpool and Manchester, one of 6 Local Authorities forming the Liverpool City Region. The borough of St Helens is shown in Figure 1.

Figure 1: St Helens Borough in context with the Neighbouring Authorities



1.4 OVERVIEW OF METHODOLOGY

1.4.1. The analysis looks to explore any issues and weaknesses within the existing transport network, as well as identify any current strengths, and then evaluate the potential for any future issues or opportunities. At this stage in the evidence base process, this analysis has been undertaken through the following methods:

- Production of a SATURN traffic assignment model, assessing the current performance of the highway network, and comparing the results with a number of future scenarios;
- Detailed site visits to those site allocations consider 'strategic', or of an equivalent size;
- Traccs Basemap accessibility mapping;
- GIS distance-based accessibility mapping;
- Engagement with various stakeholders and neighbours, including Highways England and Merseytravel.

1.5 REPORT CONTENTS

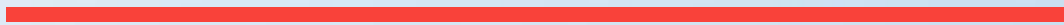
1.5.1. The remainder of the report encompasses the following chapters:

- Chapter 2 Policy Context;
- Chapter 3 Strategic Location and Borough Characteristics
- Chapter 4: Sustainable Transport Assessment
- Chapter 5: Sustainable Transport measures
- Chapter 6: Highway Impact Assessment Methodology
- Chapter 7 Detailed Highway Impact Assessment
- Chapter 8: Glossary

1.5.2. This document was updated in January 2019 for clarity and layout amendments, all content within reflects the available evidence at its production in June 2018.

2

POLICY CONTEXT



2 POLICY CONTEXT

2.1 INTRODUCTION

- 2.1.1. Legislation and policy have an important role to play in shaping and guiding the location, form, and function of new growth and development. This section of the report considers the transport implications of national, regional, and local policy for the St Helens Local Plan, with particular attention given to where this is directly relevant to the siting of potential site allocations.
- 2.1.2. While the St Helens Local Plan must consider the needs of its own borough first and foremost, St Helens is one of six local authorities comprising the Liverpool City Region (LCR), alongside the City of Liverpool, Halton, Knowsley, Sefton, and the Wirral. Since the 1st April 2014, the Liverpool City Region Combined Authority (LCRCA) has been the top-tier administrative body for the local governance of the city region, and the wider vision for the LCR has important strategic transport implications for St Helens that require further consideration.
- 2.1.3. St Helens is also located in a strategic position between the LCR and Greater Manchester Combined Authorities, the latter of, which is in the process of outlining extensive growth aspirations through the Greater Manchester Spatial Framework (GMSF). Furthermore, neighbouring authorities such as Warrington and West Lancashire are also progressing on updated Local Plans, with the potential for cross-boundary implications.
- 2.1.4. This review will therefore also consider the growth aspirations of these neighbouring authorities, and evaluate the potential for this growth to impact on the transport networks within St Helens.

2.2 NATIONAL PLANNING POLICY

- 2.2.1. The National Planning Policy Framework (NPPF), published in March 2012, replaces several planning guidance documents, including 'Planning Policy Guidance 13: Transport' (PPG13). In March 2018, the Government started consultation on a new draft of the NPPF, with some changes proposed for the Transport policy section, although the overall support for sustainable travel is the same.
- 2.2.2. The overarching aim of the NPPF is to simplify and combine a number of previous planning guidance documents and to put planning decision-making back into the hands of local Councils and people.
- 2.2.3. The NPPF gives responsibility back to local people by providing a framework within which local authorities and local people can produce their own plans to reflect the needs and priorities of their communities.
- 2.2.4. The NPPF states the importance of encouraging sustainable modes of transport that support reductions in greenhouse gas emissions and reduce congestion. The NPPF (paragraph 32) states that plans and decisions should take account of whether:

“The opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure; safe and suitable access to the site can be achieved for all people; and improvements can be undertaken within the transport network that effectively limit the significant impacts of the development.”

2.2.5. The document also states the importance of locating developments that generate significant movement where the need to travel will be minimised, and the use of sustainable transport modes can be maximised:

2.2.6. *Developments should be located and designed where practical to:*

- *Accommodate the efficient delivery of goods and supplies;*
- *Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians;*
- *Incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*
- *Consider the needs of disabled people by all modes of transport.”*

Implications for St Helens

- Many of the proposed site allocations are to be removed from the Green Belt, in particular those larger strategic sites, are located on the periphery of St Helens and the urban areas and so many have fewer existing sustainable transport options;
- In order to conform with the NPPF, it is essential that the Local Plan has a robust evidence base supporting policies and requirements that ensure each site can maximise existing, and where required provide new sustainable transport options;
- Further supporting SPD documents may be required in order to ensure St Helens' vision for sustainable growth is achieved.

2.3 REGIONAL POLICIES

Transport for the North—Strategic Transport Plan Position Statement (2017)

2.3.1. Transport for the North (TfN) is a strategic organisation with a remit to transform the transport system across the North of England, providing the infrastructure needed to drive economic growth. TfN became a statutory body on April 5th, 2018, with a range of legal powers and duties.

2.3.2. Transport for the North is driven by a number of distinct objectives, with a clear vision to:

“maximise the economic, social and environmental performance of the north of England by ensuring that it has the most effective forms of connectivity within and between its constituent parts, and extending out into national and international networks and markets.”

2.3.3. TfN's key overarching objectives include the creation of:

- A more productive and competitive northern economy;
- A more accessible and accountable transport network in the North; and
- A more environmentally sustainable northern transport network.

2.3.4. Transport for the North seeks to create an ethos for a combined northern powerhouse through the means of developing infrastructure and guided investment in strategic projects. Transport for the North sets out a framework which is intended to transform the northern city regions into a combined,

interconnected ‘powerhouse’ for both personal travel and freight, further rebalancing the economy across the whole of the north and not just the larger city regions by improving the connectivity throughout the North.

- 2.3.5. Transport for the North plans to drive growth through the means of improving business connectivity, competitiveness between city regions, innovation and boosting employment and productivity. TfN consulted on a draft of their Strategic Transport Plan (2018) in early 2018; this consultation closed in April 2018. The draft Plan presents four objectives which inform the role of the Strategic Transport Plan; these are:
- improve the performance and integration of the North’s strategic transport network by making the case for interventions that improve its efficiency, reliability and resilience;
 - secure investment in transport between the important urban and rural economic centres and assets to support sustainable transformation of the North’s economic performance;
 - improved access to opportunities; and
 - transport interventions across the strategic transport system protect and enhance the natural and built environment.
- 2.3.6. The draft Strategic Transport Plan identifies two key deficiencies in transportation in the north, which shapes the direction of the strategy:
- A lack of coordination, as governance and funding approaches have led to competition rather than collaboration, and the move away from regional spatial planning has limited the amount of pan-northern level planning undertaken;
 - A historical lack of investment has led to a serious deficit in spending in comparison to the south, resulting in adequate infrastructure.
- 2.3.7. TfN has carried out enhanced freight and logistics analysis to support their aims for enhanced freight and logistics movements across the north. The draft Strategy states that:
- “Investment in Liverpool2 and continuing growth of the Humber Ports has given strength to the concept of a Freight Superhighway connecting Liverpool and the Humber, as well as wider benefits for freight movement across the North to other ports.”
- 2.3.8. As part of the LCR, St Helens’ emerging Local Plan shares the City Region’s ambitions for enhanced logistic and freight, and the proposed employment allocations are all for B2 & B8 usage with an intent to provide an enhanced logistics and freight offering.
- 2.3.9. The Strategy also states that, as of this moment, rail is seen as less economically viable for freight; however, TfN feel they are well placed to create the conditions for modal shift, changing the way that freight is viewed in the north. The proposed development at Parkside could be integral to these ambitions, creating a strategic rail freight interchange of national importance.

2.3.10. The draft Liverpool City Region Strategic Housing and Employment Land Market Assessment (LCR SHELMA), due for adoption in 2018, sets out the functional Housing Market Areas (HMA) and Functional Economic market area (FEMA) within the LCR and estimates the requirement for employment and housing needs in the Liverpool City Region. The SHELMA takes account of economic forecasts prepared for the LCR Local Economic Partnership (LEP) and the work undertaken by MDS Transmodal for the TfN Logistics Strategy, including forecasts of how freight will increase, taking account of Liverpool 2 and Superport ambitions, and the impact on demand for employment premises. In turn, the St Helens Employment Land Needs Assessment (ELNA) and its 2018 Update takes account of the increase in warehousing demand in the LCR identified in the SHELMA.

Implications for St Helens

- St Helens ambitions will need to consider the wider visions of TfN (as well as the LCR), especially when considering the potential for significant cross-boundary movements;
- TfN also sets out a clear vision for an environmentally sustainable transport throughout the north. St Helens will need to ensure they have sufficient policy controls to create genuinely sustainable development that aligns with TfN's wider vision.

Building our future – Liverpool City Region Growth Plan

2.3.11. The LCRCA is supported by the LCR Local Enterprise Partnership (LEP), working in partnership to deliver the Growth Strategy for the City Region. The LEP was created in 2012, and provides strategic advice and guidance on economic development, whilst the Combined Authority brings democratic accountability and oversight for the City Region.

2.3.12. Together, the LCRCA and LCR LEP have produced the Liverpool City Region Growth Strategy, 'Building our Future', which presents a single strategy for economic growth over a 25-year period. This document functions as the LEP's Strategic Economic Plan (SEP).

2.3.13. This document recognises the potential and strengths of the region, including:

- Advanced Manufacturing;
- Digital and Creative;
- Financial and Professional Services;
- Health and Life Sciences,
- Low Carbon Energy;
- Maritime and Logistics, and
- The Visitor Economy.

2.3.14. The Strategy sets out an overarching vision, stating:

"We will build on our core strengths and capacity for innovation to create a truly global and competitive City Region at the heart of the Northern Powerhouse."

- 2.3.15. The Growth Plan is designed to provide a strategic framework for interventions to generate growth and create additional employment within the City Region, and has a clear emphasis on doing so through the enablement of private sector investment and growth.
- 2.3.16. The Growth Plan reiterates that this growth does not come at the expense of sustainability, adopting what is referred to as a “twin-track approach”, prioritising investment against the LCR’s comparative strengths and competitive advantages in order to generate economic growth, whilst creating an environment that supports sustainable growth.
- 2.3.17. The Growth Strategy identifies five strategic projects:
- Liverpool City Centre as a global brand, visitor and business destination, a centre for commercial and business growth and a location for a growing cluster of knowledge assets;
 - The Liverpool City Region Freight and Logistics Hub that builds on our natural assets and the changing nature of the international and national logistics industry;
 - LCR2Energy which will facilitate the transition of the City Region’s energy requirements to a lower carbon supply;
 - Access to the Port of Liverpool; and
 - A City Region Capital Investment Fund, to act as an intermediary mechanism between the Local Growth Fund nationally and investments at the local level.
- 2.3.18. The Growth Plan identifies these as the primary projects for the LCR, and those for which the LCR sought funding through the Local Growth Fund.

Implications for St Helens

- The emerging St Helens Local Plan is clearly aligned with the LCR’s strategy for growth associated with freight and logistics, with a significant amount of B8 provision being allowed for in the LPPO, including 6 proposed strategic allocations for B2 & B8 usage in close proximity to the SRN, and a number of KRN routes, including Parkside SRFI;
- The LCR prioritises sustainable growth, and the Local Plan evidence base will need to demonstrate that St Helens can achieve their growth ambitions in a sustainable manner;
- St Helens will also need to ensure their proposals align with the LCRCA and LEP’s strategic plans in order to obtain funding through the devolved streams, such as the Local Growth Fund, Access Fund, and more recently, the Single Investment Fund.

A Transport Plan for Growth – Liverpool City Region Combined Authority (2015/16)

- 2.3.19. The creation of the LCR Combined Authority in 2014 resulted in a need to draw the various strands of policy together across the new City Region. Previously, the City Region consisted of two local transport authorities: the Merseyside Integrated Transport Authority, governing Liverpool, Knowsley, St Helens, Sefton and the Wirral, and Unitary Authority of Halton, both of which had their own adopted Local Transport Plans.
- 2.3.20. ‘A Transport Plan for Growth’ is written to highlight the synergies between the two transport authorities’ Local Transport Plans, and to show how the key priorities for transport interrelate to

other strategically important areas of policy. The document is thereby considered to provide a single strategic framework and delivery plan for transport in the Liverpool City Region, while not replacing the existing Local Transport Plans.

- 2.3.21. As appropriate for the wider strategic scale of the LCR, 'A Transport Plan for Growth' is aligned with the LCR's Growth Plan and written in the context of other adopted and emerging strategic policy. The Transport Plan presents three overarching transport priorities:
- 'Growth' – supporting economic growth in the City Region, through increasing employment, levels of productivity and investment;
 - 'Low Carbon' – we want to live and work in a City Region that draws its energy from a range of sustainable energy sources, where travel is in vehicles powered by alternatives to fossil fuels, and with increased active travel opportunities; and
 - 'Access to Opportunity' – supporting those who wish to access employment, training, education and further learning opportunities, and the wider work in supporting the whole City Region in access to fresh food, leisure and healthcare.
- 2.3.22. The Transport Plan details that these priorities will be achieved through partnership working with the LCR LEP in order to link the transport priorities with the wider strategic priorities of the other relevant key sectors:
- Freight and Logistics;
 - Housing and Land-use Planning;
 - Economic Development and Regeneration;
 - Employment and Skills;
 - Health and Wellbeing;
 - Carbon Reduction and Air Quality;
 - Connecting Communities; and
 - Visitor Economy.
- 2.3.23. The Transport Plan considers that a strong and growing freight sector is crucial to the City Region's continued economic growth, and identifies Liverpool as one of the country's major ports.
- 2.3.24. The Transport Plan makes specific reference to the transport implications and opportunities presented by the significant growth in the port of Liverpool, specifically the £1bn investment in Superport. This large-scale development is considered to:
- “Present a generational opportunity to place the port and surrounding logistics infrastructure at the heart of business in the UK and Europe, creating a Global Freight & Logistics Hub for Northern UK and Ireland.”*

- 2.3.25. The port is considered to further benefit through the completion of other significant developments, including major investment at the Seaforth site and the construction of the Liverpool 2 deep-water berth. In order to maximise the potential of this growth, the Transport Plan identifies a need to improve connectivity and capacity for freight on the LCR's road and rail networks.

Implications for St Helens

- As the overarching Transport Plan for St Helens and the LCR, the emerging Local Plan will need to be closely aligned with the strategic vision of 'A Transport Plan for Growth';
- In particular, the Transport Plan presents a priority for 'low carbon' transport. St Helens will need to show how its growth aspirations also promote electric vehicle usage, reduce single vehicle occupancy, and increases active travel;
- St Helens' priorities for employment growth in freight and logistics is clearly aligned with the LCR's vision to maximise the opportunities presented by the growth in the port of Liverpool.

Merseyside Local Transport Plan (LTP3)

- 2.3.26. The Merseyside LTP3 was adopted in April 2011, predating the formation of the LCRCA. The Plan covers the five Merseyside local authorities, who together with Merseytravel form the Merseyside Transport Partnership, and provide the transport strategy and plans for these areas.

- 2.3.27. The LTP 3 sets out a vision for:

"A city region committed to a low carbon future, which has a transport network and mobility culture that positively contributes to a thriving economy and the health and wellbeing of its citizens and where sustainable travel is the option of choice."

- 2.3.28. To achieve this vision, the LTP presents six goals:

- Help create the right conditions for sustainable economic growth by supporting the priorities of the Liverpool City Region, the Local Enterprise Partnership and the Local Strategic Partnerships;
- Provide and promote a clean, low emission transport system which is resilient to changes to climate and oil availability;
- Ensure the transport system promotes and enables improved health and wellbeing and road safety;
- Ensure equality of travel opportunity for all, through a transport system that allows people to connect easily with employment, education, healthcare, other essential services and leisure and recreational opportunities.
- Ensure the transport network supports the economic success of the city region by the efficient movement of people and goods;
- Maintain our assets to a high standard.

- 2.3.29. The LTP sets out several ways by which it will deliver these goals. The LTP identifies the need for partnership work with the Freight Quality Partnership (FQP) and other parties to develop and enhance the freight and logistics network; this is envisaged to have a number of outputs, including strengthening Merseyside's competitiveness, supporting SuperPort and access to the Port, reducing the impact of freight movement on local communities, promoting the use of rail, and making a major contribution to reducing carbon outputs.
- 2.3.30. There is also a strong focus on the need to engender growth in sustainable travel. The LTP states that:
- “Successful world cities have grasped the notion that having high levels of cycling, walking and public transport use is a sign of prosperity and wellbeing.”*
- 2.3.31. The LTP discusses a ‘new mobility culture’, expressing a desire to create a transport system that provides genuinely sustainable options and which supports the continuing regeneration and economic development of the city region. Furthermore, the LTP states that this ‘Mobility Culture’ is about ensuring people have equal access to employment opportunities, education and health facilities and to leisure, cultural and sporting resources, as opposed to simply focussing on sustainable travel as ‘green’ options.
- 2.3.32. The LTP considers that through the implementation of the Active Travel Strategy the LCR will improve and expand facilities to encourage cycling and walking, with associated health benefits, a reduction in carbon, and an increase in accessibility to employment and services.
- 2.3.33. The LTP also identifies Parkside SRFI as a significant strategic site within the LCR, it states that the site is potentially a good location for a road-rail transfer and warehousing point, potentially covering two phases totalling up to around 155 Hectares, providing an estimated 620,000m² of floor space (based on a 40% density) by 2024.

Implications for St Helens

- The six goals set out in the Merseyside LTP3 set out a strong focus on not only ‘sustainable transport’, but also on a transport system that improves health and wellbeing, as well as being clean and low carbon.
- These goals could be met in a number of ways, but it is likely that this could be achieved through a strong focus on active travel modes, provision of clean, high quality buses and complementary infrastructure, and ensuring the borough is ‘future-ready’, with support for electric and autonomous vehicles.
- Attaining this ‘new mobility culture’ will require more than just mitigation of the transport impacts of new development and growth, and will also need strategic planning of infrastructure that will benefit and connect wider areas, complemented by a targeted program of behaviour change initiatives.

Neighbouring Local Plans – Liverpool City Region

- 2.3.34. As part of the LCR, the needs of St Helens must also be considered alongside those of the other metropolitan boroughs within the combined authority. However, at this stage only Sefton and Halton have a recently adopted Local Plan; Liverpool Council has an emerging Plan (as does St Helens itself), while Wirral and Knowsley Council only have or are in the process of producing a Core Strategy, with no Site Allocation document currently available.
- 2.3.35. This review therefore summarises the current position of the development of an up-to-date Local Plan within each of the neighbouring authorities making up the LCRCA.

Halton Local Plan Core Strategy (April 2013)

- 2.3.36. Halton Borough Council's Core Strategy Local Plan was adopted in April 2013, and contains the spatial vision for the Borough through to 2028, as well as a range of strategic objectives and policies. Halton Borough Council is currently progressing a Delivery and Allocations Local Plan document that will replace the remaining policies and the Proposal Map from the saved Unitary Development Plan (2005). A scoping consultation was undertaken in February 2014, with the preparation of a draft Local Plan commencing following that exercise. There is no expected timeframe published on Halton Borough Council's website.

Knowsley Local Plan Core Strategy (January 2016)

- 2.3.37. Knowsley Core Strategy (CS) was adopted in January 2016. The CS includes site allocations for areas to be released from the greenbelt, referred to as 'Sustainable Urban Extensions', while the Local Plan: Site Allocations and Development Policies document is anticipated to identify further proposed site allocations for housing and employment land. The Knowsley Local Plan Schedule lists this document as 'TBC', with no updates on a timeframe for consultation on a draft document. The Core Strategy released a significant amount of land from the Green Belt at the Halsnead Sustainable Urban Extension, close to junction 6 of the M62 – this is taken account of in the St Helens transport modelling

The City of Liverpool Local Plan

- 2.3.38. The 2018 Pre-Submission Draft of the Liverpool Local Plan was consulted on between January 26th and 9th March 2018.
- 2.3.39. The draft Local Plan draws heavily on content prepared for the Liverpool Council Core Strategy, which progressed to the pre-submission stage in 2012. Planning applications in Liverpool are currently assessed against the saved policies of the UDP, adopted in November 2002.

Sefton Local Plan (April 2017)

- 2.3.40. The Sefton Local Plan was adopted on the 20th April 2017, and sets out how development will be provided for to meet the needs of Sefton's communities; the policy framework for making decisions on planning applications; the strategic policy framework for Neighbourhood Plans; and priorities for investment in employment, housing and infrastructure, including site allocations.

Wirral Core Strategy

2.3.40.1 Planning applications in Wirral are currently assessed against the saved policies of the UDP, adopted in February 2000, although it is anticipated that a number of these saved policies will be replaced by the Council's emerging Core Strategy Local Plan, with a revised proposed submission draft expected to be reported in September 2017. Wirral Council is expected to produce a Land Allocations and Heritage Local Plan post-adoption of the emerging Core Strategy, although there is no timetable available for the publication of this document.

Warrington Core Strategy (July 2014)

- 2.3.41. The Warrington Local Plan Core Strategy is the overarching strategic policy document in the Warrington Local Plan. It sets out the planning framework for guiding the location and level of development in the borough up to 2027, replacing the Unitary Development Plan as a reference document against which all planning applications will be assessed.
- 2.3.42. The Warrington Core Strategy sets out an aspirational vision for maintaining Warrington's position as a pivotal location within the 'Atlantic Gateway' providing access to both Manchester and Liverpool conurbations and national transport infrastructure. To meet this overarching vision, 6 strategic objectives are set out:
- To secure the regeneration and renewal of the older areas of the town, strengthen existing neighbourhoods and make the most efficient use of infrastructure, ensuring development brings benefits to their host communities;
 - To maintain the permanence of the Green Belt and the character of the countryside in the borough and protect them from inappropriate development;
 - To strengthen the role of Warrington Town Centre as an employment, retail, leisure and cultural destination as well as a transport hub for the borough and the wider region;
 - To be accessible as possible whilst reducing the need to travel and providing opportunities to move people and goods by non-car modes;
 - To secure high quality design which reinforces local distinctiveness and protects, enhances and embraces the borough's built and natural assets;
 - To minimise the impact of development on the environment through the prudent use of resources and ensuring development is energy efficient, safe and resilient to climate change.
- 2.3.43. Warrington undertook a public consultation exercise from 18th July 2017 to 29th September 2017 on the Preferred Development Option for a new Local Plan, which sets out the proposed approach to meeting Warrington's need for new homes and jobs between now and 2037.
- 2.3.44. The Preferred Options draft document provides an ambitious strategic framework to support the future growth of Warrington, specifically targeting the town centre for significant development and also across the inner areas of Warrington; this growth is complimented by development on the periphery of Warrington through green belt release.
- 2.3.45. The Preferred Options draft document asserts the intention to work in partnership with St. Helens Borough Council and its emerging Local Plan in order to support the proposed extension to the Omega employment site onto land St Helens identified in the St Helens LPPO as site EA1. This extension is included in the employment land need of Warrington making up part of the 381-ha required.

Draft Greater Manchester Spatial Framework (October 2016)

- 2.3.46. The 10 Local Planning Authorities in Greater Manchester (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford, and Wigan) agreed to prepare a joint Development Plan Document to set out the approach to housing and employment land across Greater Manchester for the next 20 years. This document is known as the Greater Manchester Spatial Development Framework (GMSF).
- 2.3.47. The GMSF sets out an aspirational vision for sustainable growth in the combined authority. The GMSF aims to deliver its vision through the following goals:
- Set out how Greater Manchester should develop over the next two decades up to the year 2035;
 - Identify the amount of new development that will come forward across the 10 districts, in terms of housing, offices, and industry and warehousing, and the main areas in which this will be focused;
 - Support the delivery of key infrastructure, such as transport and utilities;
 - protect the important environmental assets across the conurbation;
 - allocate sites for employment and housing outside of the urban area; and
 - Define a new Green Belt for Greater Manchester
- 2.3.48. The GMSF sets out a framework to ensure development is well-located and makes use of the sustainable travel options already available across Greater Manchester. It identifies the need for developer contributions and also addresses the need for planning when it comes to strategic sites.
- 2.3.49. Within the GMSF the boroughs of Greater Manchester are split up into different gateways. The Gateways that may pose a significant impact on St. Helens are the Northern and Western; these Gateways include the borough of Wigan, which has many strategic links with St Helens through the M6 and East Lancashire Corridor, as well as sharing a borough boundary. Both of these corridors have been identified for significant industrial and logistic investment throughout the plan period; some major sites which could have implications on the transport networks within St. Helens, principally the A580 and the motorways, include:
- ELR3 (East Lancashire Road Corridor) - Pocket Nook, Lowton (Wigan) – 133,000m² of floorspace for B1, B2 and B8.
 - M6C1 Junction 25 (M6 Corridor) - 332,500m² of B1, B2 and B8 employment uses and 80 new homes; and
 - M6C2 Junction 26 (M6 Corridor) - 150,500m² of floorspace for B1, B2 and B8 uses and 170 new homes.
- 2.3.50. Due to the extensive nature of the growth projected in the GMSF, the potential transport implications are likely to extend beyond the regional boundaries and have further impacts that have not currently been quantified.

2.4 LOCAL POLICY

St Helens Local Plan 2018 – 2033 Preferred Options (December 2016)

- 2.4.1. St Helens Council is currently preparing a new Local Plan, and consulted on a 'preferred options' draft from December 2016 to January 2017. The new St. Helens Local Plan will replace the St. Helens Local Plan Core Strategy (2012) and the 1998 Unitary Development Plan Saved Policies, once adopted. It sets out where different types of development will or will not be acceptable in principle, and general policies for assessing most planning applications.

- 2.4.2. The emerging Local Plan sets out an extensive vision for the borough. This vision states a desire to grow through urban regeneration and sustainable expansion. It is envisaged that employment land will be provided to make “best use of St Helens excellent transport links and location between two of the biggest economies in the North West” (Liverpool and Manchester), and further that:
- 2.4.3. The Borough’s housing is well connected to employment sites, local facilities, attractions and green spaces, in a manner which encourages active travel and travel by public transport. Health is further improved by encouraging active live [SIC] styles with appropriate and sustainable sports and leisure facilities and attractive and safe open spaces and greenways.”
- 2.4.4. The St Helens Spatial Strategy sets out in Policy LPA02 how St. Helens will deliver regeneration across the borough, focussing development on existing key settlements, which are considered to be areas with good existing transport links. The policy places an emphasis on reusing previously developed land, and states that the majority of housing will be delivered on previously developed land within these key settlements.
- 2.4.5. The policy states that this development will be encouraged through:
- setting lower and more appropriate thresholds for developer contributions within existing urban areas to reflect viability constraints associated with regenerating sites; and
 - Keeping an up to date Brownfield Register of suitable development sites.
- 2.4.6. The Local Plan removes land from the green belt and allocates it for housing and employment sites to meet the housing and employment targets over the plan period, as well as safeguarding green belt land to meet housing and employment development needs for the following 15 years. The LPPO draft of the policy states that:
- “Development will be required to make best use of land, provide the necessary infrastructure and services and integrate with the surrounding area whilst respecting the character of the area. Criteria for the development of Strategic Development Sites are set out in Policies LPA04.1 and LPA05.1.”*
- 2.4.7. The policy also states that:
- “Employment development (excluding town centre uses) will be largely focussed on large sites capable of accommodating large employment opportunities in close proximity to the strategic road network of the M6 and M62 and better road, public transport and active travel links will be provided between residential areas in the Key Settlements, in particular areas of deprivation, and these areas of employment growth.”*
- 2.4.8. This is reflected in the use type and location of the Strategic Employment Site Allocations.
- 2.4.9. Policy LPA07 – Transport and Travel addresses transport and travel in the borough, with the LPPO draft setting out relevant requirements for all new development, including:
- Be located where there is potential for good access to existing and proposed public transport services, or be developed to allow access by public transport;
 - Actively promote sustainable modes of transport, including where practicable electric vehicles and vehicle charging;
 - Provide safe and adequate pedestrian, cycle and vehicular access to, from and within the development, including adequate visibility splays;

- Maintain the safe and efficient flow of traffic on the surrounding highway network. Development proposals will not be permitted where vehicle movements would cause harm to the highway network and surrounding environment.

St Helens Proposed Site Allocations

2.4.10. The emerging Local Plan sets out a number of site allocations in order to meet the extensive requirements for additional housing and employment in St Helens. These allocations are set out over the following policies:

- Policy LPA04 – A Strong and Sustainable Economy
- Policy LPA10 – Development of Strategic Rail Freight Interchange
- Policy LPA05 – Meeting St. Helens' Housing Needs

Policy LPA04 – A Strong and Sustainable Economy

2.4.11. The LPPO draft of this Policy sets out 12 employment sites, totalling 306 ha of employment land allocated for the Plan Period. The policy has a strong emphasis on protecting existing employment sites and those previously used for B1, B2 or B8 uses, stating the Council's support for reuse, reconfiguration or redevelopment of such sites and premises, and only allowing alternative uses where it can be demonstrated that land or premises are no longer suitable or economically viable, or where the community benefits of the development outweigh the potential of the site in its current form.

2.4.12. The policy also includes a statement declaring support for proposals for suitable rural economic development, diversifying the rural economy and providing local jobs for those located in these areas.

Policy LPA04.1 – Strategic Employment Sites

2.4.13. Of the 12 employment sites that were proposed for allocation in the LPPO draft, 6 are of considerable size and are identified as Strategic Employment Sites; these are:

- EA1: Omega South Western Extension, Phase 1, Land north of Finches Plantation, Bold – 31.2 ha, B2 & B8 uses;
- EA2: Land at Florida Farm North, Slag Lane, Haydock – 35.17 ha, B2 & B8 uses;
- EA4: Land north east of Junction M6 J23, south of Haydock Racecourse, Haydock – 42.31 ha, B2 & B8 uses;
- EA7: Land west of Millfield Lane, south of Liverpool Road and north of Clipsley Brook, Haydock – 20.58 ha, B2 & B8 uses;
- EA8: Parkside East, Newton-le-Willows – 64.55 ha; and
- EA9: Parkside West, Newton-le-Willows – 79.57 ha, B2 & B8 uses.

2.4.14. Site Allocation EA8 - Parkside East is allocated for the Strategic Rail Freight Interchange, while it is estimated that a further 60ha of land will be required to deliver the necessary infrastructure and landscaping required to deliver this. Parkside East is considered in further detail in Policy LPA10 (Development of Strategic Rail Freight Interchange).

2.4.15. Although there are six Strategic Employment Sites, these sites are clustered in similar locations and/or adjacent to smaller site allocations, and consequently present opportunities for cohesive infrastructure between neighbouring sites.

Policy LPA10 – Development of Strategic Rail Freight Interchange

- 2.4.16. This policy specifically relates to Strategic Site Allocation EA8: Parkside East, which is allocated for a Strategic Rail Freight Interchange (SRFI). The policy affirms the Council’s support for this development, identified as a site of national significance and regional importance in the Transport for the North Northern Freight and Logistics Report (2016).
- 2.4.17. The LPPO draft policy includes a number of specific requirements for the sites, including:
- Mitigate any adverse impacts on the surrounding road network;
 - Establish and implement a Travel Plan that incorporates measures which encourage travel to/from the site using sustainable transport modes, including access by public transport, cycle and foot, in accordance with Policy LPA07; and
 - Put training schemes in place to increase the opportunity for the local population to obtain employment at the site.

Policy LPA05 – Meeting St. Helens’ Housing Needs

- 2.4.18. This policy sets out the overarching policies covering the housing allocations in the Local Plan. The LPPO draft identified that an additional 10,830 dwellings will be required over the plan period of 2018-2033, equating to an indicative annual average of 570 dwellings.
- 2.4.19. The draft LPPO policy states that the housing requirements will be met from the following sources:
- Housing allocations shown on the Policies map and listed in table 4.4 of the policy;
 - Sites with planning permission for housing development;
 - Sites without planning permission identified in the SHLAA; and
 - Windfall housing gains.
- 2.4.20. It is important to note that this list is not set out as a hierarchy. The policy includes 16 allocated sites, delivering approximately 4,000 dwellings.

Policy LPA05.1 – Strategic Housing Sites

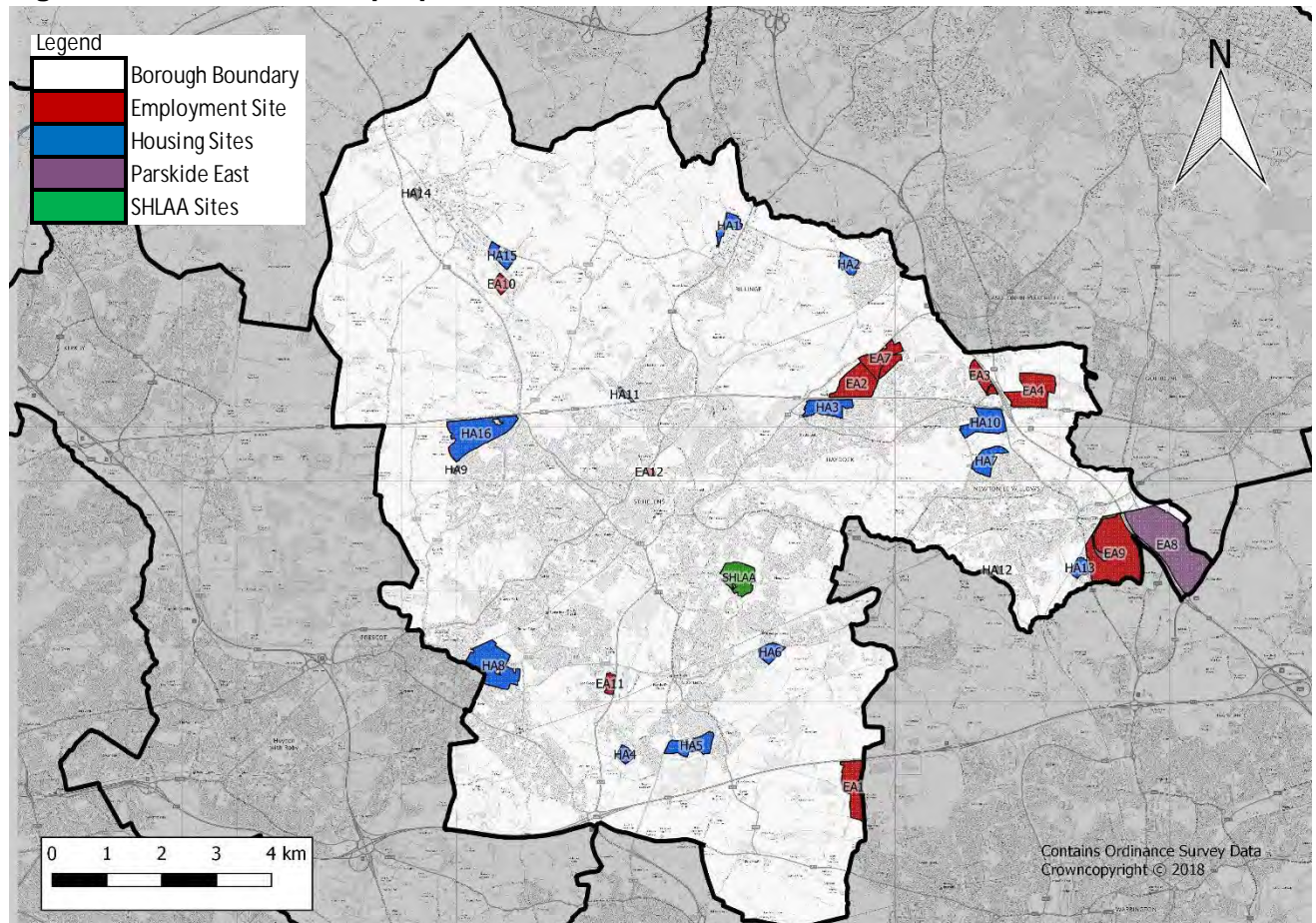
- 2.4.21. Of the 16 allocated housing sites, 6 are identified in the LPPO as being ‘Strategic Sites’ as given their scale they will play a significant role in the delivery of the overall strategy of the Plan. In practice, they were housing sites for over 300 dwellings or employment sites over 20ha. These are:
- HA3: Land at Florida Farm South, Slag Lane, Blackbrook – 502 dwellings;
 - HA5: Land South of Gartons Lane and former St. Theresa’s Social Club, Gartons Lane, Bold – 446 dwellings;
 - HA7: Land between Vista Road and Ashton Road, Earlestown – 350 dwellings;
 - HA8: Land at Eccleston Park Golf Club, Rainhill Road, Eccleston – 585 dwellings;
 - HA10: Land south west of M6 J23 between Vista Road and Lodge Lane, Haydock – 520 dwellings; and
 - HA16: Land south of A580 between Houghton’s Lane and Crantock Grove, Windle – 585 dwellings
- 2.4.22. As sites included within the SHLAA are considered to contribute to meeting the housing requirement in St Helens, these sites have been reviewed to determine whether any are of a similar scale to the

Strategic Site Allocations. Only a single site considered appropriate for housing (that does not have an extant permission) exceeds a yield of 500 dwellings in the 2016 SHLAA1:

- SHLAA Site 09 – Moss Nook Urban Village.

2.4.23. Figure 2 shows the proposed site allocations across the borough, illustrating the widespread distribution and the proximity of many of the Strategic Sites to the Strategic Road Network (SRN) and A580 East Lancashire Road.

Figure 2: St Helens LPPO proposed Site Allocations



¹ The modelling takes account of the 2017 SHLAA sites

2.5 STRATEGIC FIT WITH THE LCR

- 2.5.1. The review of the overarching Liverpool City Region policy documents identifies the LCR’s growth ambitions in regards to freight and logistics, hinging on the significant investment in the port of Liverpool. The LCR Growth Strategy sets out an ambitious vision for the LCR to be:
- “the global logistics hub for the Northern UK and Ireland, and a globally significant Maritime Knowledge Hub, with a thriving cluster of industries and services, predicting sector GVA to increase by 50% by 2040”.*
- 2.5.2. The Growth Strategy recognises the significant assets in the region in this sector, which include the largest Atlantic facing port on the UK west coast, and the new Liverpool2 deep water terminal. As part of this aspiration, the Growth Strategy identifies an opportunity to develop:
- “a large portfolio (estimated at 400-500ha over 25 years) of logistics sites, multimodal facilities and buildings to fulfil demand generated from increased port based freight, retail and manufacturing logistics close to ports, airports and near major road and rail infrastructure.”*
- 2.5.3. To support this, the Growth Strategy also recognises the need for the relevant transport infrastructure required to make the LCR the Global Port and logistics hub for the northern UK and Ireland, expecting a:
- “surge in demand for logistics facilities and ‘spin-off’ industries”.*
- 2.5.4. While not exclusively the focus of the emerging St Helens Local Plan, the thrust of the plan in regards to the Strategic Employment Site Allocations is focussed on catering towards logistics and freight usages. Part 11 of Policy LPA04 (A Strong and Sustainable Economy) states that the provision of new jobs will be facilitated through:
- “Maximising the economic opportunities presented by the borough’s location on the North West’s strategic transport corridors.”*
- 2.5.5. Furthermore, Policy LPA02 (Spatial Strategy) states that:
- “Employment development (excluding town centre uses) will be largely focussed on large sites capable of accommodating large employment opportunities in close proximity to the strategic road network of the M6 and M62 and better road, public transport and active travel links will be provided between residential areas in the Key Settlements, in particular areas of deprivation, and these areas of employment growth.”*
- 2.5.6. These policies set out an emphasis that is reiterated throughout the Local Plan: that employment land allocated to meet the identified need for B1, B2 and B8 Use Class development will be primarily focussed on large previously undeveloped sites, capable of accommodating large employment opportunities in close proximity to the strategic road network of the M6 and M62.
- 2.5.7. It is recognised throughout the Local Plan that St. Helens is well-placed in relation to the SRN to take advantage of this connectivity, and that this represents an opportunity to focus employment on uses that can maximise this position, such as freight and distribution. The Strategic Employment Allocations are designed to support this aspect of the policy, and are all for B2 & B8 use classes— General Industrial and Storage & Distribution.
- 2.5.8. The reasoned justification explains that the supporting evidence shows that meeting market demand for large scale distribution centres requires sites of 5ha or greater; the sites previously allocated in

the Core Strategy were not considered appropriate for this scale of development, and therefore the majority of those sites are not allocated in the Local Plan Preferred Options.

2.6 THE IMPACT OF FUTURE MOBILITY

Introduction

- 2.6.1. A key challenge for St Helens will be meeting its future needs and continuing to grow in a rapidly changing, globalised world. There is a clear need to embrace change, ensure that people have the right qualifications and skills for the future, and provide access for all, including both people to places and businesses to markets, in order to fully realise the opportunities presented for everyone.
- 2.6.2. For St Helens to meet and exceed its growth aspirations, the borough will need an integrated transport network that not only meets the existing accessibility needs of its businesses and those that live, work, learn, and visit the area, but more importantly meets and accommodates the future needs of those that will live, work, learn, and visit the area.
- 2.6.3. This section presents an overview of how the changes in transport provision and technology over the coming decades may influence travel in St Helens, and indeed globally. WSP recently released a White Paper, *New Mobility Now* (WSP, 2017), covering this topic in more detail; a copy of this document is included as Appendix A. The influence of *New Mobility* is yet to be truly understood, let alone quantified, and it is therefore impossible to discuss a way to measure the potential impacts. Nevertheless, this section presents a number of recommendations for next steps that could influence a number of emerging policies in St Helens, guide the creation of new SPDs, and provide considerations for the next Local Plan.

Future Mobility: Ensuring the Borough leads the Way

- 2.6.4. There are currently several significant global trends which have the potential to impact on how, when and why movement will need to occur. Trends such as globalisation, climate change, and a growing and ageing population will have significant transport impacts right across the region.
- 2.6.5. Globally, the developed world is close to a significant change in transportation, facilitated by an on-going digital revolution, enabling unprecedented levels of connectivity, autonomous vehicles across all modes, clean propulsion, and new models of sharing (amongst many other things), altering the traditional models of transport access, ownership, and use. While St Helens can expect that private car usage will still remain an essential part of the transportation landscape in the near future, this is likely to change significantly over the coming decades, with automation of driving tasks becoming a reality and fossil fuels being phased out, both nationally and globally.
- 2.6.6. Transport is a derived demand, serving people and commerce through the provision of access to activities such as social interactions, employment opportunities, educational attainment, healthcare needs, leisure activities, tourism, markets, and distribution. Digital connectivity is increasingly helping individuals and organisations to reduce the need to travel, and while this trend is likely to continue, it is not considered to be a model applicable to all, and certainly not all the time.
- 2.6.7. Better transport connectivity will unlock resources for growth and act as a catalyst for productivity improvements through economies of scale and enhanced specialisation. This will promote enterprise, attract inward investment and ultimately increase value and choice for consumers. It should also be noted that increasingly digital access can meet the needs of some activities that

traditionally required conventional transport (air, road, and rail) meaning that ‘virtual’ access is an important part of our future considerations.

2.6.8. New Mobility

- 2.6.9. These changes in transportation can be structured around four distinct strands of change, and one key enabler. Each strand is currently evolving across the globe, and each brings distinct benefits and opportunities; these strands are:
- Progress towards vehicle **automation** (including driverless vehicles);
 - Distinct from this, the evolution towards **connected** vehicles, transport systems and networks;
 - Increasing appetite for **shared** use (for example, via ‘mobility as a service’ models); and
 - Increasing public interest in, and a shift towards, **electric** vehicles
- 2.6.10. These four strands of change are considered likely to significantly alter St Helens transportation networks and places. Furthermore, it is considered that leaving the evolution of such systems wholly to the market is a high-risk strategy that may produce undesirable outcomes.
- 2.6.11. The fifth strand is considered necessary to create a transportation future that is popular, fair, and sustainable: business models and revenue generation. This strand is likely to play a core enabling role, encouraging collaboration between the public and private sectors, and influencing the direction and speed of change across the other four strands.
- 2.6.12. Together, these five strands are termed ‘New Mobility’—the overall package of transport, technology, and mobility changes that will create new transport systems and significantly change the way people move, live, and interact with each other. Each strand of New Mobility is considered essential, adding value to the overall concept, and without any one strand, the benefits of all are unlikely to be maximised.
- 2.6.13. The automated and connected strands are considered to be the two elements that will transform future network efficiency, safety and access to mobility, creating a single data-led multi-modal transport system. However, in isolation they are unlikely to reduce demand or associated congestion, or have any great impact on air quality or the quality of our places.
- 2.6.14. The electric strand (or potentially other alternative fuels) is the primary New Mobility element that holds the key to substantially cleaner air for communities in the long-run.
- 2.6.15. The sharing strand holds the transformational power around future place-making across our cities, towns and rural centres. A high quality, flexible and affordable mobility service that works as well as (or better than) today’s car ownership and lease models could create a substantial move away from private vehicle ownership, significantly reducing the numbers of vehicles using the network and parked across the Borough.
- 2.6.16. Finally, the business model strand, linked closely with road pricing, is anticipated to bring together the lessons from the various examples across the world to create a New Mobility ‘bundle’ that brings together the automated, connected and electric strands under one business model. The shared mobility strand already has various business models in operation, but it is anticipated that these will evolve and become better integrated with the wider New Mobility concept. In the interests of simplicity, but also to maximize returns and efficiency, it is anticipated that there will be a move towards integrated system operation where the cost of trip-making are clear and understandable,

and where levels of use are maximized—but in a way that manages congestion and encourages efficiency.

- 2.6.17. New Mobility business models also hold the key to capturing commercial returns for both private sector participants (whose returns should increase through collaboration) and public-sector bodies who are responsible for maintaining and investing in multi-modal transport networks over time. It is also the corner stone that will steer public engagement and opinion, with acceptability being dependant on quality of service and a perception that user costs are fair and affordable.

Putting New Mobility into a Local Context

- 2.6.18. There is no easily defined single ‘package’ that will work everywhere. It will be the local application, and onward growth, of specific yet tailored solutions that will bring genuine benefit to St Helens’ places and routes of the future. Some players have the power to generate widespread multi-national change, while others hold much more local influence as enablers and agents of change on the ground. Each needs the other if they want to maximize popularity, commercial returns and wider benefits.
- 2.6.19. At this point in time, the majority of these technologies are very much in their infancy and only just emerging. The uptake of electric vehicles, use of Mobility as a Service (MaaS), and use of autonomous vehicles is essential market-driven at the present time, although as the adoption of national targets for the end of traditionally fuelled vehicles continues across the globe, local and national governments are likely to have to consider their role in facilitating such change. New legislation is likely to be required in order to facilitate truly autonomous vehicles across the highway network, while the potential for shared use models to replace traditional bus and taxi business models could have significant impacts on travel patterns.
- 2.6.20. With such technology very much in the early stages of adoption, there is no current framework or methodology for measuring the potential impact of such changes on transportation networks.
- 2.6.21. For St Helens, the move toward future mobility creates a number of possibilities. Each strand of New Mobility has a number of potential outcomes that could influence the development of strategy and investment in the transport network. These include:

Automated Driving

- Create local guidance, as appropriate, to bring through new policies and potential new business models to include capital and revenue funding;
- Collaborate with others to identify changes to planning policy requirements that will consider the effects of automated vehicles and their impacts on mobility, in the context of all five pillars of change. Identify what the borough requires and engage with the relevant providers; and
- Consider a ‘mobility index’ in place of a public transit accessibility rating, recognizing that the gap between public and private transport is likely to narrow.

Connected Vehicles, Transport Systems, and Networks

- Understand the potential and appetite to support long-run investment in transport and mobility connectivity, perhaps through new business models;
- Recognize and investigate the opportunity to tap into new sources of data that might support local planning, place-making and operation. These could be beneficial at the day to- day level or more strategically;

- Encourage links between strategic land-owners and connected technology providers, and look for ways to collaborate for long-run community benefit; and
- Support and/or seek national government decisions around connectivity and data standards

Electric Vehicles;

- Consider new targets for ultra-low emission zones in specific locations, especially in congested urban locations;
- Support developers and fleet operators in bringing through creative electric vehicle solutions, perhaps in combination with other aspects of New Mobility;
- Encourage electrification for authority -owned/leased fleet vehicles unless limited by operational requirements;
- Establish comprehensive policy standards for electric charging provision by location and land use, without incentivizing inner city private car ownership;
- Expand the availability of rapid charging stations across the on-street network and review parking policies to support the use of shared electric vehicles; and
- Explore policy/pricing measures to encourage smart charging and new business models for the installation of new charging infrastructure.

Shared Use

- Incentivize collaboration between public and private sector operators in the shared mobility space, and seek consensus around common objectives that benefit each;
- Consider how 'Mobility Orientated Development' might be measured against planning and mobility objectives, explicitly enabling shared mobility to drive development planning processes and support uplifts in development densities;
- Linked to this, investigate the creation of a New Mobility index to measure accessibility levels (considering access to public transport, electric charging, multiple shared mobility options, time mapping and walk/cycle options);
- Develop policy and quality targets for the range of sharing mobility models. These could relate to reliability, cleanliness, affordability service indicators applied to carsharing (car clubs, fractional ownership), ridesharing, public transport and bikesharing in order to achieve specific modal shares and reduction in private car usage; and
- Consider policy incentives for shared mobility options such as preferential parking/drop-off locations, high occupancy lanes or signal prioritization.

New Business Models

- 2.6.22. It is more complex to consider the next steps in business models and revenue in regards to New Mobility; certain models will be the result of uptake in the New Mobility strands, while some business models could influence the development of New Mobility in other areas.
- 2.6.23. Nevertheless, there is a still a need to consider how St Helens could create a fair, sustainable and politically acceptable operating model that is self-maintaining and makes the most of all four aspects of New Mobility, recognizing their unique individual contributions to desirable wider outcomes. At this stage, this is likely to be little more than consideration of various elements, influences, and possible outcomes, although an initial step could be to start to set New Mobility targets and carry out scenario tests for a range of outcomes, reflecting different future values of mobility and time, and then to keep a close watch on the actual influencers of this value in the context of New Mobility change.

Implications for St Helens

- A key challenge for St Helens will be meeting its future needs and continuing to grow in a rapidly changing, globalised world. The impacts of New Mobility, while currently very uncertain, are likely to be realised over the proposed Plan period.
- St Helens will need to be proactive rather than reactive to these changes in travel and transport demands to ensure the borough is at the forefront of modern transportation.
- St Helens should consider the applicability of the recommendations made in this chapter to the Borough, and begin to collaborate with stakeholders such as travel providers, land owners & developers, technology providers, and other authorities in the city-region to determine the appetite for change.
- An immediate opportunity is to require electric car charging infrastructure in new development and public car parks, plus promotion for shared transport infrastructure (bays for car clubs, etc).

2.7 SUMMARY

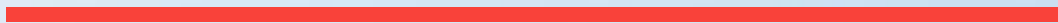
- 2.7.1. This review has considered relevant national, regional, and local policy relevant to St Helens, and the potential implications of these on the emerging St Helens Local Plan, paying particular regard to the transport implications.
- 2.7.2. The review has found a rapidly evolving landscape across the northwest, with significant growth aspirations across all neighbouring authorities as the national economy recovers from a period of recession. The regional structure has changed significantly, with the abolition of the Regional Development Agencies and the development of the Local Enterprise Partnerships, and many nearby authorities are undergoing a transition period towards devolution and greater local powers, with the creation of the Liverpool City Region devolution in deal in 2015, the Greater Manchester devolution deal in 2014, and Cheshire East, Cheshire West & Chester, and Warrington currently seeking a devolution deal.
- 2.7.3. The growth across this area of the northwest leaves St Helens well-placed to take advantage of the extensive investment across the regions; indeed, the emerging St Helens Local Plan identifies the need to maximise the potential opportunities presented by the borough's strategic connectivity, allocating employment land for freight and logistics uses, as well as general industry.
- 2.7.4. The significant growth across the northwest will undoubtedly cause an increase in travel demand across all modes of transport. This demand is likely to spread outside of the traditional peak periods, reflecting the changing needs of people and businesses. However, current policy makes it clear that additional capacity requirements cannot simply be accommodated through additional roads, and present an agenda for increasing the use of sustainable transport modes.
- 2.7.5. For St Helens, this means that the emerging Local Plan must consider not only how to accommodate an increase in travel demand through the borough's own planned growth, but also the potential impacts of growth across the region, as people move fluidly across boundaries for employment opportunities, business purposes, and leisure pursuits. In accommodating this

increase, St Helens will need to encourage an uptake in more sustainable modes of transport, shifting private car usage toward bus, rail, walking, and cycling, as well as paying cognisance to new and emerging trends in travel.

- 2.7.6. This document assesses the impacts of St Helens' ambitious proposals for growth, considers existing travel conditions, and predicts how growth in St Helens and the wider region could affect conditions in the future. The document not only sets out a framework for further studies to accommodate increases in traffic, but also provides a number of recommendations for policies, guidance documents, interventions, and initiatives to encourage sustainable travel across the borough and beyond. In this way, the Transport Evidence Base for St Helens pays due cognisance to local, regional, and national policy, aligning with the wider transport needs of the Liverpool City Region, the North, and the country.

3

STRATEGIC LOCATION AND BOROUGH CHARACTERISTICS



3 STRATEGIC LOCATION AND BOROUGH CHARACTERISTICS

3.1 INTRODUCTION

- 3.1.1. This section of the report provides an overview of the Borough from a transportation perspective, considering the existing infrastructure and committed schemes expected to come forward in the immediate future. This information helps inform the baseline conditions to shape a vision for transportation in St Helens by the end of the Plan period, and guide the requirements for intervention.
- 3.1.2. This section also presents key statistics relating to transportation and travel characteristics, behaviours and trends. Such statistics help identify patterns of sustainable travel as well as areas with high car ownership levels and typically longer journeys. This data can influence areas of the Borough already making best use of available sustainable transportation modes, but also help direct investment and interventions, ensuring those areas currently reliant on private car usage have significantly more options by the end of the Plan period.

3.2 STRATEGIC LOCATION AND BOROUGH CHARACTERISTICS

Highways - Overview

- 3.2.1. Located midway between Liverpool and Manchester, St. Helens is in a strong strategic position at the heart of the North West. The borough is characterised by an extensive road, bus and rail network, providing a variety of options for people travelling to and from St. Helens.
- 3.2.2. St Helens borough contains over 700km of roads, including 75km of the Key Route Network ('A' Roads); This includes a number of significant radial routes, providing links not only across the borough but also to neighbouring authorities, including:
- the A570 to the north (towards the M58 and Ormskirk/West Lancashire);
 - the A58 (connecting to the M6 junction 24 and Wigan to the east and Knowsley to the west); and
 - the A570 St Helens Linkway to the south (providing high speed connections to the M62 and both Warrington to the south east and Widnes to the south).
- 3.2.3. The borough also includes part of the A580 East Lancashire Road, a high speed (primarily dual carriageway with a mix of 40/50/60 mph limits) direct route between Liverpool and Manchester. The East Lancs Road was the biggest road project undertaken before the advent of the motorway network, and runs across the centre of the Borough—to the north of the town of St Helens—in an east-west alignment.
- 3.2.4. The Liverpool City Region's trunk road network comprises parts of the M53, M56, M57, M58, M6, and M62 to the east of junction 6 and the A5036 from the Port of Liverpool to Switch Island. These roads remain owned and managed by Highways England. There are several SRN routes in and around the Borough of St. Helens, including the M6, M62 and M57, in addition to a short section of the A580 East Lancashire Road at Junction 23 of the M6.

The Key Route Network (KRN)

- 3.2.5. The Key Route Network is considered to be those roads that form part of the Primary Route Network (PRN), which includes all roads that form a continuous network between 'primary destinations'. In essence, these are the most important local roads. The KRN in the Liverpool City Region also
-

includes two Mersey Tunnels and those roads that serve primary destinations immediately outside the boundaries of the LCR. In addition, the KRN includes roads that link significant new or proposed housing and employment areas that are not already part of the PRN.

- 3.2.6. Changes in responsibility for the management and maintenance of the Key Route Network (KRN), are likely from the devolution of highway, traffic and street authority powers to the Mayoral Combined Authority (MCA). The responsibility for asset management and Whole of Government Accounts (WGA) for these changes are still in the process of being finalised.

Investment in the KRN

- 3.2.7. The LCRCAs has secured approximately £28 Million from the LCRCAs Single Investment fund (SIF) for the LCR KRN Invest for Growth programme, an integrated programme of interventions in the strategic highway routes that are considered to contribute to growth in the LCR. This investment covers a range of highways interventions between 2017/18 - 2019/20, and builds on the investment made across the LCR from previous Local Growth Fund Programmes.
- 3.2.8. The Invest for Growth programme of works includes measures that improve conditions for all road users (freight, private cars public transport users and pedestrians and cyclists), and measures that improve the safety, capacity and effectiveness of key junctions and links, as well as works to improve the quality and resilience of the City Region's highway assets.
- 3.2.9. The package is also considered to support the growth of the SuperPort and multimodal freight access, accelerate growth in the enterprise zones, support the growth and expansion of the city centre, connect new housing and employment sites, support the visitor economy, and help to rejuvenate town centres.

Cycle Connections

- 3.2.10. Cycling around St Helens is actively promoted through both the Council and Merseytravel, with a variety of sources of information to facilitate cycling around the borough, as well as complementary programmes or infrastructure investment and behaviour change initiatives.
- 3.2.11. St Helens Council are currently part way through a six-year Sustainable Transport Enhancements Package (STEP), an integrated programme of investment in sustainable transport in the LCR. The Growth fund will contribute £41.1 million over the period, with further funding provided by the local Councils and partners. STEP schemes over the period 2015 – 2017 (first two years of funding) include:
- Haydock Connectivity, Stanley Bank Way - Off-road cycle link along A580 completing cycle facilities along its length from M62 to Knowlsey boundary;
 - Haydock Connectivity, King George V links - Improved cycle facilities within park;
 - Connecting Haydock - Provide improved sustainable transport facilities to Haydock Industrial Estate linking into Schemes 1, 2 and 3;
 - Newton-le-Willows Eastern Enhancements Programme Earlestown to Newton-Le-Willows Cycle Path;
 - Connect St Helens - upgrade of Sankey Valley to cycle path and improved cycle parking in St Helens Town Centre;
 - Haydock Connectivity, Liverpool Road - Junction Improvement for access to Haydock Industrial Estate; and

- Parkside Eastern Enhancements Programme - Sustainable transport route linking Vulcan Village, Newton Le Willows Station and Parkside to improve access to employment.

3.2.12. Further schemes anticipated for 2017 to 2021 include:

- Haydock Industrial Estate Access - a new junction that will upgrade the existing signalised Haydock Lane/A580 East Lancs Road junction with pedestrian and cycle facilities, right and left turning lanes and an improved layout;
- Active Travel East - improvements to walking and cycling routes from the Haydock and Newton Le Willows area to key destinations such as railways stations, employment, retail and education; and
- A58 Active Travel Improvements - improvements to the walking and cycling infrastructure along parts of the A58.

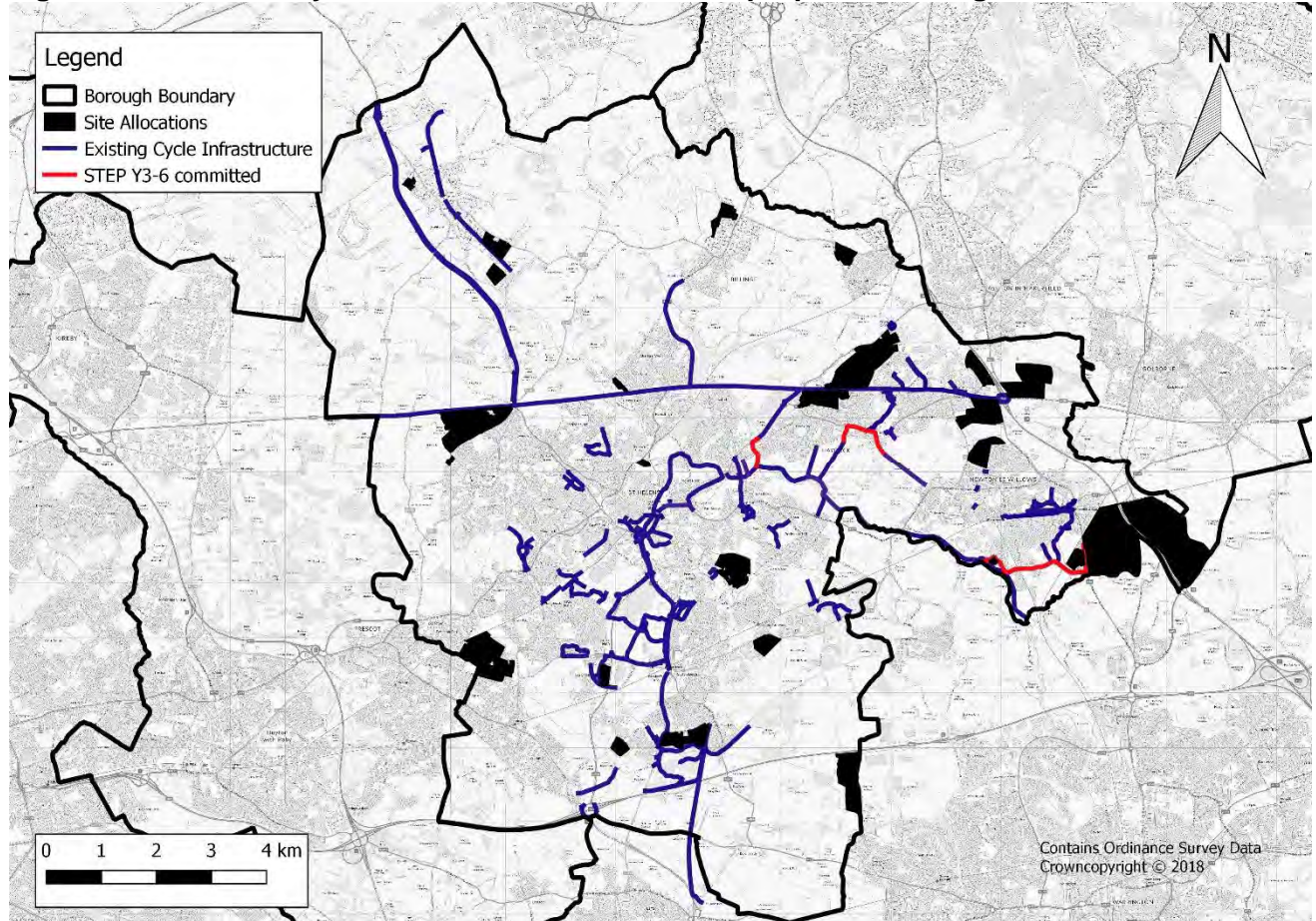
3.2.13. St Helens also operates the 'Healthy Living' team², who deliver a number of behaviour change initiatives designed to encourage model shift from private car use to walking and cycling, amongst a number of other associated roles.

3.2.14. St Helens produce a comprehensive, up-to-date map of the existing cycling infrastructure in the borough. This is produced in conjunction with the various neighbouring authorities in the LCR, facilitating ease of travel across the region. While there is a comprehensive network of 'suggested cycle routes' in St Helens, these are predominantly quieter streets that are considered more conducive to cycling, and do not feature any dedicated cycling infrastructure.

3.2.15. Figure 3 maps the existing network of cycleways across St Helens in relation to the strategic site allocations in the Borough.

² <http://www.healthysthelens.co.uk/>

Figure 3: St Helen’s Cycle Network in Relation to the proposed Strategic Site Allocations



- 3.2.16. The existing network of cycling facilities within St Helens is disjointed in places. Various cycle and footpaths are located throughout the borough, but do not make up part of a larger connected network of routes. Most of the available dedicated cycling infrastructure is located along radial routes leading to St Helens town centre, although there are other routes around Clock Face, parts of the A580 East Lancs Road, and in Newton-le-Willows.
- 3.2.17. While the importance of active travel is addressed in both the St Helens emerging Local Plan and the LCR’s A Transport Plan for Growth, St Helens does not currently have any Local Plan documents solely dedicated to the promotion of walking and cycling.
- 3.2.18. The DfT published its National Cycling and Walking Investment Strategy in April 2017, outlining the government’s ambition to make cycling and walking a natural choice for shorter journeys or as part of longer journeys by 2040. The Strategy includes specific objectives to double cycling, reduce cycling accidents, and increase the proportion of 5 to 10-year-olds walking to school to 55% by 2025. In order to achieve this, £1.2 billion in funding is allocated for various purposes, including:
- £101 million to improve cycling infrastructure and expand cycle routes between the city centres, local communities, and key employment and retail sites;
 - £389.5 million for councils to invest in walking and cycling schemes; and
 - £476.4 million from Local Growth Funding to support walking and cycling

- 3.2.19. The Strategy was accompanied by the Local Cycling and Walking Investment Plan (LCWIP), a 40-page document explaining the process of developing a comprehensive and cohesive walking and cycling infrastructure plan. Such a plan allows Local Authorities to proactively plan their active travel infrastructure needs over a set period, setting out guidelines for defining scope, gathering supporting evidence, devising a cohesive network, prioritising the various elements of the network, and aligning the proposals with other policies, strategies, and delivery plans.
- 3.2.20. Having an adopted LCWIP is anticipated to help Local authorities make a case for local investment that delivers the plan as funding becomes available, while also ensuring that new development contributes to active travel in a cohesive manner.
- 3.2.21. As a Combined Authority, the LCR will be developing an LCWIP for the sub-region, which includes St Helens. It is anticipated that this will be delivered through the DfT's support framework, providing technical support to 35 local authorities.

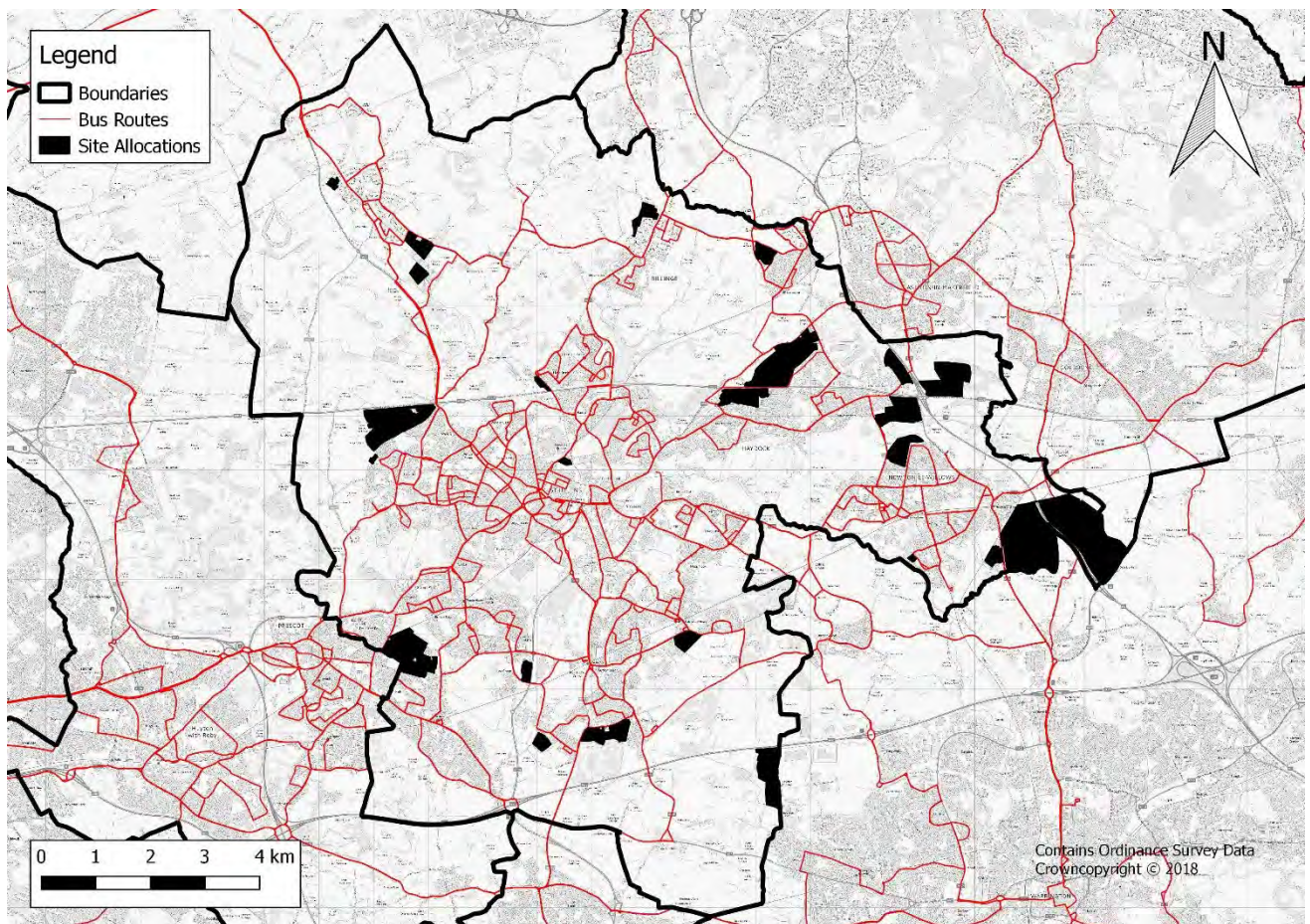
Bus Connections

- 3.2.22. As with cycling, bus usage is also actively promoted through both SHBC and Merseytravel as part of St Helens' sustainable travel agenda. Sources of bus information can be found throughout the borough in various forms, including the Merseytravel public transport map and guide, produced in conjunction with the neighbouring authorities in the LCR to help facilitate ease of travel by bus across the region.
- 3.2.23. St Helens has benefitted from a £1.5m investment which focussed on improving bus travel as part of the Liverpool City Region Better Bus Area project (BBA). The BBA is being delivered in collaboration between Merseytravel, LCR Borough Councils, and bus operators Arriva, Stagecoach, Halton Transport and Huyton Travel. The BBA region covers several principal residential areas and key centres of employment, including Runcorn, Widnes, Kirkby, Huyton, St Helens town centre and Speke. It is considered to cover some of the most significant areas of deprivation in the City Region, as well as principal industrial and development areas including the Mersey Gateway and 3MG. and is considered to be an opportunity for the City Region to utilise its existing assets and deliver targeted investment in new infrastructure and industry to help to reverse deprivation.
- 3.2.24. The BBA commenced in the financial year 2013/14, and ended in the financial year 2017/18.
- 3.2.25. Improvement works which have now been completed in St Helens as part of this scheme include:
- Widening of junction and upgrade of traffic signals at A57 Warrington Road and Holt Lane Junction;
 - Widening of junction and upgrade of traffic signals at A57 Warrington Road/B5419 Wilmere Lane/Jubits Lane Junction;
 - Upgrade of adjacent traffic signals at Lea Green Railway Station at the adjacent junction with the A569 Marshall's Cross Road;
 - Additional pedestrian crossing at the north entrance on Corporation Street into St Helens Bus Station; and
 - Bus priority measures to help reduce delays to buses and upgrading of traffic signals at the A58 Prescot Road/Freckleton Road junction and the adjacent junction with Lugsmore Lane
- 3.2.26. Improvement works which are still to be completed in St Helens include:

- Widening of junction and upgrade of traffic signals at A57 Warrington Road/Longton Lane/Old Lane junction;
- Upgrade of traffic signals and bus priority measure at A58 Prescott Road/Dunriding Lane junction;
- Upgrading of traffic signals at the south exit of the St Helens Bus Station onto Bickerstaffe Street and at the adjacent junction at Library Street;
- Upgrade of existing traffic signals at the A570 Chalon Way/Bridge Street/Canal Street junction and also in Westfield Street; and
- Upgrade of existing traffic signals at the Westfield Street/Cotham Street/Baldwin Street junction.

3.2.27. Figure 4 maps the existing network of bus service routes across St Helens in relation to the strategic site allocations in the Borough.

Figure 4: St Helen’s Bus Service Network in Relation to the proposed Strategic Site Allocations



3.2.28. There is an extensive bus network across St Helens borough; Figure 4 highlights 116 services which connect areas both in the borough itself and to further afield, including Warrington and the wider LCR. These services cluster within the town centre district and other urban locations, with less provision in more rural locations.

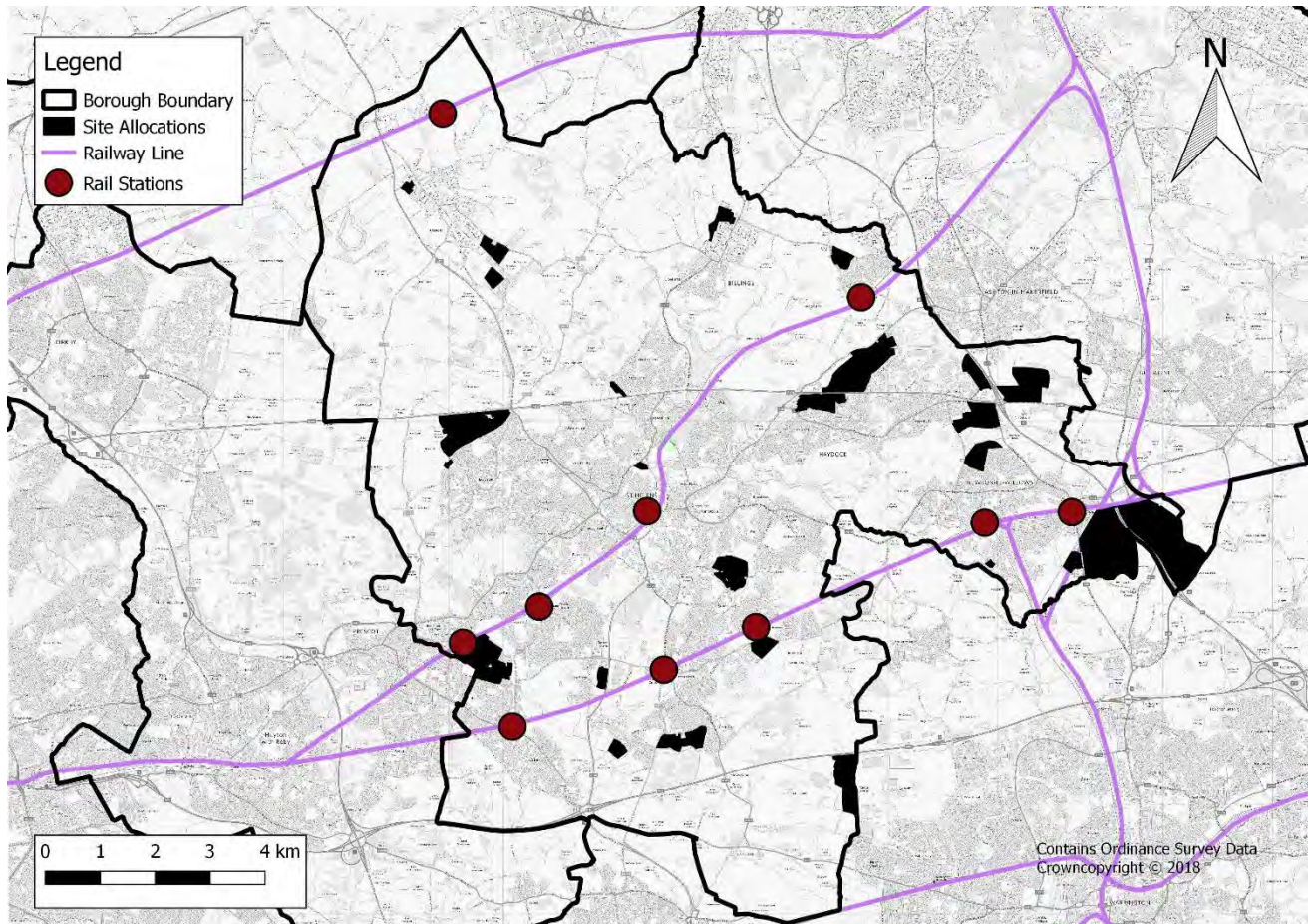
3.2.29. When considering the allocated sites, Figure 4 shows that most sites are located close to at least one bus route. Each site will be analysed in more detail in subsequent sections of the report.

- 3.2.30. It is noted that Strategic Site EA1 (Omega extension) has no bus services from St Helens serving the development, which means that a door to door bus journey using St Helens' services would be impossible to this location, and using the bus as part of a multi-modal journey could also be difficult.

Rail Connections

- 3.2.31. There are ten rail stations serving the borough in St Helens. The railway stations of St Helens Central, Thatto Heath, Eccleston Park and Garswood are situated on the Liverpool Lime Street to Wigan North Western line, Rainford lies on the Kirkby to Wigan line and Rainhill, Lea Green, St Helens Junction, Earlestown, and Newton-le-Willows railway stations connect Liverpool and central Manchester.
- 3.2.32. As part of the Liverpool City Region railway upgrade plan, Newton-le-Willows station is being upgraded into a multi-modal transport hub. Plans for the station include a new bus interchange, extended car park facilities and a new booking hall on the south side of the station. Access to the station will be improved with the implementation of lifts, subway, and stairs. The station upgrades are due to be complete in spring 2018. The project is funded by the Liverpool City Region through the Local Growth Fund and Merseytravel. This is one of 10 major railway upgrades as part of a £340m railway investment in the Liverpool City Region and sits within the wider Great North Rail Project to enhance rail provision across the north of England.
- 3.2.33. Figure 5 maps the existing railway network across St Helens, including the stations and routes. The figure highlights the location of the railway services in relation to the proposed Strategic Site Allocations in the borough.
- 3.2.34. The rail network provides St Helens with strategic and local connections to major employment, leisure and residential locations both within the borough and the wider region, such as Warrington, Liverpool and Greater Manchester.
- 3.2.35. In relation to the proposed Strategic Sites Allocations, most of the sites are located near to a rail station, while sites EA1 and HA16 are located furthest away from any railway station, making it less practicable to access these areas by rail.

Figure 5: St Helen’s Railway Network in Relation to the proposed Strategic Site Allocations



3.3 RAIL FREIGHT – PARKSIDE SRFI

- 3.3.1. St Helens Borough Council have identified Parkside as key strategic site, not only important locally but also regionally significant to both the Liverpool City Region (LCR) and the wider North. The site is split into two halves—bisected by the M6 Motorway—referred to as Parkside East and West. The two sites are included in the emerging St Helens Local Plan as sites EA8 & EA9 respectively.
- 3.3.2. The overall Parkside site is located on the former Parkside colliery, covering approximately 600 acres. The site was the location of a colliery which employed around 2,000 people until its closure in 1993. The site is located to the east of Newton – Le – Willows which is a market town in the Borough of St Helens.
- 3.3.3. The aspiration is to bring forward Parkside as a Strategic Rail and Freight Interchange (SRFI), one of only 3 in the north of England (alongside Port Salford and IPort Rossington). Parkside benefits from access to strategic rail links in all directions, with a north – south connection via the West Coast Mainline and also an east – west link via the Chat Moss line. There is a clear strategic link to deliver a project of this nature in this region and the proposals would strategically align with the delivery of other large logistical schemes in the area such as Liverpool2.

- 3.3.4. One of the main reasons that the Parkside site has not come forward previously is the difficulties in delivering a viable access option to the site; however, it is now believed that access can be successfully implemented on the A579 on the east and west of the site, along with a link from the A49 to the eastern access.
- 3.3.5. It is believed that developing Parkside as an SRFI is a major opportunity to provide an alternative to the current supply chains which relies on the M6, M56 and M62; these routes currently suffer from journey time variability due to the significant amount of congestion. However, rail freight is much more efficient in this regard, with over 94% of freight arriving on time.
- 3.3.6. There are currently two planning applications submitted which are associated with the Parkside development:
- Outline Planning application - P/2018/0048/OUP (submitted 16/01/2018)***
- 3.3.7. This outline application (all matters reserved except for access) is for:
- The construction of up to 92,900 m² of employment floorspace (Use Class B8 with ancillary B1 (a)) and associated servicing and infrastructure including car parking; vehicle and pedestrian circulation space; alteration of existing access road including works to existing A49 junction; noise mitigation; earthworks to create development platforms and bunds; landscaping including buffers; works to existing spoil heap; creation of drainage features; substations and ecological works*
- 3.3.8. This application relates to phase 1 of the Parkside development on the western side (note that land proposed for allocation for the SRFI (Site EA8) is predominantly on the eastern side, with a small spur into the western allocation). The application for phase 1 covers part of the southern section of the site.
- 3.3.9. This application is currently awaiting decision.
- Full application for Link Road - P/2018/0249/FUL (submitted 23/03/2018)***
- 3.3.10. The application is for the formation of a new link road between A49 (Winwick Road) and M6 Junction 22 including the re-alignment of Parkside Road and other associated works. The Parkside link road is a 3.3km section of road which will connect from the A49 in Newton-le-Willows on the west of the M6 to the A579 and then on to M6 J22 in the east, crossing the M6 via an existing road bridge. This link road will be open to all traffic, and will act as the main spine road through Parkside West and service the southern section of the planned SRFI on the East.
- 3.3.11. This planning application is currently awaiting decision.

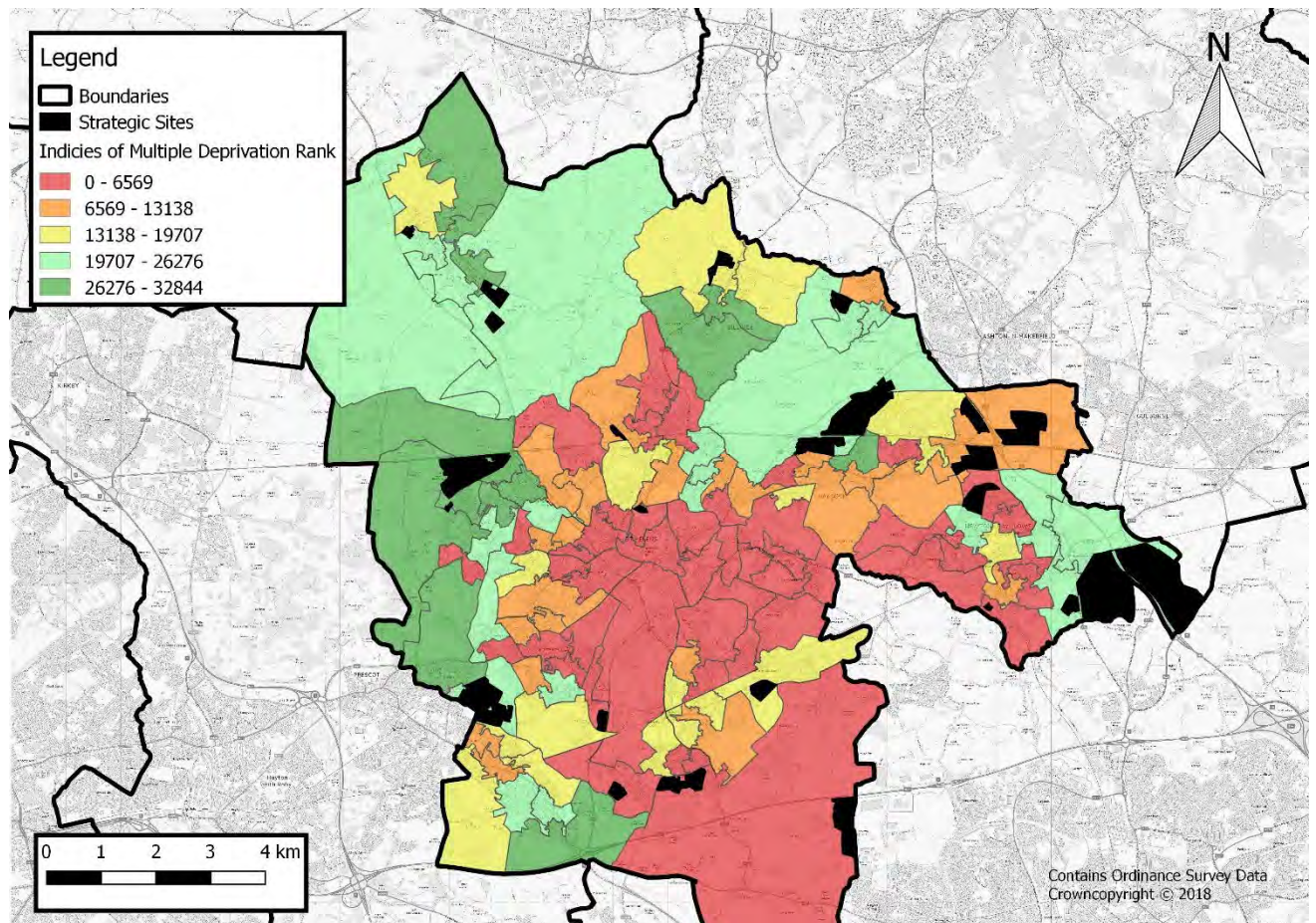
3.4 CURRENT ISSUES

3.4.1. This section outlines the current issues facing St Helens Metropolitan Borough in terms of transport and accessibility. Census data has been analysed to help better understand the current situation in St Helens with regards to transport.

Deprivation

- 3.4.2. The Index of Multiple Deprivation (IMD) 2015 is the official measure of relative deprivation for neighbourhoods (classified as LSOAs) in England. The IMD ranks every LSOA in England from 1 (as the most deprived area) to 32,844 (the least deprived area).
- 3.4.3. The IMD can be a useful indicator of the propensity to travel by particular modes of transport within a given neighbourhood. More deprived areas of the country may not have access to privately owned vehicles and therefore have a greater propensity to use public transport or active travel modes for a higher proportion of their journeys.
- 3.4.4. Figure 6 maps the IMD against borough, highlighting those areas with the highest levels of deprivation.

Figure 6: IMD Ranks within the Borough of St Helens, in relation to the proposed Strategic Site Allocations



3.4.5. The map shows that there are several areas within the borough of St Helens that are amongst the most deprived areas in the country. Areas of higher deprivation tend to be consistent with lower

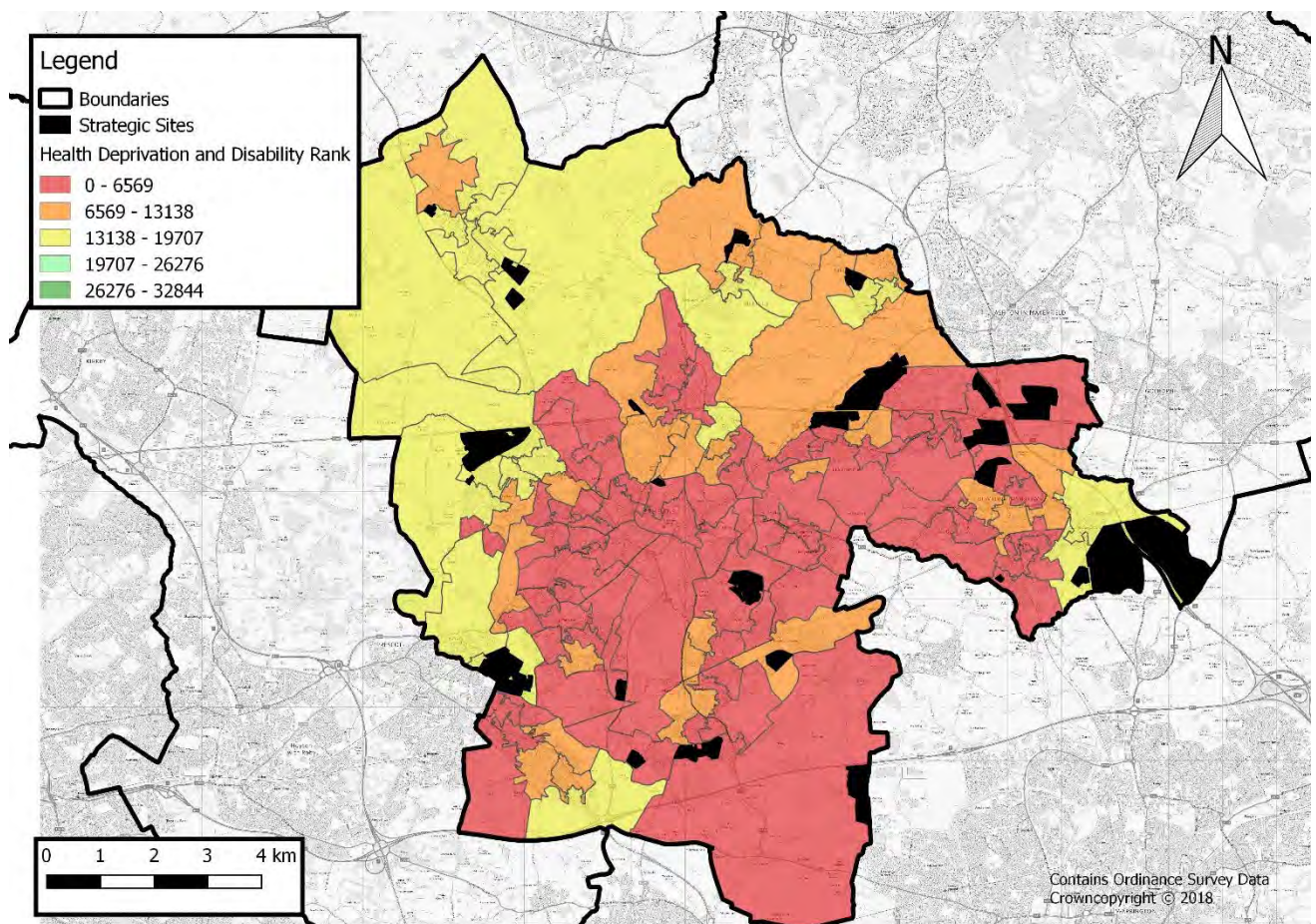
levels of private vehicle ownership and an increased reliance and usage of public transport, and therefore certain considerations must be taken into account when looking at the travel patterns in relation to these areas that may not be relevant in more affluent areas; for example, due to the high levels of deprivation within St Helens town centre, it could be assumed that private vehicle ownership would be low and public transport usage proportionally higher.

- 3.4.6. In relation to the potential strategic site allocations, Strategic Site HA5 and Moss Nook Urban Village are located in, or adjacent to, areas that are relatively the most deprived. The majority of the sites are not located within the 20% most deprived areas in the country. However, only HA16, HA8, and Parkside are located entirely within areas in the 25% to 100% least deprived percentage bands.

Health Deprivation and Disability

- 3.4.7. Health deprivation and disability in regards to the IMD analyses those living in poor physical and mental health. Figure 7 shows that when analysing this IMD factor in isolation illustrates that the entirety of St. Helens rank within the bottom 60% most deprived areas in the country. Of the 119 LSOAS, there are 99 which rank within the bottom 20% of the entirety of the UK.

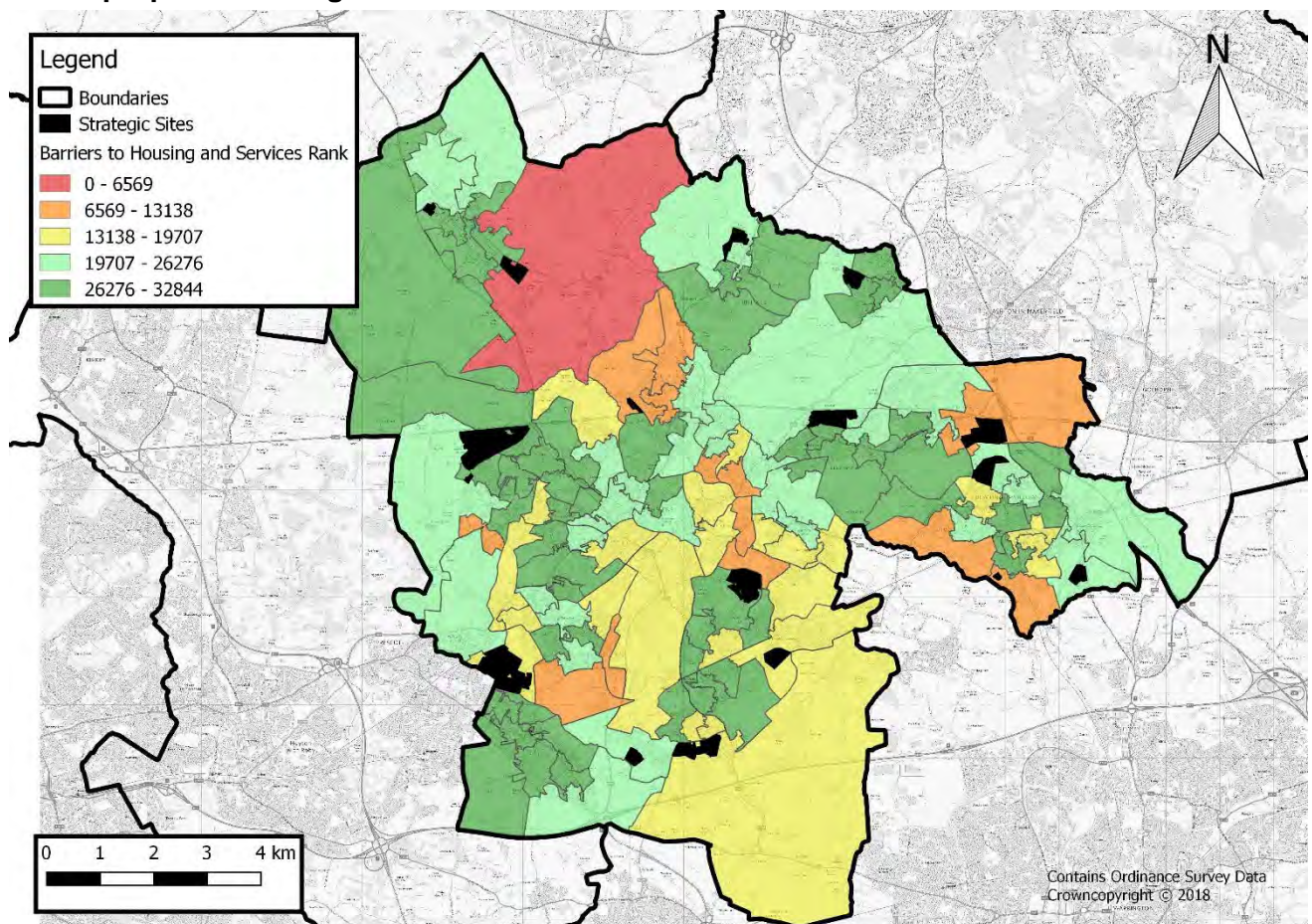
Figure 7: Health Deprivation and Disability Ranks within the Borough of St Helens, in relation to the proposed Strategic Site Allocations



Barriers to Housing and Services

3.4.8. Barriers to Housing and Services looks at the affordability and availability of housing. This aspect of the IMD also considers the geographical location of such housing in regards to key services. The indicators fall into two sub categories: ‘geographical barriers’ and ‘wider barriers’. Geographical barriers relate to the physical distance measured by road distance to a post office, primary school, supermarket and GP surgery. Wider barriers include issues relating to the access to housing including household overcrowding, homelessness and housing affordability.

Figure 8: Barriers to Housing and Services Ranks within the Borough of St Helens in relation to the proposed Strategic Site Allocations



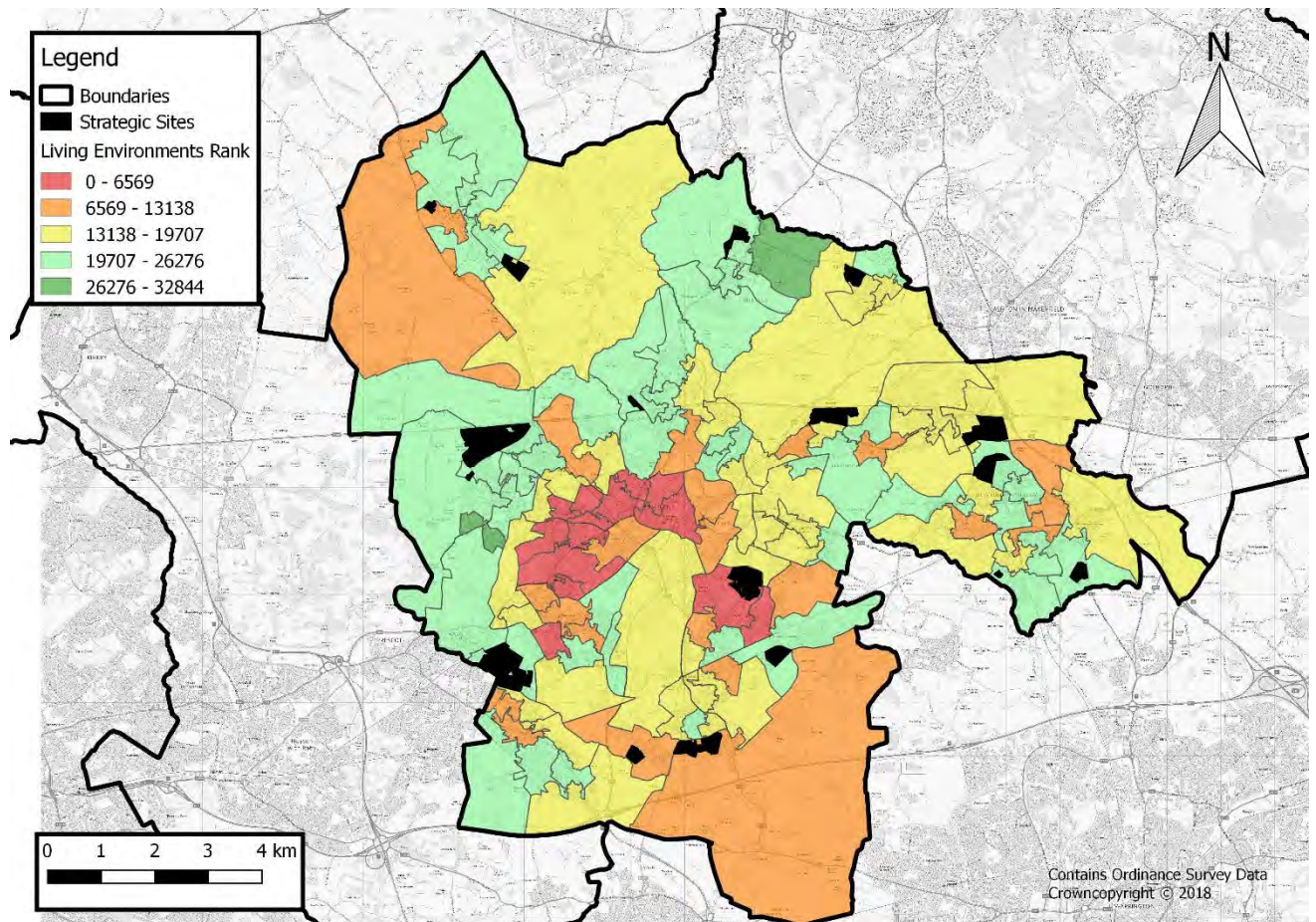
3.4.9. Figure 8 illustrates that 82 of the 119 LSOAs in St Helens rank within the top 40%, while 51 of these 82 are within the top 20% in the UK. There is only one LSOA in St. Helens which is ranked within the bottom 20% within the UK, which mainly consists of rural agricultural land. There are an additional 13 LSOAs within St. Helens which rank within the bottom 40%.

Living Environment

3.4.10. Living Environment Deprivation analyses the standards of people’s indoor and outdoor living environment. The specific measures which contribute to this index are the quality of housing, the local air quality and numbers of road traffic incidents in the area, taking into account the severity of said incidents. The indicators fall into two sub-domains: The ‘indoors’ and ‘outdoors’ living environment. The indoors sub domain measures the quality of housing based on whether a house

has central heating and whether it fails to meet the decent homes standard. The outdoors measures air quality and road traffic accidents involving injury to pedestrian and cyclists.

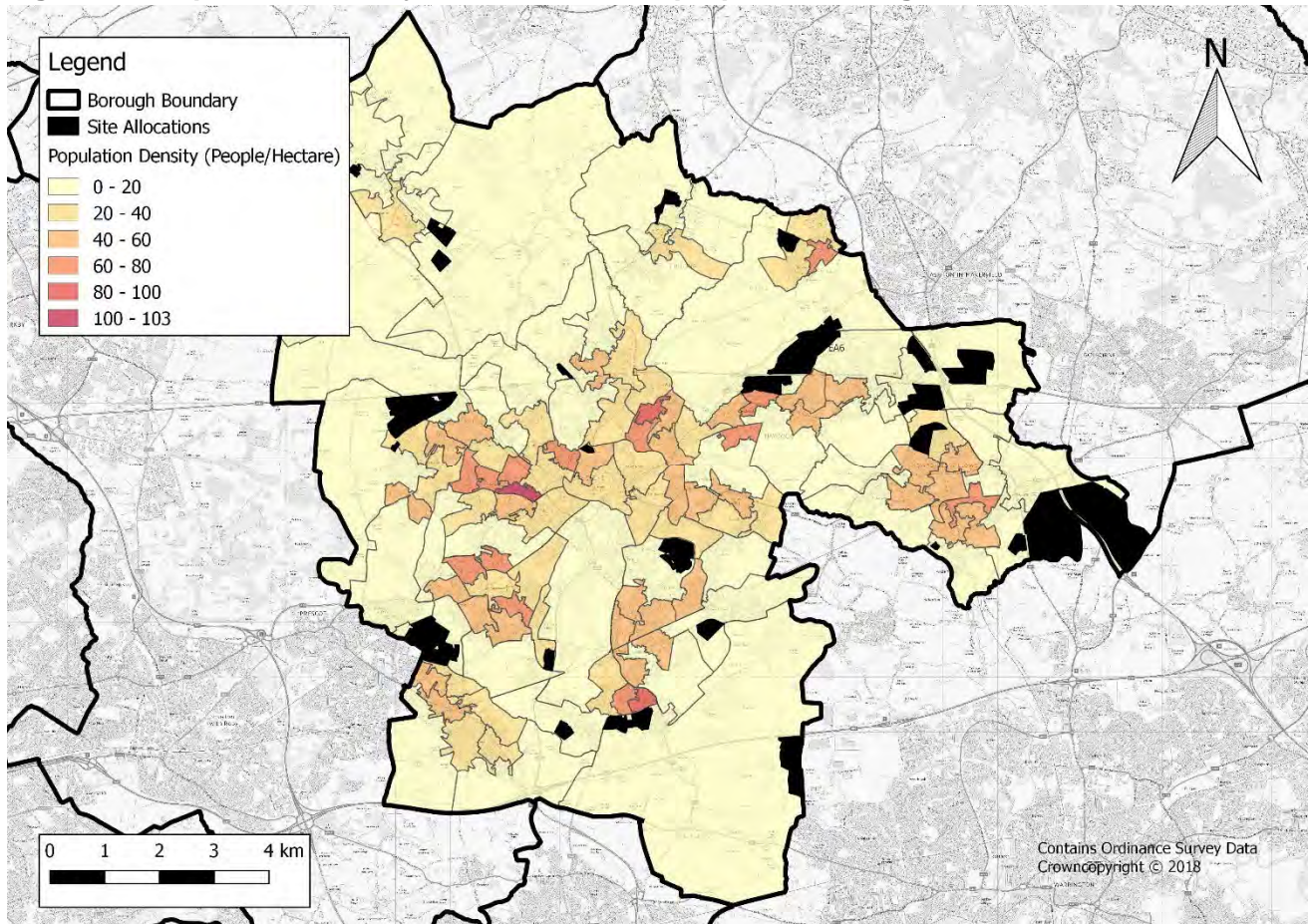
Figure 9: Living Environment Ranks with the Borough of St Helens in relation to the proposed Strategic Site Allocations



3.4.11. Figure 9 shows that central St. Helens ranks the worst out of the entire borough with 3 of the central LSOAs ranking within the bottom 20% of the UK. In total there are 35 LSOAs which rank within the bottom 40% of the UK, while there are only 4 which rank in to top 20%; the majority of these occur in the rural areas of St Helens, toward the borough boundary.

Population Density

Figure 10: Population Density in Relation to the proposed Strategic Site Allocations



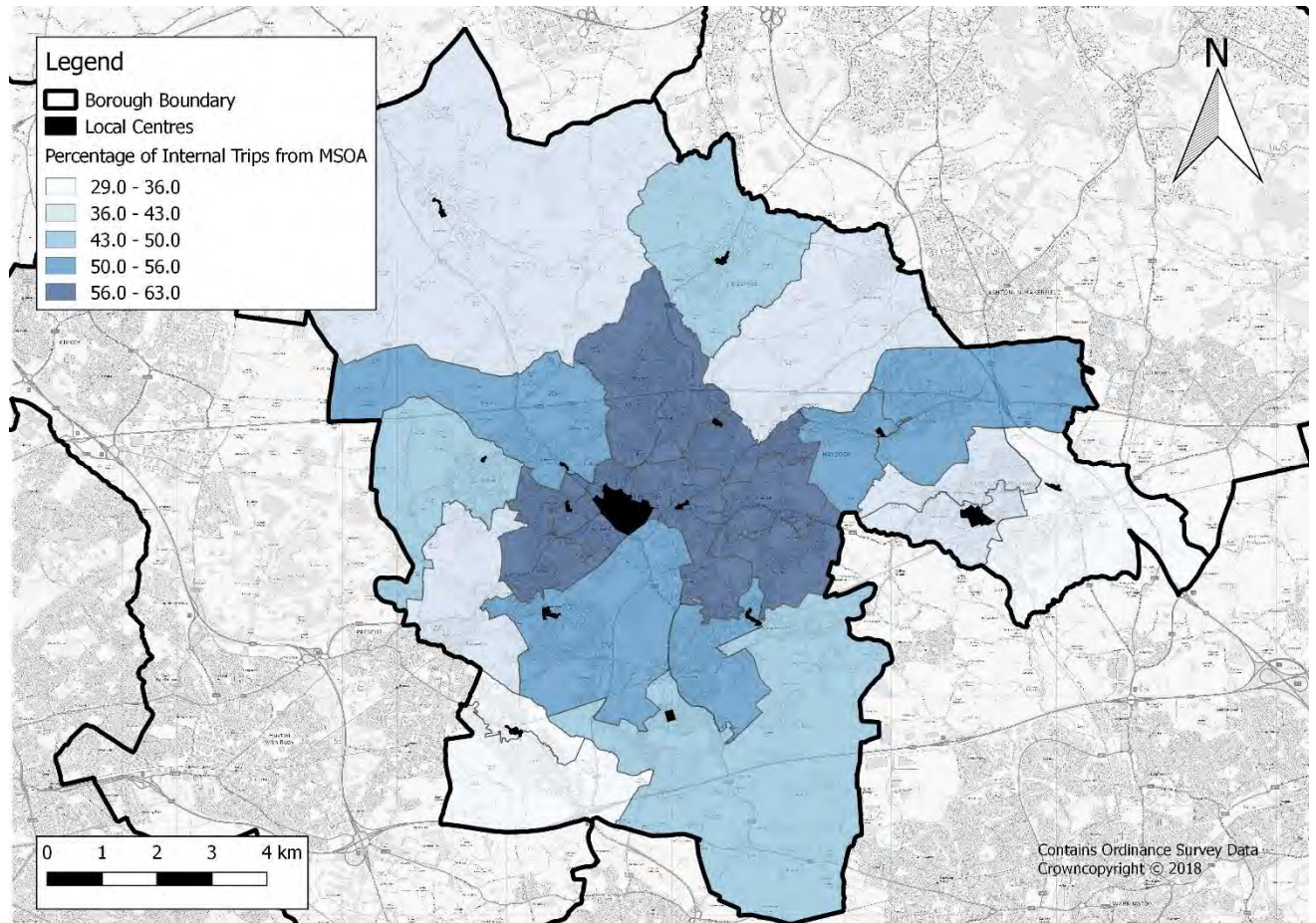
- 3.4.12. Figure 10 above illustrates the population density of each LSOA in the borough. The highest population density tends to occur around the Principal Towns, Key Service Centres and Local Centres, such as St. Helens town centre and Newton le Willows. The periphery of the borough tends to be less densely populated than that of the urban centre, with almost all the LSOAs adjacent to the borough boundary having a population density of between 0 – 20 people per hectare of land. The average population density of the borough is 34% which is approximately 7% lower than that of the national average (40.7%).

Trip Origin and Destination

- 3.4.13. Analysis was undertaken to identify the proportion of trips to work which remain within the borough, as opposed to those crossing the borough boundary. Origin – Destination data from the Census

20113 was analysed to show the proportion of trips from each MSOA which both live and work in St. Helens.

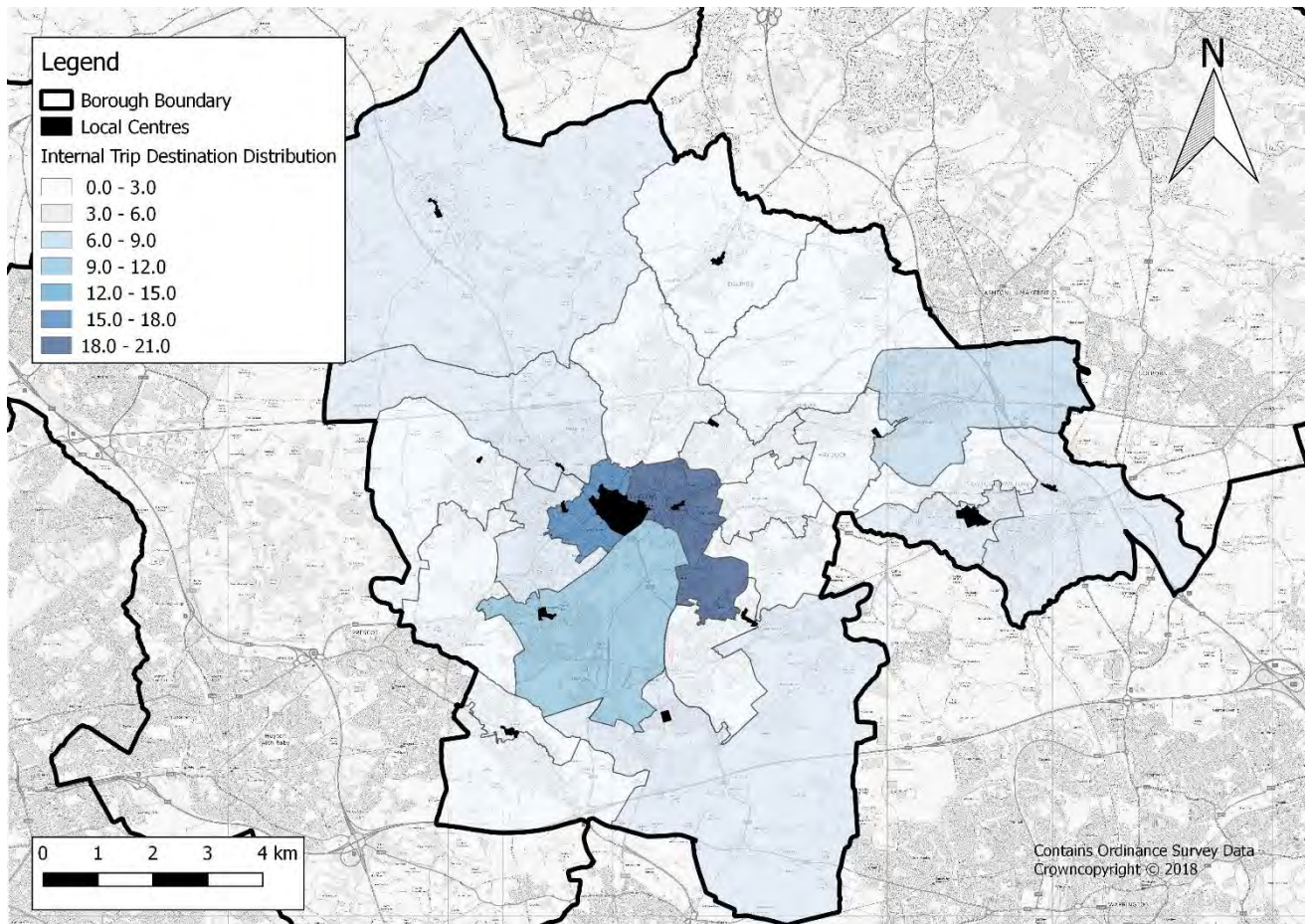
Figure 11: Proportion of Internal Borough trips from each MSOA



- 3.4.14. Figure 11 shows that the MSOAs with the highest percentage of trips which remain within the borough are in the central area of St. Helens around the town centre. The areas around the periphery of the borough tend to have a much larger percentage of outward commuting to other output areas; an example of this is Newton le Willows, where only 34% of trips to work remain within the borough.
- 3.4.15. Further Analysis was undertaken to understand the destinations within St. Helens which the internal trips travel to. The Census 2011 data shows that there were approximately 32,000 internal trips occurring within St. Helens; this is roughly half of the total trips to work originating in St. Helens. Figure 12 shows the percentage trip destination distribution from these internal trips, illustrating the main areas which residents of St. Helens travel to for work within the borough.

³ Census 2011: WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

Figure 12: Trip Destination Distribution in the Borough of St Helens in relation to identified Local Centres



- 3.4.16. There are a significantly larger proportion of trips arriving in the central areas of the St. Helens borough than anywhere else; this distribution could be expected, as these are the main areas of employment within the borough. Approximately 50 % of all internal trips travel to the 3 central MSOAs of the borough, while the remainder of the trips are distributed relatively evenly throughout the rest of the MSOAs.

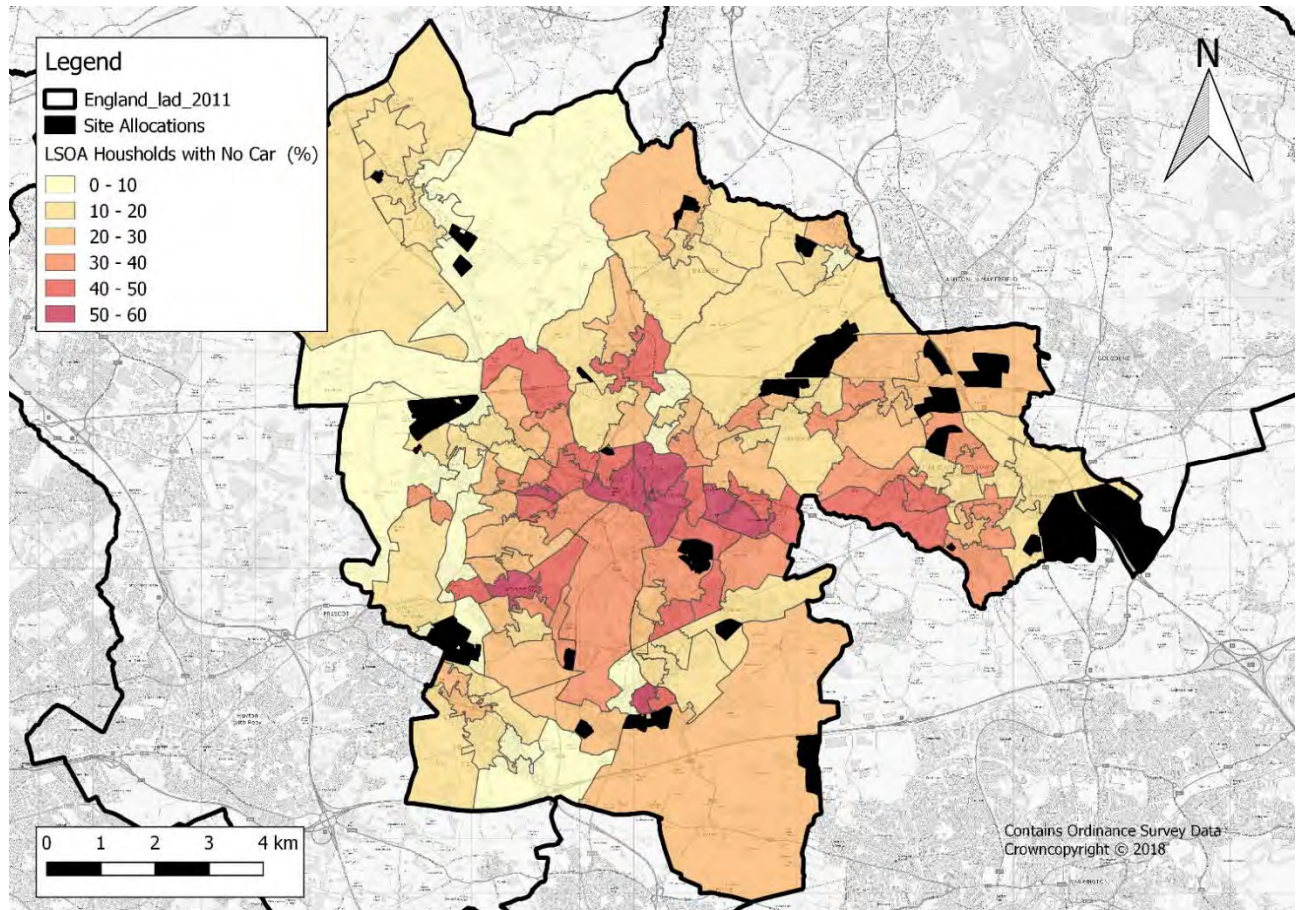
3.5 JOURNEY TO WORK ANALYSIS

Vehicle Ownership

- 3.5.1. Vehicle ownership levels within an area have a significant influence on travel patterns. High levels of vehicle ownership are considered to positively correlate with motorised vehicle usage, potentially reducing the propensity to travel by active or sustainable methods. Figure 13 maps the level of car

ownership within St Helens borough⁴, showing average number of cars per household by 2011 Census Output Area (OA).

Figure 13: Percentage Car Ownership within the Borough of St Helens in relation to the proposed Strategic Site Allocations



- 3.5.2. The map shows that those areas considered more deprived (based on the IMD) in the centre of the urban area of St Helens town also have a lower level of vehicle ownership. In contrast, large portions of the borough outside of St Helen's urban core have a larger percentage of car ownership.
- 3.5.3. Strategic Sites EA8 (Parkside East) and HA16 are located adjacent to areas which have a higher percentage of car ownership with around 80-90% of households owning at least one vehicle (note that the areas adjacent to EA8 is in the borough of Warrington). Moss Nook Urban Village is the only potential large site that is in a location surrounded by areas of low car ownership.

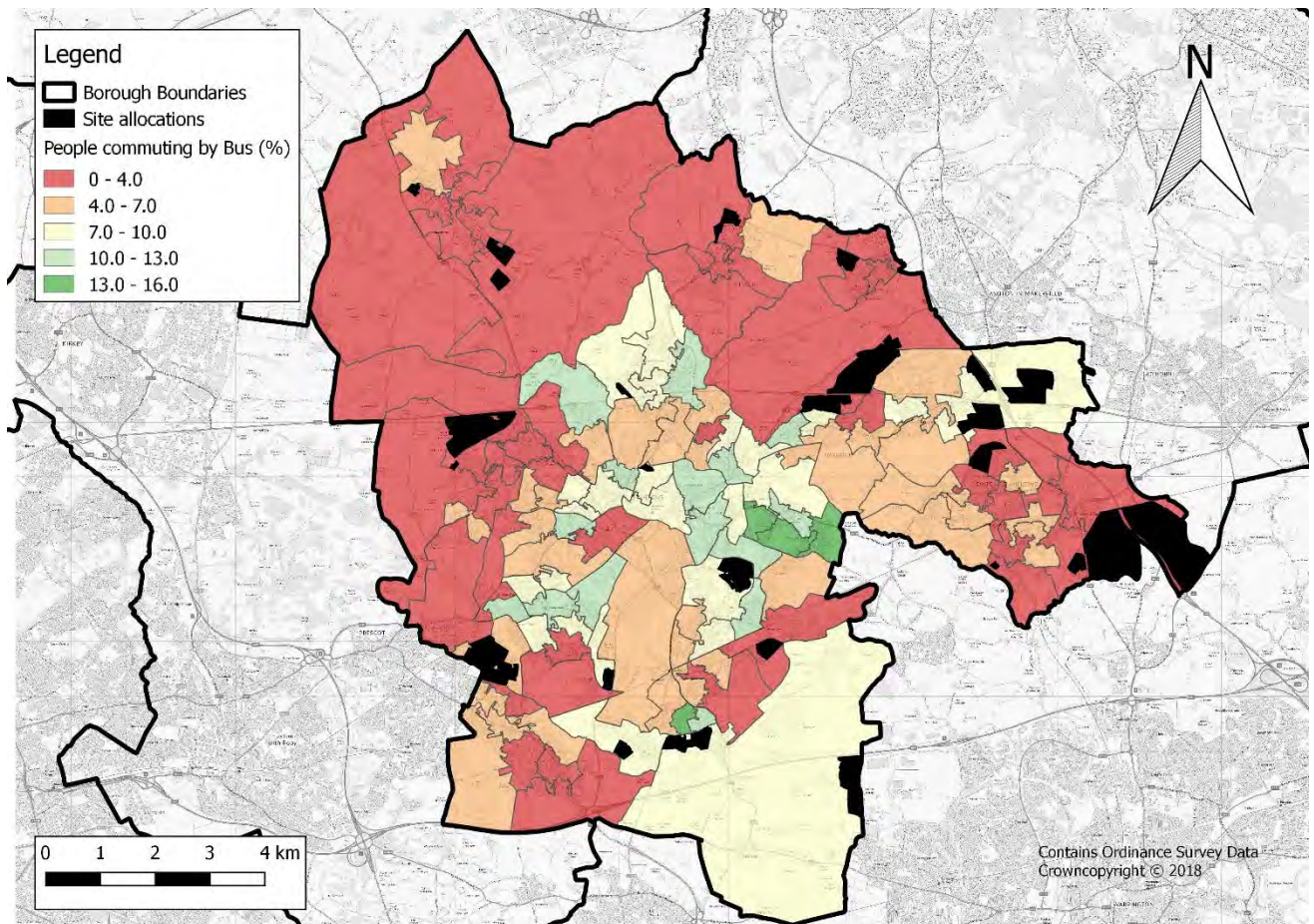
⁴ Census 2011, Dataset QS416EW – Car or van availability

Mode Share

- 3.5.4. The current mode share within the borough, particularly in areas surrounding the potential sites, can help to predict the future mode share at each site and influence which sites to target when developing future objectives, measures, and interventions to promote more sustainable patterns of travel.
- 3.5.5. Figure 14 to

3.5.6. Figure 18 below and overlaid map out the percentage of people using different modes of transport to commute to work. Using the OAs from the 2011 census, the percentage of people using each mode of transport has been displayed relative to the potential sites⁵. Note that as this dataset is in regards to method of travel to work, the analysis does not capture mode of travel for other purposes, such as leisure or errands.

Figure 14: Levels of Bus Usage in St Helens relative to the proposed Strategic Site Allocations

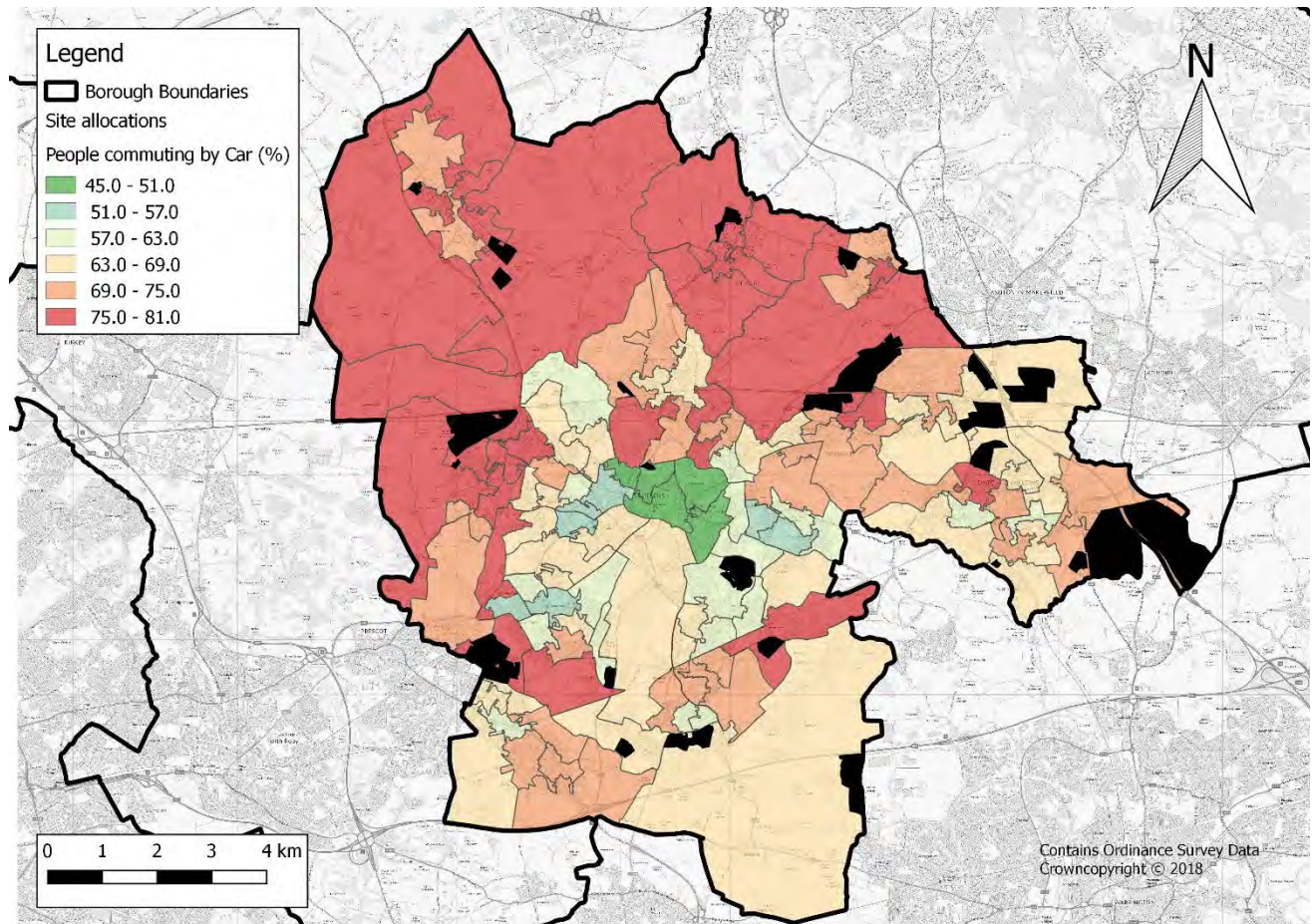


3.5.7. Bus patronage in St Helens borough is relatively similar to the national average, at 6.5% compared to 7.3% respectively (when removing those who work from home and are unemployed). However, the statistics show that there are several areas, primarily within the urban cores, that have considerably higher proportions of bus usage, with some output areas to the east of the urban centre of St. Helens recording up to 16% of people commuting by bus, highlighted in green.

⁵ 2011 Census, dataset QS701EW – Method of Travel to Work.

- 3.5.8. It is also noted that those areas in the centre of St Helens with higher percentages of bus commuters are also those areas with a lower average number of cars per household, and are more deprived than areas with a lower percentage of bus usage (according to the IMD).
- 3.5.9. Regarding the proposed Strategic Site Allocations, it is notable that the employment sites are located in areas surrounded by relatively low bus usage, at between 0%-4% of modal share. Most of the housing sites are adjacent to areas featuring a modal share similar to the borough average; although Moss Nook is adjacent to areas with particularly higher than average bus patronage.

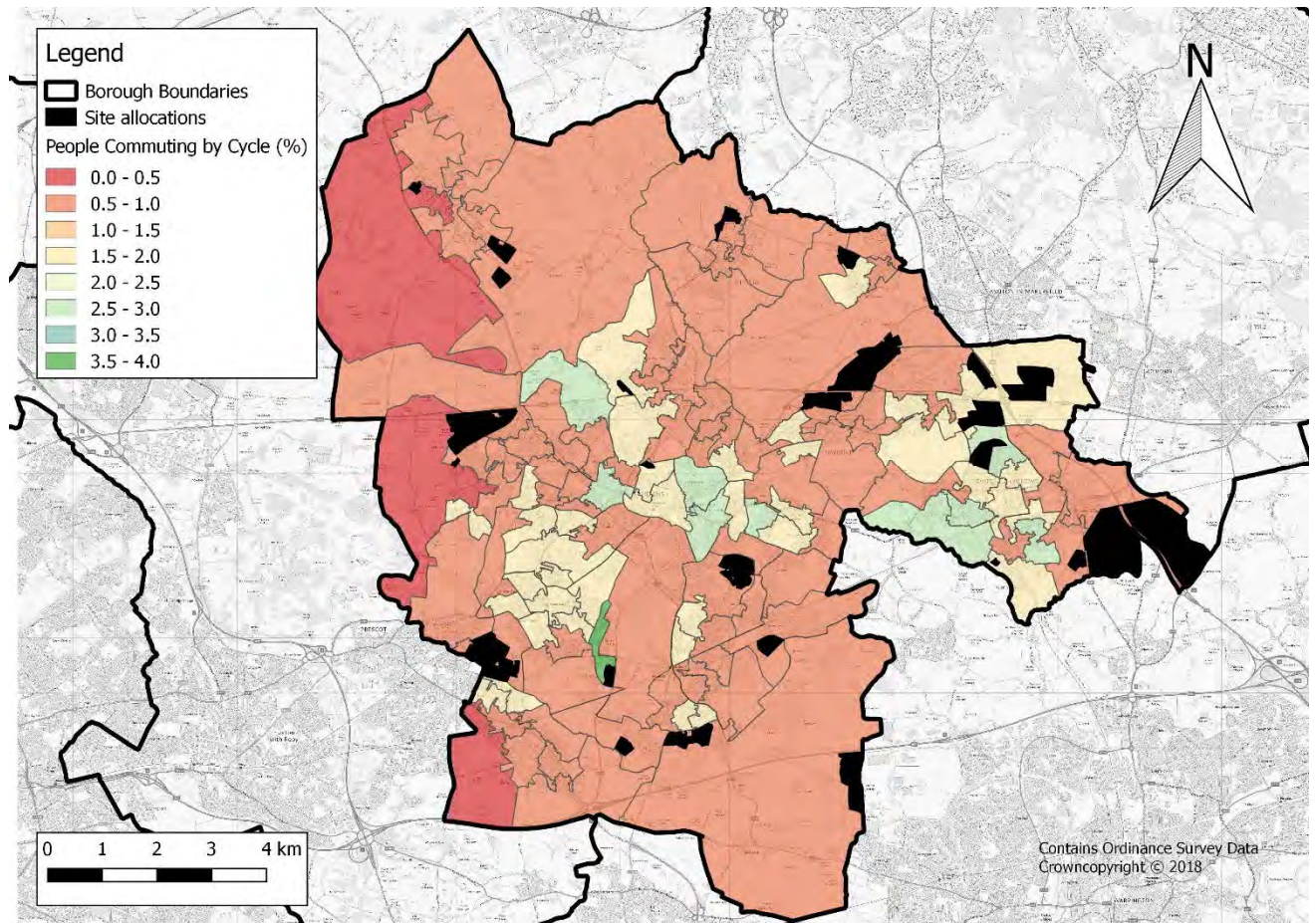
Figure 15: Levels of car usage in St Helens relative to the proposed Strategic Site Allocations



- 3.5.10. There is a higher percentage of people traveling by car in St Helens than any other mode of transport. The regional average of 68.3% driving a car or van for commuting purposes is higher than the national average of 54%, although it is noted that this average includes areas such as London, which has markedly different transport characteristics.
- 3.5.11. This correlates with the data shown in Figure 13 above, which highlights that the output areas with a higher percentage of car ownership has an increased mode share of people commuting by single occupancy car. The ease of availability of privately owned vehicles for a high proportion of the population are significant contributory factors towards a high percentage of car use for journey to work purposes.

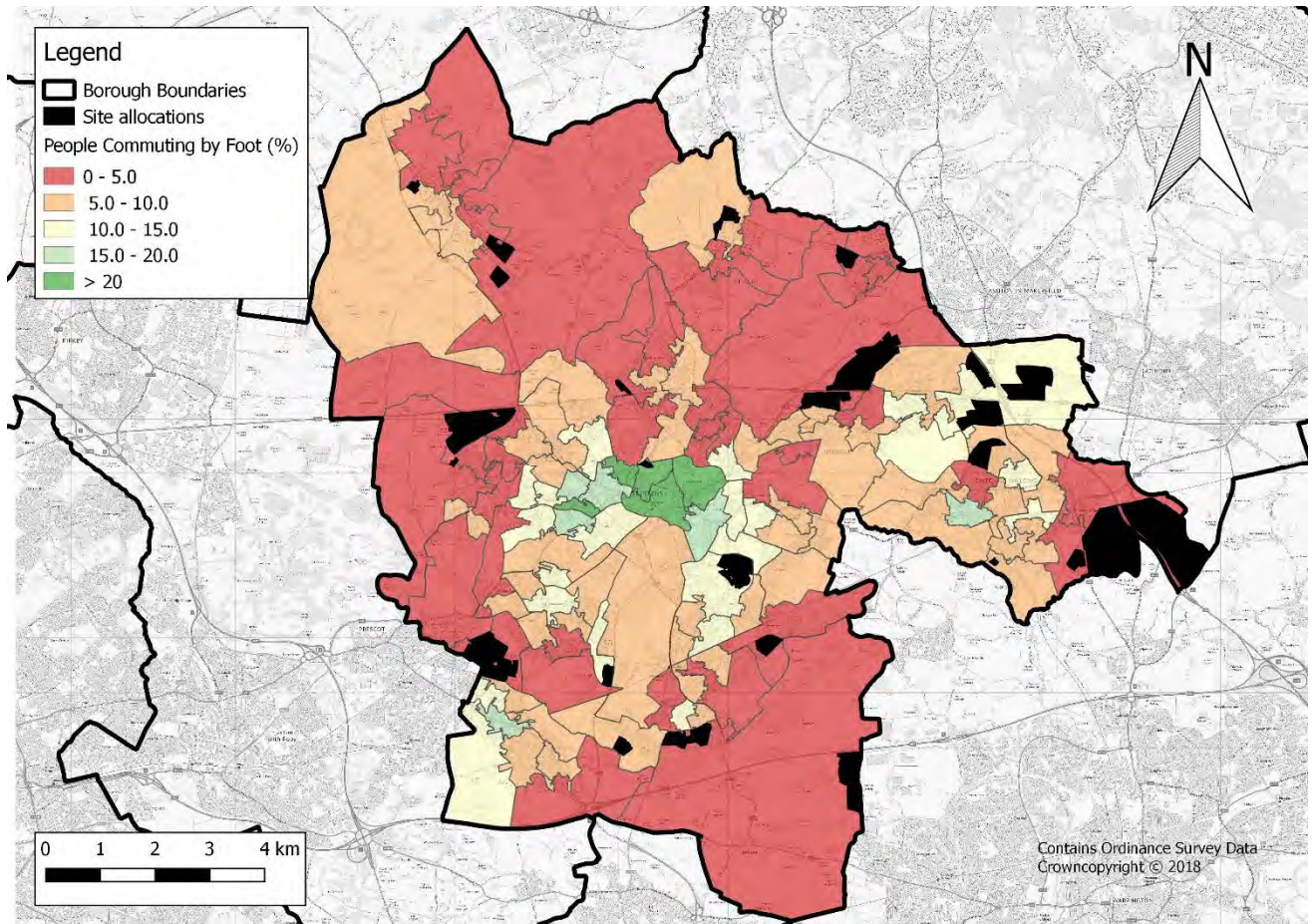
- 3.5.12. The town centre has the lowest percentage of commuting by car, which could be influenced by better access to other modes of transport, such as bus and rail, and the relatively higher levels of deprivation in these areas.
- 3.5.13. Many of the proposed Strategic Site Allocations are located adjacent to areas that record high levels car usage for commuting purposes as above the regional average. Moss Nook urban village and HA5 in Clock Face are notable exceptions; these sites are located in areas considered more deprived, with a lower level of car ownership.
- 3.5.14. It is also noted that much of Newton-le-Willows records below average levels of commuting by car.

Figure 16: Levels of cycle usage in St Helens relative to the proposed Strategic Site Allocations



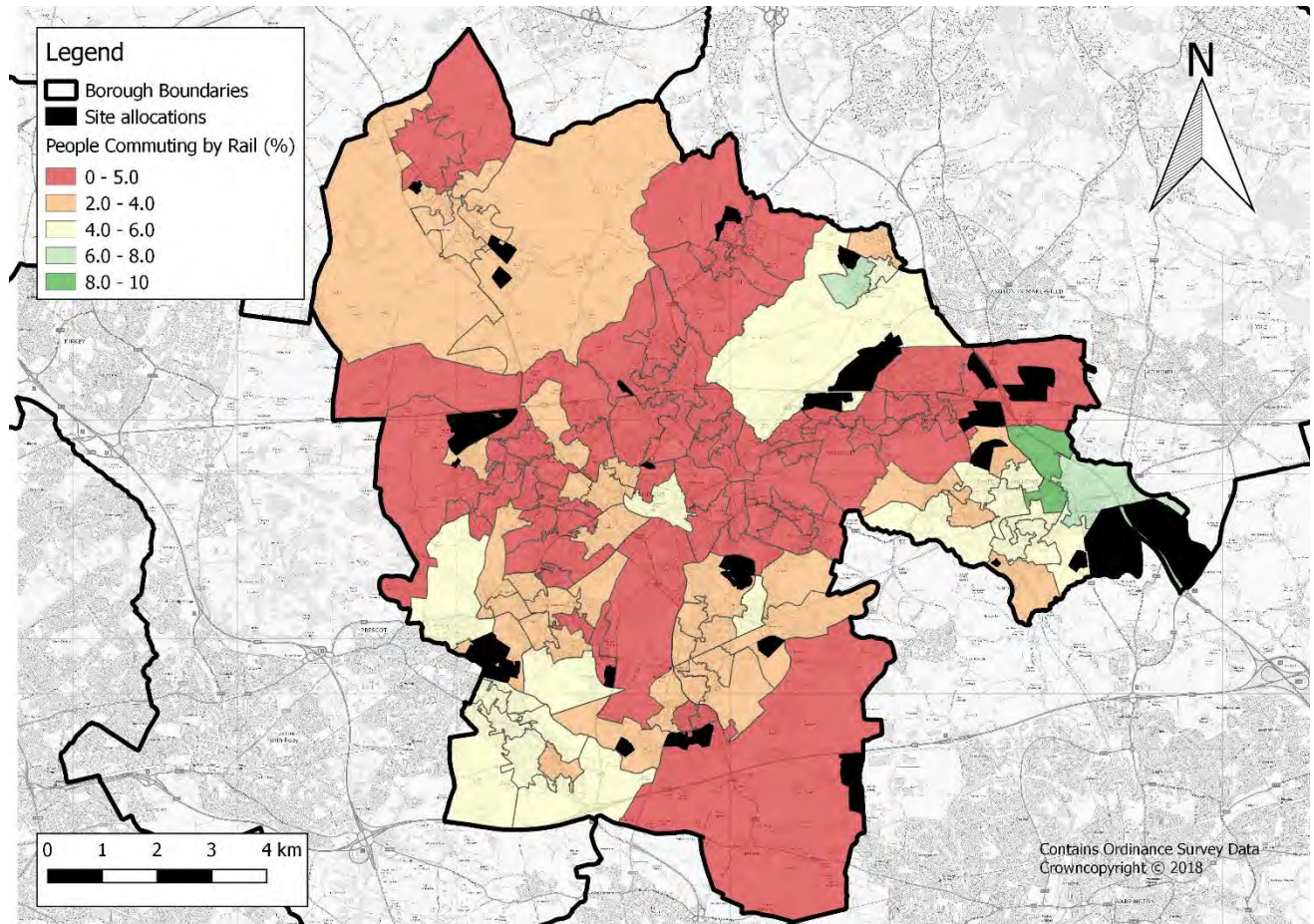
- 3.5.15. The percentage of people cycling to work in St Helens as shown in Figure 16 is low throughout the borough, with an average of 1.5%, compared to the national average of 2.9%. Nevertheless, there are a few output areas with higher levels of cycling for commuting purposes mainly concentrated towards the central areas of St Helens and around Newton le Willows.
- 3.5.16. There are slightly higher levels of cycling within the more deprived areas that have less access to a car, such as within the town centre of St Helens.

Figure 17: Levels of Walking in St Helens relative to the proposed Strategic Site Allocations



- 3.5.17. The percentage of people walking to work in St Helens, as shown in Figure 17, is below the national average at 8.7% compared to 11.3% nationally.
- 3.5.18. There is a significantly higher percentage of people commuting on foot within the town centre and urban areas compared to the more peripheral and rural locations, with levels of commuting on foot exceeding 20% in the town centre of St Helens.
- 3.5.19. Nevertheless, the majority of the proposed Strategic Site Allocations are located in areas with levels of commuting by foot at or below the regional average.

Figure 18: Levels of rail usage in St Helens relative to the proposed Strategic Site Allocations



- 3.5.20. The percentage of people commuting by train in St Helens is significantly lower than the national average, at 3% compared to 5.6%. Nevertheless, those areas in close proximity to a rail station generally have higher proportions of commuting by train; this is particularly noticeable in Newton-le-Willows, with many output areas recording levels of commuting by train above 6%.
- 3.5.21. A number of the proposed Strategic Site Allocations are located a significant distance from the nearest rail station, potentially limiting the propensity to travel by rail for commuting purposes. Strategic employment sites EA8 and EA9 however are located within 1km of the Newton le Willows train station.

3.6 TOWN CENTRE MODE SHARE & TRAVEL PATTERNS

- 3.6.1. Mott MacDonald have been commissioned to undertake the Modal Choice into Merseyside Centres report, an annual study into movement and transport trends within the various town centres in the Liverpool City Region—which includes St Helens town centre. Mott MacDonald recently published the results from the 2016/17 study, which represents the 14th consecutive annual study undertaken, providing a significant amount of historical data from which to draw conclusions over changes in trends and travel patterns over time; this report is available on request.
- 3.6.2. The surveys are undertaken via a ‘cordon’ around the town centre, with survey sites set up on all significant routes. Survey methods include Manual Classified Counts, Automatic Traffic Counters, Pedestrian and Cycle counts, vehicle occupancy counts, and bus and train passenger counts.

- 3.6.3. This data can be used to present a more detail baseline situation regarding travel to and from the main urban centre in the borough, and helps to inform the forthcoming St Helens Town Centre Strategy.
- 3.6.4. The following subsections summarise the key points from the document in relation to bus and rail travel within the town centre.

Bus Travel

Table 1 - Percentage of Bus Travel into the Town Centre

Peak Period	Trips Made by Bus	Total Trips	Percentage of Trips Made by bus
AM	2,312	8,835	26.2%
IP	3,129	10,032	31.3%

- There is an increase of approximately 1,200 trips into the town centre from the AM to IP.
- St Helens has the largest percentage of bus travel into the town centre in the entire Liverpool City Region during the IP.
- When comparing the above statistics to data collected by the National Travel Survey 2016 it shows that the proportion of trips occurring during both the AM and Inter peak by bus are significantly higher than that of the nationally collected mode share data for trips which is 5%.

Rail travel

Table 2: Percentage of Rail Travel into the Town Centre

Peak Period	Trips Made by Rail	Total Trips	Percentage of Trips Made by Rail
AM	172	8,835	1.9%
IP	210	10,032	2.1%

- When comparing the level of rail usage to the mode share set out within the National Transport Survey 2016 it shows that the level of rail usage is slightly lower than the national statistic of 3%.

General travel statistics for the borough

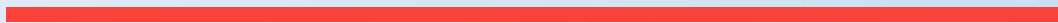
- 3.6.5. The level of travel to the town centre has slightly decreased during the AM peak; this aligns with the general trend which can be seen since surveys began. However, there has been an increase in the levels of travel to the town centre during the inter peak.
- 3.6.6. For almost all the different methods of travel the percentage of mode share has remained fairly constant throughout all the years surveyed. There has however been a slight increase in walking and cycling in both peak periods. The levels of private vehicles have generally decreased since these surveys began.

3.7 COMMITTED NETWORK CHANGES

- 3.7.1. There are a number of highways schemes and interventions already planned within the borough that are anticipated to have an impact on highway capacity, while other committed schemes introduce additional facilities for pedestrians and sustainable modes of travel. Those schemes identified as committed have been taken into account in the highway modelling undertaken to support this Transport Impact Assessment, and details of these schemes are provided in the Highway Schemes Technical Note (WSP, 2018) included in Appendix B.
- 3.7.2. The committed schemes identified on the Local Highway Network are summarised below:
- A580/Haydock Lane: new roundabout junction arrangement to the west of Haydock Lane and North of the A580 East Lancashire Road;
 - A580/A58: junction improvements and pedestrian facilities associated with development at Haydock Industrial Estate;
 - Elton Head Road/A570 St Helens Linkway: junction capacity and safety improvements, including pedestrian crossing facilities;
 - Sutton Road/Jackson Street: capacity and safety improvements;
 - Sutton Road/Watery Lane: new highway link between Sutton road and Watery Lane;
 - A580 East Lancashire Road – Windle Island upgrade: capacity improvements and pedestrian facilities; and
 - Penny Lane/Lodge Lane: junction capacity and safety improvements.
- 3.7.3. There are three committed schemes identified on the Strategic Road Network:
- M62 Smart Motorway Improvements: Hard shoulder running between J10 and J12 of the M62;
 - M6 Smart Motorway Improvements: Hard shoulder running between J21a and J26 of the M6; and
 - Junction 22 capacity improvements: likely to consist of an additional circulatory lane.
- 3.7.4. There are also currently two committed schemes to increase car parking capacity at St Helens' rail stations:
- St Helens Junction Car Park: Increase from 66 to 242 spaces
 - Newton Le Willows Station: Station upgrades and 400+ park and ride facility

4

SUSTAINABLE TRANSPORT ASSESSMENT



4 SUSTAINABLE TRANSPORT ASSESSMENT

4.1 INTRODUCTION

- 4.1.1. The NPPF clearly sets out that the planning system should aim to create sustainable and healthy communities; this can partly be achieved through the management of growth patterns in order to make the best possible use of public transport, walking and cycling opportunities, and focussing significant development in locations which wither are or can be made sustainable.
- 4.1.2. This section of the report presents the methodology and results of a baseline analysis of the proposed site allocations in the emerging St Helens Local Plan, focussing on the accessibility of the sites via sustainable and active modes of travel; full details of the assessment undertaken, including outputs, are available in the Sustainable Transport Impact Assessment Report (STIAR).

Sites for Assessment

- 4.1.3. The emerging Local Plan looks to fulfil St Helens' requirements for housing and employment land from a number of sources, including site allocations, existing permissions, sites included in the SHLAA, and windfall sites. It is impracticable to consider and undertake detailed analysis on every potential site, and therefore an appropriate and proportional approach to assessment has been undertaken, with a greater focus on sites of a considerable size, primarily those identified in the emerging St Helens Local Plan as Strategic Housing or Employment sites.
- 4.1.4. Policy LPA04 of the emerging St Helens Local Plan allocates 12 employment sites, totalling 306 ha of employment land allocated for the Plan Period. Of the allocated 12 sites, 6 are of considerable size and are identified as Strategic Employment Sites; these sites are listed in Table 3.

Table 3: Proposed Strategic Employment Sites

Site Ref	Name	Size	Use
EA1	Omega South Western Extension, Phase 1, Land north of Finches Plantation, Bold	31.2ha	B2 & B8
EA2	Land at Florida Farm North, Slag Lane, Haydock	42.31 ha	B2 & B8
EA4	Land north east of Junction M6 J23, south of Haydock Racecourse,	42.31 ha	B2 & B8
EA7	Land west of Millfield Lane, south of Liverpool Road and north of Clipsley Brook, Haydock	20.5 ha	B2 & B8
EA8	Parkside East, Newton-le-Willows	64.55 ha	B2 & B8
EA9	Parkside West, Newton-le-Willows	79.57 ha	B2 & B8

- 4.1.5. Site Allocation EA8 - Parkside East is allocated primarily for the Strategic Rail Freight Interchange, while it is estimate that a further 60ha of land will be required to deliver the necessary infrastructure and landscaping required to deliver this.

- 4.1.6. Policy LPA05 sets out the overarching policies covering the housing allocations in the Local Plan. An additional 10,830 dwellings will be required over the plan period, equating to an indicative annual average of 570 dwellings. The policy includes 16 allocated sites, delivering approximately 4,000 dwellings.
- 4.1.7. Of the 16 allocated housing sites, 6 are of a sufficient size to be allocated as ‘Strategic Sites’. These are listed in Table 4.
- 4.1.8. The St Helens 2016 SHLAA includes a single site with an anticipated yield over 500 dwellings (and therefore of a similar scale to the St Helens Local Plan proposed Strategic Sites; this site has therefore also been considered alongside the proposed Site Allocations, at a level of detail comparable to the proposed Strategic Site Allocations.

Table 4: Proposed Strategic Housing Allocations

Site Ref	Name	Yield (dwellings)
HA3	Land at Florida Farm South, Slag Lane, Blackbrook	502
HA5	Land South of Gartons Lane and former St. Theresa’s Social Club, Gartons Lane,	446
HA7	Land between Vista Road and Ashton Road, Earlestown	350
HA8	Land at Eccleston Park Golf Club, Rainhill Road, Eccleston	585
HA10	Land south west of M6 J23 between Vista Road and Lodge Lane, Haydock	520
HA16	Land south of A580 between Houghton’s Lane and Crantock Grove, Windle	585
09	Moss Nook Urban Village, Watery Lane	802

- 4.1.9. Although the emerging Local Plan does not set out phasing for development, a number of assumptions are made over the deliverability of the sites and a likely buildout rate for proposed housing allocations. These assumptions have led to the following trajectory for housing shown in Table 5.

Table 5: St Helens Housing Trajectory

Period	Buildout Rate (units)
0 – 5 years	1,153
5 – 10 years	1,828
10 – 15 years	1,008

Overview of Assessment Methodology

- 4.1.10. The Sustainable Transport Assessment considers all the proposed Site Allocations in the emerging St Helens Local Plan through a broad GIS distance-based assessment, while considering the Strategic Site Allocations in significantly more detail. Each proposed Site Allocation has been assessed in terms of accessibility to key services and amenities by sustainable and active modes of travel, such as bus travel, walking, or cycling. This assessment has primarily been undertaken using data gathered through desktop methods (including GIS and Census data analysis), while the assessment of the proposed Strategic Site Allocations has been supplemented through site visits, detailed isochrone mapping, and Traccs Basemap analysis.
- 4.1.11. Traccs Basemap accessibility analysis was undertaken for each of the proposed Strategic Site allocations. The accessibility mapping undertaken illustrates what areas of St Helens and the surrounding boroughs (where appropriate) can reasonably be considered accessible to and from the potential sites.
- 4.1.12. Isochrone mapping has been undertaken to estimate the existing level of accessibility from each of the proposed Strategic Site allocations by active travel modes. This mapping has included the Core Accessibility Indicators where data has been available, allowing analysis to be undertaken on the propensity for local journeys to be undertaken on foot or by bicycle.
- 4.1.13. A site overview proforma has been completed for each proposed Strategic Site allocation as part of an initial site visit. The proformas consider the current levels of accessibility in and around the proposed sites, any existing constraints, and the likely future impacts. Each of the site proformas includes commentary on walking, cycling, and footway conditions, together with the provision of on-street or shared off-street cycle routes, as well as bus and rail infrastructure. Consideration is also given toward the accessibility of key desire lines to local facilities.
- 4.1.14. Each site's accessibility is considered against a set of accessibility criteria derived from best practice guidance, assessing each site on its level of accessibility to key services and public amenities. Each site is then ranked based on a set of criteria against each amenity, with a 'high' scoring indicating a positive level of accessibility.

4.2 SUSTAINABLE ACCESSIBILITY APPRAISAL METHODOLOGY

- 4.2.1. This section sets out the methodology used to review each of the sites. This methodology used to assess each of the sites is based on based on a combination of guidance documents, including the following core publications:
- Guidance on Accessibility Planning in Local Transport Plans – DfT, 2004;
 - Manual for Streets 1 & 2 – DfT, 2007, 2010
 - Providing for Journeys on Foot, CIHT, 2000;
 - Designing for Walking / Planning for Walking – CIHT, 2015;
 - Designing for Cycling / Planning for Cycling – CIHT, 2015;
 - Bus Services and New Residential Developments – Stagecoach, 2017;
 - Buses in Urban Developments – CIHT, 2018;
 - Streetscape Guidance (3rd Edition) – TfL, 2016;
 - Ensuring a Choice of Travel – St Helens SPD

Core Accessibility Indicators

- 4.2.2. A key element of the Sustainable Accessibility Appraisal is the consideration of ease of access to services, facilities and amenities considered necessary for day-to day needs from each of the proposed Site Allocations. This method of assessment provides a more holistic approach, complementing the assessment of local sustainable transport infrastructure provision and resulting in a greater understanding of the accessibility of a location
- 4.2.3. Table 6 sets out a list of services considered to meet the needs of potential residents (and, to some extent, employees) of the potential sites. This list is based on best practice guidance, and includes services such as healthcare, education, food, social, community, and cultural uses, as well as the availability of basic day to day needs small food items and local employment opportunities.

Table 6: Core Accessibility Indicators and Corresponding Datasets

Key Services and Facilities	Key Services and Facilities Datasets used in the Analysis
Food and retail facilities	<p>Foodstores:</p> <p>Location of supermarket stores for 11 major chains. Including: Aldi, Asda, Co-op, Iceland, Lidl, Morrisons, Netto, Sainsburys, Somerfield, Tesco and Waitrose.</p> <p>Data is from 2010 for England and 2009 for Scotland and Wales. In each case, this is the most recent government Open Data published.</p>
Health Facilities	<p>NHS Choices:</p> <p>This dataset contains the location of GPs, Dentists, Pharmacists, Opticians, Hospitals (including A & E), Walk-in Centres, and Sport and Fitness facilities.</p>
Community Facilities / Local Centres	<p>These are Local Centres, as defined in the emerging St Helens Local Plan</p>
Education Facilities	<p>Educational Establishments (England & Wales):</p> <p>Location of Nurseries, Primary Schools, Secondary Schools, and Further Education institutions in England and Wales.</p>
Employment Opportunity	<p>Location of Proposed Strategic Employment Allocations</p>

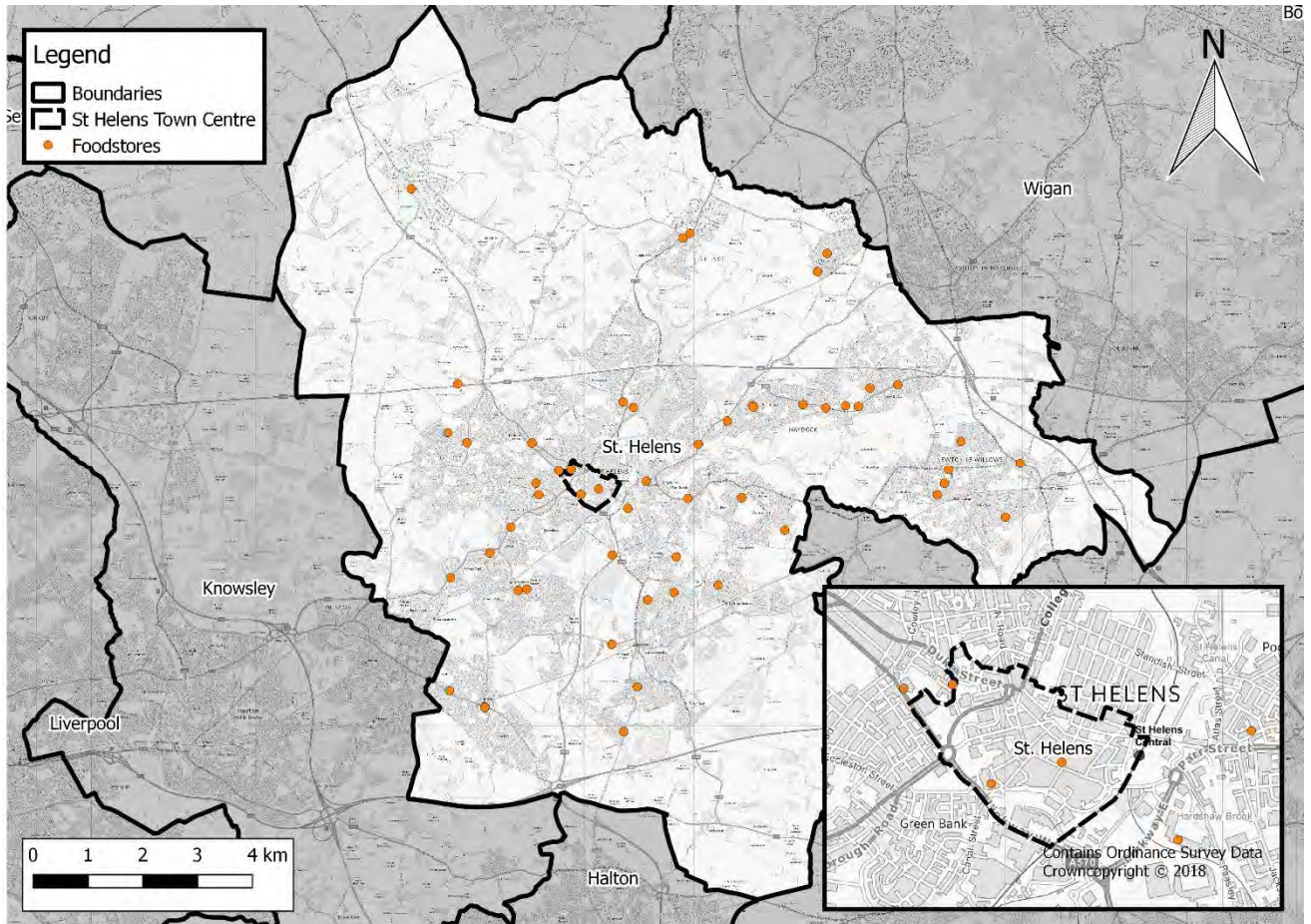
Key Facilities and Services

- 4.2.4. The location of key services can also be analysed against other relevant data, including existing or proposed cycle and public transport infrastructure. This analysis can be used to quantify the existing level of accessibility to these services from the potential sites, as well as to determine the potential success of any intervention.

- 4.2.5. While the location of key services in relation to the site and accessibility between the two is essential in regards to the proposed Housing Site Allocations, these indicators have less relevance when considering the proposed Employment Site Allocations. Nevertheless, the locations of such destinations can have an influence of travel patterns, such as where trips between home, work, and school or leisure activities can be linked, or where the proximity of foodstores can limit the need to travel by car at lunchtimes. GP appointments and errands can be run during break times, or leisure activities pursued, lessening the need to travel at peak times and by private vehicle.
- 4.2.6. Figure 19 to

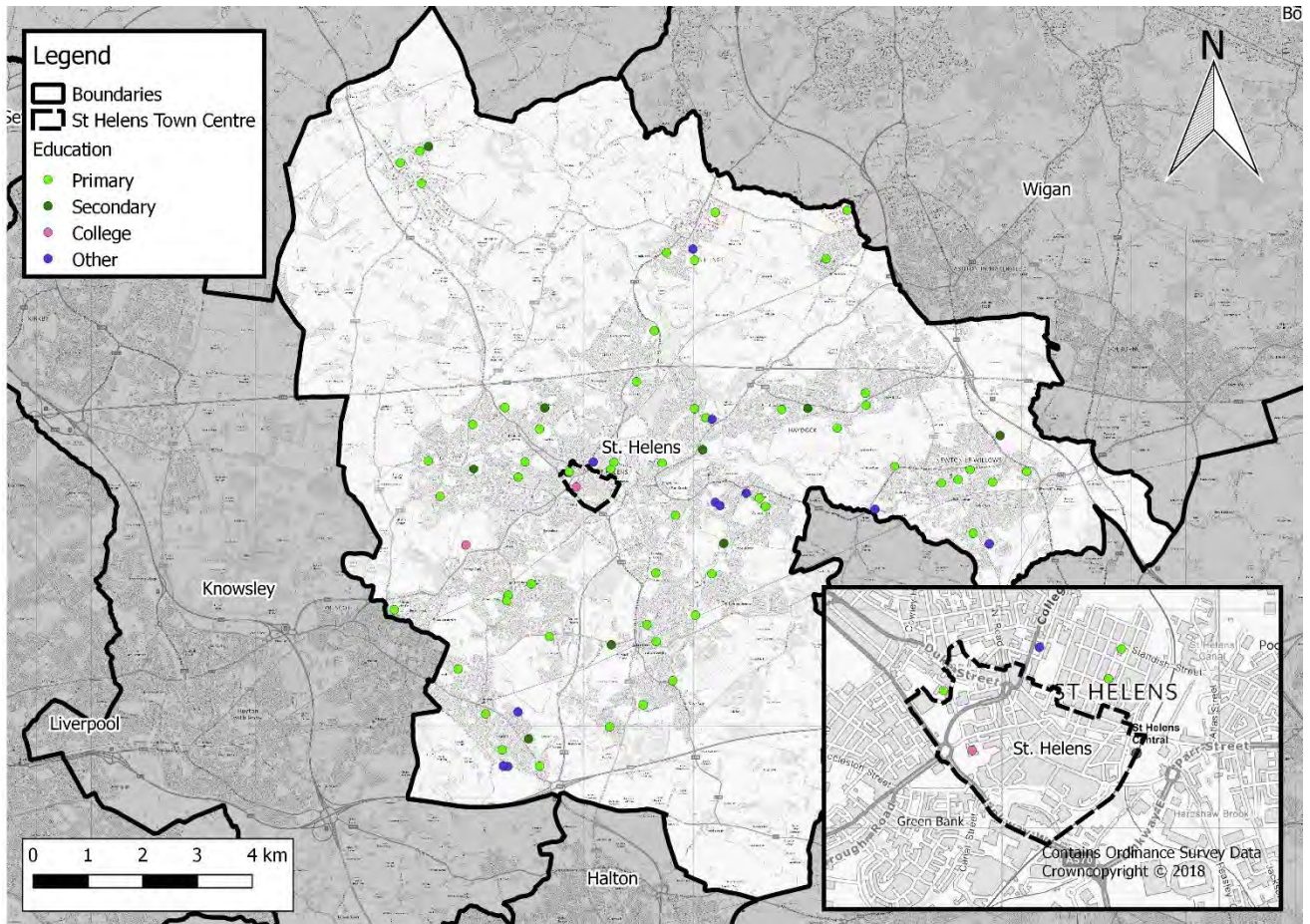
4.2.7. Figure 21 map out the location of the various Core Accessibility Indicators, including GP practices, food stores and schools in the borough of St Helens.

Figure 19: Locations of Foodstores in St Helens



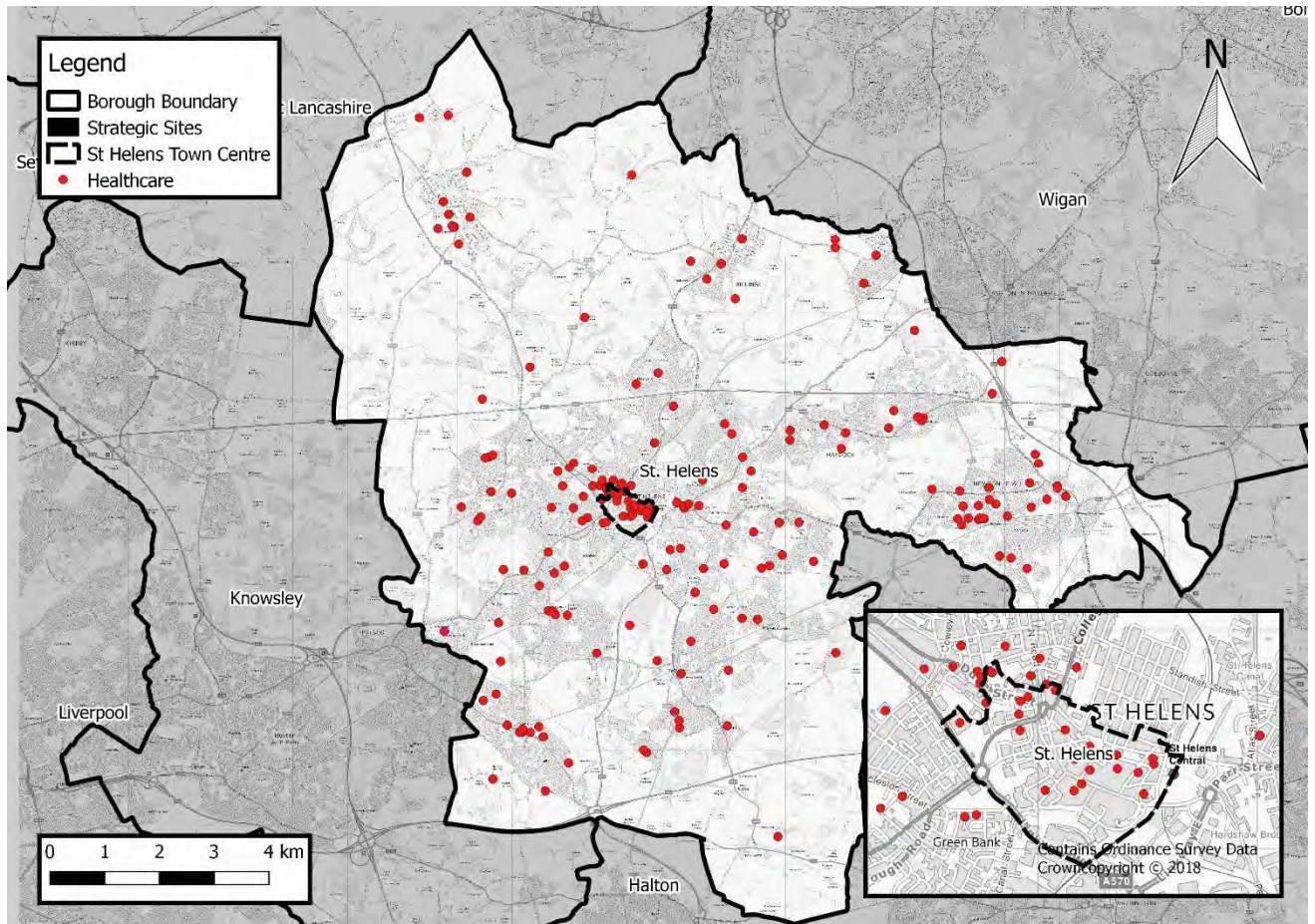
4.2.8. There are many food stores located within the St Helens borough boundary. Foodstores are more concentrated within the urban centres, particularly in the town of St Helens, and along key corridors, such as the A58 heading north east out of St Helens town centre.

Figure 20: Locations of Schools in St Helens



4.2.9. There is a large number of primary schools in St Helens, which are spread throughout the multiple residential areas. Secondary schools are located more sporadically in the borough, while there are only three further education establishments. Note that the dataset includes information on schools in England (including local authority maintained schools, academies, free schools, studio schools, university technical colleges and independent schools) and while comprehensive, there are a few limitations, notably regarding nurseries.

Figure 21: Locations of GPs in St Helens



4.2.9.1

4.2.9.2 Figure 21 maps the location of GP practices within St Helens. The majority of GP practices are located throughout the residential zones of St Helens borough; a particularly large cluster is located within the town centre of St Helens.

Local Centres

4.2.9.3 St Helens' emerging Local Plan states that proposals for retail, leisure, and other Main Town Centre uses will be directed towards the Borough's defined centres, listed as:

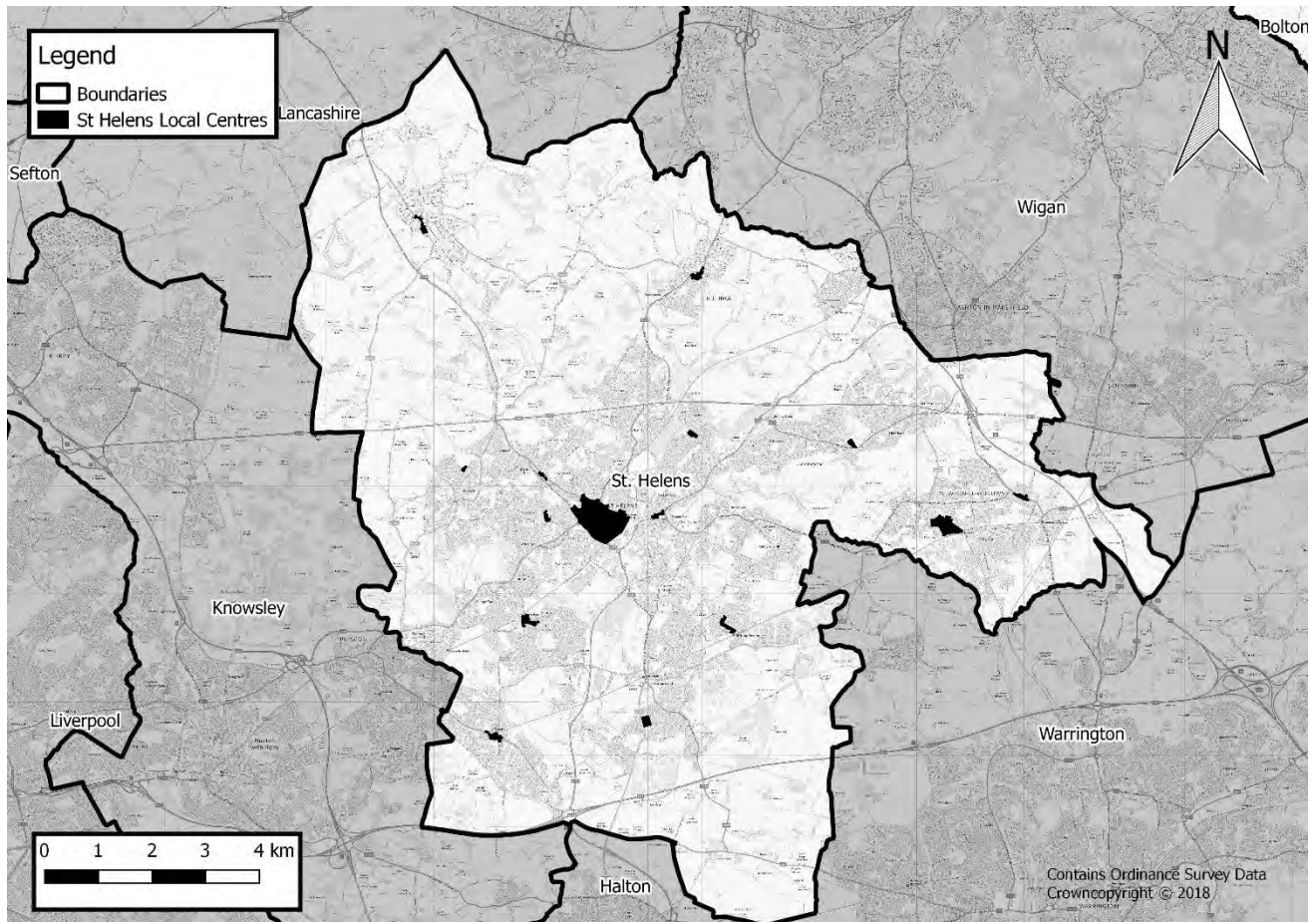
- Principal Town Centre: St. Helens.
- Town Centre: Earlestown.
- District Centres: Rainhill and Thatto Heath.
- Local Centres: Billinge; Chain Lane; Clipsley Lane; Denton's Green; Eccleston; Fingerpost; Marshall's Cross; Newton-le-Willows; Newtown; Rainford; and Sutton.

4.2.10. The National Planning Policy Framework (NPPF) defines main town centre uses as:

“Retail development (including warehouse clubs and factory outlet centres); leisure, entertainment facilities the more intensive sport and recreation uses (including cinemas, restaurants, drive-through restaurants, bars and pubs, night-clubs, casinos, health and fitness centres, indoor bowling centres, and bingo halls); offices; and arts, culture and tourism development (including theatres, museums, galleries and concert halls, hotels and conference facilities)”.

4.2.11. As the primary areas for such uses, the proximity of the proposed Site Allocations to the various Local Centres in the borough is considered a key aspect of the concept of 'accessibility'. Figure 22 shows the location of the Local Centres in the Borough used as part of this assessment.

Figure 22: St Helens Local Centres



Site Audit

4.2.12. A site visit was undertaken at each of the proposed Strategic Site Allocations on 22/11/2017. The primary purpose of the site visit was to assess the following characteristics:

- Potential access points to the sites;
- Current traffic regulations (e.g. parking restrictions , clearways etc) and road speeds (where these are relevant);
- Any current movement, parking, or access problems;
- Provision of facilities to encourage sustainable transport use (e.g. lighting, footways, cycle lanes etc);
- Connectivity to public transport services;
- Connectivity to local amenities such as schools, health centres and shops;
- Connectivity to local and regional employment bases (for residential sites); and
- General observations about how the site would integrate with the surrounding area and any measures which would need to be taken to mitigate against potential negative impacts.

4.2.13. Each Potential site has also been considered on the following basis:

- Gross Site Area (ha);
- Proposed use;
- Estimated capacity – details of number of planned dwellings or estimated employment space;
- Description of site location;

- Strategic fit of the site;
- Immediate issues and access; and
- Nature and likely impact of development.

Walking and Cycling Isochrones

4.2.14. Active travel isochrones have been produced for each of the proposed Strategic Sites Allocations, identifying what extent of St Helens could reasonably be accessed by walking or cycling. The criteria used for the isochrones are listed in Table 7.

Table 7: Walking and Cycling Isochrones

Mode	Speed	Increments
Walk	4.8kph / 3mph	5 min, up to 30 min.
Cycle	16kph / 10mph	5 min, up to 30 min.

4.2.15. These isochrones include the Core Accessibility Indicator datasets, allowing analysis of travel times to key facilities, amenities and services. A range of criteria are used to assess the level of accessibility to these destinations. The NPPF and other established guidance documents on access to services and facilities (for example, Guidelines for Providing for Journeys on Foot, CIHT 2000) recognise that, beyond a certain distance, it becomes increasingly unlikely that people will walk or cycle to access services and facilities, instead using public transport or private motor vehicles. Table 8 summarises the lower and upper limits for distance and time in relation to accessibility on foot. Note that the distance threshold for walking to school is the statutory walking distance as set by the Education Act 1996. This results in a long journey time beyond that reasonably expected for adults commuting to work etc, and therefore a lower threshold has been considered for the purposes of this assessment, whereby any location beyond a 30-minute walk is no longer considered accessible.

Table 8: Core Accessibility Indicator – Walking Distance / Time Thresholds

Core Accessibility Indicator	Lower / Upper Distance Threshold	Walking Time
Education	Primary: 2 miles Secondary 3 miles	30 mins (max)
Employment Opportunity	Up to 2km	25 mins
Health Facilities	800m / 2km	10 / 25 mins
Retail inc Foodstore	1200m (up to 2km – less acceptable when carrying food)	15 / 25 mins

Public Transport Provision

4.2.16. A detailed accessibility mapping exercise was undertaken using Traccs Basemap software in order to analyse the ability of people to access jobs and essential services via the existing public transport

services in St Helens. This analysis is used to better understand the current accessibility issues that may exist around the potential sites, and inform potential solutions to meet any potential deficits, both in terms of infrastructure and future levels of service provision. The analysis focussed solely on the proposed Strategic Site Allocations and Moss Nook Urban Village.

4.2.17. It is important to consider the frequency of service and availability outside of peak times when evaluating measures of accessibility by public transport modes. Isolated areas are more likely to be served by infrequent services, potentially with limited services across evenings or weekends. The following criteria has been applied to the Traccs Basemap analysis in order to provide a more robust assessment of accessibility:

- Any service considered must provide a minimum frequency of 2 services per hour;
- Journeys each way to take no more than one hour (as defined by Tracc analysis);
- A maximum 10-minute walk time (800m) to a bus stop is included as part of the hour journey (representing a 4.8 mph average walking speed), and
- For a weekday service to be considered it must have one service which arrives at the destination before 9am and leaves after 5pm.
- A weekend service is required to have one service arriving before 12 and one leaving after 3pm.

4.2.18. Traccs Basemap Accessibility mapping was carried out for the following four scenarios:

- Scenario 1: Tuesday 07:00 - 09:00 - Destination: Employment Zones;
- Scenario 2: Tuesday 17:00 - 19:00 - Destination: Housing Zones;
- Scenario 3: Saturday 10:00 - 12:00 - Destination: Employment Zones; and
- Scenario 4: Saturday 15:00 - 17:00 - Destination: Housing Zones.

4.2.19. These scenarios are considered to best represent the movements of individuals in peak times, with journeys to the proposed Strategic Employment Sites mapped in the AM peak periods, and journeys to the proposed Strategic Employment Sites mapped in the PM peak periods. The selected time periods cover both the traditional peaks, but also some off-peak periods, which often feature reduced services, thereby lessening the accessibility.

4.2.20. Mapping was also carried out for both bus travel in isolation, and combined bus / rail. Rail by itself, while a viable mode of transport, is inherently limited by a set route and the location of stations, which can be very costly to alter. When combined as part of a multi-modal trip, many more destinations can become accessible. Note that a 5-minute interchange penalty has been applied to represent the potential delay when switching mode, as per WebTAG Unit M3.2 Public Transport and Assignment.

Site Accessibility Matrix

4.2.21. The accessibility analysis is summarised in a Site Accessibility Matrix, allowing a comparison of the relative accessibility between sites and quantifying the accessibility of each site on a five-point scale. Each site's accessibility is considered against a set of accessibility criteria derived from best practice guidance, assessing each site on its level of accessibility to key services and public amenities. Each site is then ranked based on a set of criteria against each amenity, with an 'excellent' scoring indicating the most positive level of accessibility.

4.2.22. Table 9 below presents these accessibility indicators, and the associated criteria.

Table 9: Site Accessibility Criteria

Accessibility Indicator	Excellent Accessibility	Good accessibility	Average Accessibility	Lack of accessibility	Limited Accessibility
Railway Station (on foot)	<400m	800m	1200m	1500m	>2km
Railway Station (by cycle-average speed of 15 kph)	<1km – 4mins	2km – 8mins	4km – 16mins	6km -24mins	8km – 32mins
Bus route	Multiple bus routes & stops within 250m	Multiple bus routes and stops within 400m	Singular bus route within 300m / multiple routes within 500mm	Singular bus route within 800m	No immediate bus route (i.e. within 800m)
Distance to nearest cycle route	<400m	800m	1000m	1.5-2km	>2km
Major Foodstore (on foot)	<400m 0-5 mins	400 -800m 5-10 mins	800m – 1.2km 10-15 mins	1.2km – 1.6km 15- 20 mins	>1.6km >20 mins
Education (Primary / Secondary) (on foot)	400	800	1200m	1800	<2400m
Employment (bus / rail)	<10 min	10-20 min	20-30 min	30-40 min	50 - 60 min
Healthcare (Local GP / Dentist / Pharmacy – ex. Hospitals) (on foot)	<400m 0-5 mins	400 -800m 5-10 mins	800m – 1.2km 10-15 mins	1.2km – 2km 15- 25 mins	>2km >25 mins
Local centre (on foot)	<400m 0-5 mins	400 -800m 5-10 mins	800m – 1.2km 10-15 mins	1.2km – 2km 15- 25 mins	>2km >25 mins

Broad Assessment of Sites:

- 4.2.23. As befits their size, strategic importance, and associated constraints, each of those housing and employment sites identified as strategic have been classified based on the detailed site assessments contained in the St Helens Sustainable Transport Impact Assessment Report (STIAR),

including walking and cycling isochrones, Traccs Basemap analysis, and site visit profomas. This analysis has informed the classification of non-strategic sites where these are in close proximity to strategic sites, while those few sites in isolation have been classified based on the outputs of a GIS distance-based assessment, considering the proximity of each site to the various indicators of accessibility.

- 4.2.24. This distance-based assessment can only consider the proximity of the site to each indicator. This is done on a straight line 'crow flies' basis (the Euclidean distance). It does not consider whether this desire line is available, nor can it consider barriers to movement, such as severance or safety issues, or the overall desirability of the area in regards to ease of travel. The assessment also does not consider the frequency of rail services or bus services in detail, or the destinations of these services (although 'multiple routes' is considered a proxy for this).
- 4.2.25. The assessment of bus services has been further refined through an analysis of existing bus timetables. Similar criteria to that used in the Traccs Basemap analysis have been applied in order to ensure that any bus service included in the analysis offers a genuine alternative to private vehicle use; these criteria are:
- Any service considered must provide a minimum frequency of 2 services per hour;
 - Journeys each way to take no more than one hour (as defined by Tracc analysis);
 - A maximum 10-minute walk time (800m) to a bus stop is included as part of the hour journey, and
 - For a weekday service to be considered it must have one service which arrives at the destination before 9am and leaves after 5pm; and
 - A weekend service is required to have one service arriving before 12 and one leaving after 3pm
- 4.2.26. Furthermore, a number of the proposed Strategic Site Allocations are of a significant size, with limited or no details available regarding access points, layout, or transport routes within the site. Travel across the site could encompass a significant part of any journey, and so the site centroid is taken as the origin / destination for any journey to these sites, as opposed to the site boundary.
- 4.2.27. Table 10 presents the results of this analysis, allowing the relative accessibility of each site to be easily identified and compared. By identifying those sites with relatively low levels of accessibility, measures can be tailored to each site (or area, where multiple sites are likely to benefit).

Table 10: Site Accessibility Matrix

	Site no	Name	Strategic?	Railway Stations			Cycle Routes		Major Food Stores	School		Healthcare	Town or Local Centre
				On Foot	By Cycle	Bus Routes	Existing	Committed (STEP)		Primary	Secondary		
Employment Allocations	EA1	Omega South Western Extension, Phase 1, Land north of Finches Plantation, Bold	Strategic	Lack	Good	Limited	Limited	Limited	Average	Average	Good	Average	Limited
	EA2	Florida Farm North, Slag Lane, Haydock	Strategic	Average	Good	Average	Excellent	Lack	Good	Good	Good	Good	Average
	EA3	Land North of Penny Lane, Haydock		Limited	Average	Average	Good	Limited	Average	Average	Excellent	Average	Lack
	EA4	Land North East of Junction 23 M6, south of Haydock Racecourse, Haydock	Strategic	Limited	Average	Lack	Excellent	Limited	Average	Average	Average	Average	Lack
	EA5	Land South of Penny Lane, Haydock		Limited	Average	Good	Excellent	Limited	Average	Lack	Good	Lack	Lack
	EA6	Land to the West of Haydock Industrial Estate, Haydock		Average	Good	Good	Excellent	Lack	Good	Average	Lack	Average	Average
	EA7	Land west of Millfield Lane, south of Liverpool Road and north of Clipsley Brook, Haydock	Strategic	Good	Excellent	Average	Good	Lack	Average	Good	Average	Average	Average
	EA8	Parkside East, Newton-le-Willows	Strategic	Excellent	Excellent	Limited	Lack	Excellent	Average	Good	Lack	Average	Average
	EA9	Parkside West, Newton-le-Willows	Strategic	Excellent	Excellent	Lack	Good	Excellent	Average	Good	Lack	Average	Average

	EA10	Land to the West of Sandwash Close, Rainford		Limited	Average	Average	Excellent	Limited	Lack	Lack	Limited	Average	Lack
	EA11	Land at Lea Green Farm West, Thatto Heath		Average	Excellent	Average	Excellent	Limited	Good	Excellent	Good	Average	Average
	EA12	Gerards Park, Phases 2 and 3, College Street, St. Helens Town Centre		Good	Excellent	Excellent	Good	Average	Good	Excellent	Lack	Excellent	Good
Housing Allocations	HA1	Land adjoining Ash Grove Farm, Beacon Road, Billinge		Limited	Average	Average	Lack	Limited	Excellent	Excellent	Limited	Excellent	Excellent
	HA2	Land South of Billinge Road, east of Garswood Road and west of Smock Lane, Garswood		Good	Excellent	Lack	Limited	Limited	Excellent	Excellent	Limited	Excellent	Lack
	HA3	Land at Florida Farm (south of A580), Slag Lane, Blackbrook	Strategic	Lack	Good	Good	Excellent	Lack	Excellent	Good	Excellent	Excellent	Good
	HA4	Land East of Chapel Lane and south of Walkers Lane, Sutton Manor		Lack	Good	Excellent	Excellent	Limited	Good	Excellent	Average	Average	Average
	HA5	Land South of Gartons Lane and former St. Theresa's Social Club, Gartons Lane, Bold	Strategic	Average	Good	Excellent	Excellent	Limited	Excellent	Excellent	Lack	Excellent	Excellent
	HA6	Land south of Reginald Road / Bold Road - Northern Section (Phase 1), Bold		Excellent	Excellent	Excellent	Lack	Limited	Good	Good	Lack	Excellent	Excellent
	HA7	Land between Vista Road and Ashton Road, Newton -le-Willows	Strategic	Average	Excellent	Good	Excellent	Average	Excellent	Good	Good	Excellent	Good

HA8	Eccleston Park Golf Club, Rainhill Road, Eccleston	Strategic	Excellent	Excellent	Lack	Lack	Limited	Good	Excellent	Average	Good	Average
HA9	Higher Barrowfield Farm, Houghton's Lane, Eccleston		Limited	Average	Excellent	Average	Limited	Good	Excellent	Average	Good	Good
HA10	Land south west of M6 J23 between Vista Road and Lodge Lane, Haydock	Strategic	Limited	Good	Average	Excellent	Lack	Good	Average	Good	Good	Lack
HA11	Land at Moss Bank Farm, Moss Bank Road, Moss Bank		Limited	Average	Excellent	Excellent	Limited	Good	Good	Average	Excellent	Lack
HA12	Former Newton Community Hospital (Simms Ward), Bradlegh Road, Newton-le-Willows		Good	Excellent	Excellent	Excellent	Excellent	Average	Excellent	Limited	Excellent	Good
HA13	Former Red Bank Community Home, Winwick Road, Newton-le-Willows		Good	Excellent	Excellent	Excellent	Excellent	Good	Average	Limited	Lack	Average
HA14	Land south east of Lords Fold, Rainford		Lack	Good	Excellent	Excellent	Limited	Good	Excellent	Average	Good	Good
HA15	Land South of Higher Lane and east of Rookery Lane, Rainford		Limited	Average	Good	Good	Limited	Average	Average	Lack	Good	Average
HA16	Land south of A580 between Houghtons Lane and Crantock Grove, Windle	Strategic	Limited	Average	Lack	Excellent	Limited	Excellent	Excellent	Average	Excellent	Excellent

4.3 SUMMARY

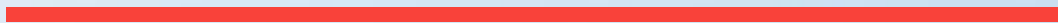
4.3.1. The overall outputs from the sustainable transport assessment process in St Helens has identified several sites with average or below accessibility ratings. The following key points are noted:

- Many sites have limited sustainable transport opportunities to access St Helens railway stations, being further than the maximum recommended walking distance. However, the opportunities for access by bicycle are much higher based on distance; complementary measures such as infrastructure improvements and behaviour change measures could promote bicycle and rail use as part of a multi-modal journey.
- Three-quarters of the proposed employment allocations (9 of 12) and approximately a third (5 of 16) of the proposed housing allocations are identified as having Average or worse accessibility by bus. Bus assessment is not only based on distance to nearby infrastructure, but also considers the availability and frequency of services. Enhancing bus travel to and from the proposed site allocations, particularly in relation to the proposed Strategic Employment sites, is likely to require a collaborative approach between developers, the Council, and Merseytravel.
- While a number of sites are within a Good or Excellent rated distance from the existing St Helens cycle network, this assessment does not consider the ease of the route to access this network, or the quality of the existing network and connectivity to key origins and destinations. The development of the LCR LCWIP will contribute to the identification of a cohesive cycle network across the borough, including enhancements to existing infrastructure and the provision of new routes. St Helens will need to ensure that the proposed site allocations, particularly those identified as Strategic, are included as O/Ds within the LCWIP process, that the document is given weight in the planning process through policy controls and adoption as an SPD, and that mechanisms are in place for the collection of contributions towards infrastructure provision.
- The accessibility rating for the Core Accessibility Indicators carries less weight in relation to the proposed employment sites, and therefore the Core Accessibility Indicators have been assessed in greater detail in relation to the proposed housing sites. The majority of the proposed housing sites are well located in relation to proximity to major food stores, healthcare facilities, local centres, and primary schools. Secondary schools in the borough are more dispersed, limiting accessibility by foot. Where sites are well located in regards to their proximity to Core Accessibility Indicators, it is essential that routes are provided along desire lines, with potential enhancements to the pedestrian environment to further encourage travel by foot for short journeys to local facilities.

4.3.2. It is anticipated that the Site Accessibility Criteria will form a key part of any further assessment of the sites; while this is not the only way of assessing the sustainable credentials of a site, and achieving 'Excellent' ratings should not be a substitute for more detailed assessment where appropriate, it is envisaged that, where possible, development sites will take the necessary practicable steps to achieve the highest possible Accessibility Matrix rating in each category.

5

SUSTAINABLE TRANSPORT MEASURES



5 SUSTAINABLE TRANSPORT MEASURES

5.1 INTRODUCTION

- 5.1.1. Bringing forward development in St Helens in a truly sustainable way will take concerted effort across various stakeholders and organisations; St Helens Council have consulted extensively through the Transport Impact Assessment process with its many partners, including the Liverpool City Region Combined Authorities, the neighbouring Local Authorities, and infrastructure providers such as Highways England, Transport for the North, and Merseytravel. The measures required to do so will vary from site to site—there is no single package of measures that can be uniformly applied across all sites in order to maximise sustainable transport opportunities. Furthermore, the anticipated changes in technology encompassed under New Mobility is likely to significantly change how sustainable transport is realised over the Plan period; measures suggested now may be inappropriate for development that comes forward a decade hence.
- 5.1.2. Nevertheless, there are a number of recommendations that can be made at this moment to encourage an uptake in sustainable travel. Many of these require policy controls adopted through the emerging St Helens Local Plan, through new SPDs, or through close collaboration with various stakeholders, such as Merseytravel and Highways England.

5.2 SUSTAINABLE MEASURES

Public Transport: Bus

- 5.2.1. At present, the 2011 Census travel to Work data indicates that fewer people travel to work via bus in St Helens when compared to the national average. However, there are positive trends in bus travel in regards to St Helens town centre; bus trips into the town centre account for approximately 30% modal share. St Helens benefits from its inclusion within the Liverpool City Region, with Merseytravel being responsible for the strategic coordination of bus services across the combined authority.
- 5.2.2. The following recommendations look to promote bus services in the borough and increase modal share, with a particular focus on those interventions that increase the sustainability of the proposed site allocations:
- Enabling easy access for sites to bus infrastructure is key in encouraging bus usage. More detail on design and layout considerations is given in subsection 5.2.6 below.
 - A number of sites were identified through consultation with Merseytravel as having potential for additional services, whether extensions of existing services, an entirely new route, or increased service frequency. Where appropriate, these recommendations will be adopted as site specific requirements in the new St Helens Local Plan.
 - However, the need for such additional services may change depending on when each new site comes forward, and therefore an assessment of bus services should be determined through the Transport Assessment process, including further liaison with Merseytravel and other key stakeholders. The requirements for a Transport Assessment / Statement are set out in emerging Policy LPA07: Transport and Travel, which makes reference to the additional detail contained in the Ensuring a Choice of Travel SPD.
 - New developments should give consideration to the availability of infrastructure in the vicinity of each site; bus services can be much more reactive where infrastructure such as bus stops

already exist, and upgrading poles to shelters where practicable can encourage bus travel in inclement weather.

- While electronic timetabling is currently available at a number of stops in St Helens, new developments should consider the provision of real-time bus timetabling.
- Behaviour change initiatives should be incorporated within Travel Plans for each site. More detail on Travel Planning is given in sub section 5.2.5 below.
- St Helens is also considering a number of additional measures that will influence bus travel across the borough. The emerging Town Centre Strategy is likely to have a significant impact on bus travel into St Helens town, envisaging new bus infrastructure, public realm, and a reorganisation of parking across the town centre.

Public Transport: Rail

5.2.3. Rail travel is heavily constrained by the location of infrastructure, including stations, parking, and the rail lines themselves. It is much more difficult for rail to react quickly to new development compared to bus operators, and interventions can be extremely costly.

5.2.4. Nevertheless, the propensity to travel by rail can be improved through various external measures, including improving access to rail stations, enhancing desire lines to and from major locations, providing additional car and cycle parking, and through behaviour change initiatives.

5.2.5. The following recommendations look to promote rail travel in the borough and increase modal share, with a particular focus on those interventions that increase the sustainability of the proposed site allocations:

- Sites in close proximity should consider the potential for direct routes along desire lines to rail facilities; more detail on design and layout considerations is given in subsection 5.2.6 below.
- Provision of additional parking at rail stations could increase rail mode share, but it is recognised that providing additional parking is limited by the availability of land, and that park-and-ride facilities can induce additional traffic, creating localised capacity issues around facilities.
- The requirements for any improvements related to rail travel should be included as part of any Transport Assessment / Statement. The requirements for a Transport Assessment / Statement are set out in emerging Policy LPA07: Transport and Travel, which makes reference to the additional detail contained in the Ensuring a Choice of Travel SPD.
- Further improvements to rail likely to increase modal share, such as enhanced ticketing services or upgrade to facilities should be considered in conjunction with MerseyTravel, relevant Train Operating Companies (TOCs), and Transport for the North (TfN).

Cycling

5.2.6. St Helens is currently partway through the STEP programme, implementing a number of active travel improvements across the borough, with additional schemes still planned. However, the STEP scheme is for a fixed amount of time, coming to an end in 2021. Whilst additional funding could be sought for a continuation of the scheme or similar, the following additional recommendations look to promote cycle use in the borough and increase modal share, with particular focus on those interventions that increase the sustainability of the proposed site allocations:

- The Liverpool City Region is currently progressing a City Region Local Cycling and Walking Infrastructure Plan (LCWIP), which includes St Helens. This document will identify both existing and future key origins and destinations, assess existing infrastructure, and make

recommendations for future infrastructure to create a cohesive cycling (and walking) network across the borough and the wider LCR.

- Any new development should pay due cognisance to this document, and consideration should be given to how new development can contribute to identified off-site infrastructure, and well as provide exemplary facilities on-site to further encourage cycle usage. The DfT's LCWIP guidance suggests that an LCWIP is adopted as an SPD, providing a policy framework for infrastructure investment across the borough.
- More detail on design and layout considerations is also given in subsection 5.2.6 below.
- Behaviour change initiatives should be incorporated within Travel Plans for each site. More detail on Travel Planning is given in sub section 5.2.5 below.
- St Helens should also continue to promote cycling across the borough through initiatives such as the Healthy Living Team, coordination with cycling community and action groups, and road safety schemes like cycle proficiency training.
- While poor air quality affects all transport users, poor air quality can have a significant impact on active travel modes including walking and cycling. Emerging Policy LPA07: Transport and Travel sets out that the Council will seek to minimise the negative impacts of transport including air and noise pollution through requiring developers to implement Travel Plans in accordance with the requirements of the Ensuring a Choice of Travel SPD. St Helens also currently has AQMA Action Plans relating to the 4 AQMA's around the borough.

Walking

- 5.2.7. Walking is the most natural choice of travel, requiring little more than the individual's own body, and is considered the best option for replacing short trips, generally below 2km in length. Nevertheless, the propensity to travel on foot can be easily restricted through elements such as poor design, resulting in severance, a perception of unsafe and intimidating environments, and low air quality. The availability of the private motor car and ease of travel for short journeys can also have an impact on modal choice. Improving the existing environment to increase the propensity to travel on foot and limiting car usage for short journeys is a highly complex task, and requires a multi-faceted approach tailored to each area.
- 5.2.8. Nevertheless, the following additional recommendations will look to promote walking in the borough and increase modal share, with a particular focus on those interventions that increase the sustainability of the proposed site allocations:
- With the recent publication of the Government's Cycling and Walking Investment Strategy and subsequent LCWIP guidance, there has been much more focus on producing comprehensive walking strategies as part of the Local Plan suite of documents. As discussed above, the Liverpool City Region is currently progressing a City Region Local Cycling and Walking Infrastructure Plan (LCWIP), which includes St Helens. This document will provide a cohesive strategy for investment across the borough (and into the wider region), focussing walking improvements on those places currently poorly connected or suppressing pedestrian movement, while also analysing future demands.
 - As stated above in regards to cycling infrastructure, any new development should pay due cognisance to this document, and consideration should be given to how new development can contribute to identified off-site infrastructure, and well as provide exemplary facilities on-site to further encourage walking. The LCWIP could also be adopted as an SPD, providing a policy framework for infrastructure investment across the borough.

- While the LCWIP will provide a framework for investment in a cohesive walking network, there may be other improvements required outside of its scope, such as where the existing footways and pedestrian facilities are considered inadequate for any increase in pedestrian usage. Such limitations should be identified through the Transport Assessment / Statement process. The requirements for a Transport Assessment / Statement are set out in emerging Policy LPA07: Transport and Travel, which makes reference to the additional detail contained in the Ensuring a Choice of Travel SPD.
- New developments will need to carefully consider pedestrian desire lines within the site and connectivity to offsite facilities, in particular to public transport infrastructure. More detail on design and layout considerations is also given in subsection 5.2.6 below.
- Behaviour change initiatives should be incorporated within Travel Plans for each site. More detail on Travel Planning is given in sub section 5.2.5 below.
- While poor air quality affects all transport users, poor air quality can have a significant impact on active travel modes including walking and cycling. Emerging Policy LPA07: Transport and Travel sets out that the Council will seek to minimise the negative impacts of transport including air and noise pollution through requiring developers to implement Travel Plans in accordance with the requirements of the Ensuring a Choice of Travel SPD. St Helens also currently has AQMA Action Plans relating to the 4 AQMA's around the Borough.

The Influence of Effective Travel Planning

- 5.2.9. A Travel Plan (TP) is a long-term management strategy for an organisation or site that seeks to deliver sustainable transport objectives through active management and is articulated in a document that is regularly reviewed. A Travel Plan involves identifying a suitable package of measures as to ensure sustainable travel with an emphasis on reducing reliance on single occupancy car journeys, and can further assist in meeting a range of other objectives.
- 5.2.10. A thoroughly developed Travel Plan can assist in the mitigation of any adverse traffic impacts of a development, and national government recognises their importance in achieving improvements in transport conditions at the local level. Further evidence suggests that people who are physically active in their daily lives are more productive and have good attendance records. The Department for Health publication “Choosing Health: Making healthy choices easier” (2004) recognised the health benefits of walking or cycling, and active travel as part of a Travel Plan enables people to enjoy these health benefits as part of their daily routine.
- 5.2.11. Travel Plans at each site should include a range of bespoke behaviour change initiatives, tailored to each site through engagement with residents / staff as appropriate, and led by a genuinely invested Travel Plan Coordinator.
- 5.2.12. Where possible, monies should be sought in order to provide long-term monitoring and evaluation of the Travel Plan, while contributions could be secured against the success of the Travel Plan measures and achievement of the stated targets.
- 5.2.13. The need to produce a Travel Plan is referred to in Policy LPA07: Transport and Travel in the emerging St Helens Local Plan, as well as in Policies LPA04.1: Strategic Employment Sites, LPA05.1: Strategic Housing Sites, and LPA10: Development of Strategic Rail Freight interchange. These policies direct the reader to the St Helens SPD, Ensuring a Choice of Travel, for more detail on Travel Plan requirements. This SPD was adopted in 2010, and while the information it contains is

still highly relevant in places, there have been a number of significant changes in national and regional policy, in the structure of the regions, and new guidance and research published.

- 5.2.14. It is St Helens intention to refresh the Ensuring a Choice of Travel SPD in order to make sure the guidance aligns with current best practice and policy; this refresh should be undertaken as soon as practicable in order to help direct future development.

Design and Layout

- 5.2.15. Providing seamless access to sustainable transport options is not simply achieved by locating access points in close proximity to infrastructure, but also by ensuring the internal layout of sites is conducive to sustainable travel. St Helens already has an SPD that provides detailed guidance on design and layout: St Helens Design Guidance SPD (2007).
- 5.2.16. It is noted that this document was adopted in 2007, and predates the publication of new guidance such as Manual for Streets (DfT, 2007), the adoption of the National Planning Policy Framework (NPPF), and the withdrawal and abolition of the various Planning Policy Guidance documents.
- 5.2.17. It is St Helens intention to refresh the Design Guidance SPD in order to make sure the guidance aligns with current best practice and policy; this refresh should be undertaken as soon as practicable in order to help direct future development.

Accessibility Rankings

- 5.2.18. The work undertaken in baselining the existing sustainable travel culminated in the creation of an Accessibility Matrix (as presented in section 4.2.6), a primarily distance based assessment which considered the relative proximity of each proposed site to a number of Key Accessibility Indicators, ranking them based on a range of best practice guidance documents. While this is not the only way of assessing the sustainable credentials of a site, and achieving 'Excellent' ratings should not be a substitute for more detailed assessment where appropriate, it is envisaged that, where possible, development sites will take the necessary practicable steps to achieve the highest possible Accessibility Matrix rating in each category.
- 5.2.19. This Accessibility Matrix could also be adopted within the refreshed Ensuring a Choice of Travel SPD, or form the basis of such.

5.3 THE IMPACT OF SUSTAINABLE INTERVENTIONS ON HIGHWAY CAPACITY AND OPERATION

- 5.3.1. Transport models are commonly used to inform planner and policy makers about the current capacity and performance of a transport system, and how this situation is likely to change in response to a particularly scenario, such as the impact of Local Plan growth in a given area. Transport models were historically produced to predict likely future demand, and then provide capacity to meet this demand (predict and provide methods). However, modern transportation policy reflects a general recognition that additional capacity induces additional demand, and that catering for private vehicle usage through road building does not create an efficient network—this approach also comes at a significant economic, environmental, and social cost.
- 5.3.2. With a policy shift towards more sustainable forms of travel and transportation, there is a focus on methods of predicting the impact of sustainable transport measure, in particular considering the potential for such measures to reduce demand for private car usage and induce modal shift. However, estimating the impacts of sustainable transport measures is a relatively new concept, and

lacks the evidence that accompanies traditional capacity modelling and vehicle behaviour simulation.

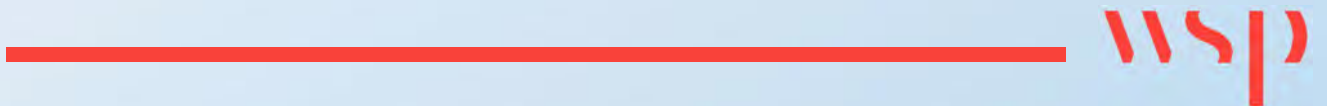
- 5.3.3. The need to incorporate sustainable interventions into transport models is driven by the significant impacts such interventions can bring. A number of significant projects delivering packages of sustainable transport measures reported a modal shift toward sustainable modes:
- Evaluation of the DfT funded Smarter Choices Programme in Darlington, Worcester, and Peterborough showed that the four-year package of targeted sustainable transport interventions achieved a reduction of 5% – 7% in car driver distance travelled by residents for those journeys under 50km that were in-scope.
 - Similarly, the evaluation of the Cycling City and Towns Programme (CCTs), and the Cycling Demonstration Towns (CDTs) found that there was an overall increase in cycling trips of 29% in the six CDTs and 24% in the 12 CCTs over the programme periods.
The DfT's evaluation of the Local Sustainable Transport Fund (LSTF) found that car use fell in LSTF Large Projects areas, with relative per capita car traffic falling by 2.3 percentage points. across 93 workplaces in the Large Project areas, car driving fell by 2.7 percentage points, equivalent to a 4.1% reduction in commuting by car, while the proportion of adults who cycled in these areas increased by 6.6 percentage points.
- 5.3.4. WSP released a report in 2008 (Modelling and Appraisal of Smarter Choices: Review of empirical data for practical modelling) that considered possible methods for incorporating various sustainable travel measures into standard modelling packages. The report found that some measures could be included if enough detail were provided in the model, but that this introduced more possibility for error and significantly added to model development and processing time. The report also found that some measures cannot be directly incorporated within the current logit based mode choice models, such as personalised travel plans, provision of secure cycle facilities, etc, while some 'smarter choices' measures, such as preferential car parking for car sharers, demand responsive bus services, working at home, etc, cannot be reflected in traditional four-stage modelling at all.
- 5.3.5. The DfT have released TAG Unit M5.2, Modelling Smarter Choices, providing guidance on modelling 'Smarter Choices' as part of the WebTAG series of online guidance documents on transport appraisal. However, this document identifies that, while there is some evidence about the combined effects of several Smarter Choices measures delivered as a package of interventions, there is much less evidence about the isolated effects of individual 'soft' measures, in a form that informs the specification of how these measures may be modelled.
- 5.3.6. The guidance further states that there is currently no complete TAG guidance on the appraisal of 'soft' measures in particular (those which are intended to affect demand without affecting actual as opposed to perceived cost).
- 5.3.7. The transport evidence base to support the new St Helens Local Plan has identified a number of sustainable interventions to enhance the uptake of sustainable transport in the borough, with a particular focus on policy controls for new development, taking reasonable necessary steps to ensure that the growth aspirations of the borough come forward while minimising private car usage and maximising every opportunity for sustainable travel. While the impact of some of these interventions could be modelled individually, many of the 'soft' interventions cannot be explicitly modelled, and there is no current methodology for incorporating all the proposed measures within one multi-modal model. Attempting to produce such a model would be disproportionate to the scale

of assessment required to support the Local Plan proposals. Furthermore, the change in travel predicted as part of 'New Mobility' is likely to further limit the accuracy of any such assessment.

- 5.3.8. As a proxy for such interventions, the modelling work undertaken has included a 5% reduction in vehicle trips across the network. This reduction is applied to scenario DS2a, which considers the impact of sustainable interventions in isolation, while scenario DS2 incorporates both the impacts of sustainable transport interventions and highway interventions. Further details on the modelling scenarios and the results can be found in the subsequent sections of this report.

6

HIGHWAY IMPACT ASSESSMENT METHODOLOGY

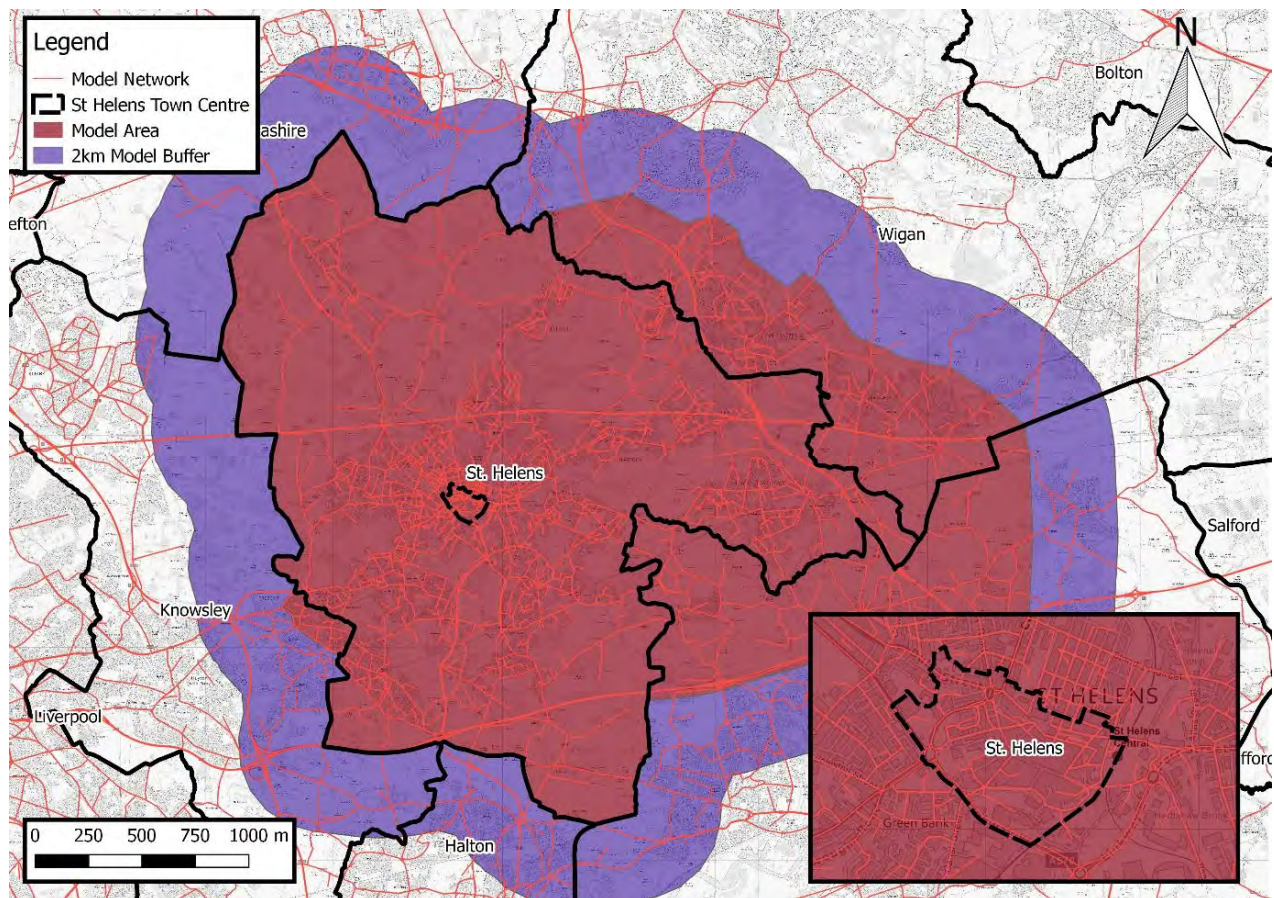


6 HIGHWAY IMPACT ASSESSMENT METHODOLOGY

6.1 BACKGROUND

- 6.1.1. In order to provide a robust evidence base to support the proposed site allocations in the Local Plan, a methodology for assessing the highway impact has been developed and agreed in close liaison with St Helens Council (SHC) and Highways England.
- 6.1.2. Fundamental to the assessment has been the development of a SATURN highway assignment model for the area of influence, as shown in Figure 23.

Figure 23: Extent of St Helens Saturn Model (SHSM)



- 6.1.3. SM is a traffic only assignment model, which can be used to assess the traffic impact highway schemes and land use development proposals within St Helens district. The model bridges the gap between the strategic Liverpool City Region Transport Model (LCRTM) – which has a coarser representation of the transport network but detailed estimations of travel demand – and microsimulation models such as the A570 corridor model, which benefit from a high level of information on network operation at the expense of more aggregate representations of travel demand.
- 6.1.4. SHSM has been developed in accordance with the Department for Transport’s (DfT) Transport Appraisal Guidance (TAG), with the focus of the model calibration and validation on St Helens’ Key

Route Network (KRN) and junctions at key locations within the district. During model development, the Liverpool City Region Transport Model (LCRTM) was utilised as a starting point from which network detail was added within St Helens and also as the basis of the initial travel demand, from which matrix improvements were made based on recently collected count data.

- 6.1.5. The SHSM Local Model Validation Report, dated March 2018, provides the requisite detail on the model development and its compliance against WebTAG guidance.
- 6.1.6. In line with good practice, a model Forecasting Report has also been prepared. Within the Forecasting Report full details are presented on the approach to using SHSM to provide predictions of the impact as a result of the estimated levels of traffic generated by the Local Plan sites, along with the effectiveness of a series of mitigation scenarios, with reference to a Do Minimum scenario comprising of committed developments and plan infrastructure improvements. The Forecasting Report is provided as a separate document to be read in conjunction to this TIA.
- 6.1.7. SHSM has been used to provide a range of useful metrics to help understand the traffic impacts of the Local Plan, notably those relating to changes in:
 - Traffic flows;
 - Queues experienced at key junctions;
 - Volume over capacity (V/C) ratios; and
 - Journey times on key corridors.
- 6.1.8. In consultation with SHC, the key junctions were agreed and are shown in Table 11 and Figure 24. Also agreed with SHC were 10 journey time corridors, illustrated in Figure 25 and documented in Table 12, used in the calibration and validation of the base model.
- 6.1.9. Furthermore, district wide statistics concerning overall distance travelled, total travel times and average speeds have been extracted from the model outputs

Table 11: Key junctions in SHSM (junction code refers to node number)

Jnc code	Junction	Jnc code	Junction
111	Main Street/Newton Road	R11	Marshall Cross Bridge Mill Lane
50	Liverpool Rd/Millfield Lane/Tithebarn Rd/Ashton X	33	Boundary Road/Duke Street/Dentons Green Lane
R1	A580/Blindfoot Road	34	Boundary Road/Kirkland Street
54	East Lancashire Road/Rainford Rd/Windle	11	College Street/Standish Street
53	East Lancashire Road/Green Leach Lane	69	Linkway West/Canal Street
52	East Lancashire Road/Carr Mill Road	R3	A58 ASDA
48	East Lancashire Road/Liverpool Road/Pewfall	R2	A571 The Landings
92	A580/Haydock Lane	40	Crow Lane West/Market Street
66	St Helens Road/Burrows Lane	41	Crow Lane West/Vista Road
115	St Helens Road/Portico Lane	42	Crow Lane West/Belvedere Road

Jnc code	Junction	Jnc code	Junction
32	Prescot Road/Lugsmore Lane	43	Crow Lane West/Victoria Road
31	Prescot Road/Dunriding Lane	44	Crow Lane West/Queens Drive
132	Prescot Road/Boundary Lane/Borough Road	N_7	Southworth Road/ Parkside Road/ Newton Road/ Golbourne Dale Road
29	Prescot Road/Eccleston Street/Borough Road	N_6	Crow Lane West/High Street
R5	A58 Peasley Cross	135	Church Road/Southworth Road
14	Parr Street/Atlas Street	126	Warrington Road/Holt Lane/Whiston Hospital
15	Parr Street/Jackson Street	63	Warrington Road/Longton Lane
18	Parr Street/Ashcroft Street	62	Warrington Road/Rainhill Road
21	Park Road/Merton Bank Road	61	Warrington Road/Wilmere Lane/Jubits Lane
23	Park Road/Boardmans Lane	J7	M62 J7
140	Blackbrook Road/Ashurst Drive	J8	M62 J8
90	Blackbrook Road/Chain Lane	J9	M62 J9
20	Parr Stocks Road/Chancery Lane	J22	M6 J22
82	Broad Oak road/Chancery Lane	J23	M6 J23
R4	A570 Carrington	J24	M6 J24
R6	A570 Saints Park	N_1	Piele Road/Church Road
R8	Robins Lane/Marshall Cross	N_2	Church Road/Vista Road/Penny Lane
R9	Marshalls Cross/Scorecross	N_3	Penny Lane/Lodge Lane
R10	A570 Sutton Hall	N_4	Clipsley Lane/Haydock Lane
N_5	Sherdley Roundabout		

Figure 24: Key Junctions

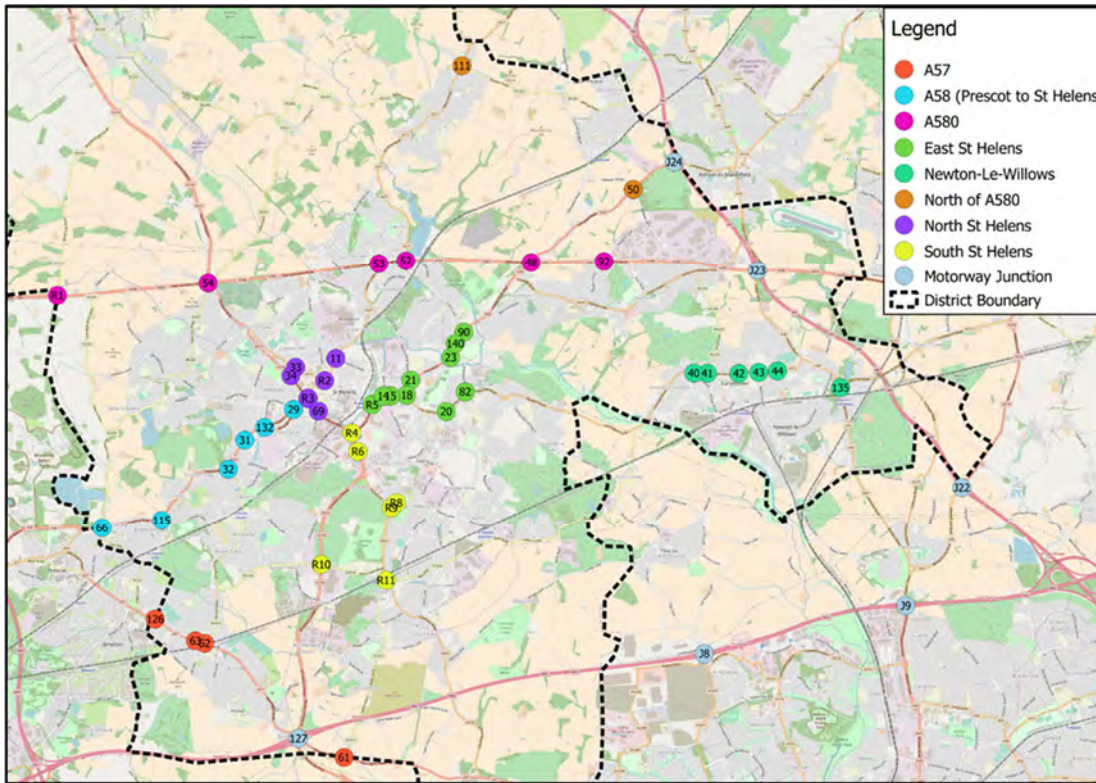


Figure 25: Journey Time Corridors

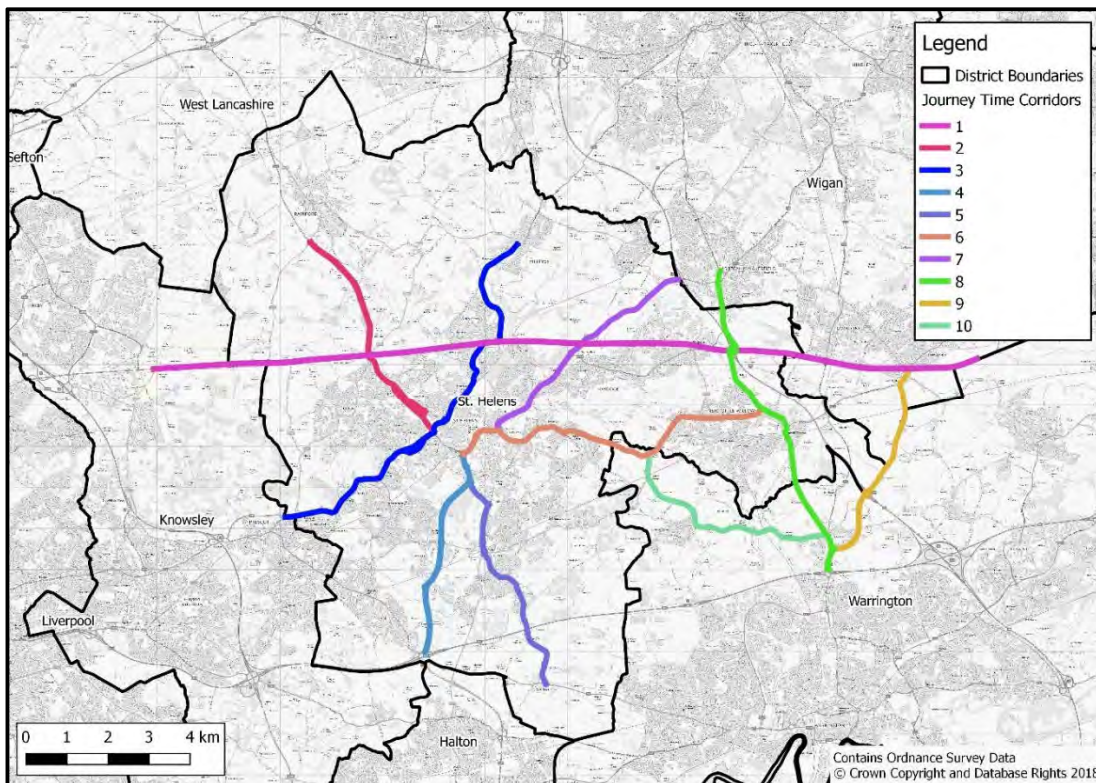


Table 12: Journey time route description

Route	description
1 EB	A580 from B5202 to A579
1 WB	A580 from A579 to B5202
2 NB	A570 from A58 to B5203
2 SB	A570 from B5203 to A58
3 EB	A58 from A58/St Helens Road roundabout to A58//A571 roundabout then A571 to B5205 via A580
3 WB	B5205 to A58//A571 roundabout via A580 then A58 to A58/St Helens Road roundabout
4 NB	A570 from M62 J7 roundabout to A58 St Helens Linkway West
4 SB	A570 from St Helens Linkway West to M62 J7 roundabout
5 NB	A569 from A57 to St A570 St Helens Linkway
5 SB	A569 from A570 St Helens Linkway to A57
6 EB	A58 from A570/A58 roundabout to A572 then A572 from A58 to A49
6 WB	A572 from A49 to A58 then A58 from A572 to A570/A58 roundabout
7 EB	A58 from A572 to M6
7 WB	A58 from M6 to A572
8 NB	A49 from M62 J9 roundabout to Wigan Road (Ashton-in-Makerfield)
8 SB	A49 from Wigan Road (Ashton-in-Makerfield) to M62 J9 roundabout
9 NB	A49 (Winwick Link Road) from M62 J9 roundabout to M6 J22 roundabout then A579 from M6 J22 roundabout to A580
9 SB	A579 from A580 to M6 J22 roundabout then A49 (Winwick Link Road) from M6 J22 roundabout to M62 J9 roundabout
10 EB	A572 from A58 to Penkford Lane then Penkford Lane /Collins Green Lane/ Lumber Lane/ Alder Lane/ Hollins Lane to A49
10 WB	Hollins Lane from A49 to Alder Lane/ Lumber Lane/ Collins Green Lane/ Penkford Lane to A572 then A572 to A58

6.1.10. A summary of the forecast methodology is provided in the following sections.

6.2 DEFINITION OF SCENARIOS

6.2.1. In order to provide a robust evidence base for assessing the impacts of the site allocations in the Local Plan, future year forecasts have been developed. 2033 has been identified as the most appropriate future year as this is consistent with the end date of the Local Plan period, and therefore enables a robust quantification of the impacts of all proposed site allocations to be made. Further details relating to the development sites and highway schemes included in each scenario can be found in the Model Forecasting Report developed in conjunction with this document.

2033 Do Minimum

6.2.2. The 2033 Do Minimum (DM) forecast seeks to demonstrate the likely future network operation under “business as usual” conditions – but without the Local Plan allocations – and incorporating the following elements:

- Sites with extant planning permissions (all land uses)
- Strategic Housing Land Availability Assessment sites (SHLAA)
- Planned infrastructure schemes on the local road network:
 - A580/Haydock Lane
 - A580/A58
 - Elton Head Road/A570 St Helens Linkway
 - Sutton Road/Jackson Street
 - Sutton Road/Watery Lane
 - Windle Island
 - Penny Lane/Lodge Lane
- Planned infrastructure schemes on the strategic road network:
 - M62 Smart Motorway Improvements – M62 J10-12
 - M6 Smart Motorway Improvements – M6 J21A-26
 - Junction 22 Capacity Improvements

6.2.3. The total additional jobs and households included in the DM scenario are given in Table 13.

Table 13: Summary of increase in jobs and households

Use	Area (ha)	Jobs (2033)	Households (2033)
Employment	61.40	1,232	--
Residential	334.31	--	9,198
Retail	1.37	254	--
Total	397.1	1,486	9,198

6.2.4. The location of developments included in the DM scenario are shown in Figure 26 and highway schemes included in the DM scenario are shown in Figure 27.

Figure 26: Locations of DM developments

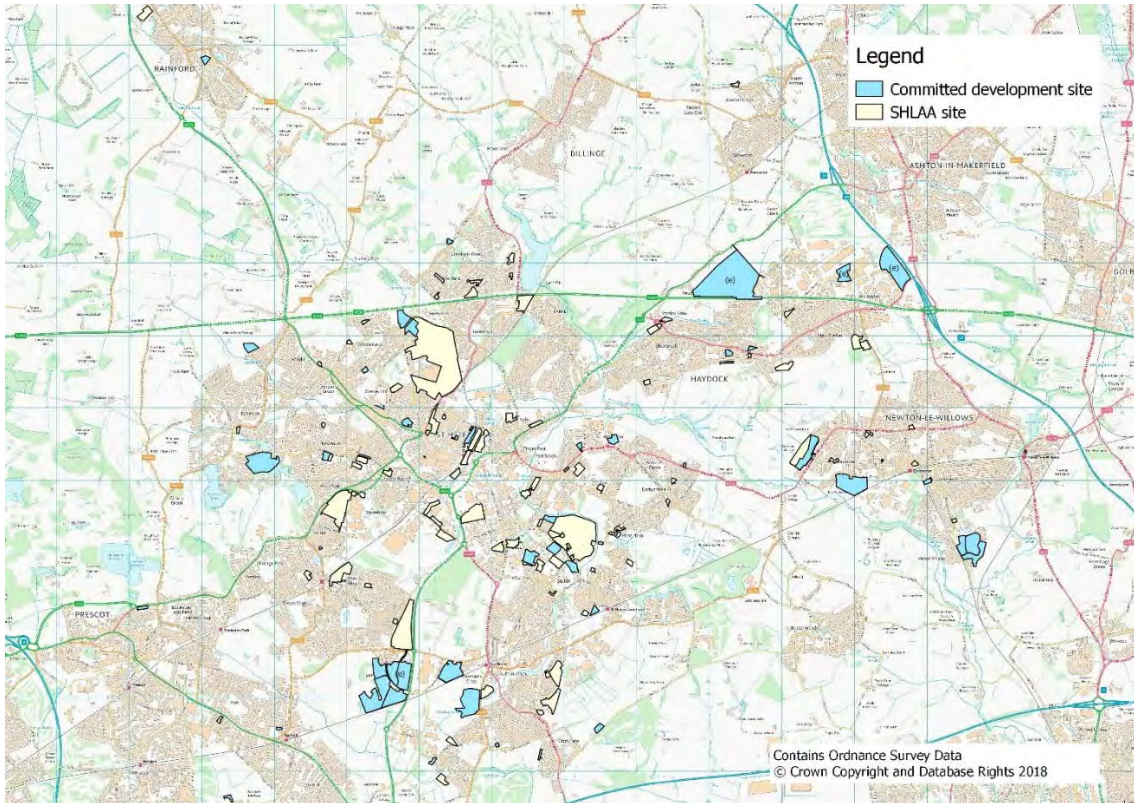
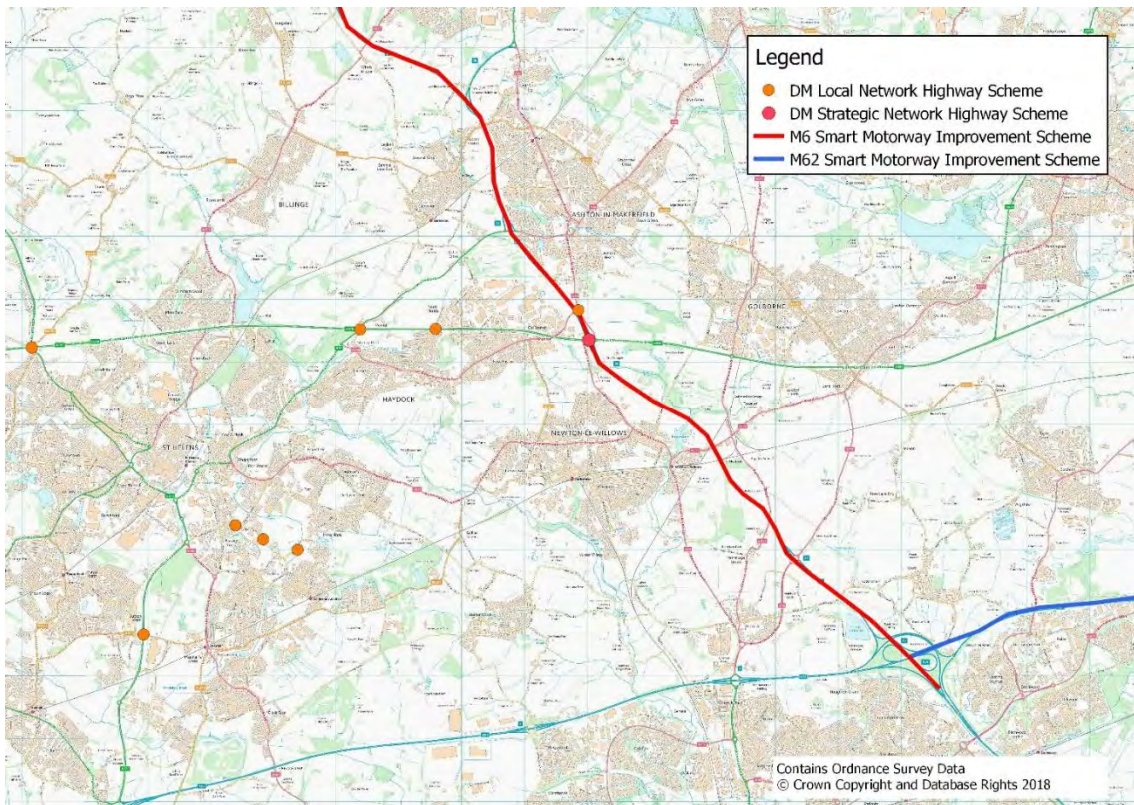


Figure 27: Locations of DM highways schemes



2033 Do Something 1

- 6.2.5. Do Something 1 (DS1) includes all do minimum developments and planned infrastructure schemes, and in addition also includes the Local Plan preferred site allocations. No further highway improvements have been assumed under DS1, which enables a clear and robust assessment of the impact of the Local Plan allocations to be made.
- 6.2.6. A series of alternative Do Something forecasts have been undertaken in order to address the residual impacts identified from the results of the 2033 DS1 tests, these are detailed in the remainder of this section.

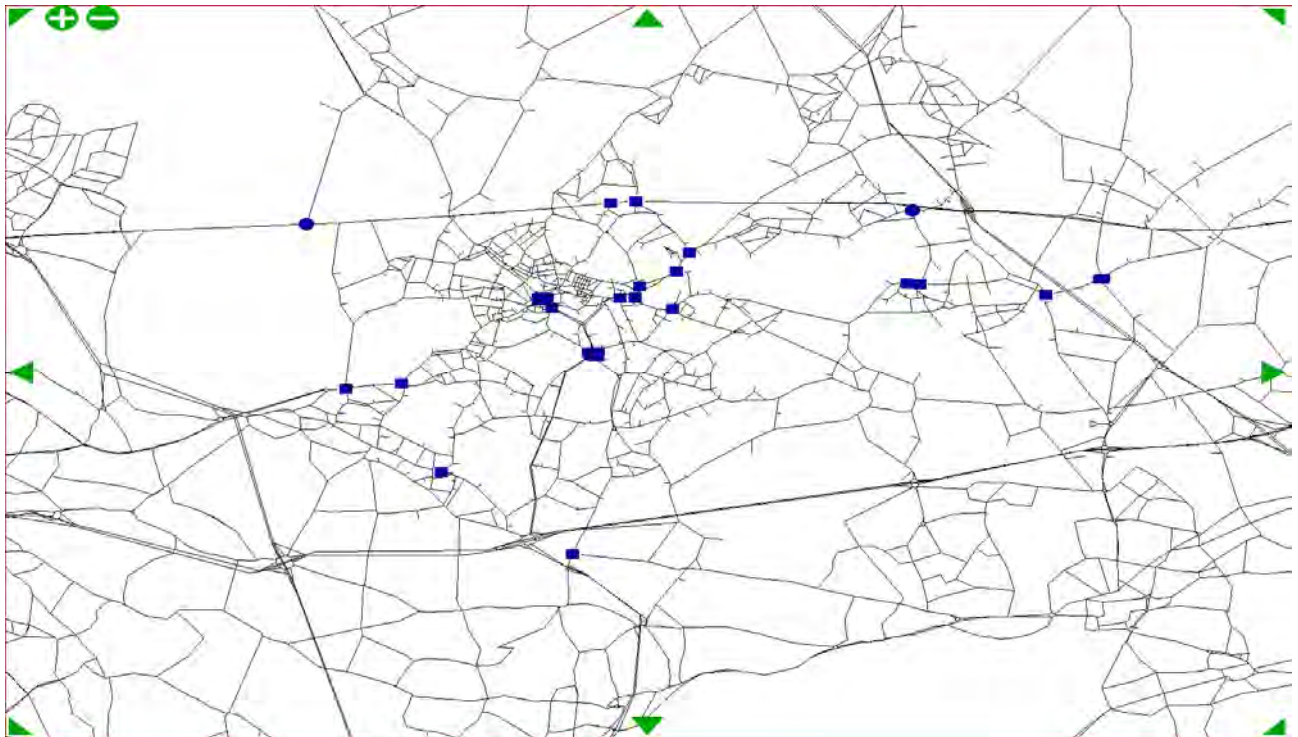
2033 Do Something 2a (DS2a)

- 6.2.7. DS2a is a test of the potential effectiveness of a modest reduction in weekday peak-hour car commuter trips with an origin or destination within St Helens. In this test a 5% reduction to the forecast year travel demand has been applied to those commuter journeys that either start or end in St Helens – to reflect the response to the range of strategic policies, improved technology and changing working culture that are discussed in section 2.6.

2033 Do Something 2b (DS2b)

- 6.2.8. Test DS2b has been designed to consider the effectiveness of small-scale capacity improvements at congested junctions on the KRN and implemented within SHSM by increasing the capacity on approach arms by 10%. The scale of the capacity increase has been based on levels of improvements that could reasonably be expected to be achieved through the implementation of measures such as: signal staging amendments and optimisation; conversion to MOVA control; minor amendments to junction layouts within the highway boundary to provide additional lanes on approach; improved signage; and re-allocation of road space to enable better lane utilisation. The locations where this assumption has been applied are illustrated in
- 6.2.9.
- 6.2.10. Figure 28.

Figure 28: Junctions where 10% capacity uplift has been applied in DS2b



6.2.11. DS2b also includes, larger-scale, strategic interventions at the following locations:

- Parkside Link Road
- M62 J7 (subject to ongoing study – based on indicative plans provided)
- M6 J23 Grade Separation of A580 (Feasibility study has commenced but no plans are available)

6.2.12. These schemes are described further in the Model Forecasting Report.

2033 Do Something 2 (DS2)

6.2.13. Combination of DS2a and DS2b.

2033 Do Something 2C (DS2C)

6.2.13.1 As DS2, but with the addition of a speed limit of 40 mph applied to the A580 corridor between Junction 23 in the east and the westernmost simulation link on the A580 at the junction with the B5202.

Matrix totals

6.2.14. To provide further context in terms of the trips into, out of, and total within St Helens under each of the scenarios

- 6.2.15. Table 14 to Table 16 provide summary volumes (note the analysis excludes trips that do not have one end of their journey within St Helens (external to external movements), although some of these trips will pass through the district, such as longer distance trips on the A580 corridor.
- 6.2.16. The tables show that in terms of car trips, the DS1 scenario represents an increase by 16% in the AM peak and 14% in the PM peak compared to the DM.

Table 14: Matrix Totals Do Minimum (DM)

From/To	AM Peak		PM Peak	
	St Helens	External	St Helens	External
St Helens	12,216	14,706	12,355	12,192
External	9,864	-	12,404	-

Table 15: Matrix Do Something (DS1 & DS2b) increase over Do Minimum (DM)

From/To	AM Peak		PM Peak	
	St. Helens	Elsewhere	St. Helens	Elsewhere
St. Helens	10%	20%	11%	14%
Elsewhere	19%	-	16%	-

Table 16: Matrix Do Something (DS2a, DS2 & DS2c) increase over Do Minimum (DM)

From/To	AM Peak		PM Peak	
	St. Helens	Elsewhere	St. Helens	Elsewhere
St. Helens	7%	17%	8%	11%
Elsewhere	16%	-	13%	-

7

DETAILED HIGHWAY IMPACT ASSESSMENT



7 DETAILED HIGHWAY IMPACT ASSESSMENT

7.1 INTRODUCTION

- 7.1.1. As described in the previous chapter, in order to quantify the impact of the proposed site allocations, a series of future year forecasts at 2033 have been developed and tested using SHSM.
- 7.1.2. In order to allow an appropriate basis for comparison, a “reference case” known as “2033 Do Minimum” has been developed in close liaison with St Helens Council and Highways England.
- 7.1.3. This chapter examines the highway impact of the LPPO sites by comparing “2033 Do Something 1” against “2033 Do Minimum” forecast assignments. It then describes the effect of a series of potential measures (described in the previous chapter) in mitigating for the impact of the proposed site allocations, and draws conclusions around residual impacts, along with a recommended strategy for the investigation of further interventions.
- 7.1.4. In order to provide a structured narrative to the analysis, firstly a comparison is made of the global impact of the LPPO sites across the detailed model area (also known as the simulation area) as shown earlier in Figure 23. This is followed by a consideration of the performance of key corridors and finally an examination of individual junction performance.
- 7.1.5. A separate Model Forecasting Report has been prepared that documents fully the methodology behind the generation of the traffic forecasts and the results of the forecasts themselves.

7.2 GLOBAL NETWORK PERFORMANCE

- 7.2.1. The following tables summarise key SATURN output parameters relating to the morning and evening peak hours for the entire model simulation area. The definition of these parameters is shown in Table 17.

Table 17: Global Network Performance Parameters

Parameter	Definition
Transient and Over-Capacity Queue	These are measures of the total time all vehicles spend queuing (in passenger car unit (PCU) hours). As an example, for a signalised junction, the transient queue element relates to the queues which build up and dissipate each cycle under uncongested conditions. The over-capacity element relates to queues which fail to clear. The two values should be summed to calculate the total queueing time.
Total Travel Time	This measures the total time all vehicles take to travel through the simulation network (in PCU hours). It includes both time incurred travelling along links and at junctions.
Travel Distance	This measures the total distance travelled by all vehicles in the simulation area, measured in PCU km.
Average Speed	This measures the average speed (km/hr) of all vehicles in the simulation area.

Table 18: Global Network Statistics AM Peak

	DM	DS1	DS2a	DS2b	DS2	DS2c
Transient queues	3,361	4,091	3,911	3,899	3,742	3,708
Over capacity queues	662	1,114	1,025	988	885	835
Total travel time	14,718	16,683	16,220	16,346	15,890	16,073
Travel distance	806,446	854,105	843,051	855,161	843,687	843,706
Average speed	54.8	51.2	52.0	52.3	53.1	52.5

Table 19: Global Network Statistics PM Peak

	DM	DS1	DS2a	DS2b	DS2	DS2c
Transient queues	3,702	4,224	4,054	4,069	3,945	3,969
Over capacity queues	821	1,191	1,099	1,082	1,027	1,042
Total travel time	15,862	17,359	16,926	17,117	16,751	16,972
Travel distance	853,588	887,920	878,439	889,914	880,706	874,419
Average speed	53.8	51.2	51.9	52.0	52.6	51.5

- 7.2.2. From the tables above, the impact across St Helens district of the LPPO sites (DS1) over the Do Minimum is:
- Queuing, travel time and travel distance all increase; and
 - Average speed decreases.
- 7.2.3. This result is not unsurprising given the level of increase in trips into, within and out of St Helens as a result of the Local Plan sites.
- 7.2.4. However, under the scenario DS2a (Reduction in commuter trips), there is a predicted improvement in all of these statistics compared with DS1. This improvement is generally greater when combined with the junction improvements in the DS2 test.
- 7.2.5. The DS2c sensitivity test reduces total travel distance, but shows some increase in queues and travel time and a reduction in average speed compared with DS2. This test was undertaken to provide an initial assessment of a potential speed reduction scheme on the A580 East Lancashire Road, as discussed in further detail in subsequent sections.

Implications for St Helens

The scenario testing that has been undertaken demonstrates that the overall impact of the LPPO sites is likely to be substantially mitigated by a combination of committed infrastructure schemes, modest changes in travel behaviour and minor improvements at key junctions.

- 7.2.6. The following sections consider in more detail the impact along key corridors and at specific junctions.

7.3 CORRIDOR AND JUNCTION ANALYSIS METHODOLOGY

7.3.1. In order to provide additional depth to the analysis, the performance of the St Helens highway network has been reviewed at a corridor and individual junction level. The analysis has centred on identifying “hotspots”, where the predicted volumes of traffic are likely to exceed the capacity of the network, in particular at a number of key junctions agreed through discussion with SHC. This analysis has used typical thresholds of performance, using volume over capacity measurements as shown in Table 20.

Volume over capacity parameter (v/c)

The v/c ratio is defined as the forecast volume (v) at a junction divided by its capacity (c), usually quantified by each approach arm and turning movement and is a measure of how congested a junction is. Analogous terminology is used in standard junction modelling software, where programmes such as Junctions9 and Linsig refer to quantities such as the ratio of flow to capacity (RFC) or the degree of saturation (DoS).

Generally, where the v/c is forecast to be greater than 1.0 then that approach link is said to exceed its theoretical, or absolute, capacity, as the number of vehicles arriving at the junction is greater than the maximum throughput that is a function of the geometry, signal stages and conflicts with other vehicle streams. Any approach with a v/c above 1.0 would be expected to suffer from significant queuing and delay and also be characterised by small additional traffic volumes leading to a disproportional increase in congestion.

A v/c of 0.85-0.9 is usually taken as a point where a link has reached its practical capacity and where vehicles will start to experience delay and congestion.

Table 20: Threshold Levels of Performance

v/c Value	Level of performance
< 0.85 for non-signalised or <0.9 for signalised junctions	Operating satisfactorily (within practical capacity)
0.85/0.9 –1.00	Approaching absolute capacity
> 1.00	Over absolute capacity

7.3.2. The above thresholds have been adopted within the assessment to identify junctions with likely capacity issues (hotspots) that may need further consideration and potential mitigation solutions. For simplicity, the highest forecast v/c ratio, as identified in the traffic modelling, has been presented at each key junction.

7.4 A580 EAST LANCASHIRE ROAD

Current Conditions

7.4.1. As described previously, the A580 East Lancashire Road forms an important part of St Helens Key Route Network, and performs a regional function (connecting Liverpool and Manchester City Regions) in addition to a local function. The East Lancashire Road, which was the biggest road

project undertaken before the advent of the motorway network, and runs across the centre of the Borough—to the north of the town of St Helens – in an east-west alignment.

- 7.4.2. The A580 is currently a high speed (40-60mph), primarily dual carriageway direct route between Liverpool and Manchester. It ties into the M6 at Junction 23 at the eastern boundary of the borough at a large signalised “throughabout” junction. The junction is currently the focus of a joint study commissioned by Highways England and St Helens Council.

Junction 23 Study

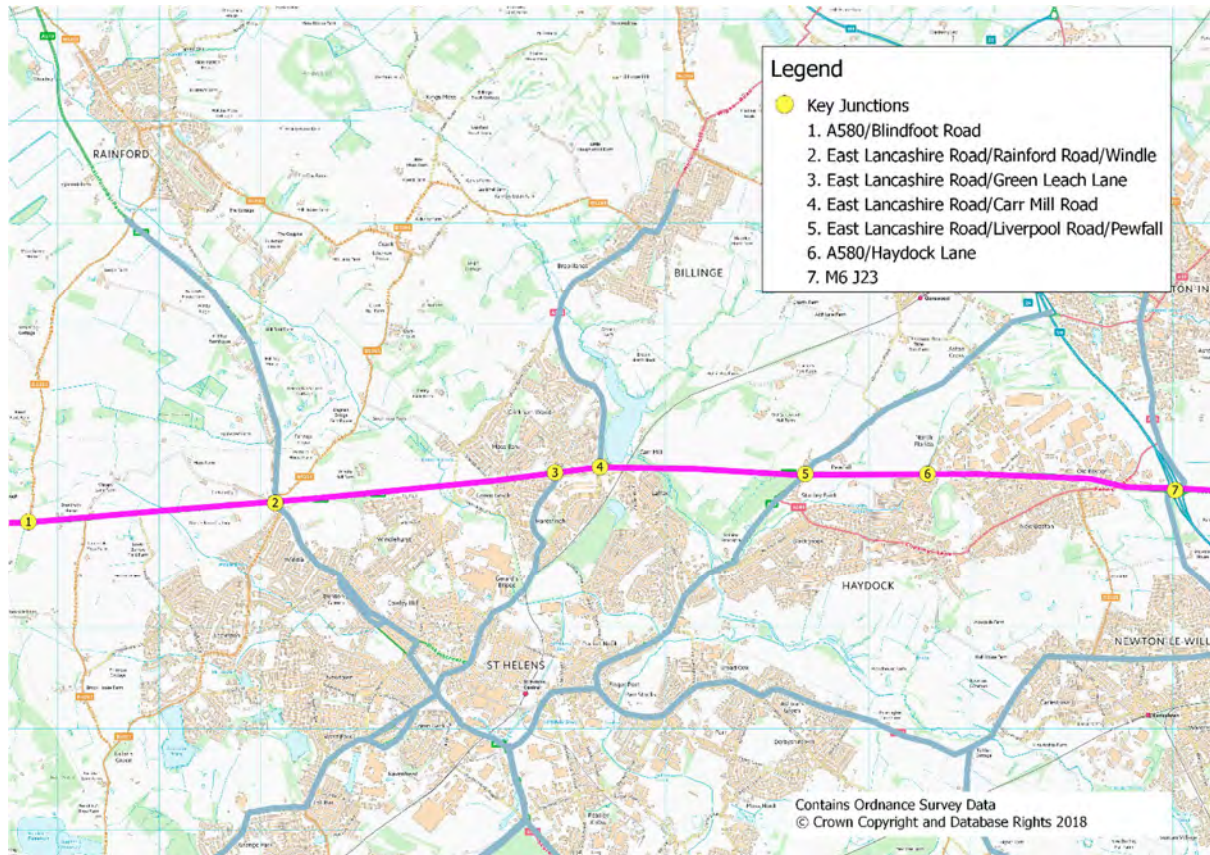
St Helens Council, in conjunction with Wigan Council and Highways England, has recently commissioned a feasibility study into improvement options at M6 J23. The objective of this study is to identify, appraise and sift a range of options to improve the operation of the junction in light of current and forecast travel demands. The study will consider a variety of options: covering small-scale improvements within the current layout to more significant infrastructure enhancements that may remove key movements from the junction itself.

Alongside these J23 specific options, the study will also consider the wider network constraints that may be encouraging drivers to use the junction rather than other routes and look to identify whether improvements elsewhere on the network may remedy this.

A further strand to the study will also investigate the potential for sustainable travel initiatives to reduce car-based travel to the employment sites that are adjacent to the junction, both current sites and those identified as in the Local Plan.

- 7.4.3. The A580 carriageway is elevated above a number of more minor highways, particularly in the eastern section, without direct junction connections and reflecting the current status of the A580 as a through route for regional trips. For example, the junctions at Piele Road and Millfield Lane are restricted to left in left out operation only.
- 7.4.4. The A580 links with more significant local roads at a series of large, signalised junctions, including key radial routes into St Helens:
- Haydock Lane (currently being upgraded to provide additional capacity and access to Florida Farm development and Haydock Industrial Estate)
 - A58 (planned to be upgraded to enable additional capacity - it is noted that the transport assessment for the Florida Farm application concluded that the A58/A580 junction would exceed capacity within ten years, with or without additional development).
 - Stanley Bank Way
 - Carr Mill Road
 - Moss Bank Road
 - A570 Windle Island (Planned to be widened on its northern and eastern arms to improve capacity).
- 7.4.5. These junctions are highlighted in Figure 29.

Figure 29: A580 Corridor



7.4.6. It is noted from the base year traffic model that, under current conditions, whilst the mainline A580 is free flowing, the A580 junctions suffer significant queues and delays during weekday peak periods, particularly on the approaches to the junctions with the M6 (J23), A58 Liverpool Road, Carr Mill Road and Windle Island. These observations are supported by an inspection of the highest v/c ratios at key junctions on the link. As shown in Table 21, in most cases, the highest v/c exceeds 90%, indicating that on at least one approach the junction has exceeded its practical capacity during these time periods.

Future Do Minimum Conditions (2033 DM)

7.4.7. Table 21 below provides a summary of the highest forecast v/c ratio on each of the key junctions on the A580 route. The base year conditions are forecast to remain broadly similar under the 2033 Do Minimum scenario, as the additional traffic along the route associated with committed developments, SHLAA sites and background traffic growth is substantially mitigated by the implementation of committed highway schemes at Haydock Lane, A58 Liverpool Road and Windle Island.

7.4.8. The only exception to this is M6 J23, but it is noted that a feasibility study into potential improvements at this location is underway at the time of writing.

Impact of LPPO Sites (2033 DS1)

- 7.4.8.1 It can be seen from Table 21 below that forecast junction operation along the A580 corridor is generally similar to that for the Do Minimum scenario, with the highest v/c values increasing by up to around 5%. The exceptions to this are the A580 Haydock Lane junction and the M6 Junction 23. Therefore, further consideration has been given to the likely performance of these junctions under a series of sensitivity tests representing additional mitigation.

Table 21: A580 Corridor Max Forecast v/c Percentages Base Year

Junction	2017 Base Year		2033 DM		2033 DS1	
	AM	PM	AM	PM	AM	PM
A580/Blindfoot Road	101	78	100	86	100	93
East Lancashire Road/Rainford Rd/Windle	106	102	104	105	107	106
East Lancashire Road/Green Leach Lane	95	88	99	95	98	93
East Lancashire Road/Carr Mill Road	101	114	102	118	105	118
East Lancashire Road/Liverpool Road/Pewfall	104	102	101	103	105	103
A580/Haydock Lane	91	84	92	71	107	97
M6 J23	100	100	107	106	115	109

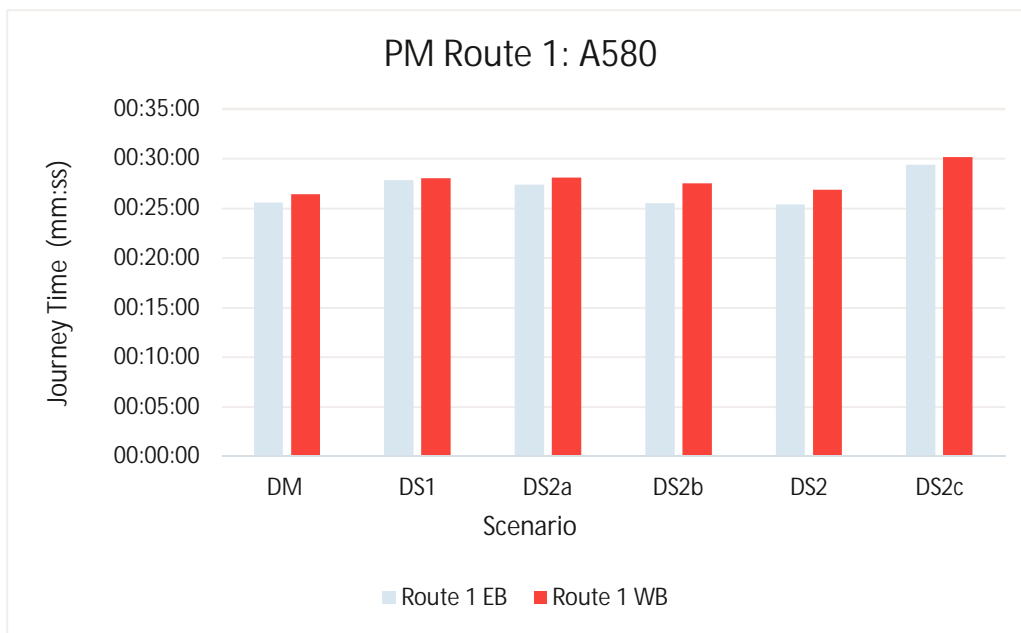
Impact of Potential Mitigation (2033 DS2a, 2b, 2 and 2c)

- 7.4.9. As described in the previous chapter, further forecasts have been run to assess the impact of various potential mitigation measures on the junctions along the A580 corridor. In summary, in relation to this corridor:
- DS2b includes improvements at Parkside Link Road, M6J23, M62 J7, plus modest capacity increases (10%) at other junctions along the route
 - DS2c includes amending the speed limit along the corridor to 40mph in addition to DS2
- 7.4.10. The graphs below summarise the impact on peak hour journey time along the A580 corridor. It can be seen that the increased journey time associated with DS1 is forecast to be reduced by all tests, with the combined DS2 test forecasting journey times will return to a similar value to that forecast for the 2033 “Do Minimum” scenario in all scenarios.
- 7.4.11. Forecast journey times increase slightly under DS2c, which is expected as this test includes a reduced speed limit along the whole A580 corridor.

Figure 30: AM Peak Journey Times Route 1



Figure 31: PM Peak Journey Times Route 1



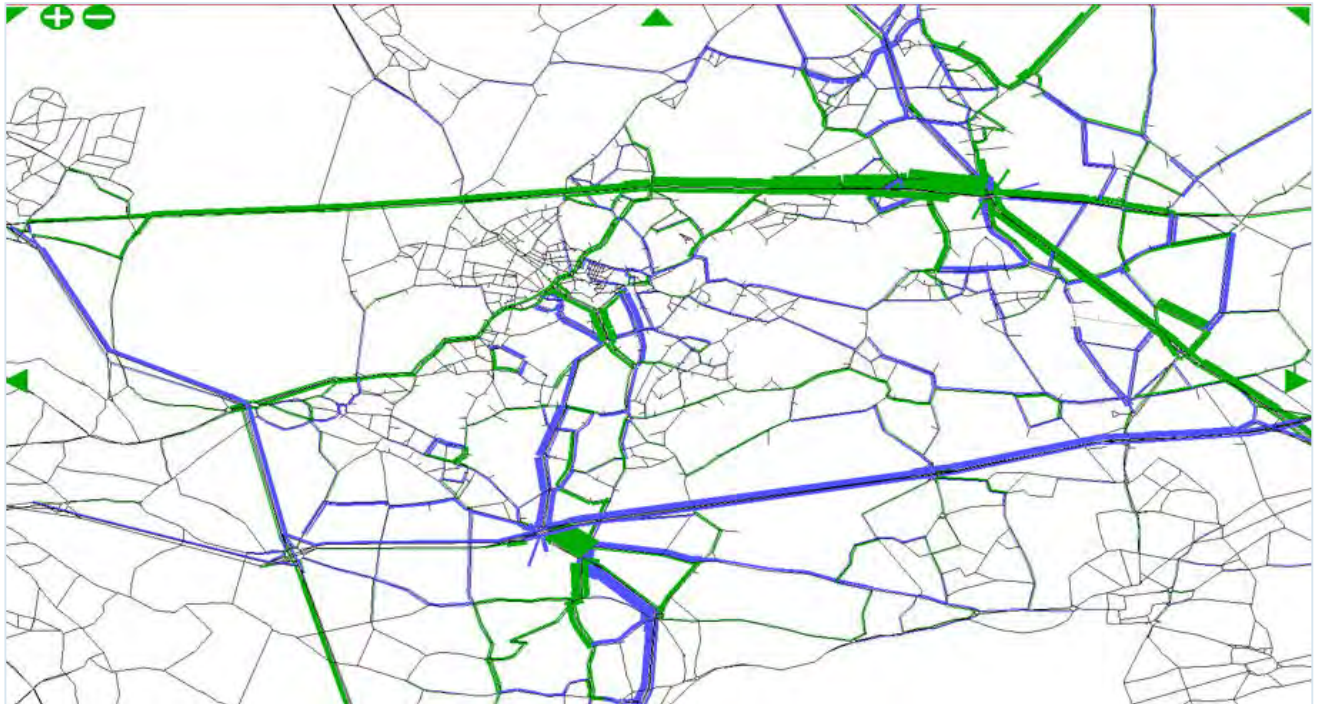
7.4.12. Considering the performance of individual junctions in more detail, the table below shows maximum v/c percentages for each of the key junctions on the route:

Table 22: Maximum Forecast v/c values A580

Junction	2033 DM		2033 DS1		2033 DS2a		2033 DS2b		2033 DS2		2033 DS2c	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
A580/Blindfoot Road	100	86	100	93	98	91	93	92	91	88	71	44
East Lancashire Road/Rainford Rd/Windle	104	105	107	106	106	105	107	107	105	106	107	107
East Lancashire Road/Green Leach Lane	99	95	98	93	98	93	98	92	99	95	89	83
East Lancashire Road/Carr Mill Road	102	118	105	118	104	114	104	116	101	118	102	113
East Lancashire Road/Liverpool Road/Pewfall	101	103	105	103	105	104	103	103	102	104	102	104
A580/Haydock Lane	92	71	107	97	107	96	107	96	107	96	107	95
M6 J23	107	106	115	109	114	108	104	91	103	90	103	93

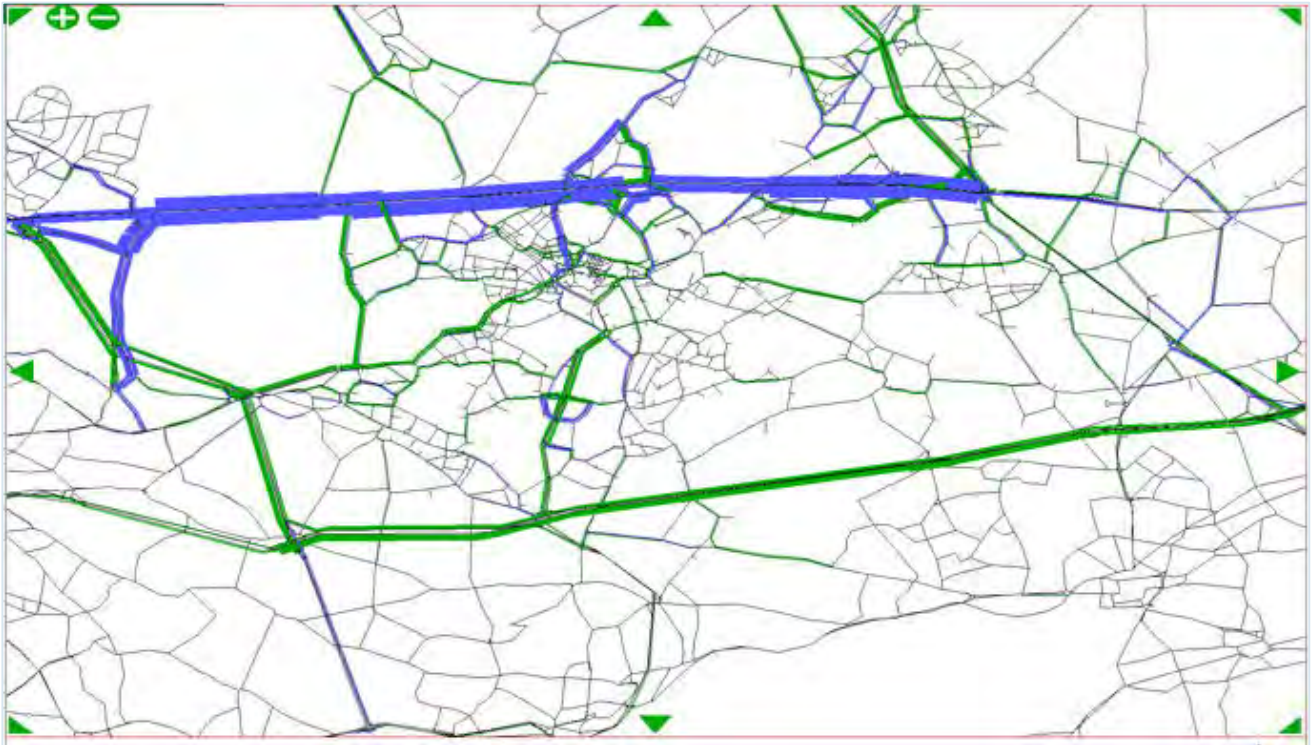
- 7.4.13. The majority of junctions are forecast to operate at very similar levels, or slightly better, under DS2 compared against DM. In particular, the assumed upgrade at Junction 23 is shown to return its operation to those similar to the Base Year during the AM peak and significantly better during the PM peak.
- 7.4.14. However, the junction at Haydock Lane is forecast to experience an increase in maximum v/c.
- 7.4.15. To provide further context to the interpretation of these results, an examination of the flow differences between relevant scenarios has also been made.
- 7.4.16. Figure 32 shows the flow difference between DS2b and DS1 for the AM peak. The green bands indicate an increase in flow whereas the blue bands indicate a decrease.
- 7.4.17. It can be seen that an unintended impact of improving capacity along the A580 corridor is to draw more trips along this route which were previously using the M62 corridor.

Figure 32: AM Peak Flow Difference Plot 2033DS2b – 2033DS1



- 7.4.18. Major interventions can bring positive and negatives to wider travel choices and have to be considered in a wider picture. The forecast pattern of re-assignment may not be in accordance with the respective hierarchy of the strategic route network (SRN) and key route network (KRN), and is to an extent masking the effectiveness of the modelled capacity improvements on the corridor.
- 7.4.19. Recent schemes on the A580 have led to St Helens to discuss with its partner authorities to investigate options for the wider A580 Corridor and this work will be progressed during the plan period. A junction improvement at this location is proposed and thus final design and signal timings were not available at the time of writing.
- 7.4.20. However, in order to provide an early indication of potential impact of one of the measures which may be brought forward, a sensitivity test has been undertaken relating to a change in speed limit along the A580 route to 40mph. This is known as test DS2c.
- 7.4.21.
- 7.4.22. Figure 33 showing DS2c compared against DS2 demonstrates that the reduced speed limit on the A580 corridor is forecast to reassign longer distance trips back onto the strategic road network.

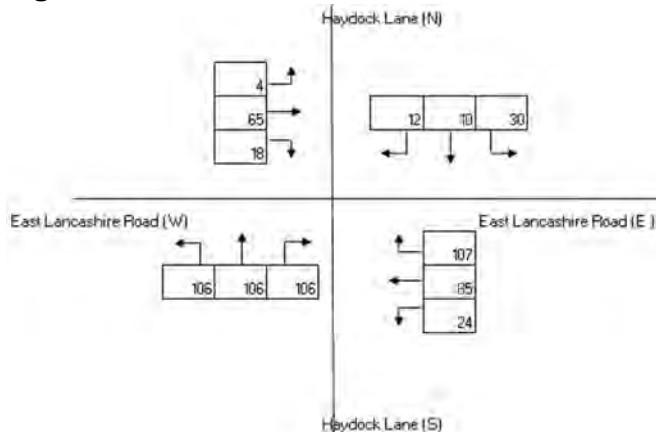
Figure 33: AM Peak Flow Difference Plot 2033DS2c – 2033DS2



7.4.23. A summary comparison of the highest v/c percentages is shown in

- 7.4.24. Table 22 above, to demonstrate the additional impact of DS2c. It can be seen that the impact of test DS2c is to reduce or not change the maximum v/c percentages compared with DS2 in the majority of cases.
- 7.4.25. Comparing DS2c against the DM, the junctions at Blindfoot Road, Leach Lane, Carr Mill Road and M6 J23 are all forecast to operate with lower maximum v/c percentages. The junctions of Windle Island, and Liverpool Road are all forecast to operate with very similar maximum v/c percentages (within 3%).
- 7.4.26. Therefore, the only junction on this corridor which is forecast to experience a significant worsening of operation is the A580/Haydock Lane. A more detailed review of the forecast operation of this junction indicates that the assumed signal staging and timings are not optimal. Specifically, the v/c values for the western and northern arms of the junction are very low compared with those on the southern arm and the right turn from the A580 east to the northern arm (Florida Farm access).

Figure 34: Forecast maximum v/c values at A580/Haydock Lane 2033 DS2 AM peak



- 7.4.27. It is anticipated that an update to the signal staging and timings would result in an acceptable forecast level of performance. However, the timescales for production of this Transport Assessment have precluded a more detailed investigation of this issue at the time of writing.
- 7.4.28. Therefore, it is recommended to further review the operation of this junction as the junction is re-adopted by the council following section 278 works, and take into account emerging outputs from the proposed A580 corridor study and any future studies along the A580 corridor.

7.5 A58 LIVERPOOL ROAD TO LINKWAY

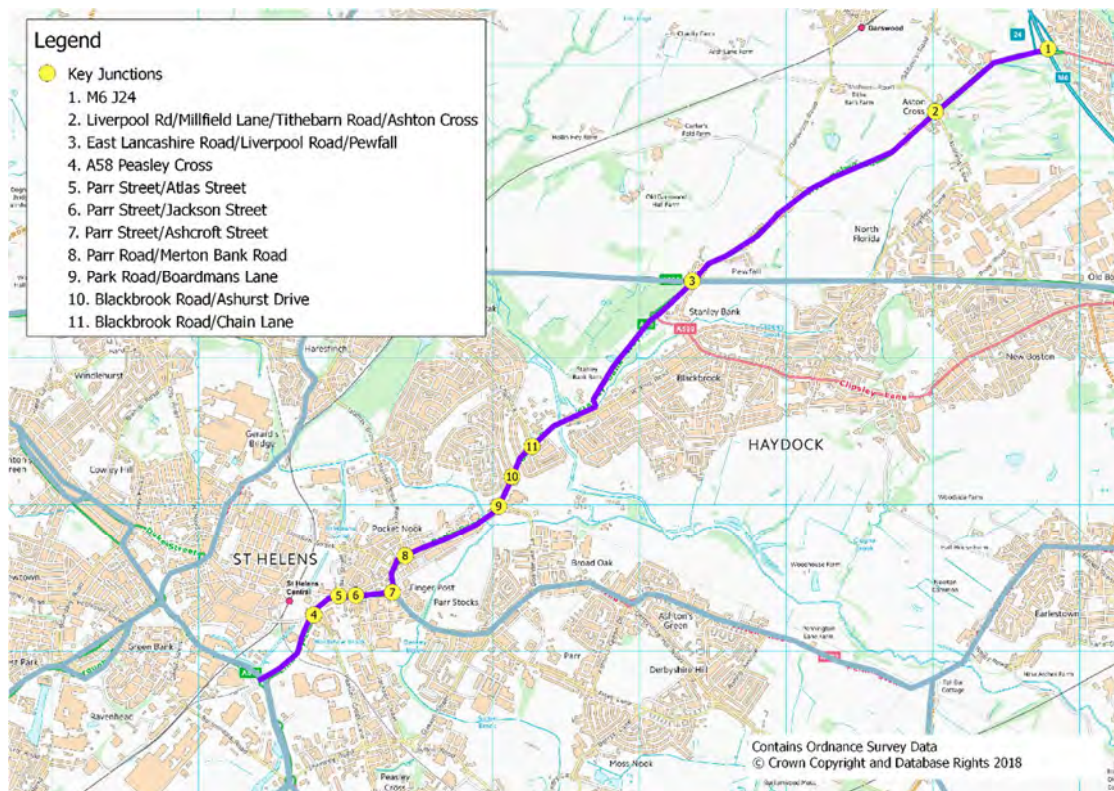
Current Conditions

- 7.5.1. The A58 forms a key radial approach to St Helens from Ashton in Makerfield and the north east, linking to the M6 at a junction with restricted movements (north facing slips only). It is a single carriageway route with speed limits of between 40 and 50mph and relatively few accesses points and limited frontage activity from the M6 to the junction with West End Road and the boundary of the urban area. From this point, the speed limit reduces to 30mph and continues as a single carriageway with significant accesses, frontage activity and some on-street parking. From the junction with Merton Bank Road, the A58 widens into a dual carriageway, eventually becoming the Linkway around the town centre from the large roundabout with Peasley Cross Lane.

7.5.2. The A58 links with more significant local roads at a series of junctions, including:

- M6 J24 north facing slips (signalised)
- Millfield Lane/Tithebarn Road (signalised crossroads)
- A580 East Lancashire Road (large signalised crossroads, planned to be upgraded to enable additional capacity in the east-west movements)
- Chain Lane (signals)
- Ashurst Drive (signals)
- Park Road (signals)
- Merton Bank Road (signals)
- Parr Street/Ashcroft Street
- Jackson Street
- Atlas Street
- Peasley Cross Lane (large at grade roundabout)

Figure 35: A58 Corridor



7.5.3. It is noted from the base year traffic model that, under current conditions, there are queues and delays at the approaches to several of the main junctions along the route during weekday peak periods, following a tidal pattern with inbound queues being greater during the morning peak and outbound queues being greater during the evening peak period.

7.5.4. These observations are supported by an inspection of the highest v/c ratios at key junctions on the link. The highest v/c exceeds 90% at J24, Millfield Lane, the A580 East Lancashire Road during the morning peak periods and at Ashurst drive, Chain Lane and the A580 East Lancashire Rd during the

evening peak, indicating that these junctions have exceeded their practical capacity during these time periods.

Future Conditions (2033 DM)

7.5.5. Table 23 provides a summary of the highest forecast v/c ratio on each of the key junctions on the route. These conditions are forecast to remain broadly similar under the 2033 Do Minimum scenario at J24, Millfield Lane and the A580 East Lancashire Road. Junctions closer to the town experience increases in forecast maximum v/c percentages due to the committed and SHLAA developments and increased background traffic growth.

Impact of LPPO Sites (2033 DS1)

7.5.6. It can be seen from the table below that forecast junction operation along the A58 corridor is generally similar to that for the Do Minimum scenario at the majority of junctions, with the highest v/c values increasing by up to around 5 percentage points.

7.5.7. The exceptions to this are M6 J24, Millfield Lane and Park Road/Boardmans Lane. Therefore, further consideration has been given to the likely performance of these junctions under a series of sensitivity tests representing additional mitigation.

Table 23: Maximum v/c values A58

Junction	2017 Base Year		2033 DM		2033 DS1	
	AM	PM	AM	PM	AM	PM
Liverpool Rd/Millfield Lane/Tithebarn Rd/Ashton X	91	89	92	90	104	93
East Lancashire Road/Liverpool Road/Pewfall	104	102	101	103	105	103
A58 Peasley Cross	43	58	65	73	71	77
Parr Street/Atlas Street	54	60	79	79	81	86
Parr Street/Jackson Street	59	85	71	97	74	100
Parr Street/Ashcroft Street	87	78	100	100	100	101
Park Road/Merton Bank Road	85	88	93	91	95	93
Park Road/Boardmans Lane	55	57	75	70	78	87
Blackbrook Road/Ashurst Drive	75	91	88	86	90	86
Blackbrook Road/Chain Lane	84	98	100	102	102	104
M6 J24	103	75	106	78	109	92

Impact of Potential Mitigation (2033 DS2A, 2B, 2 and 2C)

7.5.8. As described in the previous chapter, further forecasts have been run to assess the impact of various potential mitigation measures on the junctions along the A580 corridor.

7.5.9. Figure 36 and Figure 37 below summarise the impact on peak hour journey time along the A58 corridor. It can be seen that the increased journey time associated with DS1 is forecast to be reduced by all tests during the AM peak, with the combined DS2 test forecasting journey times will return to a similar value to that forecast for the 2033 “Do Minimum” scenario in all scenarios. For the PM peak, there is forecast to be very little variation in journey times between scenarios.

Figure 36: AM Peak Journey Times Route 7 A58

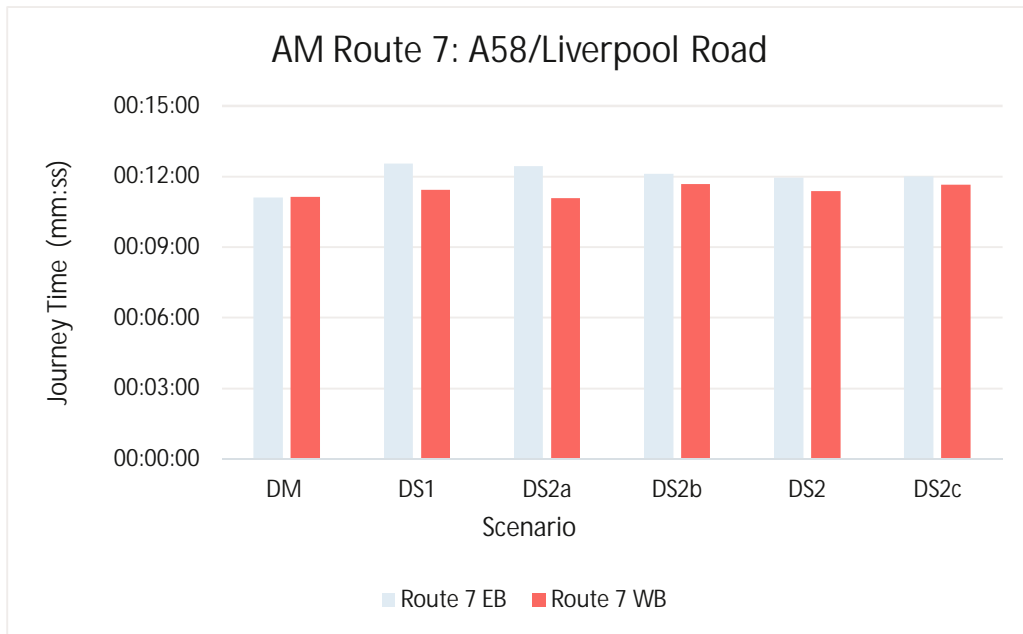
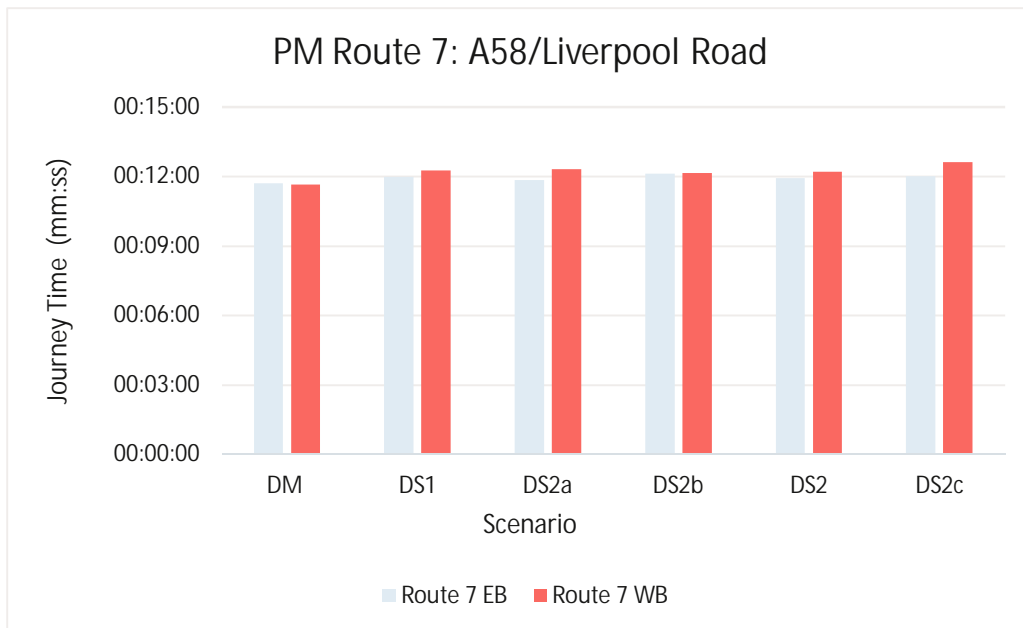


Figure 37: PM Peak Journey Times Route 7 A58



7.5.10. Considering the performance of individual junctions in more detail, Table 24 shows maximum v/c percentages for each of the key junctions on the route.

Table 24: Maximum v/c values A58

Junction	2033 DM		2033 DS1		2033 DS2a		2033 DS2b		2033 DS2		2033 DS2c	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Liverpool Rd/Millfield Lane/Tithebarn Rd/Ashton X	92	90	104	93	103	94	98	99	97	98	99	99
East Lancashire Road/Liverpool Road/Pewfall	101	103	105	103	105	104	103	103	102	104	102	104
A58 Peasley Cross	65	73	71	77	67	72	68	75	63	71	71	72
Parr Street/Atlas Street	79	79	81	86	79	80	81	81	78	78	80	81
Parr Street/Jackson Street	71	97	74	100	73	97	65	96	64	93	63	88
Parr Street/Ashcroft Street	100	100	100	101	100	100	100	100	100	96	100	100
Park Road/Merton Bank Road	93	91	95	93	92	92	92	84	91	83	86	85
Park Road/Boardmans Lane	75	70	78	87	77	75	72	74	70	73	69	64
Blackbrook Road/Ashurst Drive	88	86	90	86	89	85	94	92	93	91	92	93
Blackbrook Road/Chain Lane	100	102	102	104	101	103	98	100	97	101	95	98
M6 J24	106	78	109	92	109	90	106	85	106	84	106	84

Summary of Impact: A580 East Lancs Road

All junctions on the corridor are forecast to operate at very similar levels, or slightly better, under DS2 compared against DS1, and in the majority of cases the forecasts operation is similar to or better than that under DM.

The exception to this is Millfield Lane, although it is noted that the forecast level of performance remains within the same threshold (below 100%) and therefore this junction is forecast to remain within absolute capacity.

The forecast performance of J24 should be considered further in the context of the current J23 study.

7.6 A572 NEWTON LE WILLOWS TO ST HELENS

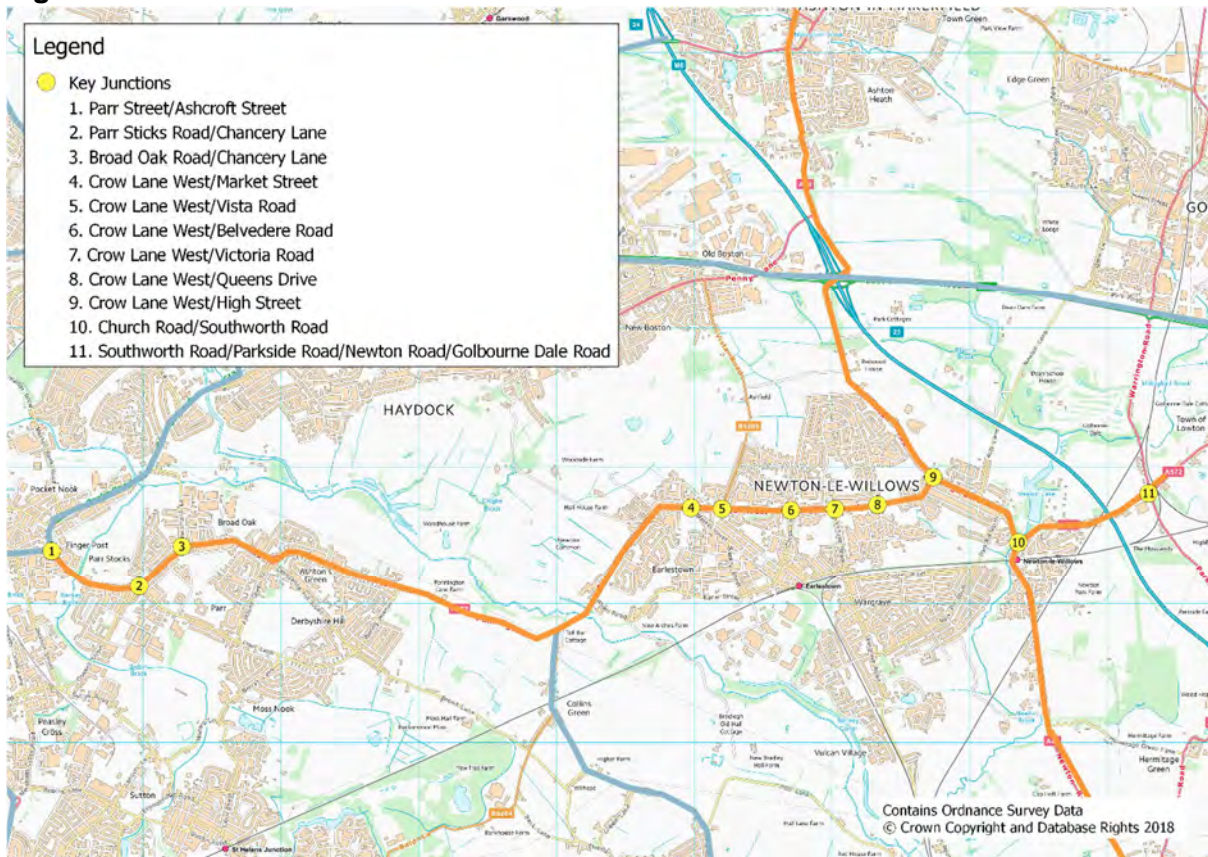
Current Conditions

- 7.6.1. The A572 forms the main approach route to St Helens from Newton le Willows and areas to the east. It crosses the A580 East Lancashire Road at a large signalised junction south of Lowton, passes beneath the M6 without a direct junction access, and through Newton le Willows and Earlestown before reaching the urban boundary of St Helens and joining the A58 at the Parr Street signalised junction.

7.6.2. The A572 is a single carriageway road with a speed limit of 30-40mph. It links with more significant local roads at a series of junctions, including:

- Parkside Road (staggered priority crossroads)
- Church St (signalised junction)
- Crow Lane East/High Street (roundabout)
- Crow Lane/Queens Drive (priority junction)
- Crow Lane/Victoria Road (signals)
- Crow Lane/Belvedere Road (signals)
- Crow Lane/Vista Road (signals)
- Crow Lane/Market Street (signals)
- Broad oaks Road/Chancery Lane (signals)
- Parr Stocks Road/Chancery Lanes (signals)
- Parr Street/Ashcroft Street (signals)

Figure 38: A572 Corridor



7.6.3. It is noted from the base year model, that, under current conditions, there are queues forming at the approaches to several of the main junctions along the route during weekday peak periods, but these generally clear within each cycle, and conditions are generally free flowing than those on other radial routes. This is reflected by a review of the maximum v/c percentages, which are all below 90% (Table 25).

Future Conditions (2033 DM)

- 7.6.4. Table 25 below provides a summary of the highest forecast v/c ratio on each of the key junctions on the route. These conditions are forecast to remain broadly similar under the 2033 Do Minimum scenario at the majority of junctions, which remain within practical capacity with forecast maximum v/c ratios of below 90%.
- 7.6.5. The junctions at Parr Street/Ashcroft Street and Crow Lane West/Vista Road closer to the town experience increases in forecast maximum v/c percentages due to the committed and SHLAA developments and increased background traffic growth.

Impact of LPPO Sites (2033 DS1)

- 7.6.6. It can be seen from Table 25 that forecast junction operation along the A572 corridor is generally similar to that for the Do Minimum scenario at the majority of junctions, with the highest v/c values increasing by up to around 5 percentage points.
- 7.6.7. The main junctions on Crow Lane in Newton le Willows experience greater increases in forecast maximum v/c percentages, but generally remain within practical capacity. The junction at Newton Road/Parkside Road is forecast to slightly exceed practical capacity during the PM peak period. The junction at Church Road/Southworth Road is forecast to exceed absolute capacity in the AM peak hour in the forecast scenarios.
- 7.6.8. A more detailed review of the forecast operation of this junction indicates that the assumed signal staging and timings are not optimal. However, the timescales for production of this Transport Assessment have precluded a more detailed investigation of this issue at the time of writing.
- 7.6.9. Therefore, additional consideration has been given to the likely performance of these junctions under a series of sensitivity tests representing additional mitigation.

Table 25: Maximum v/c values A572

Junction	2017 Base Year		2033 DM		2033 DS1	
	AM	PM	AM	PM	AM	PM
Parr Street/Ashcroft Street	87	78	100	100	100	101
Parr Stocks Road/Chancery Lane	75	69	89	86	90	89
Broad Oak Road/Chancery Lane	40	49	53	69	56	73
Crow Lane West/Market Street	63	60	89	81	95	87
Crow Lane West/Vista Road	53	73	92	95	97	100
Crow Lane West/Belvedere Road	51	40	49	68	62	70
Crow Lane West/Victoria Road	49	38	52	50	63	70
Crow Lane West/Queens Drive	31	33	46	46	61	55
Southworth Road/ Parkside Road/ Newton Road/ Golbourne Dale Road	69	66	61	77	73	92
Crow Lane West/High Street	28	35	51	49	81	70
Church Road/Southworth Road	49	46	98	88	105	91

Impact of Potential Mitigation (2033 DS2a, 2b, 2 and 2c)

- 7.6.10. As described in the previous chapter, further forecasts have been run to assess the impact of various potential mitigation measures on the junctions along the A572 corridor. Of particular relevance to the performance of this corridor, the proposed Parkside Link Road has been included in the DS2b and DS2 scenarios.
- 7.6.11. This scheme forms a new link from M6 J22 across to the A49 Newton Road. Winwick Lane to the east of J22 will be widened to form a short length of dual carriageway to a new roundabout junction with the Link Road, which ties into the existing Parkside Road and follows its alignment for a short distance before turning west towards the A49 Newton Road at a proposed new signalised junction. Interim junctions and accesses along the link provide a tie into the existing Parkside Road and access for future development.
- 7.6.12. Table 26 summarises the maximum forecast v/c values at each junction.

Table 26: Maximum v/c values A572

Junction	2033 DM		2033 DS1		2033 DS2a		2033 DS2b		2033 DS2		2033 DS2c	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Parr Street/Ashcroft Street	100	100	100	101	100	100	100	100	100	96	100	100
Parr Stocks Road/Chancery Lane	89	86	90	89	90	87	86	87	83	83	83	78
Broad Oak road/Chancery Lane	53	69	56	73	54	72	55	76	54	74	55	77
Crow Lane West/Market Street	89	81	95	87	94	86	87	82	86	80	86	80
Crow Lane West/Vista Road	92	95	97	100	96	100	88	97	86	97	78	83
Crow Lane West/Belvedere Road	49	68	62	70	59	68	60	62	59	61	60	65
Crow Lane West/Victoria Road	52	50	63	70	58	64	60	56	57	52	63	63
Crow Lane West/Queens Drive	46	46	61	55	59	52	61	43	59	42	58	44
Southworth Road/ Parkside Road/ Newton Road/ Golbourne Dale Road	61	77	73	92	70	91	84	78	82	74	85	72
Crow Lane West/High Street	51	49	81	70	74	66	64	58	60	55	60	52
Church Road/Southworth Road	98	88	105	91	105	90	104	86	104	84	104	87

Summary of Impact: A572

The majority of junctions are forecast to operate within practical capacity and at a similar level under DS2 compared with the DM

The junction of Parr Street/Ashcroft Street is forecast to continue to operate at around absolute capacity.

The junction of Church Road/Southworth Road is forecast to perform slightly worse than in the DM during the AM peak, with a forecast maximum v/c greater than 100%. It is recommended that a further review of signal timings be undertaken to improve the operation of this junction.

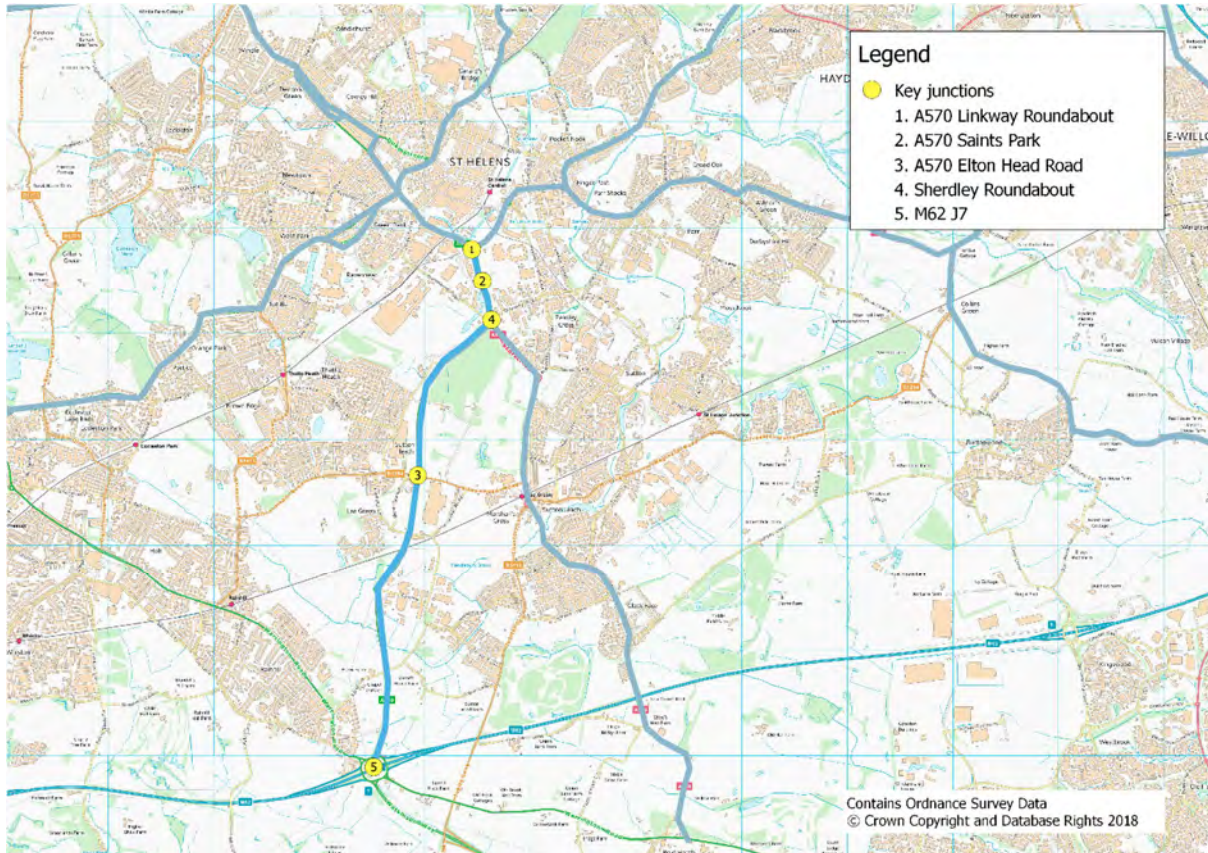
7.7 A570 LINKWAY M62 J7 TO ST HELENS

Current Conditions

7.7.1. The A570 forms the main radial approach route to St Helens from the M62 and areas to the south. It is a high speed dual carriageway, subject to National Speed Limit (70mph), with limited access points. It oversails or runs beneath several minor roads, with other junctions restricted to left in left out access. It has large at grade roundabout junctions with more significant roads and access points as follows:

- Elton Head Road roundabout (to be upgraded to a signalised crossroads design, which is included in the 2033 DM)
- Stonecross/Sherdley Roundabout
- Saints Retail Park
- A58 Linkway roundabout

Figure 39: A570 M62 J7 Corridor



7.7.2. The key junctions at the M6, Elton Head Road and Sherdley Roundabout experience significant queues and delays during weekday peak periods, as shown in the base year model results, which indicate maximum v/c percentages above 90% indicating these junctions are exceeding their practical capacity.

Future Conditions (2033 DM)

7.7.3. Table 27 below provides a summary of the highest forecast v/c ratio on each of the key junctions on the route. The junctions at Linkway and Saints Retail Park experience increases in forecast maximum v/c percentages, although it is evident that they are predicted to remain within practical capacity.

7.7.4. The committed improvements to the A570/Elton Head balance out the increased traffic flow due to the committed developments and background traffic growth – although the junction is forecast to continue to operate around or above practical capacity.

7.7.5. The Sherdley Roundabout and M62 J7 experience increased forecast maximum v/c ratios, and are forecast to reach absolute capacity.

Impact of LPPO Sites (2033 DS1)

7.7.6. It can be seen from Table 27 below that forecast junction operation along the A570 corridor is generally similar to that for the Do Minimum scenario at the majority of junctions, with the highest v/c values increasing by up to around 5 percentage points. The junctions at Elton Head Road, Sherdley Roundabout and M62 J7 remain above practical capacity.

7.7.7. Therefore, additional consideration has been given to the likely performance of these junctions under a series of sensitivity tests representing additional mitigation.

Table 27: Maximum v/c values A570

Junction	2017 Base Year		2033 DM		2033 DS1	
	AM	PM	AM	PM	AM	PM
A570 Linkway roundabout	54	69	76	62	75	65
A570 Saints Park	54	59	50	44	51	43
A570 Elton Head Road	100	90	97	89	97	91
Sherdley Roundabout	91	94	96	101	100	102
M62 J7	96	96	100	100	102	101

Impact of Potential Mitigation (2033 DS2a, 2b, 2 and 2c)

7.7.8. As described in the previous chapter, further forecasts have been run to assess the impact of various potential mitigation measures on the junctions along the A570 corridor. Of relevance to the performance of this corridor, a proposed upgrade to M62 J7 has been included in the DS2b and DS2c scenarios.

7.7.9. St Helens Council have recently commissioned a study of the A570/Sherdley roundabout, but at the time of writing, this study is at an early stage and a preferred option has not been identified, therefore this has not been included in this TA.

7.7.10. Table 28 summarises the maximum forecast v/c values at each junction.

Table 28: Maximum v/c values A570

Junction	2033 DM		2033 DS1		2033 DS2a		2033 DS2b		2033 DS2		2033 DS2c	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
A570 Linkway roundabout	76	62	75	65	77	62	83	71	83	72	84	70
A570 Saints Park	50	44	51	43	50	44	54	49	54	50	55	50
A570 Elton Head Road	97	89	97	91	97	90	95	88	94	87	93	84
Sherdley Roundabout	96	101	100	102	97	102	95	101	95	100	95	101
M62 J7	100	100	102	101	102	101	100	102	100	102	100	102

Summary of Impact: A570

The forecast operation of junctions on this corridor under DS2 is generally similar to or slightly better than that under the DM, demonstrating that the committed and assumed highway improvements largely mitigate for the impact of increased traffic due to the LPPO Sites.

7.8 A58 PRESCOT TO ST HELENS

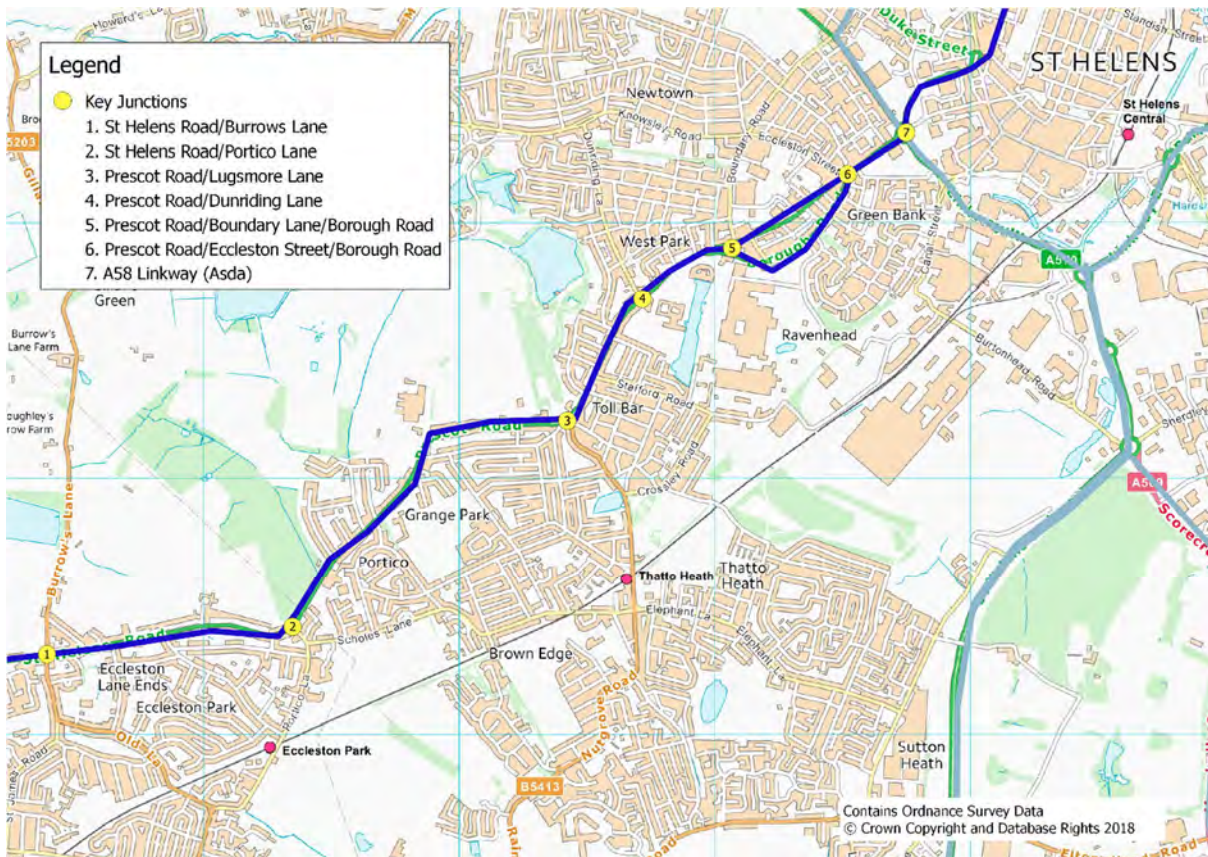
Current Conditions

7.8.1. The A58 forms the main radial approach route to St Helens from the M57, Prescott and areas to the west. It is a dual carriageway, subject to a 40mph speed limit, with limited access points from the M57 to the roundabout junction with St Helens Road. Thereafter, the speed limit reduces to 30mph and the route becomes a single carriageway with frontage activity.

7.8.2. It has at grade junctions with more significant roads as follows:

- B5201 St James Road/Burrows Lane (signals)
- Portico Lane (signals)
- Lugsmore Lane (signals)
- Dunriding Lane (signals)
- Gyratory Croppers Hill/Borough Road
- Roundabout with A58 Linkway

Figure 40: A58 Prescott to St Helens Corridor



7.8.3. From the base year traffic model it is evident (Table 29) that the key junctions at the Burrows Lane, Portico Lane and the A58/Linkway experience queues and delays during weekday peak periods. At these locations the maximum v/c percentages are above 90% indicating these junctions are exceeding their practical capacity.

Future Conditions (2033 DM)

- 7.8.4. Table 29 below provides a summary of the highest forecast v/c ratio on each of the key junctions on the route. The junctions at Linkway and Portico Lane are forecast to experience increases in maximum v/c percentages, although remain within absolute capacity.
- 7.8.5. The Burrows Lane junction is forecast to improve slightly, with all other junctions experiencing an increase in forecast maximum v/s although remain within absolute capacity.

Impact of LPPO Sites (2033 DS1)

- 7.8.6. It can be seen from Table 29 below that forecast junction operation along the A58 corridor is generally similar to that for the Do Minimum scenario at the majority of junctions, with the highest v/c values increasing by up to around 5 percentage points. At Lugsmore Lane the forecast increase in v/c is greater but the junction remains within practical capacity.
- 7.8.7. Therefore, additional consideration has been given to the likely performance of these junctions under a series of sensitivity tests representing additional mitigation.

Table 29: Maximum v/c values A58

Junction	2017 Base Year		2033 DM		2033 DS1	
	AM	PM	AM	PM	AM	PM
St Helens Road/Burrows Lane	100	101	99	95	101	99
St Helens Road/Portico Lane	93	94	100	98	100	100
Prescot Road/Lugsmore Lane	50	54	62	52	72	56
Prescot Road/Dunriding Lane	43	47	50	53	54	56
Prescot Road/Boundary Lane/Borough Road	24	42	26	32	26	33
Prescot Road/Eccleston Street/Borough Road	49	88	68	88	76	89
A58 Linkway (Asda)	97	83	100	90	100	94

Impact of Potential Mitigation (2033 DS2a, 2b, 2 and 2c)

- 7.8.8. As described in the previous chapter, further forecasts have been run to assess the impact of various potential mitigation measures on the junctions along the A58 corridor.



7.8.9. Table 30 summarises the maximum forecast v/c values at each junction.

Table 30: Maximum v/c values A58

Junction	2033 DM		2033 DS1		2033 DS2a		2033 DS2b		2033 DS2		2033 DS2c	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
St Helens Road/Burrows Lane	99	95	101	99	100	98	99	99	99	98	100	97
St Helens Road/Portico Lane	100	98	100	100	100	98	99	97	97	96	99	99
Prescot Road/Lugsmore Lane	62	52	72	56	70	55	65	56	63	55	64	57
Prescot Road/Dunriding Lane	50	53	54	56	52	55	54	57	52	56	55	58
Prescot Road/Boundary Lane/Borough Road	26	32	26	33	26	31	27	33	27	32	27	33
Prescot Road/Eccleston Street/Borough Road	68	88	76	89	69	88	71	89	69	88	71	89
A58 Linkway (Asda)	100	90	100	94	100	91	100	89	100	86	100	86

Summary of Impact: A58

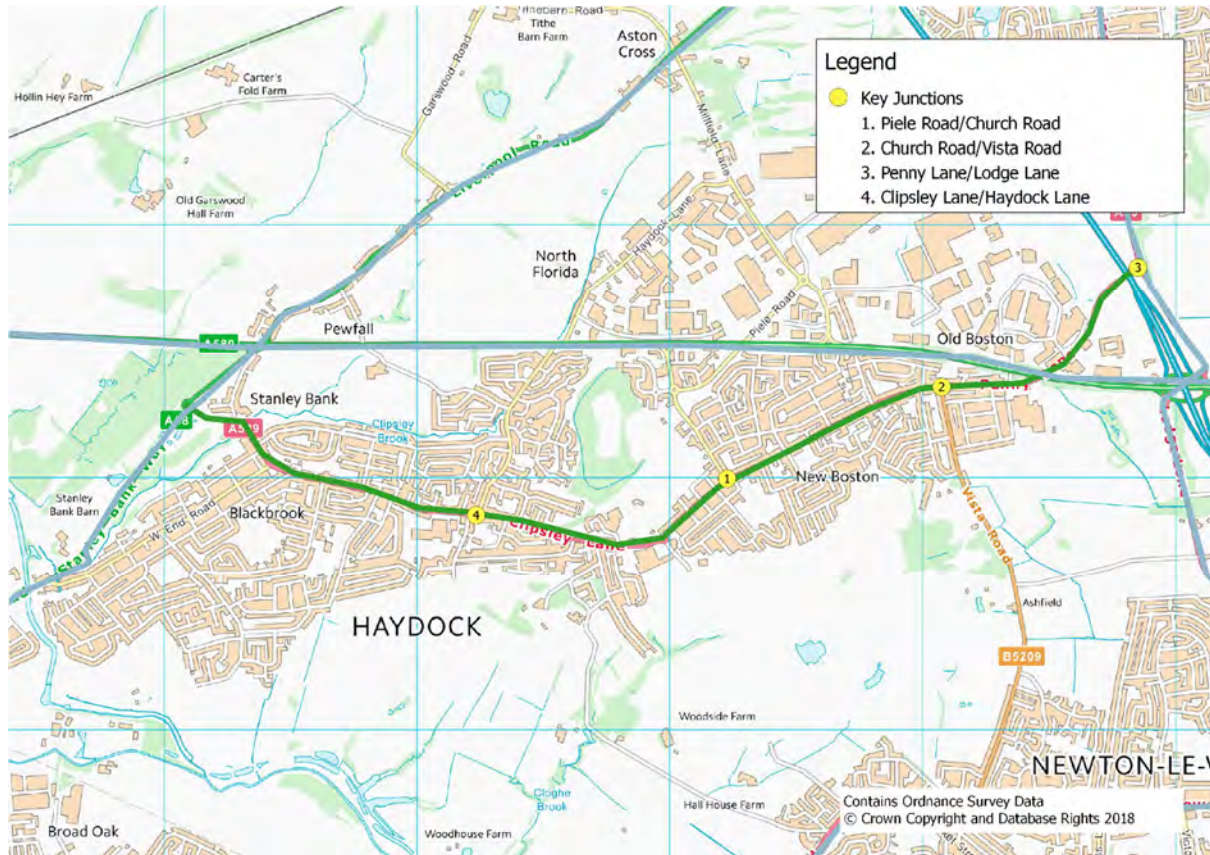
The forecast operation of junctions on this corridor under DS2 is generally similar to or slightly better than that under the DM, demonstrating that the committed and assumed highway improvements largely mitigate for the impact of the increased traffic due to the LPPO Sites.

7.9 A599 CLIPSLEY LANE/CHURCH ROAD

Current Conditions

- 7.9.1. The A599 forms an alternative approach route to St Helens from the north east and Ashton in Makerfield, from a junction with the A49 Lodge Lane close to M6 J23, running beneath the A580 East Lancashire Road without a direct connection, then through industrial areas in New Boston and Haydock before joining the A58 radial route.
- 7.9.2. It is a single carriageway route with a 40mph speed limit from the A49, reducing to 30mph as it reaches the industrial estate. It passes through industrial areas and residential areas with significant frontage activity including bus stops and on street parking.
- 7.9.3. It has at grade junctions with more significant roads as follows:
 - A49 Lodge Lane (currently a priority T-junction with a committed safety/capacity scheme to be upgraded to signal control)
 - Vista Road (mini roundabout)
 - Piele Road (traffic signals)
 - Haydock Lane (traffic signals)

Figure 41: A599 Corridor



7.9.4. Whilst the base year traffic model indicates that there are some delays along the route during peak periods, the key junctions operate within practical capacity, as shown Table 31, which indicate maximum v/c percentages are below 85-90%.

Table 31: Maximum v/c values A599

Junction	2017 Base Year		2033 DM		2033 DS1	
	AM	PM	AM	PM	AM	PM
Piele Rd/Church Rd	33	31	73	35	88	46
Church Rd/Vista Rd	28	40	64	42	79	51
Penny Lane/Lodge Lane	76	77	92	84	91	84
Clipsley Lane/Haydock Lane	35	37	60	44	59	44

Future Conditions (2033 DM)

7.9.5. The Table 32 provides a summary of the highest forecast v/c ratio on each of the key junctions for the DM. The traffic growth associated with the committed developments and SHLAA sites causes the forecast maximum v/c percentages to increase at the junctions with Church Road and Vista Road, although they both remain within practical capacity.

7.9.6. The junction with Lodge Lane is forecast to slightly exceed practical capacity during the AM peak period.

Impact of LPPO Sites (2033 DS1)

- 7.9.7. It can be seen from Table 32 below that forecast junction operation is generally similar to that for the Do Minimum scenario at the majority of junctions. The highest increase in forecast v/c values are at Church Road and Vista Road, but it is noted that these junctions remain within practical capacity. This junction is proposed and thus final design and signal timings were not available at the time of writing.
- 7.9.8. As in the DM scenario, the junction with Lodge Lane is forecast to slightly exceed practical capacity during the AM peak period. Therefore, additional consideration has been given to the likely performance of this junction under a series of sensitivity tests representing additional mitigation.

Impact of Potential Mitigation (2033 DS2a, 2b, 2 and 2c)

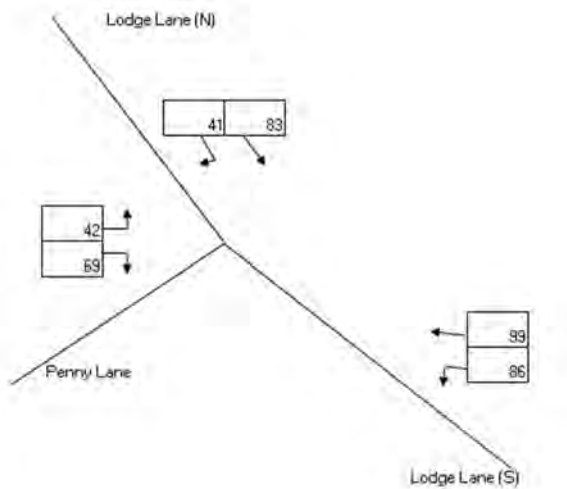
- 7.9.9. Table 32 summarises the maximum forecast v/c values at each junction. It can be seen that the forecast operation of the Vista Road and Haydock Lane junctions under DS2 is generally similar to, or slightly better than that under the DM. The maximum v/c increase is at Church Road, but the junction remains within practical capacity. Therefore, the committed and assumed highway improvements are likely to largely mitigate for the impact of increased traffic due to the Local Plan allocations.

Table 32: Maximum v/c values A599

Junction	2033 DM		2033 DS1		2033 DS2a		2033 DS2b		2033 DS		2033 DS2c	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Piele Rd/Church Rd	73	35	88	46	85	44	91	43	87	42	86	46
Church Rd/Vista Rd	64	42	79	51	76	49	49	53	46	51	69	54
Penny Lane/Lodge Lane	92	84	91	84	91	83	99	91	99	92	101	102
Clipsley Lane/Haydock Lane	60	44	59	44	58	44	59	44	57	44	63	51

- 7.9.10. The exception to this is the junction at Lodge Lane/Penny Lane. A more detailed review of the forecast operation of this junction indicates that the assumed signal staging and timings are not optimal. Specifically, the v/c values for the western and northern arms of the junction are very low compared with those on the southern arm.
- 7.9.11. It is anticipated that an update to the signal staging and timings would result in an acceptable forecast level of performance. However, the timescales for production of this Transport Assessment have precluded a more detailed investigation of this issue at the time of writing.
- 7.9.12. Therefore, it is proposed to review the operation of this junction, in order to draw a more robust conclusion on the operation of this junction.

Figure 42: v/c values Penny Lane/Lodge Lane



Summary of Impact: A599

The committed and assumed highway improvements are likely to largely mitigate for the impact of increased traffic due to the LPPO Sites.

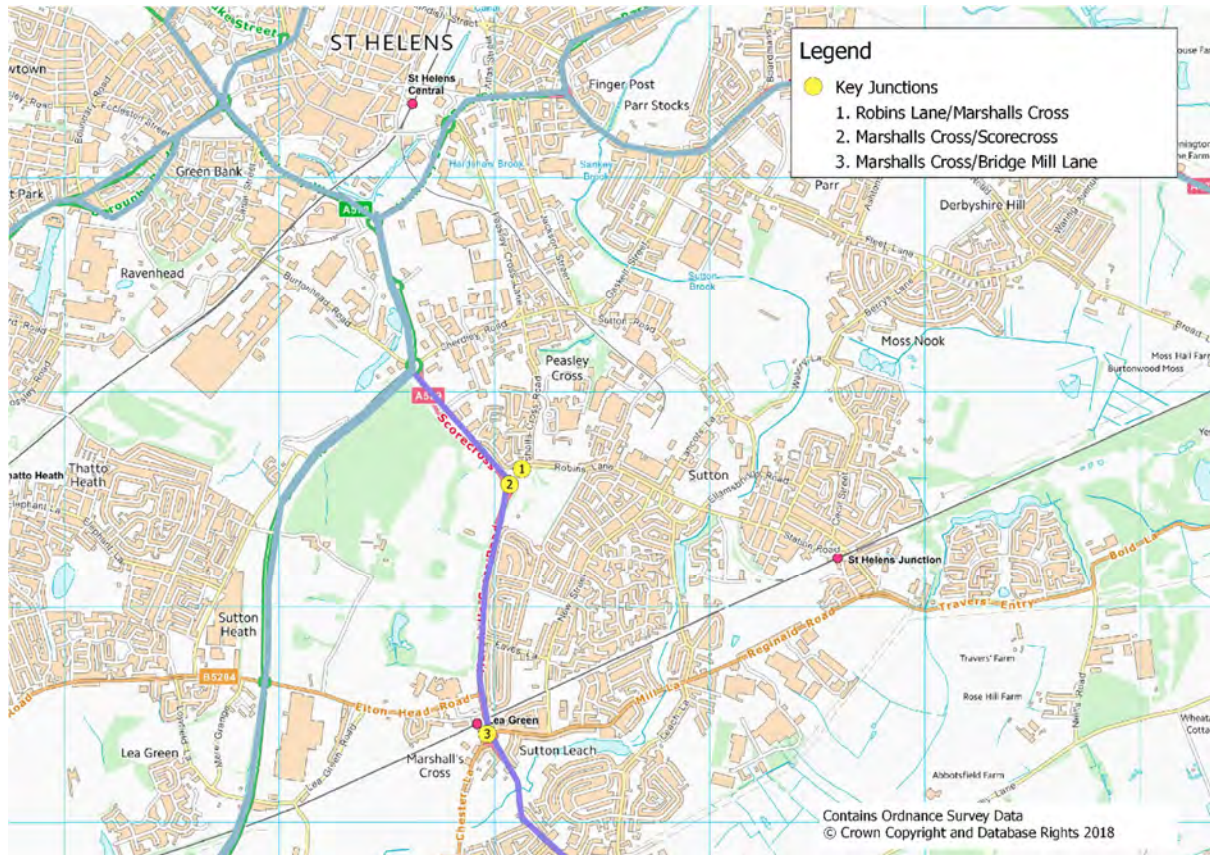
The exception to this is the junction at Lodge Lane/Penny Lane. Therefore it is proposed that a review be undertaken, in order to draw a more robust conclusion on the operation of this junction.

7.10 A569 MARSHALLS CROSS ROAD

Current Conditions

- 7.10.1. The A569 forms an alternative approach route to St Helens from the south, from a junction with the A57 Warrington Road, running beneath the M62 without a direct connection, then through residential areas of Marshalls Cross and Peasley Cross before joining the A58 Linkway at Sherdley roundabout.
- 7.10.2. To the south of the M62, it is a single carriageway route subject to National Speed Limit (60mph), reducing to 30mph as it reaches the urban boundary. It becomes a dual carriageway between the Mill Lane and Scorecross roundabout junctions then reverts back to a single carriageway to the junction with A58 Linkway.
- 7.10.3. The corridor has at grade junctions with more significant roads as follows:
 - Marshalls Cross Road/Bridge Mill Lane (roundabout)
 - Marshalls Cross Road/ Scorecross (roundabout)
 - Marshalls Cross Road/Robins Lane (mini roundabout)

Figure 43: A569 Corridor



7.10.4. The base year traffic model suggests that whilst there are some delays along the route during peak periods, the key junctions operate within practical capacity, as shown in the base year model results, which indicate maximum v/c percentages below 85-90%.

Future Conditions (2033 DM)

7.10.5. Table 33 also provides a summary of the highest forecast v/c ratio on each of the key junctions for the 2033 DM. The traffic growth associated with the committed developments and SHLAA sites causes the forecast maximum v/c percentages to increase, although all junctions remain well within practical capacity.

Impact of LPPO Sites (2033 DS1)

7.10.6. Finally, it can be seen from Table 33 that the forecast junction operation under DS1 is generally similar to that for the DM scenario, with all junctions remaining well within practical capacity.

Table 33: Maximum v/c values A569

Junction	2033 Base Year		2033 DM		2033 DS1	
	AM	PM	AM	PM	AM	PM
Robins Lane/Marshalls Cross	42	49	61	48	63	55
Marshalls Cross/Scorecross	34	44	41	38	38	42
Marshalls Cross/Bridge Mill Lane	32	31	40	40	48	44

Impact of Potential Mitigation (2033 DS2a, 2b, 2 and 2c)

- 7.10.7. It can be seen that the forecast operation of all junctions under DS2 is generally similar to that under the DM, with all junctions forecast to remain within practical capacity.
- 7.10.8. Therefore, the committed and assumed highway improvements are likely to largely mitigate for the impact of increased traffic due to the Local Plan allocations.

Table 34: Maximum v/c values A569

Junction	2033 DM		2033 DS1		2033 DS2a		2033 DS2b		2033 DS2		2033 DS2c	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Robins Lane/Marshalls Cross	61	48	63	55	61	49	67	49	63	47	64	47
Marshalls Cross/Scorecross	41	38	38	42	38	40	44	40	45	39	43	40
Marshalls Cross/Bridge Mill Lane	40	40	48	44	46	43	52	47	50	46	49	46

Summary of Impact: A569

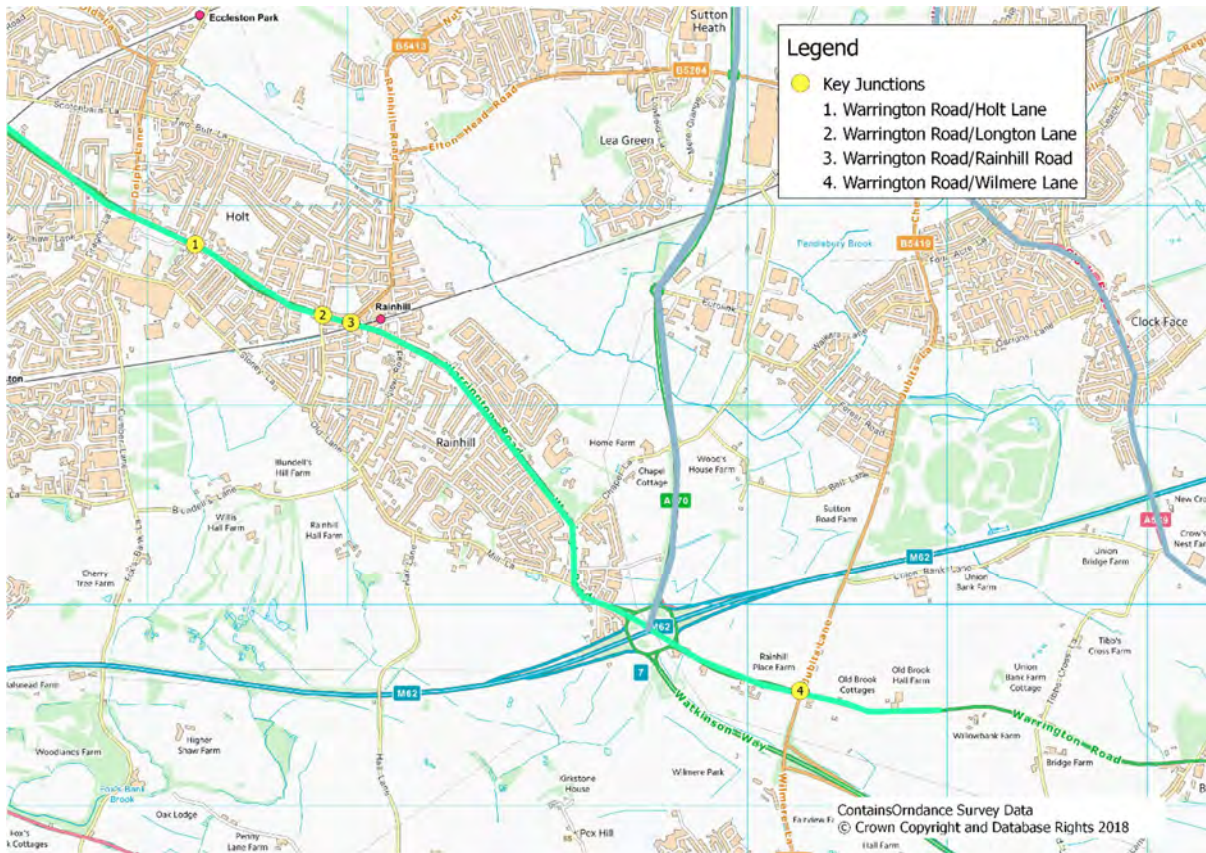
The committed and assumed highway improvements are likely to largely mitigate for the impact of increased traffic due to the LPPO Sites.

7.11 A57 WARRINGTON ROAD

Current Conditions

- 7.11.1. The A57 forms the route from Warrington to destinations in the north and west including Rainhill and Prescot. It passes through Great Sankey and Bold Heath to the west of Warrington and joins the M62 at Junction 7 at large signalised roundabout.
- 7.11.2. It is a single carriageway route with a 50mph speed limit through rural sections, reducing to 30mph as it passes through residential areas.
- 7.11.3. It has at grade junctions with more significant roads as follows:
- Wilmere Lane/Jubits Lane (traffic signals)
 - Rainhill Road (traffic signals)
 - Longton Lane (traffic signals)
 - Holt Lane (traffic signals)

Figure 44: A57 Corridor



As evidenced from the base year traffic model, whilst there are some delays along the route during peak periods, particularly through Rainhill, most of the key junctions operate within practical capacity. The exception to this being the Rainhill Road junction during the morning peak hour and the Wilmere Lane junction during the evening peak hour, which both have maximum v/c values between 90% and 100% indicating that these junctions are approaching absolute capacity during these periods.

- 7.11.4. Table 35 below provides a summary of the highest forecast v/c ratio on each of the key junctions for the DM. The forecast operation at the Holt Lane, Longton Lane and Rainhill Road junctions remain very similar to that in the base year.
- 7.11.5. The traffic growth associated with the committed developments and SHLAA sites causes the forecast maximum v/c percentages to increase at the Wilmere Lane junction, although this remains within absolute capacity.

Impact of LPPO Sites (2033 DS1)

- 7.11.6. It can be seen from Table 35 below that forecast junction operation is generally similar to that for the Do Minimum scenario, with the Holt Lane and Longton Lane junctions remaining within practical capacity, and the Rainhill Road and Wilmere Lane junctions remaining within absolute capacity.

Table 35: Maximum v/c values A57

Junction	2017 Base Year		2033 DM		2033 DS1	
	AM	PM	AM	PM	AM	PM
Warrington Rd/Holt Lane	53	47	47	48	46	49
Warrington Rd/Longton Lane	37	52	38	51	31	50
Warrington Rd/Rainhill Rd	94	89	93	88	98	95
Warrington Rd/Wilmere Lane	70	93	97	100	100	100

Impact of Potential Mitigation (2033 DS2a, 2b, 2 and 2c)

7.11.7. It can be seen from Table 36 that the forecast operation of all junctions under DS2 is generally similar to, or slightly better than that under the DM. Therefore, the committed and assumed highway improvements are likely to largely mitigate for the impact of increased traffic due to the Local Plan allocations.

Table 36: Maximum v/c values A57

Junction	2033 DM		2033 DS1		2033 DS2a		2033 DS2b		2033 DS2		2033 DS2c	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Warrington Rd/Holt Lane	47	48	46	49	46	48	47	47	46	47	47	47
Warrington Rd/Longton Lane	38	51	31	50	34	50	34	51	36	50	37	51
Warrington Rd/Rainhill Rd	93	88	98	95	97	94	97	89	96	88	96	88
Warrington Rd/Wilmere Lane	97	100	100	100	98	99	97	90	94	88	96	90

Summary of Impact: A57

The committed and assumed highway improvements are likely to largely mitigate for the impact of increased traffic due to the LPPO Sites.

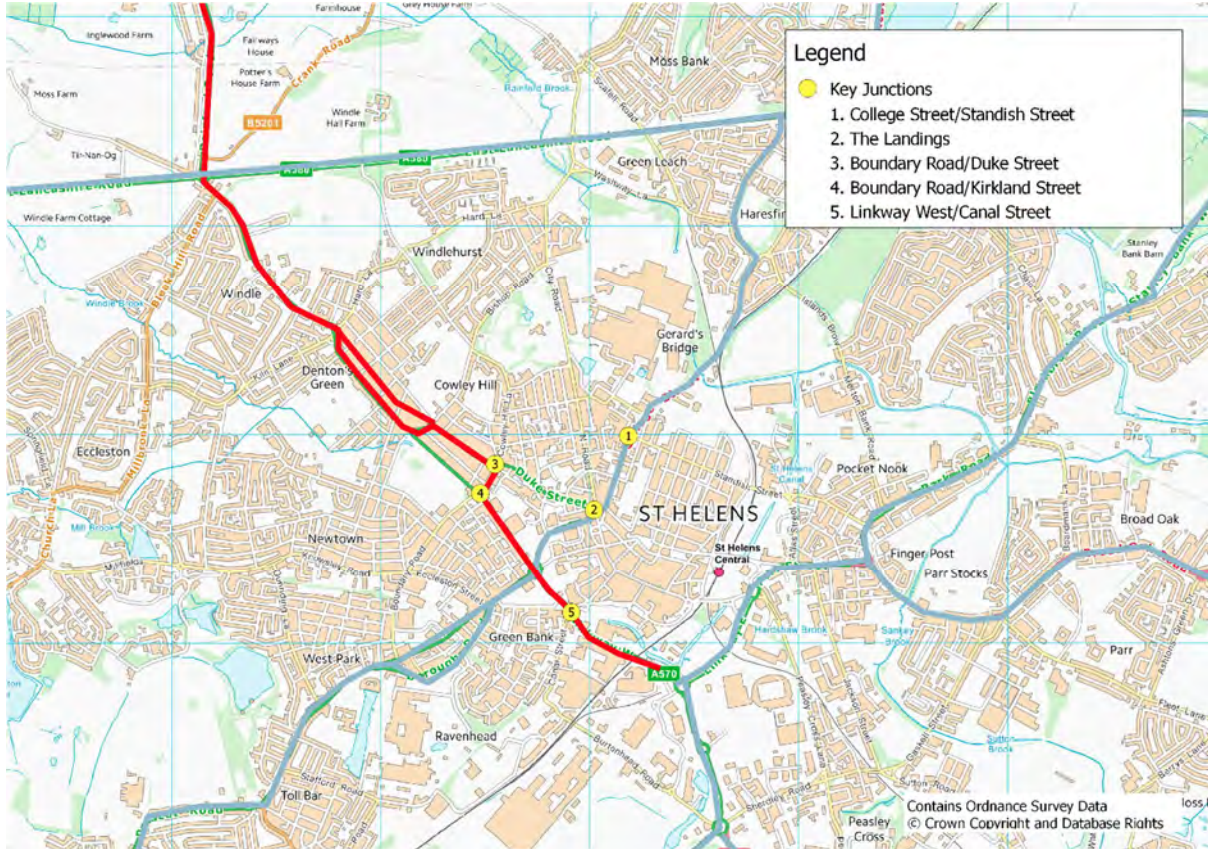
7.12 TOWN CENTRE JUNCTIONS A570, A571 AND A58 LINKWAY

Current Conditions

- 7.12.1. The A58 Linkway and A570 form a partial loop around the east, south and west of the town centre, with key junctions connecting with the main radial routes. The A571 provides access to key destinations in the town centre, including car parks near the Town Hall and main shopping areas.
- 7.12.2. Several of the key junctions on the route have already been reviewed since they also form elements of other assessment corridors. The remaining key junctions considered are therefore:

- A571 College Street/Standish Street (traffic signals)
- The Landings (roundabout)
- A570 Boundary Road/Duke Street (traffic signals)
- A570 Boundary Road/Kirkland Street (traffic signals)
- Linkway West/Canal Street/Retail Park (traffic signals)

Figure 45: A570/A571 and A58 Corridor



7.12.3. The base year traffic model suggests that there is some queuing and delay during peak periods at these junctions, although most operate well within practical capacity. The exception is the traffic signal junction at Linkway/Canal Street, with forecast v/c values between 90 and 100%.

Future Conditions (2033 DM)

- 7.12.4. Table 37 provides a summary of the highest forecast v/c ratio on each of the key junctions for the DM.
- 7.12.5. The forecast maximum v/c values remain very similar to those in the Base Year, with most junctions forecast to operate within practical capacity. The forecast maximum v/c at the Canal Street junction increases, with the junction forecast to operate at around absolute capacity.

Impact of LPPO Sites (2033 DS1)

- 7.12.6. It can be seen from Table 37 that forecast junction operation is generally similar to that for the Do Minimum scenario, with most junctions remaining within practical capacity and the Canal Street junction forecast to operate at around absolute capacity.

Table 37: Maximum v/c values Town Centre

Junction	2017 Base Year		2033 DM		2033 DS1	
	AM	PM	AM	PM	AM	PM
College Street/Standish Street	59	77	63	67	66	70
The Landings	58	59	59	67	64	68
Boundary Road/Duke Street	42	38	44	30	45	31
Boundary Road/Kirkland Street	15	23	20	25	20	25
Linkway West/Canal Street	98	90	97	102	97	103

Impact of Potential Mitigation (2033 DS2a, 2b, 2 and 2c)

7.12.7. It can be seen from Table 38 below that the forecast operation of all junctions under DS2 is generally similar to, or slightly better than that under the DM. Therefore, the committed and assumed highway improvements are likely to largely mitigate for the impact of increased traffic due to the Local Plan allocations.

Table 38: Maximum v/c values Town Centre

Junction	2033 DM		2033 DS1		2033 DS2a		2033 DS2b		2033 DS2		2033 DS2c	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
College Street/Standish Street	63	67	66	70	64	67	67	70	67	67	65	63
The Landings	59	67	64	68	60	68	68	70	64	69	69	77
Boundary Road/Duke Street	44	30	45	31	44	30	46	31	45	31	45	29
Boundary Road/Kirkland Street	20	25	20	25	20	24	20	25	20	25	21	27
Linkway West/Canal Street	97	102	97	103	97	102	97	102	96	101	96	101

Summary of Impact: Town Centre

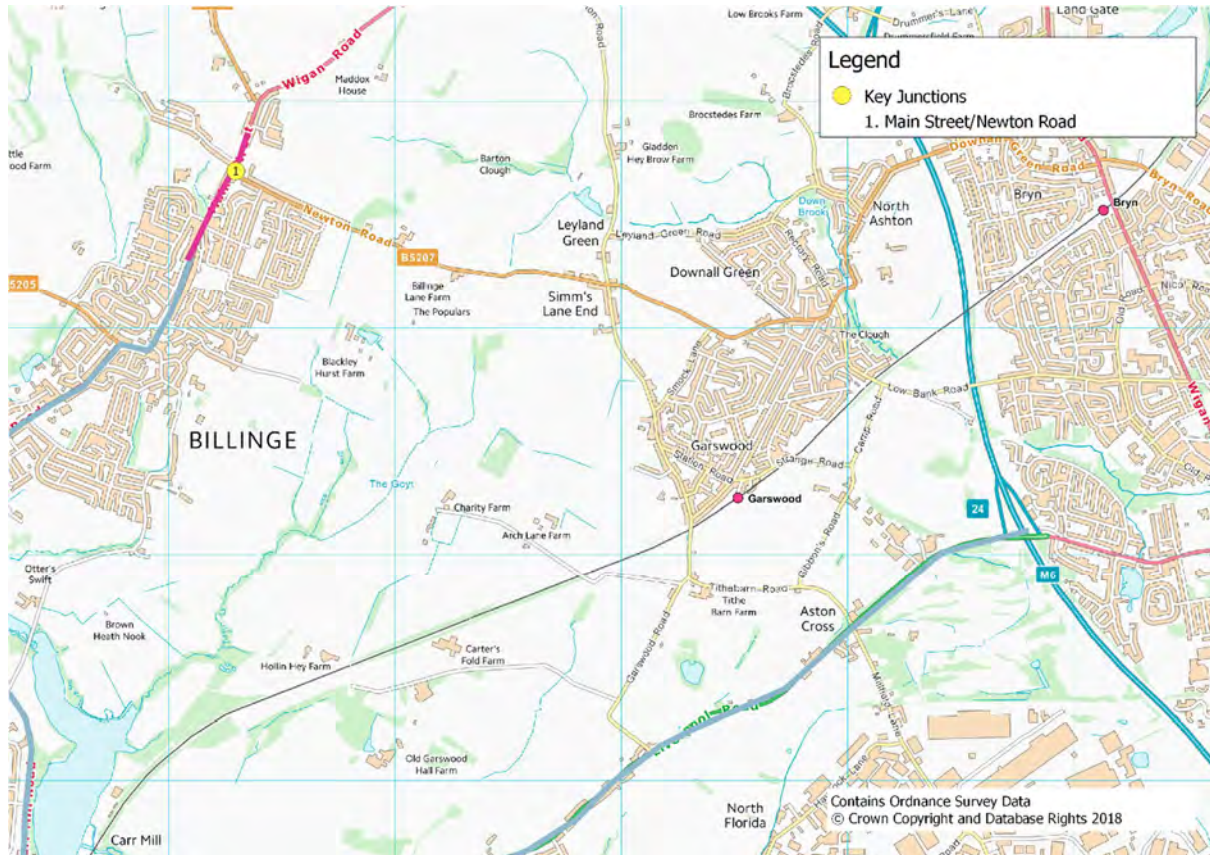
The committed and assumed highway improvements are likely to largely mitigate for the impact of increased traffic due to the LPPO Sites.

7.13 MAIN STREET/NEWTON ROAD

Current Conditions

7.13.1. This is the main junction in Billinge to the north of St Helens, where the A571 meets the B5207 at a signalised junction. Whilst there are some delays along the route during peak periods, the base year model indicates that the junction operates comfortably within practical capacity.

Figure 46: Main Street/Newton Road



Future Conditions (2033 DM)

7.13.2. The traffic growth associated with the committed developments and SHLAA sites causes the forecast maximum v/c percentages to increase, although the junction remains within absolute capacity.

Impact of LPPO Sites (2033 DS1)

7.13.3. The traffic associated with the Local Plan sites is forecast to increase the maximum v/c, particularly during the evening peak period, although the junction remains within practical capacity, with a maximum v/c below 90% as shown in Table 39.

Table 39: Maximum v/c values Main Street/Newton Road

Junction	2017 Base Year		2033 DM		2033 DS1	
	AM	PM	AM	PM	AM	PM
Main Street/Newton Road	34	37	41	69	46	85

Impact of Potential Mitigation (2033 DS2a, 2b, 2 and 2c)

7.13.4. It can be seen in Table 40 that the forecast operation of all junctions under DS2 is generally similar to that under the DM during the morning peak. During the evening peak, the forecast maximum v/c value increases, although the junction remains within practical capacity. Therefore, the committed and assumed highway improvements are likely to largely mitigate for the impact of increased traffic due to the Local Plan allocations.

Table 40: Maximum v/c values Main Street/Newton Road

Junction	2033 DM		2033 DS1		2033 DS2a		2033 DS2b		2033 DS2		2033 DS2c	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Main St/Newton Rd	41	69	46	85	45	81	44	77	42	78	42	70

Summary of Impact: Main Street/Newton Road

The committed and assumed highway improvements are likely to largely mitigate for the impact of increased traffic due to the LPPO Sites.

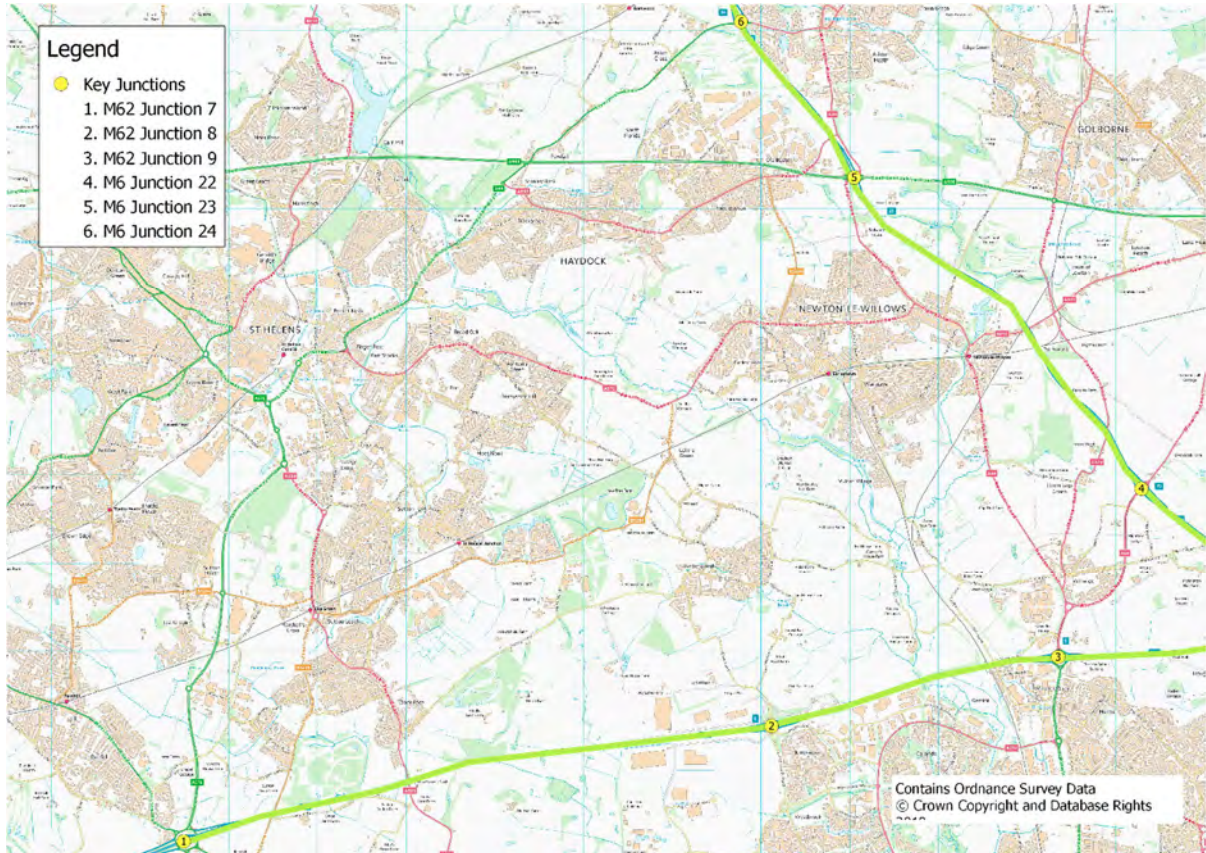
7.14 STRATEGIC ROAD NETWORK

Current Conditions

7.14.1. The town of St Helens is bounded by roads comprising of St Helens Key Route Network and Highways England's Strategic Road Network (SRN):

- The M62 runs east-west to the south of the town centre, and is an important regional corridor connecting England's east and west coast. In the study area, it has three continuous running lanes in each direction and major grade separated junctions with the M57 (Tarbock island) and M6 (Croft Interchange).
- The M6 runs north-south to the east of the town centre and is the main western north-south route in the UK, linking London with Scotland.
- The M57 runs north south to the west of the town, from the M62 to the M58, providing access into the Liverpool urban area.
- The A580 East Lancashire Road, part of the KRN, runs east-west to the north of the town, as described in section 7.4 above.
- Key junctions which have been considered within this TIA are:
 - M62 Junction 7 (Linkway/A557)
 - M62 Junction 8 (Burtonwood Road)
 - M62 Junction 9 (A49)
 - M6 Junction 22 (A49)
 - M6 Junction 23 (A580 East Lancashire Road)
 - M6 Junction 24 (A58 Liverpool Road)

Figure 47: Strategic Road Corridor



7.14.2. It is understood that Highways England have several committed schemes on the SRN in this area, and these have therefore been included in the Do Minimum scenario and are described in more detail in Chapter 6.

- M62 Smart Motorway Improvements
- M6 Smart Motorway Improvements
- M6 Junction 22 capacity improvements

7.14.3. Currently, as evidenced from the base year traffic model, most of the junctions experience significant queues and delays during peak periods, as does the M6 mainline. The exception to this is Junction 22, which is shown to operate within practical capacity. This is reflected in the forecast maximum v/c percentages in Table 41 below.

Future Conditions (2033 DM)

7.14.4. Table 41 below provides a summary of the highest forecast v/c ratio on each of the key junctions for the DM. M62 J7, M62 J9, M6 J23 and M6 J24 are forecast to operate at a similar level as in the base year. M62 J8 is forecast to experience increases in maximum v/c percentages which bring its level of operation above absolute capacity. M6 J22 is forecast to exceed practical capacity, although remain within absolute capacity.

Impact of LPPO Sites (2033 DS1)

- 7.14.5. It can be seen from Table 41 below that forecast junction operation along the SRN is generally similar to that for the Do Minimum scenario at the majority of junctions, with the highest v/c values increasing by up to around 2 percentage points.
- 7.14.6. At M6 J23 the forecast increase in v/c is greater during the morning peak and at M6 J24 it is greater during the evening peak.
- 7.14.7. Therefore, additional consideration has been given to the likely performance of these junctions under a series of sensitivity tests representing additional mitigation. Of particular significance to the SRN, the DS forecasts include potential mitigation schemes at M6 J23, M62 J7 and Parkside Link Road.

Table 41: Maximum v/c values SRN

Junction	2017 Base Year		2033 DM		2033 DS1	
	AM	PM	AM	PM	AM	PM
M62 Junction 7	96	96	100	100	102	101
M62 Junction 8	88	91	113	107	114	107
M62 Junction 9	100	100	103	98	103	100
M6 Junction 22	72	76	98	97	99	99
M6 Junction 23	100	100	107	106	115	109
M6 Junction 24	103	75	106	78	109	92

Impact of Potential Mitigation (2033 DS2a, 2b, 2 and 2c)

- 7.14.8. As described in the previous chapter, further forecasts have been run to assess the impact of various potential mitigation measures on the junctions on the SRN. Table 42 summarises the maximum forecast v/c values at each junction.

Table 42: Maximum v/c values SRN

Junction	2033 DM		2033 DS1		2033 DS2a		2033 DS2b		2033 DS2		2033 DS2c	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
M62 Junction 7	100	100	102	101	102	101	100	102	100	102	100	102
M62 Junction 8	113	107	114	107	114	107	113	107	113	107	113	106
M62 Junction 9	103	98	103	100	103	99	103	99	103	99	103	99
M6 Junction 22	98	97	99	99	99	98	99	98	98	97	98	98
M6 Junction 23	107	106	115	109	114	108	104	91	103	90	103	93
M6 Junction 24	106	78	109	92	109	90	106	85	106	84	106	84

Summary of Impact: SRN

The forecast operation of junctions on the SRN in the study area under DS2 is generally similar to, or slightly better than that under the DM, demonstrating that the committed and assumed highway improvements are likely to largely mitigate for the impact of increased traffic due to the LPPO Sites.

7.15 CONCLUSIONS

- 7.15.1. The current and future levels of highway network operation across the area of interest have been forecast using the recently developed St Helens SATURN Model (SHSM). In addition to reviewing the area wide impacts, more detailed consideration has been given to the main corridors and 59 key junctions on the local, key and strategic route network.
- 7.15.2. The methodology and scope of this highway impact assessment has been agreed through ongoing liaison with key stakeholders including St Helens Council, Highways England, neighbour authorities and Merseytravel.

In common with most urban areas across the UK, the highway network in and around St Helens currently experiences congestion, queues and delays during weekday peak periods. The impact of traffic growth (14%-16%) from committed developments and SHLAA sites, combined with ongoing general background traffic growth is forecast to worsen the level of operation at many of the key junctions during peak periods – although it is likely that this will be somewhat mitigated by the introduction of committed highway schemes.

The additional traffic growth (in the region of 14-16%) associated with traffic from the Local Plan Sites is also forecast to worsen the level of operation at some locations. However, the forecast models indicate that the impact can be substantially mitigated by a combination of committed and emerging future highway infrastructure projects, modest changes in travel behaviour and lower cost improvements across key junctions.

Based on the analysis presented in this Chapter, It is recommended that further consideration be given to the forecast operation of the following junctions and corridors:

- M6 Junction 23 (currently the subject of a joint study recently commissioned by SHC and HE)
- A580 Haydock Lane (in liaison with developers, undertake review of signal timings to ensure that the committed scheme can accommodate future growth from sites EA7, EA2 and HA3)
- A580 corridor study (including consideration of reduction in speed limit along the route)
- Church Road/Southworth Road (undertake a review of signal timings)
- Liverpool Road/Millfield Lane
- Sherdley Roundabout (currently the subject of a study recently commissioned by SHC)
- M62 Junction 7 (currently subject to a study by HE)
- M62 Junction 8
- Penny Lane/Lodge Lane (undertake a review of signal timings)

8

GLOSSARY



8 GLOSSARY

Abbreviation	Name
BBA	Liverpool City Region Better Bus Area project
BY	Base Year
CCT	Cycling City and Towns Programme
CDT	Cycling Demonstration Towns
CIHT	Chartered Institute of Highways and Transportation
CS	Core Strategy
DfT	Department for Transport
DM	Do Minimum
DOS	Degree of Saturation
DP	Delivery Plan
DPD	Development Plan Document
DS	Do Something
FQP	Freight Quality Partnership
GIS	Geographical Information System
GM	Greater Manchester
GMSF	Greater Manchester Spatial Framework
GP	General Practitioner
GV	Goods Vehicle
GVA	Gross Value Added
ha	Hectares
HE	Highways England
IMD	Index of Multiple Deprivation
J2W/JTW	Journey to Work
KRN	Key Road Network
LAD	Local Authority District
LCR	Liverpool City Region
LCRCA	Liverpool City Region Combined Authority
LCRTM	Liverpool City Region Transport Model
LCWIP	Local Cycling and Walking Infrastructure Plan



LEP	Local Enterprise Partnership
LSOA	Lower Layer Super Output Area
LSTF	Sustainable Transport Fund
LTP	Local Transport Plan
MaaS	Mobility as a Service
MCA	Mayoral Combined Authority
MCC	Manual Classified Count
MfS	Manual for Streets
MOVA	Microprocessor Optimised Vehicle Automation
MSOA	Middle Layer Super Output Area
NMU	Non-Motorised Users
NPPF	National Planning Policy Framework
NTEM	National Trip End Model
OA	2011 Census Output Area
OGV	Other Goods Vehicles
PRN	Primary Route Network
RFC	Ratio of Flow to Capacity
SATURN	Simulation and Assignment of Traffic in Urban Road Networks
SEP	Strategic Economic Plan
SHBC	St Helen's Business Case
SHC	St Helens Council
SHLAA	Strategic Housing Land Availability Assessment
SHSM	St Helens SATURN Model
SIF	Single Investment fund
SPD	Supplementary Planning Documents
SRFI	Strategic Rail Freight Interchange
SRN	Strategic Road Network
STEP	Sustainable Transport Enhancements Package
SWOT	Strategic planning technique used to help a person or organization identify the Strengths, Weaknesses, Opportunities, and Threats
TA	Transport Assessment
TAG	Transport Appraisal Guidance
TEMPro	Trip End Model Programming Software
TfL	Transport for London
TfN	Transport for the North



TIA	Transport Impact Assessment
TOCs	Train Operating Companies
TRICS	Trip Rate Information Computer System
UDP	Unitary Development Plan
WGA	Whole of Government Accounts



Name	Description
2011 Census Output Area (OA)	
Average Delay	The average transient delays and V>C queuing delays (but excludes any link-based delay from link speed-flow curves).
Average Queue	The sum of the average transient queues and the average V>C queues as summed over all turning movements and all lanes.
Average Speed	The ratio of total distance covered over the total travel time.
Chartered Institute of Highways and Transportation (CIHT)	Transportation professional institution.
Core Accessibility Indicator	Measures of accessibility by public transport/walking, cycling and car to eight service types; primary schools, secondary schools, FE colleges, GPs, hospitals, food stores, town centres and employment centres.
Core Strategy (CS)	A delivery plan document (DPD) that sets out the vision, spatial strategy and core policies for the spatial development of a Borough.
Corridors	
Cycling City and Towns Programme (CCT)	
Cycling Demonstration Towns (CDT)	
Degree of Saturation (DoS)	Is a ratio of demand to capacity on each approach to the junction where road demand is measured against the links total capacity.
Delivery Plan (DP)	A framework for development and land use decisions in the Borough.
Department for Transport (DfT)	
Development Plan Document (DPD)	A document part of the statutory development plan.
Do Minimum (DM)	Developments allocated/identified as having planning permission and/or are under construction.
Do Something (DS)	Developments allocated/identified as not having planning permission, but forecast to be a site for future development.
Freight Quality Partnership (FPQ)	A partnership between transport operators and local authorities to deal with matters of freight access and deliveries in a particular location
Geographical Information System (GIS)	A data management system designed to capture, store, retrieve, analyse and report geographic information.
Greater Manchester Spatial Framework (GMSF)	The Greater Manchester Spatial Framework is a joint plan for Greater Manchester that will provide the land for jobs and new homes across the city region.
Green Belt	The designation of land to be retained from development for areas of largely undeveloped, wild, or agricultural land surroundings.
Gross Value Added (GVA)	Gross Value Added is a measure of the value of goods and services produced in an area.
Highways England	



Index of Multiple Deprivation (IMD)	The Index of Multiple Deprivation (IMD) is a measure of multiple deprivation at the small area level.
Journey Times	The total time of modelled journeys between known sets of origins and destinations.
Key Road Network (KRN)	
Liverpool City Region (LCR)	Comprising City of Liverpool and local authority districts of Halton, Knowsley, Sefton, Liverpool City Region, St Helens, Wirral, and extends as far as Chester, Ellesmere Port and Neston, Vale Royal and West Lancashire
Liverpool City Region Better Bus Area project (BBA)	
Liverpool City Region Combined Authority (LCRCA)	
Liverpool City Region Transport Model (LCRTM)	
Local Cycling and Walking Infrastructure Plan (LCWIP)	
Local Enterprise Partnership (LEP)	A body, designated by the Secretary of State for Communities and Local Government, established for the purpose of creating or improving the conditions for economic growth in an area.
Local Model Validation Report	
Local Plan	
Local Road Network (LRN)	
Local Transport Plan (LTP)	The strategy for dealing with transport matters in Merseyside, including the improvement of local transport provision
Lower Layer Super Output Area (LSOA)	Official measure of relative deprivation for neighbourhoods.
Manual for Streets (MoS)	This manual provides guidance about the design, construction, adoption and maintenance of new residential streets.
Mayoral Combined Authority (MCA)	
Middle Layer Super Output Area (MSOA)	
Mobility as a Service (MaaS)	
MOVA	A software for single and dual-stream control of traffic signals at isolated junctions
National Planning Policy Framework (NPPF)	
New Mobility 'Culture'	A transport system that provides genuinely sustainable options and supports the continuing regeneration and economic development of city regions.
Non-Motorised Users (NMU)	
Over-capacity Queue	Queues which fail to clear resulting in over capacity of a link.



Primary Route Network (PRN)	
Ratio of Flow to Capacity (V/C)	The ratio of demand flow to capacity also given as Traffic Intensity of a link.
Simulation and Assignment of Traffic in Urban Road Networks (SATURN)	A suite of flexible network analysis program.
Single Investment Fund (SIF)	
St Helen's Business Case (SHBC)	
St Helens SATURN Model	
Strategic Economic Plan (SEP)	
Strategic Employment sites	Employment sites allocated as sites of significant size in the St Helens Local Plan Strategy.
Strategic Housing Land Availability Assessment (SHLAA)	A key evidence base document and establishes realistic assumptions about the availability, suitability and the likely economic viability of land to meet the identified housing need for housing over the plan period.
Strategic Housing Site Allocations	Land that has been safeguarded or allocated for future housing according to the St Helens Local Plan commitments.
Strategic Rail Freight Interchange (SRFI)	
Strategic Road Network (SRN)	Roads across the borough essential to free and safe movement of traffic throughout the region.
Supplementary Planning Documents (SPD)	Material consideration in determining planning applications but do not have the weight of development plan status.
Sustainable Transport Enhancements Package (STEP)	An integrated programme of investment in sustainable transport in the Liverpool City Region.
Sustainable Transport Fund (STF)	
Total Travel Time	Total time all vehicles take to travel through the simulation network (in hours).
Traccs Basemap Analysis	A multi modal travel time analysis tool.
Train Operating Companies (TOC)	
Transient Queue	Total time all vehicles spend queuing (in hours).
Transport Appraisal Guidance (TAG)	A guidance that provides information on the role of transport modelling and appraisal.
Transport Assessment (TA)	A Transport Assessment provides detailed information on a range of transport conditions before, during and following the construction of a proposed development.
Transport for London (TfL)	A local government body responsible for the transport system in Greater London.
Transport for the North (TfN)	A local government body responsible for the transport system in Northern England.



Transport Impact Assessment (TIA)	Assessment of the impacts of development on the transport network and identify reasonable solutions, applicable to the study region, to address the impacts.
Travel Distance	The total distance travelled.
TRICS	A database of trip rates for developments used in the United Kingdom for transport planning purposes
Unitary Development Plan (UDP)	Planning policy document under previous legislation.
V/C	Ratio of flow volume to capacity of a given link.
WebTAG	Online guidance documents on transport appraisal.
Whole of Government Accounts (WGA)	
Windfall sites	Sites which have not been specifically identified as available in the Local Plan process.

Appendix A: New Mobility Now





Appendix A is provided as a separate document

Appendix B: Highway Scheme Technical Notes



TECHNICAL NOTE

Project:	St Helens Local Plan TIA	Date:	16 th April 2018
		TN Ref:	A
Subject:	Highway Schemes included in the traffic modelling		
Author:	Nick Green	Project Ref:	70038483

INTRODUCTION

This technical note sets out the schemes included in the forecast SATURN highway assignment models developed for the traffic impact assessment of St Helens Local Plan.

DO MINIMUM

The following schemes were included in the Do Minimum model, with the agreement of St Helens Council and Highways England for improvements to the local and strategic network respectively.

LOCAL ROAD NETWORK:

- A580/Haydock Lane

The proposed scheme is the addition of a 40M ICD roundabout on land to the west of Haydock Lane and north of East Lancashire road. The local highway scheme change is a proposed priority junction connecting the roundabout to Haydock Lane north arm with restricted left turns only. The scheme connects East Lancashire road eastbound link with the roundabout and proposed controlled pedestrian crossing will be allocated at the junction along with pedestrian crossings at Haydock Lane south arm and across East Lancashire Road/A580 parallel to traffic. The westbound link will be widened to allow for a proposed right turn lane for site access.

- A580/A58

As part of the A580 Enhancement programme, the scheme includes carriageway improvements with new crossing points for pedestrians and cyclists across the A580 as well as junction improvements at Haydock Industrial Estate to enable right turns. The new crossing points for pedestrians and cyclists are proposed to be located across the A580 eastbound and westbound directions and along the Stanley Bank Way junction.

- Elton Head Road/A570 St Helens Linkway

This scheme includes junction capacity and safety improvements changes to the junction and lower speed limits on the connecting Linkway. The scheme is proposed to lower speed limits from 70 mph to 50 mph and pedestrian crossings at key intersections for cyclists. The scheme includes changes to the current junction from a roundabout to a cross junction with an off slip from St Helens Linkway to Elton Head Road on eastbound and westbound routes. New signal control locations and pedestrian crossings are to be determined as part of the safety improvements at the new junction.

- Sutton Road/Jackson Street

This scheme includes the widening of Sutton Road west arm, from a one lane approach to two lane approach arm with an allocated right turn lane. For the junction capacity and safety improvements upgrade, the scheme will include new traffic signalling for the safety and junction capacity improvements.

- Sutton Road/Watery Lane

The scheme improvements include connecting Watery Lane and Sutton Road roundabout via a spine road. The scheme includes an additional north arm at Sutton Road roundabout connecting the new highway with the existing road network. A three arm roundabout is proposed at Watery , with two adjoining roundabouts and pedestrian refuge points.

- Windle Island

As part of the A580 Enhancement programme, the scheme includes relocating the Crank road junction to further north along Rainford road in close proximity to the Golf club. The junction relocation includes making improvements to reduce the build-up of traffic at Windle Island.

- Penny Lane/Lodge Lane

This scheme includes junction capacity and safety improvements at the junction to accommodate abnormal loads (6-axle trailer) turning left and right in and out of Penny Lane. The proposed scheme includes a new off slip allocated lane for left turners at Lodge Lane south arm onto Penny Lane. At the new signalised junction a new pedestrian island will be included perpendicular to traffic for car flows along Lodge Lane westbound and eastbound movement at Penny Lane approach.

STRATEGIC ROAD NETWORK:

- M62 Smart Motorway Improvements – M62 J10 – J12. This scheme includes the upgrading of the hard shoulder running and improvements to the highway capacity. The scheme links with the M60 smart motorway schemes to the east and M6 schemes to the west.

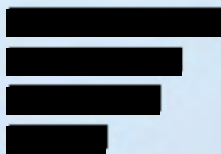
<https://www.gov.uk/government/news/major-roads-investment-in-the-north-west>

- M6 Smart Motorway Improvements – M6 J21A-26

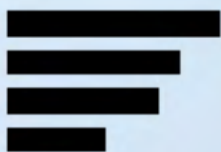
This scheme includes the widening of the carriageway with three lanes all the way through to Manchester. The improvements include four lane running junctions from the junctions 21a to 26, with new RCTTM signs and gantries along the route.

- Junction 22 Capacity Improvements – assumed widening of circulatory carriageway by one further lane

This scheme is to upgrade and improve junction capacity including widening the gyratory by adding an additional lane to the carriageway.



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Appendix A: New Mobility Now





New Mobility Now

A Practical Guide

Foreword

“New Mobility”, the bundle of transport, technology and mobility changes that will become the bedrock of future transport systems, is already transforming the way we move around, live and interact with each other.

The opportunity offered by New Mobility is significant and highly valuable, particularly to city and area leaders, place-makers, transport network owners, mobility and technology providers.

The major challenge is that multiple changes are in motion and a range of outcomes are possible. Each city, suburb and rural area is entirely distinct; each one has a unique starting point and specific needs. But all have one thing in common: potential.

It is time for a new focus on the “now” of New Mobility.

In our view, there is consensus around the long-run outcomes and benefits offered by New Mobility for all types of places and routes, from land value uplift to safety, and from cleaner air to network efficiency.

This White Paper shares our thinking about how to make sense of New Mobility changes, across a range of contexts, to form a practical plan of action. We are passionate about finding ways to help you make the most of New Mobility Now.

Those who engage early and with a clear plan will benefit most.

To help with this, we have created a structured approach based around four distinct strands of New Mobility change and one key enabler. These are all in motion, now, across the world, and they each bring distinct benefits and opportunities:

- Progress towards vehicle **automation** (including driverless vehicles)
- Distinct from this, the evolution towards **connected** vehicles, transport systems and networks
- Increasing appetite for **shared** use (for example, via ‘mobility as a service’ models)
- Increasing public interest in, and a shift towards, **electric** vehicles

In combination, these four strands of change could take our transport networks and places towards many different futures for our transport networks and places. Leaving these changes to market forces alone is a high risk strategy that will not generate the best wider outcomes.

If we are to create New Mobility futures that are popular, fair and sustainable, we see that a fifth strand – **business models and revenue generation** – is likely to play the core enabling role, encouraging collaboration between the public and private sectors, and influencing the direction and speed of change across all four areas listed above.

If you are interested in learning more about New Mobility in your region, we can offer valuable insights for different markets around the world that go well beyond the information included here. We would be delighted to share more of these with you – please do get in touch with our team at NewMobility@wsp.com.

In the meantime, thank you for taking the time to read this White Paper. We hope you find it useful and look forward to your feedback.



Who should read this?

This document is written to support all those who are – and want to be – involved with bringing transport and place-making change through future mobility.

- **Technology firms** who are seeking to bring new solutions to market or broaden their reach and market penetration

- **National, regional and local government organizations** who act as stewards or guardians of our places and communities and, in some cases, also have responsibility for transport network and system operations

- **Transport network or system operators**, often working with public sector organizations, who may wish to understand how the wider mobility landscape may change in the future

- **Investors, developers and strategic land-owners** who are seeking ways to maximize their uplift in value from future development and regeneration

- **Researchers** seeking to understand markets and where to focus their efforts or where to seek collaboration

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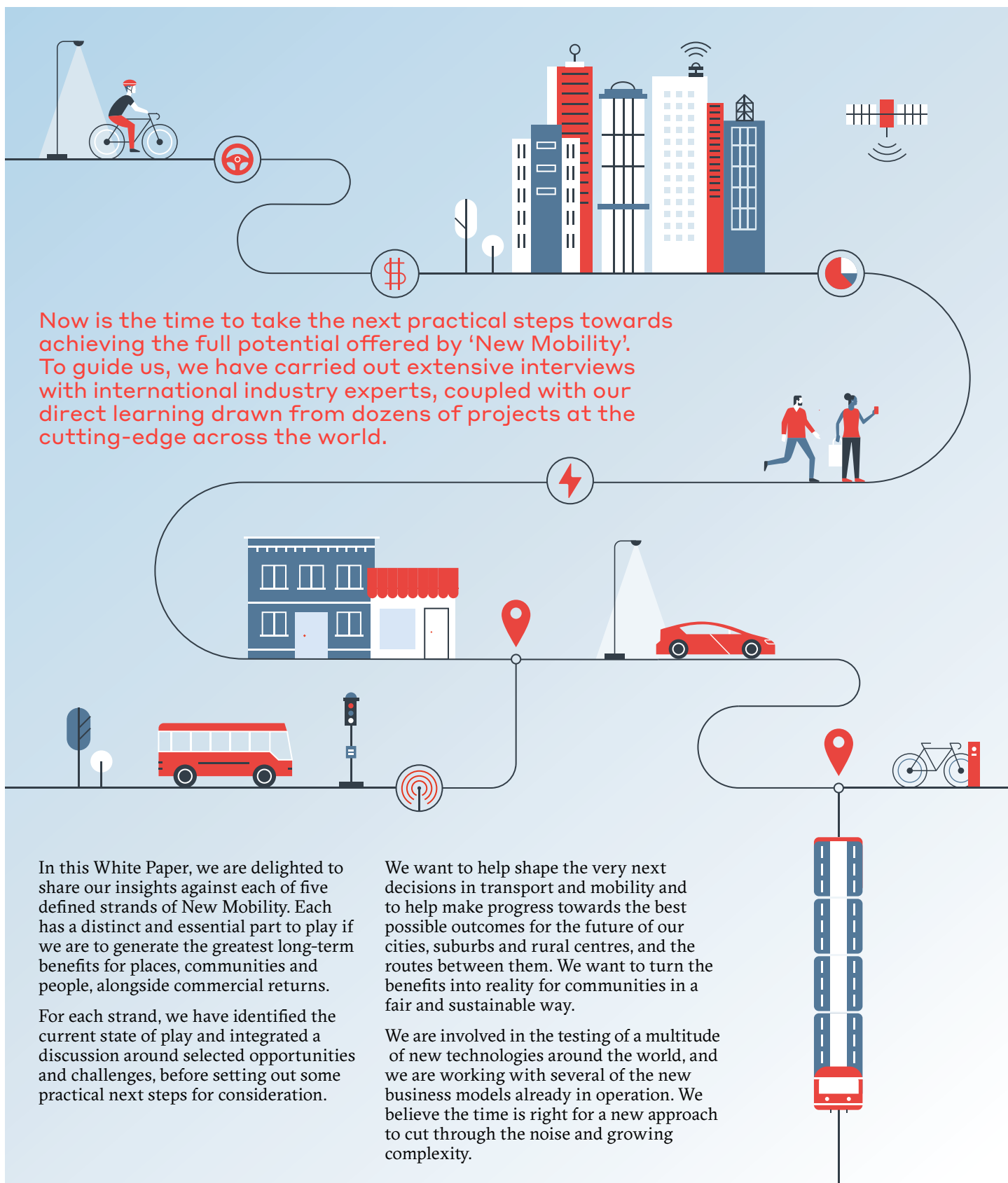
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<i>Connected</i>	15
<i>Electric</i>	22
<i>Shared</i>	26
<i>Business Models and Revenues</i>	33
<i>Conclusion</i>	37

Contributors

Our sincere thanks go to the experts at the following organizations who have participated in this new research:

- APT SkiData (UK)
- Austroads (Australia)
- Business and Economic Research (New Zealand)
- Canadian Automated Vehicles Centre of Excellence (Canada)
- Canadian Urban Transit Association (Canada)
- City of Gothenburg (Sweden)
- City of Las Vegas (US)
- City of Mississauga (Canada)
- City of Toronto (Canada)
- Colorado Department of Transportation (US)
- Conference Board of Canada (Canada)
- Connect East (Australia)
- Department for Transport (UK)
- Department of Planning, Transport and Infrastructure (Australia)
- Department of Transport and Main Roads Queensland (Australia)
- DriveNow (UK)
- Drive Sweden (Sweden)
- Easymile (US)
- First Group (US/UK)
- Gnewt Cargo (UK)
- Insurance Australia Group Limited (New Zealand)
- Legal and General (UK)
- Londonewcastle (UK)
- LSE Cities (UK)
- Lyft (US)
- MaaS Global (Finland)
- Main Roads Western Australia (Australia)
- Maryland Department of Transportation (US)
- Metrolinx (Canada)
- Meyer Homes (UK)
- Ministry of Economic Development and Growth (Canada)
- National Transport Commission (Australia)
- North Central Texas Council of Governments (US)
- Ontario Centres of Excellence (Canada)
- POLIS Network (Belgium)
- Region of Peel (Canada)
- Region of Waterloo (Canada)
- Royal Automobile Club (Australia)
- Surrey County Council (UK)
- Taunton Deane Borough Council (UK)
- Telstra (Australia)
- Toronto Transit Commission (Canada)
- Transport for Greater Manchester (UK)
- Transport for London (UK)
- Transport for New South Wales (Australia)
- Transport Systems Catapult (UK)
- Transurban (Australia)
- Volvo (Sweden)
- Uber (UK)
- University of Michigan Transportation Research Institute (US)
- University of Toronto (Canada)
- Utah Department of Transportation (US)
- VicRoads (Australia)

New Mobility Now



New Mobility Now

What is really changing?

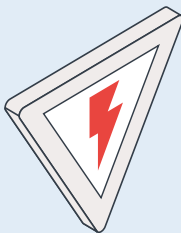
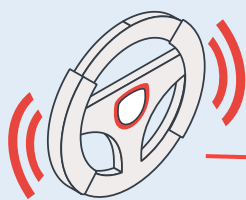
We use the term 'New Mobility' to draw together visible change across five specific themes that are already under way, to varying degrees, around the world.

These themes are featured increasingly at the heart of today's transport and mobility change. We expect them to play a continued key role in determining the form and function of transport systems and place-making in the future.

Four of these areas relate to changes in technologies that are emerging and, in some cases, already in use across the world. The fifth strand relates to the enabling potential of new business models and revenue generation, which will almost certainly play a key role in influencing and cementing change across all of the four areas above.

Automated driving

Sometimes described as 'driverless' but with many levels of actual automation in practice, automated technologies have been emerging for decades and will increasingly affect all types of light and heavy vehicles.

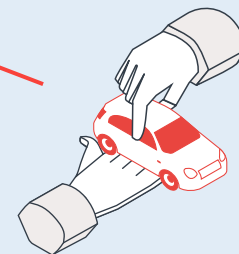


Electric vehicles

Political support for a move away from internal combustion engines and towards electric vehicles and other future forms of propulsion is gaining momentum around the world as the local and wider air quality impacts of petrol and diesel vehicles are better understood.

Connected vehicles transport systems and networks

New and existing forms of connectivity offer the potential for far greater use of safety related features, as well as real-time and off-line information which will benefit those using the network and those who are responsible for its operation and maintenance.



Shared use

This bundle lies at the heart of place-making change and relates specifically to vehicle ownership models, and to the extent to which we might be prepared to move towards shared mobility and away from private car ownership.

Business Models

This element is critical to cost – both actual and perceived – and the ability to create change that will stand the test of time. It requires imaginative, fast and decisive action.



New Mobility Now

Long-Term Visions

There is widespread agreement that transport and mobility change has the potential to improve conditions for growth and returns to both private and public sector.

We know that we all want to create and sustain places where we love to live and work, and we know that we want to move between and within them. These headline goals sit at the heart of most long-term visions for future places, mobility, transport networks and systems.

This ambition fits well with the approach being taken by governments around the world where there is pressure to generate economic growth and improve productivity, while accommodating more people.

Having a vision is essential, as it gives a direction of travel, but it is not enough. We don't have all of the answers, but we are certain that a detailed plan is also needed, for the following reasons:

- **A wide range of 'New Mobility' outcomes are possible, both good and bad.** Winners and losers will vary under different circumstances. We all want the "good" and want to avoid the "bad", but mapping a route towards the best outcomes for all (both private and public sector) will demand active management, collaboration and investment.
- **One size cannot fit all.** Each town, city and country has a different start-point and context. The details of legal, political, economic, technological, environmental, social and ethical considerations matter, and will affect what is possible and desirable.
- **New Mobility changes are happening in parallel on several distinct fronts.** In our view, it is strategic yet short term decisions made across the five specific themes we have identified that will determine success or failure in the longer run.

What we all want from new mobility

- Emphatically, new mobility is **not mobility for its own sake**
- **Affordable** and **economically sustainable**, long-run solutions to allow investment and maintenance
- **Profitable** for private sector investors and technology firms, working collaboratively with national and local governments
- **Healthy, high quality experience** for all network users, including pedestrians and cyclists
- Maximum **value** and potential created for **places**, existing and future, through land use change and efficient connectivity
- Best use made of **existing infrastructure**. Long-run solution will work with what we have rather than rebuilding everything
- **Safe** and **easy to use**, for everyone of any age
- Operationally **efficient**, with roads-based services complementing mass transit corridors
- **Clean** and non-polluting
- **Attractive** and **popular** solutions that the travelling public choose to use, can afford and trust
- **Fair** and **accessible** solutions that most people can access
- **Flexible and adaptable** to future change and innovation
- **Consistent** with **progressive policy** and changing transport mode hierarchies

New Mobility

Next steps and action plans

There is no magic formula. Generic goals and solutions are not the answer for those who want to take action to get the most from New Mobility. Neither is doing nothing.

Technological change will happen whether we choose to engage or take no action. Those who sit back will almost certainly be left behind and, in some cases could be left with additional risks and costs due to change implemented by others, whether intended or not.

To make the most of New Mobility, starting now, we all need to home in on the very next steps according to context, appetite for risk and ability to influence. In forming a plan of action, we strongly recommend that each of the five aspects of New Mobility change is considered in terms of its relevance and importance, and the potential for specific next steps and actions.

We have written this practical guide to help with that process

And how will we know if we have collectively succeeded?

The very best New Mobility solutions will enhance the viability of communities and their distinct nature. These community identities will rely on the five strands of New Mobility to take root, grow and evolve, with easy and appropriate connections between them for the benefit of people and business.

Those who make great places and who create resilient transport systems will find that they have created distinctive solutions that work in the local context, which can be maintained for the long-run and which connect and make sense within their wider context.

Those who create and offer the very best mobility packages, infrastructure, future vehicles and technology solutions to the market will find that they are generating the necessary commercial returns, and can be flexible and adapted to suit an ever-growing demand and need on the ground.

Do you agree that there is great consensus for the long-run vision, and that it is now time to focus on the near-term action plans to make structured progress towards them?

Are you aware of places in the world where these goals would not be a natural fit?

Please share your thoughts with us at NewMobility@wsp.com

Automated



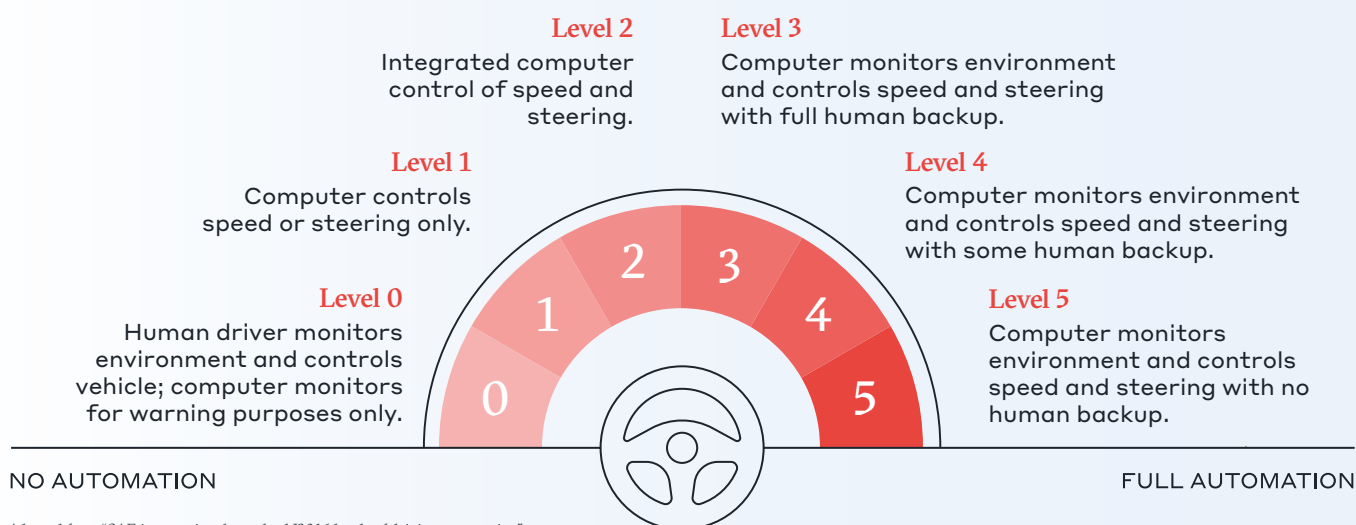
Vehicle automation is not new. Over the last thirty years, we've seen increasing levels of automation built into both light vehicles and freight. With pilots and trials ongoing around the world, increasing on-board automation in new vehicles, and some operational systems already in place, we can expect continued and rapid change.

While fully autonomous operation under all driving conditions is a possible end goal, current technological advances can be broadly divided into two camps.

The first is being brought to market by several manufacturers, where everyday driving speeds are not compromised by increasing levels of on-board automation. In 'self-driving' mode, these vehicles are now able to navigate without substantial driver intervention under defined conditions. But at no time does the driver give up legal or practical control of the vehicle, and none are able to operate on the road beyond SAE Level 3.

The second approach to the development of fully autonomous (Level 4/5) operation is based around slow speed fully driverless pods. As one example, a series of UK-based pilot trials are now live, generally on footways and in defined pedestrianized areas. These trials are more focused on 'any condition' driving at speeds where the safety-related risks are low. They are also providing insight into how these vehicles are perceived and accepted by the public.

The spectrum of automated driving



Adapted from "SAE international standard J3016 levels of driving automation"

Automated

What is an automated vehicle?

Quick facts: what is an automated vehicle?

Vehicle automation refers to the spectrum of driver assistance technologies as defined by the Society of Automotive Engineers' (SAE) International Standard J3016. The higher the level of automation, the more information the vehicle uses about the driving environment to automate driving tasks.

SAE level 1-3 is relevant today whereby the human driver is required to perform some or all of the driving task(s).

An SAE level 4+ ("autonomous") vehicle has the most advanced levels of automation. Completely "hands/feet/brain off", the vehicle navigates, reads its surroundings, and interacts with other vehicles, road users and the road infrastructure.

“ There is definitely a role for AVs in existing cities to supplement transit services and to make it possible for more people to live without owning a car. ”



Increasingly automated vehicles are now a way of life and fully autonomous vehicles are coming. Key questions still need to be considered:

- What can we do to increase public familiarity with – and confidence in – increasingly automated vehicles?
- How can network operators reap the full benefits of automation?
- How can we best learn from existing pilots and trials, to avoid needing them everywhere?
- Is it inevitable that an automated future is also a connected one?
- How can we manage the increasingly complex interactions between human drivers and more automated vehicles in the interim transition to SAE Level 3?
- Are there parts of the transport network where full automation would need to be mandated? When do the key benefits emerge in relation to the transition?
- How do we protect against urban sprawl as drivers regain their driving time for other tasks? Can we create attractive yet denser urban centres to counteract this risk?
- How might we combine the benefits of automation with greater shared use? If we continue to replace today's cars with increasingly automated but privately owned vehicles, how will we manage congestion or benefit from new place-making potential?
- To what extent can urban and rural areas expect to see different automation solutions and timelines? How can we ensure that the benefits of urban areas translate to rural environments?

Automated

Opportunities

In our research conversations, we found several common international themes alongside country-specific insights that will have value across wider geographies as the transition progresses.

The precise bundle of automation-related benefits will depend on local circumstances and scale, but in overview the potential opportunity includes:

Road safety

There is little doubt that a network, route or zone that is entirely automated at SAE Level 4 or above would generate substantial safety benefits, as all moving motorized vehicles would follow agreed rules for movement. There are key questions emerging around the world, and specifically in Australia, the UK, Canada and the U.S., about the extent to which these benefits will emerge during the transition period to Level 3, and also while the network contains non-automated vehicles.

One suggestion that emerged several times to address this on more strategic routes was the presumption of segregation of automated vehicles from non-automated. In our view, however, as the mixed operations issue will be temporary, this may not generate sufficient benefits to warrant the interim network modification costs.

Another option would be to define connected and automated 'zones' where all vehicles, heavy or light, must be able to operate at a defined minimum level of automation. The levels could increase and the areas covered could gradually extend as technologies become more commonplace and the benefits are better understood in practice.

The exact safety benefit remains to be seen. We know that in countries where road accident statistics are closely monitored, we tend to find that 90% of accidents are typically caused by driver error, but this does not necessarily translate directly to the same reduction in accidents. There is little doubt, however, that progress is already being made and that the shift to SAE Levels 2 and 3 will improve road network safety.

Onwards pilots and trials for automated technologies

Two key points emerged from around the world during our interviews: first, that future automation trials must be meaningful for all parties. The early definition of specific use cases with industry partners will help everyone to understand the potential future needs and deployment opportunities that will be to everyone's advantage.

The second key point, in particular from Australia, relates to the benefits of focusing on low speed experimental trials. These will set the stage for first and last mile light vehicle journeys, as well as light/mid-sized logistics vehicles. Due to their existing levels of control, high design standards and limited access/exit points, motorways may appear to be among the easiest implementation environments. However, if high-speed automation takes off too far in advance of others, we may find that the infrastructure investment required to manage two highly distinct types of traffic could be extensive and that the outcome is an increase in movement, rather than more efficient multi-modal mobility.

Hierarchy shift: focus on freight, public transit and pods

Several of our interviewees would prefer that the effort around automated vehicles be focused on freight and public transit, and that the opportunity be taken to reimagine how these two systems could work with much greater efficiency and safety, ideally at a lower cost.

In relation to public transit, the mutually beneficial relationship with shared use and models such as Mobility as a Service (MaaS) should not be missed. A more automated, connected and shared network is one within which highly efficient public ownership and shared use could thrive, in place of private vehicle ownership. This piece is missing from automated pilot use cases, but could be fundamental to our understanding and the creation of future benefits.

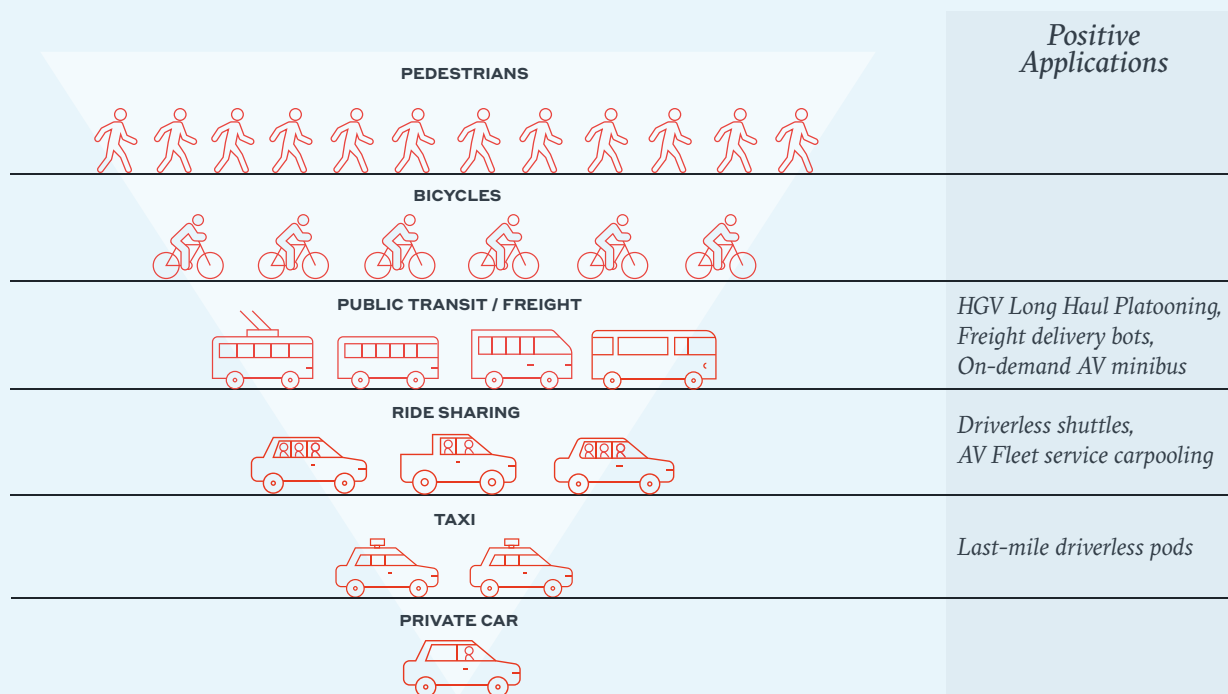
Others mentioned the related opportunity to redefine the transport mode hierarchy. This is about defining urban and suburban environments, supporting the active modes of walking and cycling, public transport and freight, as well as first and last mile movements in their local context. If and when automated vehicles become part of the public mobility offer, no matter what vehicle size, they should no longer be treated in the same way as privately owned cars.

Automated

Challenges

The roles for AVs on the modal hierarchy

Where to apply vehicle automation for a better transport system



The importance and value associated with automation will need to be considered carefully in due course. Consultees around the world were quick to point out that the provision of a service does not necessarily mean that everyone will be able to access it or use it without support.

Is Level 3 automation enough?

Our interviews uncovered an intriguing interim point in the transition towards full autonomy, once the benefits of SAE Level 3 have been realized for both light and heavy vehicles. At this point, the vehicles are still not able to move when empty, so two key areas of benefit remain out of reach: urban and suburban place-making benefits (which are further boosted with reduced private vehicle ownership) and non-driver mobility, including the elderly, infirm and young. Even with higher levels of automation, some of these challenges will remain, as discussed.

Automation: is it really mobility for all?

Many of our interviewees expressed concern about the presumption that fully autonomous operation could provide mobility for everyone. Even with a future transport system that allows anyone to summon a completely driverless vehicle, it will still be the case that, for many people, the 'first metres' and 'last metres', to and from the vehicle, cannot be undertaken without additional support.

Next steps for automated navigation

OEMs (Original Equipment Manufacturers) are recognizing that their partnerships

should extend beyond machine learning companies to include niche firms focusing on artificial intelligence. This will allow the automated vehicles to learn to read human gestures, rather than developing a more rigid set of codes to rely upon reading network data and traffic signals.

Another aspect, raised during discussions in Sweden, identifies that a major challenge that lies ahead in relation to all-weather fully autonomous navigation. Snow, heavy rains, sand storms and similar are all prohibitive with current technologies. The technology to 'read' the road surface needs to be completely reliable with everyday changes, for example when wet, in low light, in darkness or with glare.

Automated

Challenges

Self-parking: short-run changes to design and layout

Several of our UK-based discussions identified that today's self-parking capabilities work well for parallel and reverse parking manoeuvres but are not as well advanced for forward parking or herringbone bays, both of which are commonplace in many parts of the world. In order for the technology to take off and gain maximum exposure, flexibility in use – and therefore popularity – these limitations will need to be overcome. Self parking offers the potential to reduce the width of parking bays and aisles therefore increase density or reduce the space needed for parking.

The impact of automation on infrastructure

It is likely that major site layouts will need to change to accommodate an increased proportion of drop-off and pick-up movements as vehicles become more automated. This is already beginning to happen as shared and MaaS solutions come onstream, and it is likely that it will increase further as 'empty operation' during parking is permitted, for example at transport interchanges and major trip attractors.

Physical impacts of freight platooning

Experts in Australia and New Zealand, based on a long history of heavy vehicles, foresee value in long-distance freight movements when platooned via connected and automated technologies. However, the same experts warn about potential issues and physical network impacts, should single lane freight loadings increase substantially.

Service vehicle automation

There are numerous opportunities for the increased automation of service vehicles, such as street cleaning, refuse collection, delivery and maintenance vehicles. Service patterns could shift, once driverless, to operate at any time of the day or night, subject to consideration of any noise disruption. This opportunity carries a potential challenge as the driver and on-board team typically represent around 50% of the cost of the service, which will lead to role changes. In some cases, roles may evolve and broaden, but it is also possible that retraining may be needed.

Managing congestion and urban sprawl for the short and longer run

One of the most frequently observed challenges for automation in relation to routes and places is congestion. Taking the automation element of New Mobility on its own, the obvious solution is to encourage a shift from non- or partly-automated vehicles towards a fleet that becomes increasingly automated over time. The key risk here is that, without some form of road user pricing, there is no direct incentive to road users to reduce congestion below its current day levels, despite the fact that almost every urban centre in the world reports congestion and poor air quality as a headline issue. In fact, if poorly managed, increased automation could add to congestion, should we reach the point where time spent in automated vehicles is perceived to be productive and low cost.

Potential solutions to these points lie not in automation alone, but also across the other four elements of New Mobility. New business models could be used to ensure that trip-making is priced and incentivized appropriately, together with an encouragement for a shift to electric vehicles to help address air quality concerns.

A combined strategy involving connectivity and a reduced proportion of private vehicle ownership could also play a key role, and would generate substantial new network efficiency. The key, of course, is to properly manage or reallocate any new-found capacity, rather than allowing it to be absorbed.

Regulatory environments encouraging genuine public/private sector collaboration

At the moment, with some notable exceptions (in particular the UK), regulation tends to lag the evolution of new automated technologies. In our view, the most efficient path is to ensure greater public/private sector collaboration and to incentivize much greater sharing of pilot study learning. If national and local governments chooses not to engage, there is a risk that the technologies will be introduced without the benefit of 'wraparound' planning and collective encouragement, potentially risking large costs associated with future network management.

An added advantage of collaborative working will be faster acceptance by the general public, as local authorities in particular are well-placed to bring through highly visible trials to build familiarity. We heard similar themes in the UK, Australia, Canada and the U.S. on this point.

“ Parking assist is a big deal that is helping to build trust and familiarity. ”

Automated

Recommended next steps

It is clear that increasing automation in its own right is progressing well, but with the other four 'pillars' of New Mobility, the combination becomes far more powerful and relevant to today's transport, mobility and place-making challenges. To make the most of this, we recommend the following ideas for consideration in short-term action plans.

For potential developers and land investors, land-owners and similar

- Collaborate with the public sector to understand the appetite for change and the regulatory environment that is likely to apply. Identify how this could best fit with future local regeneration potential.
- For live development and regeneration proposals, build in flexibility by understanding a range of forecast scenarios for varying levels of automation, sharing and connectivity. Options that allow a rapid response to changes in demand for parking, pick-up and drop-off activity are likely to be particularly valuable. Add resilience to major campus-type developments (e.g. airports, universities) by safeguarding parking land and then, under a 'monitor and manage' approach, converting it to alternative uses (landscape, residential, retail, amenity) when trigger points are met.

For strategic and local road network operators

- Consider incentivizing fleet renewal, ideally in tandem with a more responsive and flexible shared mobility or public transit offer to discourage the like-for-like replacement of today's cars with 'cleverer' cars.
- Develop relationships with technology providers and local/national planning authorities to understand next moves and recent learning from recent pilots and trials. Identify potential routes or network sections that might suit specific types of early adopter implementation for automated technologies.
- Prioritise the creation of an automated vehicle strategy, to cover your own fleets, but also to respond to other likely market changes.
- Consider the longer-term potential for a flexible automated fleet service to fill high-cost/low-demand service gaps, or to supplement levels of service on the busiest corridors.

For national and local planning authorities

- Create national/regional/local government guidance, as appropriate, to bring through new policies and potential new business models to include capital and revenue funding.
- Collaborate with others to identify changes to planning policy requirements that will consider the effects of automated vehicles and their impacts on mobility, in the context of all five pillars of change. Know what you want and engage with the relevant providers.
- Consider a 'mobility index' in place of a public transit accessibility rating, recognizing that the gap between public and private transport is likely to narrow.
- Work to build public familiarity, trust and social acceptance, with some specific and sustained messaging around the benefits of shared use.
- Strengthen high-capacity services where land use densification (from parking repurposing) and potential AV-induced congestion increases may drive further transit demand.
- Combat the risk of regional transport planning paralysis by using scenario planning to adapt traditional travel forecasting to an AV future, allowing informed decision making to continue during this transition period.
- Create a city parking redevelopment framework that is responsive to developer interest, considers compatibility of uses and minimizes AV-induced travel demand in congested areas.

Connected



Mobility futures will be much more connected. This is inevitable, as the days of 'dumb vehicles' travelling on 'dumb roads' are already behind us in many countries and cities. Many of us already travel in connected cars or public transport vehicles.

In fact, any driver using either an in-built satnav system or a smartphone to access best route advice is already connected. In most cases, the same applications transmit data in reverse to provide near-live road condition updates to other users, while others collect data for insurance purposes.

New vehicles today are typically sold with SIM-based connectivity, although in some cases this is not activated. Actual levels of day-to-day connectivity vary widely according to vehicle manufacturer and location in the world.

Connectivity today relies largely on cellular communications networks and tends to connect individual vehicles to a bespoke service. Data collected from such devices can be aggregated by service providers and road network operators to create real time understanding of a road network.

There are multiple technologies emerging around the world that are advancing the state-of-the-art in terms of V2I, V2V and V2X solutions. These solutions may be inexpensive, yet the uplift of connectivity that could be achieved through their widespread application is significant.

The next step, which is the subject of various pilots and trials today, will be to better connect the vehicles to each other, to roadside and remote infrastructure, and to other devices to transform the information available to network operators and users.

A connected network allows the vehicles travelling on it to become sophisticated mobile sensors. In return, the same vehicles are able to benefit from information gathered elsewhere.



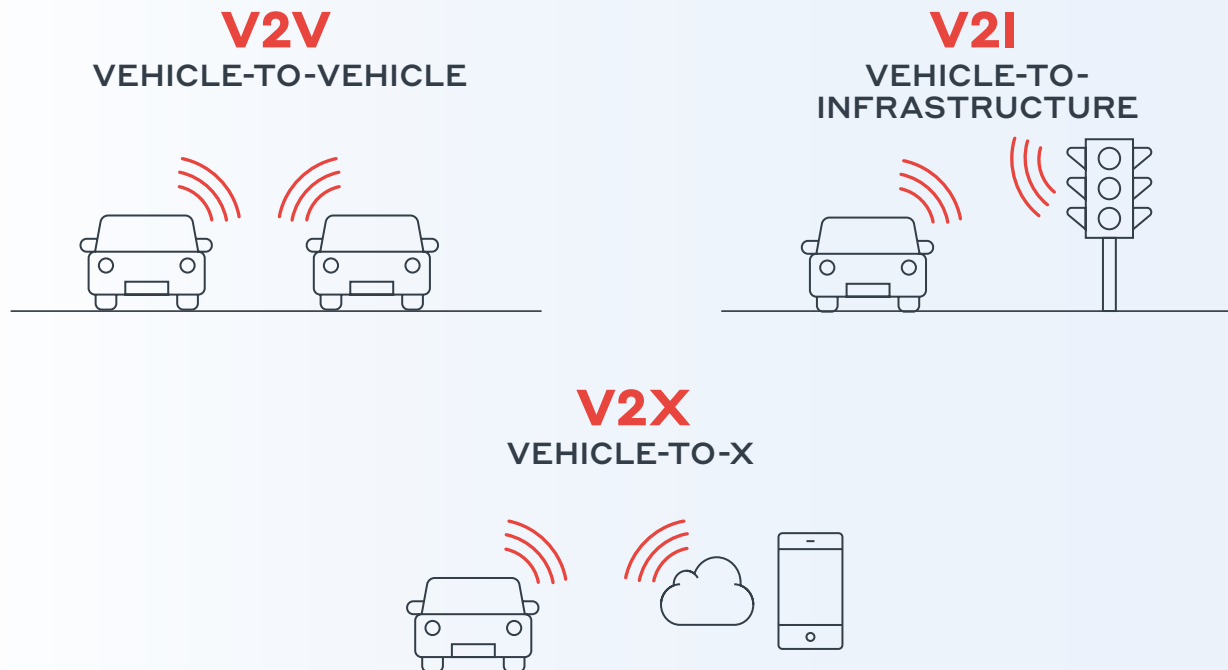
If we are to capitalise on the full benefits of connectivity, there are some critical decisions to be made now. Key questions under consideration include:

- How should we start to optimize for future connectivity in a practical sense? How might we consider road hierarchy, route importance and place?
- How do we ensure access to data gathered by those who can best make use of it? Much of the data gathered is unused and some is not held by those who would find it most useful.
- How important is connectivity and communications standards relative to automated technologies? Are they twin-track or discrete requirements?
- How do we make the right "next step" connectivity decisions that will permit our road transport systems, and the vehicles using them, to adapt and remain future-ready?
- How can we accelerate multi-modal connectivity to enable truly seamless end-to-end journeys? To improve network efficiency and energy use, can we achieve this in parallel with reduced private vehicle ownership?
- How can we fund connectivity investments and upgrades for the long term, while reducing the risk of over-burdening the public purse?

Connected

Opportunities

Basic Types of Vehicle Connectivity



“ V2V has an important role for autonomous operation, but V2I is critical, not least to control and reassign traffic. Several traditional auto manufacturers have come to the conclusion that vehicle-based sensors are not sufficient by themselves for AVs. ”

Connected

Opportunities

Our extensive conversations with relevant professionals around the world and direct involvement with various trials confirm that there is a large and consistent benefit available from a more connected network.

Some respondents are frustrated that take-up in their part of the world seems slower than desirable, although there is a recognition that trials elsewhere will provide a valuable springboard. The precise bundle of connectivity-related benefits will depend on local circumstances, but in overview the potential opportunity includes:

Better network and fleet management

One of the primary benefits to network and fleet operators relates to real time management and operational adjustments, based on data from their own and third party equipment. The potential for moving vehicles to act as 'monitors' of flows, speeds and incidents will, in time, provide a richer picture of network operation than is available today. This could benefit both public and private sector firms, assuming that we find the right mechanisms to make the relevant data available.

Informed personal trip-making

The benefits of better connectivity to support personal trip-making decisions are now proven. In many cities, people are already able to make better informed journey choices across the full range of walk, cycle, public transport and shared/private car through app-based data reflecting near real-time conditions and costs. The acquisition of Waze by Google marked a key turning point in this area, and city-specific open data initiatives, for example in London, continue to generate substantial new activity.

Efficient navigation

There is a broad consensus that near real-time advice to drivers (and, in time, directly to automated vehicles) about optimized route choices is already beneficial. With progress towards Level 4/5 automation, we expect that live driver information about route choice and optimal speed will become a natural input to control automated movement around the network.

Healthier air quality

In the short run, if drivers respond to advice provided to their vehicles, greater connectivity offers the potential for smoother traffic flows and reduced peak time congestion, both contributing to improved air quality before the anticipated shift towards a more electrified fleet. We anticipate particular benefits in congested urban centres and along busy strategic road corridors. These benefits will play out for strategic transport network asset operators, city management organizations and, of course, people living and working in future urban centres.

Improved safety

The latest trials, and our market intelligence, confirm that there is a clear value in providing 'eyes ahead' information to light vehicles and freight about accidents or route issues. We anticipate that data about driver/vehicle behaviour, including steering, braking and indicator use, as well as the use of lights and windshield wipers to indicate weather conditions, could also give instant insight into everyday operations and decisions made by network operators. This data could also be used, in due course, to inform offline decision-making about short-term network safety improvements that would be beneficial until automated vehicle fleets become the norm.

Better road asset maintenance

On-vehicle sensors able to detect road surface quality issues have the potential to gather valuable data for road maintenance. The early detection of road surface failures or other infrastructure degradation would reduce road maintenance costs whilst targeting road surface renewal to locations where it is most needed. This could have wider benefits for road-worker safety and return on investment for network operators.

Enhanced planning

Off-line and historic vehicle movement data can be used now, subject to access, to provide a much richer source of information to support network analysis (e.g. changing journey times or route choices under defined conditions) and forward planning for the likely impacts of homes and jobs growth.

Go-anywhere infotainment

Full internet connectivity for vehicle occupants seems to be an implicit assumption of future vehicle connectivity, stretching well beyond functional connectivity and towards passenger entertainment.

Connected

Challenges

At a glance, it may seem that connectivity advances are progressing well around the world. Vehicle manufacturers and technology firms are making clear progress, and a range of trials are funded and in progress.

The links between progress in connected and automated technologies are increasingly clear and form part of the bigger picture of likely forward change. Does this mean that there is no further need to steer the connectivity agenda at a local, city, regional or national level?

No, not at all.

There are crucial aspects where key decisions and collaboration could take cities, routes and networks towards far more productive futures, with much broader connectivity benefits. It is also critical to bear in mind that the impacts of connectivity will continue to affect all types of mobility and modes, including public transport, heavy freight and logistics, cycling and walking.

The investment dilemma: smart vehicles or smart roads?

To achieve connected networks and places, one or both will need investment, but to what extent and in what balance? Recent intelligence from Australia and the UK, for example, suggests that network operators would be well-served to place much greater value on emerging digital infrastructure 'shadow' networks alongside their physical equivalents.

Trials, including several in the U.S., suggest that on-vehicle equipment is a better solution. In parallel, other research is confirming that it is possible to adapt urban streets and major highways to future mobility needs with relative ease.

Relying on vehicle manufacturers to embed the relevant technologies is not without commercial, legal or technical risk, but without careful engagement it is possible that useful data may continue to be captured and be largely ignored.

Building on this, some government agencies in Australia are now encouraging the deployment of some smart infrastructure at the roadside to improve the likelihood of seeing a wider roll-out of smart vehicle-based technologies.

Data access and equality: winners and losers?

Without careful management of data accessibility, the introduction of increasingly connected vehicles and networks could also create social and economic division. To some extent, this is the nature of a free market, but actions taken now could reduce unnecessary or unintended outcomes.

Today's road network operators essentially provide the same level of baseline driver information to all, primarily through visual cues such as signs and lines. A division is now opening up as newer, better connected vehicles and drivers are increasingly able to access additional information to optimize their journeys.

The same is happening for pedestrians, cyclists and users of public transport across the world, as data about their personal mobility choices, regardless of mode, is being gathered 24/7 by their own smartphones.

All of these changes act against people who have no access, and we can expect this risk of division to grow as the direct benefits of connectivity increase. Road network operators and local authorities will need to engage and decide how to maintain appropriate, equal and affordable

levels of service for all. They will also need to find out how best to access and make productive use of data gathered by third party vehicles using their networks.

Similar questions around engagement apply to private firms wishing to make use of the same data for their own commercial purposes.

Avoiding unintended consequences for public transport, cycling and walking.

Building on the emerging findings of various connected city trials, there is a risk that we focus too heavily on vehicle-based connectivity, and in particular cars, at the expense of more sustainable and healthy modes.

Given that city policies continue to push towards greater proportions of trip-making by modes other than the private cars, it is important to recognize the risk that we might make travel in connected vehicles relatively easier, faster and cheaper, all at the expense of other modes. In time, new business and pricing models are likely to hold the key to unlocking and maintaining a healthier balance across the modes.

Connected

Challenges

Would we benefit from agreed standards and interoperable systems?

The easy and conclusive answer here is “yes, we would” because the connectivity challenge is not restricted to transport and mobility. Vehicle sales of all types and sizes, whether for private ownership or into corporate or public transport fleets, are already global. Thousands of suitably equipped vehicles could connect more fully now, all over the world, but the lack of common and widespread infrastructure and agreed standards is restricting the potential benefits.

Presenting a clear and current challenge to national, regional and local governments around the world, there are key questions to be answered around specific communications needs at various scales, such as latency and spatial accuracy, and decisions to be taken around immediate and ongoing funding. The constantly shifting technological landscape means that high level outcome-led requirements at all scales are likely to be more valuable and sustainable than specific technology regulation.

System resilience and coverage – does one size fit all?

As authorities and road network operators become more reliant upon connectivity, its availability and coverage will become more critical, as will the importance of upgrades to software and equipment. It is worth considering that the consequence of disconnection will vary by function: a lack of access to infotainment is an irritation, but down-time in safety-critical connectivity could introduce fatal risks.

This brings through some key questions around system design, capacity, flexibility and resilience, which in turn suggests that solutions will vary and not be generic. In Canada, for example, there is already recognition that the need for connectivity across much of the remote network expanse, where demand from heavy and light vehicles is small, will be highly distinct from its urban centres. This example is at the extremes, but our recent work indicates that variations are likely to exist at local, regional and national levels. Requirements will need careful definition, although we anticipate that there will be common ground between similar places and/or route types.

Data privacy and cyber-security

Already on the public interest agenda, concerns around data privacy and security need to be addressed, not just by the data owners, but also by public authorities from a wider public interest perspective. We expect that data captured by connected vehicles and infrastructure will have increasing value for multiple parties over time. In the vast majority of cases, this will be constructive and valuable, but we cannot ignore the small minority who may have malicious intent. In the mobility sphere, this is sharply defined in terms of the need to protect the everyday safety of network users. In theory, a malicious third party could send a message into a vehicle that causes wrong information to be presented on a satnav or to takes control of steering, acceleration and/or braking functions. Where connectivity is V2I such an attack could send malicious information into a traffic control centre, and potentially beyond.

Given this core concern, it is unlikely that decisions around the appropriate use, protection and security of mobility data could be made locally or in isolation.

This is a challenging area, as new connectivity will generate more and more data that can be put to use for better public and personal decision-making. However, by definition, it will mean that we need to work harder on data security and associated risk management, as well as on generating much greater public acceptance and understanding. Various standards are being developed to protect against cyber security attacks and, as the technology becomes more sophisticated, so will the need for greater levels of security. It may be useful to keep a close watch on parallels in the mobile/cellular phone sector.

“Big data is the biggest technological trend right now. We don’t have to collect data on everything, but we do need to develop a data requirements specification to define what is needed, how often and its source.”

Connected

Selected highlights from connected vehicle and infrastructure pilots

Ann Arbor Connected Vehicle Test Environment, United States

- Extensive US pilot, now expanding from 115 V2I lane-kilometres in the city's north-east quadrant to cover the city of Ann Arbor
- 2800 vehicles since 2012, rising to 5000 vehicles by 2018

Michigan pavement marking trial, United States

- Low cost paint and road sign trials
- Designed for future vehicles equipped with infrared and magnetic readers



European C-ITS Corridor, Germany, Netherlands, Austria

- Multi-national collaboration along 1300 kilometre route
- Creating a connected V2X motorway from Rotterdam to Vienna via Frankfurt
- Using wifi and cellular connectivity

Connected Intelligent Transport Environment (CITE) corridor trial, UK

- Advanced connectivity across 70 kilometres of urban and motorway network
- 30 month funded V2X test-bed



Cross-Europe platooned freight convoys, Belgium, Denmark, Germany, Netherlands, Sweden

- 2016 trial of connected and automated technologies, working together
- Six wifi-connected freight platoons with on-board radar and optical sensors

A2/M2 Connected Corridor Pilot, UK

- Creating a connected corridor from London to Europe via Dover
- Test-bed for V2V and V2I connectivity

Melbourne Integrated Multimodal EcoSystem, Australia

- Australia's first large-scale connected vehicle ecosystem
- Involves five government agencies and 20 industry partners

Connected

Recommended next steps

The critical input of the connectivity strand means that we can have confidence in the need for continued investment in the broad connectivity arena. To maximize the overall benefits for places, routes and people, the links between these aspects will be crucial.

The greatest benefits of connectivity will be created by those stakeholders who invest time and effort to think about what information they need and why they need it, when and from whom. In particular, seemingly small decisions made – or not made – about data access and ownership could have significant future consequences for both private and public sector.

In addition to the opportunities and challenges explored above, here are a series of next steps to consider.

For potential developers and land investors, land-owners and similar:

- Engage with the relevant public and local authorities to understand local appetites for innovation and the short/medium term value of new connectivity in existing places or within a future development portfolio.
- Look for existing smart city trials that could benefit development and regeneration proposals where they are relatively easy to 'translocate', ideally straddling both the connectivity and shared mobility streams.
- Seek advice on emerging technologies and consider the specific benefits, for future residents, employees and visitors, as relevant.

For strategic and local road network operators:

- Understand what data is already being collected by vehicles and people already using your networks.
- Understand funding opportunities for pilots, trials and early adoption of connected technologies across the V2V, V2I and V2X landscapes.
- Start to define how connectivity might vary to suit specific network needs across your unique balance of city, suburban and rural networks, as well as where there are gaps and what might be done to fill them.
- Support and/or seek national government decisions around connectivity and data standards
- Consider where additional connectivity data would be of greatest value to your network operation, and engage with the relevant stakeholders. This may include data at the interface between national and city networks.
- Recognize the value of the road infrastructure as a valuable physical asset, on which mobility-focused technology providers depend. If not in place, make links on this basis with key technology providers and start early conversations about collaborative working potential across the automated and connected strands.
- Engage with others to understand the existing position in terms of connectivity strategies, and the future role of road network operators in your context. Decisions made will affect the need for future investment and revenue streams.

For national and local planning authorities

- Understand the potential and appetite to support long-run investment in transport and mobility connectivity, perhaps through new business models.
- Encourage links between strategic land-owners and connected technology providers, and look for ways to collaborate for long-run community benefit.
- Recognize and investigate the opportunity to tap into new sources of data that might support local planning, place-making and operation. These could be beneficial at the day-to-day level or more strategically.
- Support and/or seek national government decisions around connectivity and data standards

Electric



The air quality agenda has reached a tipping point and countries, cities, car manufacturers and fleet operators are now reconsidering vehicle propulsion options. The result is a shift from petrol-fuelled combustion engines towards a focused strategy for the electrification of vehicle fleets.

Today's electric vehicles remain a small proportion of the total, but one that is growing and is well supported by both government and the vehicle manufacturers.

In 2017, multiple governments set tangible policy goals to ban petrol and diesel cars in the 2030-2040 horizon. These decisions are linked to the Paris Climate Agreement, from which the U.S. has since withdrawn (despite commitments by New York City and elsewhere).

Interestingly, there has also been positive momentum in the private sector demonstrated by car manufacturers, presenting their own commitments to manufacture electric vehicles, in some cases only offering electric and hybrid versions of the vehicle fleet.

What is an Electric Vehicle?

An electric vehicle (EV) consists of a powertrain with an electric motor as the primary source of propulsion. In this report, we are considering the shift towards plug-in hybrid electric vehicles (PHEV), battery electric vehicles (BEV), and fuel cell electric vehicles (FCEV) as opposed to (conventional) hybrid electric vehicles (HEVs). The latter tend to provide improved fuel efficiency, but operate in a similar way to 'traditional' vehicles. The former present significant implications about the charging infrastructure needed and how vehicles will be able to access it.



There is a growing recognition of the need to consider electric mobility strategies as part of a broader and fully integrated national electrification agenda. Still, there are a number of more subtle issues for consideration in the context of the wider New Mobility debate:

- Should we subsidize private ownership of new electric vehicles?
- What about the charging infrastructure? A lack of infrastructure or energy network capacity is a showstopper.
- How can we best maintain the necessary charging infrastructure? Does smart charging and vehicle-to-grid charging affect these investment decisions?
- Where is the best location for the charging infrastructure? Do these locations consider changes in vehicle trip patterns associated with all five aspects of future New Mobility beyond the electric strand itself?
- How can we create a productive energy network that capitalizes on the full potential of electric vehicles? How does this fit within any wider constraints on the energy grid?
- What proportion of the vehicle fleet can be electrified? Is there potential and appetite for retrofitted designs? How can an electric strategy support public transport and freight operational needs?
- How environmentally friendly is electrification of the entire vehicle fleet? Are there alternative means of propulsion that will become more efficient and environmentally friendly in the future?

Electric

Opportunities

Of all five aspects of New Mobility, the immediate benefits of an electric fleet are highly visible and well-recognized across government, the private sector and consumers.

The precise extent of the benefits will depend on the local circumstances, but there is a general consensus that the key opportunities include:

- Healthier air quality, particularly in urban centres, due to reduced local emissions.
- Reduced costs for users, initially only available over shorter journeys due to battery life and vehicle range, but expected to increase as developments in battery technology continue.
- Better vehicle reliability relative to petrol and diesel models, due to a simple mechanical powertrain and a reduction in the number of systems within the vehicle.

New government commitments

Germany

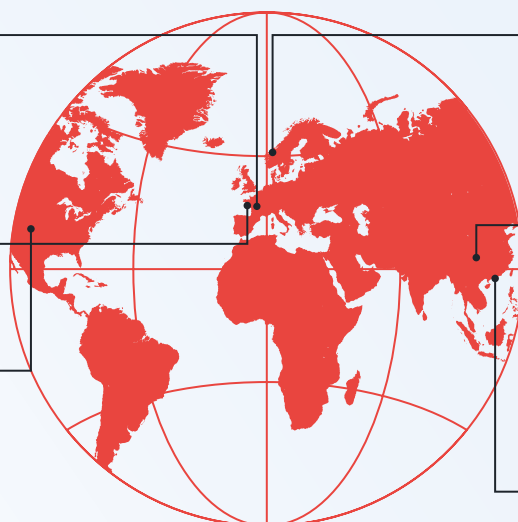
Prime Minister in favour of a ban of new petrol and diesel cars by 2030 or 2040¹, but government not yet willing to set a firm date

France

Ban petrol and diesel cars by 2040

United States

Cities throughout the US are supportive of the Paris climate change initiative.



Norway

Full electric goal by 2025, supported by a 25% tax exemption on electric vehicle purchases

China

Considering joining the initiative on a similar timeline; rapid uptake in electric vehicles and charging points. New cleaner fuel 'Hydrozine' has been developed from corn stockpiles.

Hong Kong

Tesla sales fell after the government slashes the tax break

Private sector commitments

- Tesla: fully electric fleet
- Volvo: exclusively electric and hybrid vehicle manufacture from 2019
- Jaguar Land Rover: exclusively electric and hybrid vehicle manufacture from 2020
- Mercedes: will offer entire fleet as electric and hybrid versions by 2022
- Volkswagen: will offer entire fleet as electric and hybrid versions by 2030
- Uber: will offer a fully hybrid and electric fleet in London by the end of 2019, assuming that current licensing discussions can be resolved
- TEO Taxi Montreal, Canada: all electric taxi fleet
- Taxi Electric, Schiphol Airport: all electric taxi fleet

Electric

Challenges

The conversion to an all-electric fleet could, subject to the charging infrastructure being in place, continue ahead of many other aspects of New Mobility. Our interviews around the world confirm that the challenges in this area are distinct but well understood.

That said, there are clear opportunities to link fleet electrification with other aspects of New Mobility change, which could increase the overall benefits further.

Reliable, available charging infrastructure dictates the local uptake of electric vehicles

Regulation of the technology (both charging points and visibility of pricing) is therefore key to widespread distribution. Without sufficient density of charge points, drivers may suffer range anxiety due to limited battery life.

In planning terms, this raises an interesting angle around the location of charge points. Poorly planned infrastructure could lead to an increase in distance travelled on the network, therefore adding to congestion and delay.

We heard from several stakeholders that the utilities industries should advise on the best locations for high capacity charging stations on the energy grid. To maximize efficiency, there is also a need to understand the best model for vehicle-to-grid charging and energy storage.

Models

Ownership models for electric vehicles are now centred on sales or leases for private use, although there is some evidence of taxi firms encouraging an all-electric fleet.

Today, many governments offer tax incentives for new vehicle purchase/hire, and also for charging costs. It is not clear what will happen when these incentives expire.

Our discussions revealed a general consensus for movement towards a combined electric and shared mobility strategy, possibly incorporating aspects of the automated and connected streams due to the natural evolution of on-board vehicle technologies over time.

Short term regulation changes to reduce adoption barriers

The regulation ecosystem needs to adapt and reduce barriers to EV fleet adoption.

As one example, the TEO taxi in Montreal needed permission from the province to delink the taxi registration between the driver and vehicle. This allowed a single taxi permit to be registered to a particular driver who used several vehicles, thereby allowing them to cycle between fully charged vehicles.

Large fleet operators, including freight haulers, local authority services, public transport and private hire fleets, have an major opportunity to change the electric vehicle mix significantly within a very short timescale. This relies on them having confidence that the vehicles and supporting regulation will meet their everyday operational requirements.

Vehicle charging

Electric vehicle charging metadata needs to be factored into the business model and pricing mechanisms, as and when these start to emerge around the world.

There is a challenge ahead to ensure that users pay to reflect the impact of their network use, for example according to the real-time capacity of the energy grid and the 'green-ness' of the energy supplied.

Longer run shift to inductive charging

Further into the future, a shared, electric and increasingly automated network would become more viable if inductive charging technologies enabled the vehicles to restore battery power while moving.

Inductive charging could be particularly beneficial on heavily used future public transit corridors into and across inner city locations.

Fuels beyond electric?

There are other fuel options and distribution methods that could challenge the economic and environmental credentials of an electric mobility strategy.

Today's ambitious electric vehicle production depends on the global supply of rare battery minerals (primarily lithium and cobalt). China's initiative to use E10 biofuel, containing 10 percent ethanol, is headed towards a planned 2020 roll-out across the country.

Electric

Recommended next steps

There is little doubt that electric vehicles are gaining public confidence and popularity. It is possible that other new propulsion technologies will emerge, but at this point the shift to electric has buy-in from both the public and private sector.

The wider benefit for places and congested routes relates to air quality, and this adds a valuable set of benefits to the parallel shifts towards a more connected, automated and shared fleet.

Specific local next steps will vary according to circumstances, but some ideas that could help to get the most from these evolutionary changes are set out below from the perspective of key stakeholders:

For potential developers and land investors, land-owners and similar:

- Recognizing the strong uptake in practice, target electric charging infrastructure provision beyond evolving policy levels. Consider a range of charging types to accommodate needs of shared, freight and personal vehicles for short-term and long-term charging demands.
- As a very simple step, prioritize the convenient location of electric vehicle parking bays over traditional parking bays.
- Explore opportunities to work with local transport and/or planning authorities to establish sites for a shared electric fleet that could

transform mobility within major regeneration proposals, noting that their use and cost should align with the need to encourage walking and cycling, and avoid competition with public transport.

- Engage, possibly through planning authorities, with energy sector partners to better understand and prioritize the optimum locations for new development and regeneration in relation to renewable and sustainable energy supplies. Explore on-site renewable energy generation opportunities.

- Consider medium term vehicle to grid opportunities on local energy network.

For strategic and local road network operators:

- Consider ways to encourage the use of electric vehicles on the network, such as information about available charge points. There may be links with the connectivity stream here, similar to cycle hire docking point availability apps.

- Understand the barriers to uptake and, if appropriate, consider the appetite for introducing or facilitating a fleet of electric vehicles for shared use (similar to a current car club model) to complement other modes.

For energy suppliers:

- Seek collaboration along the supply chain to advise on what constitutes a clean energy strategy by time, location and level of vehicle charging.

- Explore opportunities for vehicle to grid charging and highlight the benefits to consumers from new revenue streams associated with energy being put back into the grid.

For national and local planning authorities

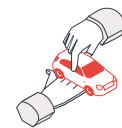
- Tie regional and local electric mobility strategies to a national electrification agenda, similar to Germany's 'Energiewende'.
- Consider new targets for ultra low emission zones in specific locations, especially in congested urban locations.
- Support developers and fleet operators in bringing through creative electric vehicle solutions, perhaps in combination with other aspects of New Mobility.
- Encourage electrification for authority-owned/leased fleet vehicles unless limited by operational requirements.

- Establish comprehensive policy standards for electric charging provision by location and land use, without incentivizing inner city private car ownership.

- Expand the availability of rapid charging stations across the on-street network and review parking policies to support the use of shared electric vehicles.

- Explore policy/pricing measures to encourage smart charging and new business models for the installation of new charging infrastructure.

Shared



Shared mobility is a well-established concept that has accelerated and diversified over recent years, mainly due to the rapid changes offered by the availability of digital information and app-based tools. The basic premise is that sharing can create much more efficient patterns of network use at costs that are less than private car ownership.

In the context of the transition to New Mobility, a greater degree of shared use also brings forward the potential for significant place-making benefits for our cities and rural centres. This will be maximized if the shared use is put together in a collaborative way to create a single system rather than encouraging competition.

What is Shared mobility?

“Shared mobility” is used to describe any transportation service that is shared by users. It includes all forms of public transit such as buses, metro and trains, all of which are – by definition – shared by users, but also extends to much smaller vehicles and individual modes of transport.

The sharing can take place simultaneously using the same vehicle (for example, ride-sharing and courier network services offering on-demand logistics) or consecutively (for example, bike sharing and car clubs). Taxi and quasi-taxi (sometimes known as ‘ride-sourcing’) services are part of the shared mobility picture, and an area where there has been substantial recent change due to the emergence of Uber, Lyft and others.

The key is that all users are able to access suitable vehicles on a short-term basis, as-needed. None of them are owned by the users and access is typically charged on a pay-as-you-go or subscription basis.

Where does Mobility as a Service or MaaS fit in? MaaS formalizes the shared mobility offer by commercializing it for either personal travel or the shipment of goods. A particular trip can take advantage of one or more of the above shared mobility options to produce a seamless journey experience. A wide range of on-demand services are on offer, across the range shown above, with the exact options dependent on location, origin and destination. Trips are usually planned and booked via digital apps and similar, with costs that are either pay-as-you-go or bundled.

MaaS models work best where there is already a wide range of transport modes, where data access is relatively open, where operators offer contactless sales or e-ticketing, and where they are open to third parties selling their services.

Traditional public transportation services, such as buses and trains



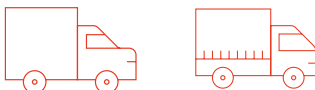
Vanpools, carpools, shuttles, transport network companies (TNCs) and rideshare pools



Carsharing, bikesharing, scooter sharing in all its forms



Flexible goods movement and courier network services (CNS)



Shared

Definition

In many modern societies, learning to drive is often a rite of passage, as is car ownership. Nevertheless, over recent years, the high cost of living in urban centres, new public interest in sustainable lifestyles and the emergence of smartphone-based mobility apps have supported a proliferation of new shared mobility options. Until now, these have tended to focus on urban areas where demand and returns are likely to be greater.

Smartphone availability has transformed the commercial marketplace for personal shared mobility, enabling the emergence of Uber, Gett, Lyft and many similar firms offering pay-as-you-go car-based trips on demand for individuals or shared groups.

Contactless payment cards continue to transform everyday access to public transit systems, bypassing the need for specialist ticketing or travelcard systems.

In parallel, bike sharing schemes have seen a rapid take-off, growing from an initial scheme in Amsterdam in 1965 to 75 schemes in 2005, and now to 750+ separate schemes around the world.

We also anticipate that car clubs and peer-to-peer models now being promoted by many car manufacturers, including fractional vehicle ownership, will continue to grow in popularity from now.

The operating models across the modes and companies vary, but they all share a common reliance on data and analytics to manage both vehicles and user booking requests.

Looking ahead, the potential for shared mobility is large, and there is a great deal of flexibility in the concept to suit a wider range of situations and locations that have not yet been fully explored.

We foresee that the outcome of this will be a continued blurring of the boundaries between long-established public transit and new shared forms of private hire, minibus and carpooling. These present challenges for transport network regulators and operators in the context of everyday network management, but also opportunities for better collaboration, for example to infill routes that have traditionally been 'difficult' to support in a commercial sense until now.

The ongoing transition is supported by better service information to help users understand the range of shared mobility options on offer. This is being achieved by popular journey planner applications ranging from Citymapper in London to the Digital Matatus project that has been used to map Nairobi's informal minibus sector.

Meanwhile, the freight industry is responding to increased volumes of households and businesses ordering items online with an expectation of fast delivery. Shared mobility in this sector is focused on reducing 'empty running' through freight brokerage platforms, via shared and consolidated deliveries and through a more efficient means of last-mile logistics.



Key questions that need resolution over the short term include:

- How can we better use data to inform new opportunities for shared mobility services? How can the data generated by an increasingly connected transport network be joined into existing app platforms for shared mobility?
- How do we best accommodate new shared mobility services in our existing streets, developments and infrastructure?
- What are the opportunities for shared mobility in the freight and logistics sector?
- Does the shared mobility 'offer' vary between cities, suburbs, towns and rural centres? How can we create powerful collaboration between service operators, transport network operators and local authorities to generate the best solutions?
- How can we improve incentives to adopt shared mobility while improving equitable social access for all?
- How can we start to work towards the longer run place-making benefits on offer from shared mobility, in the context of an increasingly connected and automated network?

Shared

Opportunities

The strongest consensus of our research engagement from both public and private sector emerged around our shared mobility investigation.

This is probably because the concept is relatively well understood and visible in many locations around the world. An overview of the key opportunities offered by shared mobility is summarized below.

Increased network efficiency

There is consensus that increased use of shared mobility would allow us to move more people and goods, more efficiently and effectively, using fewer vehicles and without the need for extra infrastructure capacity. This uplift is likely to be maximized where it is possible to provide shared first and last mile services to link in with the highest capacity transit options. Smaller vehicles have the potential to play a key role in infilling radial routes in particular, especially where there is no mass transit equivalent.

With freight, empty running is reduced as digital platforms efficiently match goods movements with available load capacity on the network. This helps operators in terms of their commercial returns but also aids network operators by reducing the numbers of heavy and light goods vehicles on local and strategic networks.

New place-making potential and reduced need for parking

The unique potential offered by shared mobility relates to new place-making potential.

Regardless of currency, there are millions if not billions to be made in the hearts of the largest cities around the world, where land values and the potential for uplift tends to be the greatest.^{10,15%} of total urban land area is typically used for parking (both on and off street), and if we can move towards a New Mobility solution that relies on shared mobility then some or all can be reallocated for other uses. In smaller centres and more rural areas, the land value uplift will be smaller but there is still potential to create better, more liveable places.

In combination with the other strands of New Mobility, this creates a powerful force for productive change, and could enable the creation of substantial new homes, jobs and leisure space. This place-making benefit is only activated if the sharing strand remains a key part of the New Mobility bundle, and is managed collaboratively between planners, network operators and service providers.

Reaffirm a fair modal hierarchy

Well-managed shared mobility will create new opportunities to strengthen a sustainable modal hierarchy, with active modes – pedestrians and cyclists – at the top. This, in turn, will help to create and maintain better places and routes for all.

The parallel challenge is to ensure that any disruption affects private car trips and does not compete with active modes, successful high capacity bus or fixed infrastructure such as rail, light rail and metro schemes. Much of this will be driven by perceived pricing and the journey experienced across the different transport mode options for a specific route.

Access to services

Planned and delivered alongside new development, shared mobility strategies will provide a more equitable, improved level of access to jobs and other public services. This will benefit new residents and employees, but also those living and working in the surrounding areas, either directly or indirectly, by relieving pressure on congested services.

“Mobility Orientated Development”

With the New Mobility model, we see the potential for a new ‘mobility oriented development’ strategy, with shared mobility at the heart of plans to facilitate increased densities and development locations that would previously have been unviable or politically unacceptable. This would require a new index for measuring mobility that takes into account the full range of new options for movement, incorporated into planning policy.

The concept of ‘transit oriented development’ (TOD) and close variants has existed around the world for some time. A TOD strategy has the goal of promoting sustainable development and growth around the most accessible points on the transport networks. This has typically been centred around single major rail interchange stations.

OEMs show a willingness to learn

Our research and direct experience around the world confirms that many of the firms at the forefront of the shared mobility transition are already enhancing their understanding of transport planning and policy as it relates to New Mobility goals. Some manufacturers, for example, are learning from their car clubs experience with a view to applying their new knowledge to shared (and increasingly connected and automated) vehicles in the future.

Shared

Challenges

New platforms enabling shared mobility are already perceived by many as a quick win, offering benefits without significant investment in new infrastructure.

Greater collaboration between public authorities and private sector providers

One of the core challenges is that these platforms are operated by private sector firms in parallel, but not in close collaboration with, public sector authorities who are responsible for the everyday performance of road and rail networks.

There is also a great deal of confusion about MaaS operation in practice. Commercial returns tend to be held by the private sector operator, while local government authorities are not putting their weight behind greater use, even where it could benefit their own investment plans. Policies are emerging, and engagement to create win/win operating models are beginning to form. However, truly collaborative work for mutual benefit, across both supply and demand sides, remains rare.

To achieve this, new business models and cooperation between entities that have historically competed for customers will be needed. For example, in the U.S., shared mobility largely operates at a state and/or local level, which can make expansion and innovation complicated. It is likely that stronger guidance at federal or national levels to generate greater consistency will be needed, but will be a challenge.

Balancing transport policy and innovation: foster innovation or seek greater regulatory powers?

Shared models and digital platform enabled mobility services are highly adaptable to different cities and can be

implemented quickly. This is proven by the rapid uptake in shared solutions for car-based and bike-based solutions across multiple cities around the world.

The key question for city authorities is whether to welcome innovation or to regulate against it to protect and maintain their control of transport operations. In reality, the challenge is to balance the two.

Building confidence in shared mobility solutions, rather than hard infrastructure

The mitigation of development impacts has tended to be based on physical infrastructure elements including parking, public transit and road network upgrades. New shared mobility models are more virtual and fluid in nature, operating on existing networks rather than providing any hard infrastructure in themselves. There is a significant challenge to build confidence that shared mobility services can be secured in perpetuity to support existing and new development.

Buses and shared mobility

Our research confirms that some bus services (including those subsidized by government funding) are already suffering significant competition from shared mobility choices. The challenge – and the opportunity – is for the bus operators to decide how best to engage with the transition to an increasingly shared mobility model. Demand for mass movement along key corridors shows no sign of reducing, but operating models involving fixed routes and fares risk losing appeal.

Some bus operators are starting to respond to this challenge, with plans to provide high quality demand responsive transit in rural areas and small towns, perhaps using a wider range of vehicle sizes and perhaps still with government subsidy. In urban and suburban areas, current experiments to provide fixed-route, flexible frequency services that infill other routes are being watched with interest.

A social backlash against sharing?

We tend to underestimate the level of attachment of some people to their existing (and future) cars at our peril. It seems that there are generational changes in play, and we can expect that these will continue to shift over time. But the issue will resolve itself. With real estate and property prices continuing to rise, cars may become a stronger status symbol than in the past.

Policy-makers and service providers have a challenge ahead to convince communities, perhaps gradually, of the benefits of shared mobility and incentivize the most efficient outcomes at a local level.

“With regard to cities and AVs, we have designed away from the private car for the last 20 years... the next step should be no different.”

Shared

Recent selected highlights for shared mobility

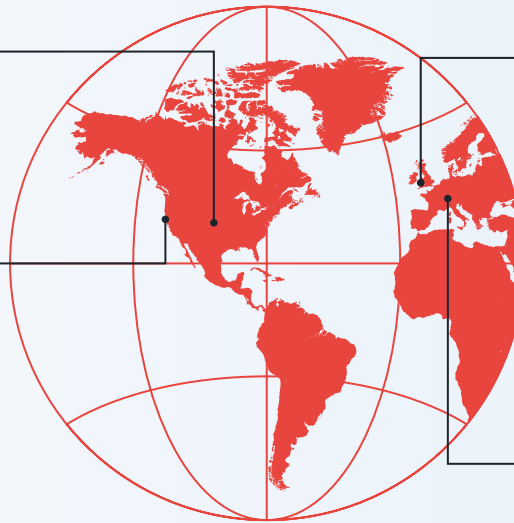
As shared mobility options are already operational across the world, a small selection of interesting and leading-edge examples are included below:

Lyft & Amtrak collaboration, US

- Lyft first/last mile option is offered as an integrated option when purchasing an Amtrak ticket

San Francisco, US

- At Parcmerced, car-free residents are credited with \$100/month to use with Uber, Clipper and Getaround
- Half of city-wide Uber trips are UberPOOL. Half of Lyft trips are Lyft Line



Evolution of Citymapper, London

- Working with Transport for London and taking advantage of its open data approach
- Filling gaps in public transit
- Live trials of a 'pop-up' circular bus route in central London completed in 2017

TimoCom freight transport, Europe

- Connects road haulers, freight forwarders and manufacturers
- Carries more than 500m tons of freight each year
- Typically has 750,000 live 'offers' of vehicle space to transport freight

Moda Living & Uber partnership, UK-wide

- Property developer Moda Living offers car-free living
- Residents receive up to £100/month to use on Uber services

Uber in Tangocho and Nakatonbetsu, Japan

- On-demand rural town service to give access to key services for the elderly
- Uber is licensed to operate in places too small to support public transport



Beeline SG, Singapore

- Offers an open, cloud-based smart mobility platform for shuttle buses
- Commuters are empowered to 'crowd-start' and suggest new routes

oBike, Sydney & Melbourne, Australia

- Shared bike scheme just launched
- Push-back from councils who consider the shared bikes as clutter and nuisance

Shared

Recommended next steps

A good shared mobility strategy has the potential to improve network efficiency, enable better place-making and free up space for alternative uses, while reducing over-reliance on private cars.

The greatest benefits can be realized when the developers and strategic land investors embrace shared mobility as a key objective, and where service operators bring new collaborative innovations to market that provide a return to both the provider and the public sector, together with an improved service for all user groups.

In the wider New Mobility context, shared mobility strategies are likely to work best where:

- There is recognition that *unique solutions will be needed to suit the local context*, including demographic, cultural and regulatory aspects. The existing urban fabric of a city will play a part in determining its suitability for different shared solutions, which will affect uptake.

- Consideration is given to *incentives for walking and cycling*, rather than using shared mobility as a push towards vehicle-based shared journeys. This will promote healthy mobility but also much more efficient solutions.

- *Public and private sector collaboration* is strongest, to address accessibility and operational efficiency issues. The most efficient solutions will enable data sharing for a wide range of purposes, crossing ownership boundaries and perhaps reflecting reciprocal arrangements. Google's Waze, for example, contains data that can support car-pooling, and cities may wish to consider the extent to which they could support this effort rather than funding alternatives.

A short series of possible next steps for specific stakeholder groups is suggested below but is not intended to be exhaustive:

For potential developers and land investors, land-owners and similar:

- Consider opportunities for collaboration in providing shared mobility 'car-free' living from the outset.

- Challenge policy which dictates parking minimums and ensure developments are supported by a strong sustainable suite of travel options.

- Recognize the potential impact of a reduction in private car ownership on development design, for example in relation to parking design, and its potential adaptation for future alternative uses.

For strategic and local road network operators:

- Engage more closely with shared mobility operators to understand the potential for more collaborative service definition.

- Analyze options for greater network efficiency through greater sharing and more efficient vehicle occupancy, and build this into network investment plans as appropriate.

- Act as a convener, perhaps with the planning authority, between shared mobility service providers and public transport operators, to create efficient solutions that work for all.

Shared

Recommended next steps

For public transport operators and funders:

- Understand loss-making routes or specific low-patronage services and work to create (or partner to include) a wider range of better quality service options. This may be particularly applicable in a rural or first mile / last mile context.
- Recognize the value of existing data collected on route operation and performance, and seek to share this on open platforms to allow others to promote and understand the services.
- Form partnerships with shared mobility providers and operators of MaaS digital platforms to build better analytical shared datasets that can inform service quality reviews and future service amendments.

For national and local planning authorities:

- Incentivize collaboration between public and private sector operators in the shared mobility space, and seek consensus around common objectives that benefit each
- Consider how 'Mobility Orientated Development' might be measured against planning and mobility objectives, explicitly enabling shared mobility to drive development planning processes and support uplifts in development densities.
- Linked to this, investigate the creation of a New Mobility index to measure accessibility levels (considering access to public transport, electric charging, multiple shared mobility options, time mapping and walk/cycle options)
- Develop policy and quality targets for the range of sharing mobility models. These could relate to reliability, cleanliness, affordability service indicators applied to carsharing (car clubs, fractional ownership), ridesharing, public transport and bikesharing in order to achieve specific modal shares and reduction in private car usage.
- Consider policy incentives for shared mobility options such as preferential parking/drop-off locations, high occupancy lanes or signal prioritization.

For shared mobility service operators:

- Take the next steps around collaboration with key stakeholders at national, regional and local levels (as appropriate) to better embed the service offer as a key part of the wider whole.
- Understand the potential for demand and revenue growth through the above process, and the quid pro quo sharing of a proportion of these returns with network owners and operators.
- Better understand the needs of the public sector, in particular the generation of wider non-commercial benefits, to support the growth of commercial shared mobility services across a greater proportion of the population.

Business Models and Revenues



The chosen business model, in particular its reach, its incentives, its influence and its 'teeth', acts as a fundamental enabler for the whole of the New Mobility concept. Done well, this enabler could take separate elements of change related to automated, connected, electric and shared mobility and bind them together so they are mutually reinforcing.

Some specific aspects of New Mobility already have their own commercial business models, but these tend to operate in relative isolation between private businesses and consumers. Decisions about vehicle purchases, season ticket renewal or membership of a car club, to take just three examples, are entirely separate.

In most countries, car users are unaware of the full economic and social cost of their decision to drive, as most of the costs are sunk (vehicle purchase, insurance, road tax and similar) before deciding to make a particular trip.

Now and increasingly in future, new forms of data will give us the potential to use much more refined pricing mechanisms to manage network behaviour, assure fair access and achieve the transport vision we want. These can then be fine-tuned in real-time to manage network efficiency, whilst generating revenues for improved transport infrastructure, future service provision and social access.

In terms of returns, greater collaboration between the public and private sectors should include agreements to define and ring-fence returns to network operators and maintainers, fleet operators and similar.



Key questions that need resolution over the short term include:

- How can pricing be used to encourage an optimal transition?
- How can trip pricing be used to avoid increasingly automated mobility leading to extra demand and/or distance travelled?
- Is it possible to build a business model where the users' perceived cost of travel is less than today?
- Can multi-modal trip pricing be integrated so that users make the 'right' decisions for system-wide efficiency, incentivizing the best decisions and behaviours for wider public interest?
- How can existing shared mobility business models be adjusted so they align better and help to fund local plans for new and maintained infrastructure, in particular roads?
- What regulatory controls will be needed to manage New Mobility business models, and at what level (national, regional or local)?
- How can regulation be best used to achieve specific objectives such as cross service subsidies, special pricing strategies or access for all?

Business Models and Revenues

Current trends

Regulation are needed in the new business models, pricing and regulation in the context of the four core aspects of New Mobility.

Fuel taxes as a base for infrastructure funding are unsustainable

Many countries are experiencing decreases in revenue streams because of the increased fuel efficiency of vehicles.

Since the latter is very desirable for other objectives, fuel taxes as a funding base are unsustainable for the future. As alternatives, carbon taxes and distance-based charging are increasingly under consideration in different regions around the world. Our interviews and research show that appetites for wider road pricing, in particular, are growing in many economies around the world.

Electric vehicles are gaining market share

Adding to the fuel tax challenge, the rise of electric vehicles, admittedly from a very low base, is expected to create a larger tax revenue deficit in time.

To counteract the current high cost of vehicle purchase, countries and cities are implementing a range of policies to increase the uptake of electric vehicles. These include purchase subsidies, free charging, free parking and use of bus lanes.

These are needed to counteract future changes in fuel prices and the falling price of second hand non-electric cars, but in time we expect to see moves that reconsider vehicle ownership models and go a step further by encouraging people to give up private ownership altogether.

Car manufacturers are already exploring new pricing models

The private sector is already moving towards new ownership models.

In a move away from a flat fee ownership model (i.e. selling a car), most manufacturers now offer leasing, fractional ownership and pay-per-use pricing, each of which marks a move towards selling mobility rather than a physical vehicle. The latest moves are similar to a software technology service applied to hardware, with Tesla, for example, offering remote upgrades to access new functionality and performance, via software updates, for a fee.

Air quality problems and global warming require a policy-led reduction in transport-based emissions

Countries and cities are looking at diesel and petrol car bans starting between 2030 and 2040.

Several European cities already have environmental zones around city centres for heavy vehicles, cars or both.

Any new pricing and regulation models should take the opportunity to act against emissions, the prevalence of polluting vehicles and overall levels of congestion.

Urbanization is already putting increased pressure on infrastructure capacity

Different countries already apply relatively blunt methods of regulation and taxation to reduce the use of privately owned cars.

License plate based bans in China and South America are an example, as are additional purchase taxes applied to vehicles in Denmark and The Netherlands. Singapore and Beijing restrict the number of vehicles that can be registered, and cities such as Oslo and Barcelona are working on banning cars from specific areas.

Many cities still permit development on the presumption of minimum parking standards

This policy was designed to ensure that sufficient parking would be available around new urban developments to avoid wider impacts on existing residents.

To discourage car ownership, many cities are now seeking reductions in typical development-related parking provisions or switching to a maximum parking provision model.

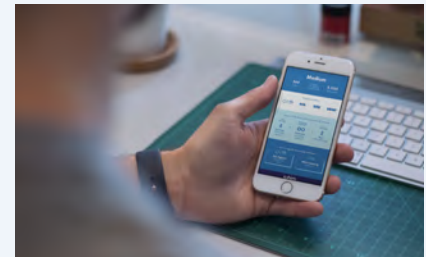
Parking revenues underpin local urban investment

Pulling against change, many local authorities around the world are heavily reliant on income generated by parking and enforcement charges.

The degree of ring-fencing varies but any onward change in the business model would need to demonstrate how it would replace this revenue stream.

Business Models and Revenues

Mobility pricing examples



① British Columbia's Carbon Tax, Canada

Introduced in 2008, a revenue neutral carbon tax covers around 70% of British Columbia's greenhouse gas emissions, including transport. It has reduced total emissions by 5-15%.

② London Congestion Charge

The Draft Mayor's Transport Strategy references a pay-per-mile mechanism. Low Emission Zones could be suitable test beds for new road pricing.

③ Whim, Helsinki, Finland

The Whim platform, a MaaS Global Pilot scheme, offers bundled mobility for a pay-as-you-go price or monthly fee.



④ Melbourne CityLink & 407 Express Tollway in Toronto

Locations of vehicles can be identified and movement profiles built up. Few people take up the anonymity option offered.

⑤ Singapore's Electronic Road Pricing System

The first and most sophisticated congestion charging system in the world with the ability to vary prices based on traffic conditions and by vehicle type, time and location.



Business Models and Revenues

Looking Ahead

We see potential in particular for new business models that wrap up all four aspects of New Mobility – automated, connected, electric and shared – to encourage a purposeful shift towards the best possible outcomes for our places and people over the long-run.

The single enabler across all of these areas is the fast-expanding availability of data, which is the key to a fair and accessible future mobility system for all. It is unlikely that a generic business model will work, as needs and priorities will vary between countries, and at the level of individual cities and regions, as will costs and benefits.

It seems possible that some of the more advanced pricing models already on the market, in particular those in the shared mobility space, could adapt to cover a wider remit with a wider range of stakeholders in both the public and private sector.

On this basis, we offer a range of guiding principles for the creation of a New Mobility business model:

- To create a fair, sustainable and politically acceptable operating model that is self-maintaining and makes the most of all four aspects of New Mobility, recognizing their unique individual contributions to desirable wider outcomes.
- To create the right conditions for collaboration between key stakeholders at a range of levels, to maximize public participation, preserve existing revenue streams for the public sector (e.g. parking income) and commercial returns for all partners.
- To guard against unnecessary increases in vehicle kilometres and congestion, via a mix of planning policy to prevent sprawl coupled with dynamic pricing that builds in incentives for shared mobility and travel at less busy times. Surcharges should apply for highly inefficient or, in time with automation, empty running.
- To provide an integrated multi-modal system for the efficient completion of end-to-end journeys, where pricing reflects the options chosen in an intuitive way and where unnecessary competition is minimized. It should be possible to create a model where trip costs reflect not just distance and speed, but also the range of alternatives on offer.
- To persuade against personal private vehicle ownership via visible incentives, given that it is unlikely that government will legislate directly in this area. The business model should reflect a relatively high cost of entry and ongoing participation costs for those choosing to use their own vehicles over the long term, once alternatives are in place and proven.
- To plan for and fund new development, across the residential, commercial and leisure sectors, that underpins New Mobility principles in terms of both physical layout, but also everyday operation from day one. Find ways to engage both long-term strategic land investors and those with shorter-term interests.
- To give clarity to the distribution of public sector income for wider benefit, for example to enable access for all, to fund public realm improvements or to invest in transport infrastructure and service upgrades. Coupled with individual experiences of mobility, this will be a core element that influences public perceptions and long-run popularity.
- To consider differential application and costs according to location, recognizing that options in urban, suburban and rural areas will be dramatically different and that mobility needs will vary.
- To incentivize electrification (or other future sources of energy) while reflecting cost variability. Factors such as affordability of electricity, environmental cleanliness of local electricity generation and distribution challenges (particularly in rural and remote areas such as the Canadian territories and the Australian out-back) will each have an influence.
- To start to set New Mobility targets and carry out scenario tests, from now, for a range of outcomes reflecting different future values of mobility and time, and then to keep a close watch on the actual influencers of this value in the context of New Mobility change.

- To begin now.

Conclusion

Everyone reading this will have a personal and professional stake in creating a purposeful transition to the best possible New Mobility outcomes. What “best” looks like will, of course, vary according to your specific interests and goals, so individual plans of action are needed for the next steps.

In closing, we summarize the core benefits brought by each strand of New Mobility and then offer five simple steps by which you could define your unique pathway, starting now.

The need for all five New Mobility strands

The transition to New Mobility is underway. Some countries and cities are ahead of others and appetites vary, but onward change against the four key aspects – automated, connected, shared and electric – is inevitable. The fifth element, business models, acts as the enabler or “glue” between the other four.

We are convinced that all five aspects are essential, as they each add distinct value to the potential on offer from New Mobility. Without any one element, we are unlikely to maximize the benefits of the transition.

- The *automated* and *connected* strands, together, are the two pieces that will *transform future network efficiency, safety and access to mobility*. They will allow the creation of a *single data-led multi-modal transport system*. Without the other New Mobility strands, however, they are unlikely to reduce demand or associated congestion, nor can they be expected to create substantial improvements in air quality or the quality of our places.
- The *electric* strand (or alternative fuels yet to emerge) is the primary New Mobility element that holds the *key to substantially cleaner air* for our communities in the long-run.
- The *sharing* strand holds the *transformational power around future place-making across our cities, towns and rural centres*. This is because there could be far fewer vehicles parked, compared with today. This is only possible if we can encourage a substantial move away from private vehicle ownership by offering a high quality, flexible and affordable mobility service that works as well as (or better than) today's car ownership and lease models.
- Finally, the *business model* strand, linked closely with pricing, will unlock the shift from today's seemingly eclectic selection of pilots and operating models across the automated, connected and electric strands to a truly sustainable New Mobility 'bundle' for the long-run. The shared mobility strand already has various business models in operation, but we see that these would evolve and become more integrated with the wider New Mobility concept. In the interests of simplicity but also to maximize returns, we will want to move towards *integrated system operation* where the cost of trip-making are clear and understandable, and where levels of use are maximized but in a way that *manages congestion and encourages efficiency*.

New Mobility business models also hold the key to *capturing commercial returns for both private sector participants* (whose returns should increase through collaboration) *and public sector bodies* who are responsible for maintaining and investing in our multi-modal transport networks over time. It is also the core piece that will steer public engagement and opinion, building popularity as long as the quality of service is good and user costs are perceived to be fair and affordable.

Unfortunately there is no easily defined single “bundle” that will work everywhere. It will be the local application, and onward growth, of specific yet tailored solutions that will bring genuine benefit to our places and routes of the future. Some players have the power to generate widespread multi-national change, while others hold much more local influence as enablers and agents of change on the ground. Each needs the other if they want to maximize popularity, commercial returns and wider benefits.

Conclusion

Five steps to New Mobility success

Five steps



The following five steps could be taken by any organization to make the best progress towards New Mobility.

Step 1

Map your 'now' against the five elements of New Mobility

Using the chapters of this publication as a guide, take time to map your current position against each of the five New Mobility elements, relative to others. In doing this, consider their relevance and importance, your current and intended level of engagement and the urgency for any change.

Some organizations will have an interest in one or two specific strands of New Mobility as a priority, particularly those bringing a specific technological solution to market. Others, particularly the planning and transport authorities, are more likely to find that a balanced approach across all five strands, with an eye on wider social benefit as well as direct commercial returns, is most likely to generate the greatest value.

Step 2

Understand appetites for change

The key choice that is open to all of us is the extent to which we each choose to engage and lead change from now. Appetites for New Mobility and the power to accelerate or hold back change vary widely. This range is particularly visible in the public sector, at both national and local scales, from 'we'll wait and see' to 'we want to be at the front'. We would suggest that a simple exercise to consider your own – and relevant others' – appetite(s) for change could be highly valuable.

There may be nothing wrong with waiting on some aspects of New Mobility, although the risks of doing nothing when others are increasingly active should be considered carefully.

It is worth bearing in mind that we do not need to do everything, everywhere, and that given the range of live operations, pilots and trials already in play, it should be entirely possible to adapt learning from one place to another.

As a final point, being keen to engage with New Mobility does not mean that everything has to be decided and mapped out now. There will be many unknowns, and much more change ahead, so the first step is to identify what decisions are really needed now and which can wait.

Conclusion

Five steps to New Mobility success

Step 3

Collaborate, consciously

Throughout this White Paper, we have homed in on better collaboration as a major opportunity.

We are absolutely clear that collaboration is the key to maximizing returns and generating faster change towards productive New Mobility outcomes.

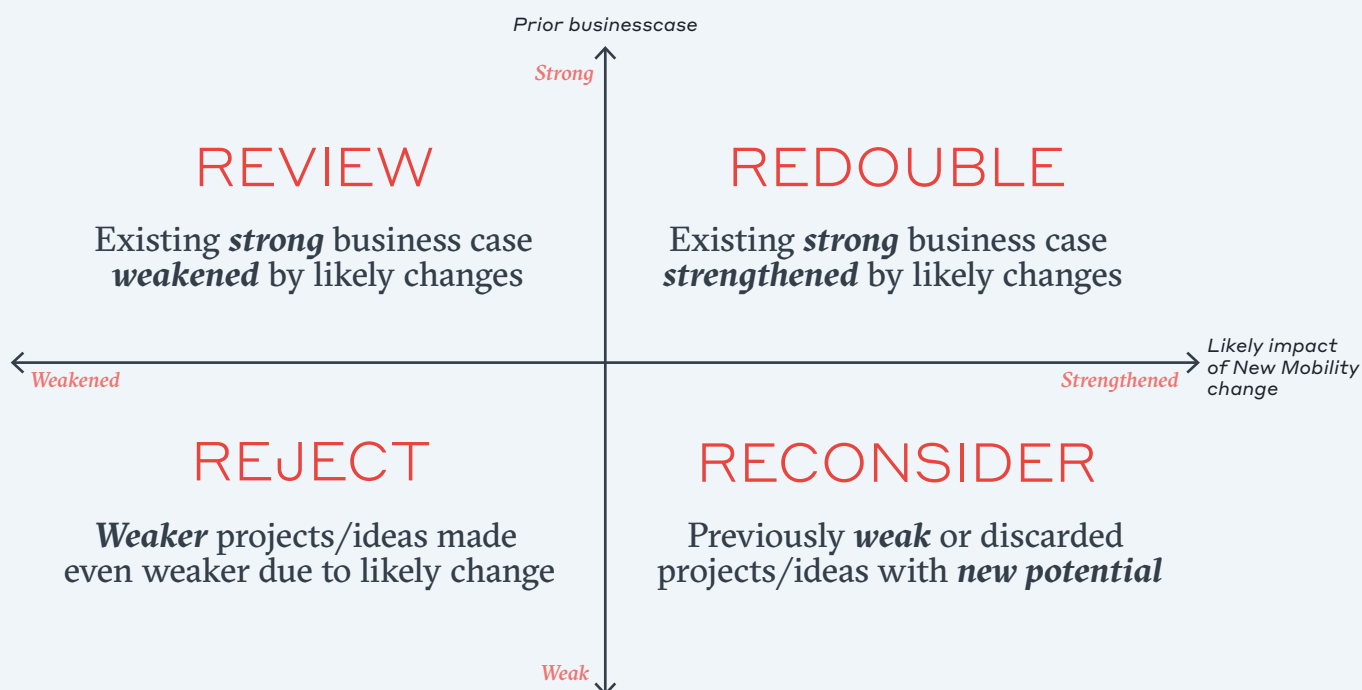
It is clear that nobody will make the most of the transition to New Mobility if they try to achieve it alone. We need all sorts of people – enablers, technologists, funders and visionaries – to craft and shape the landscape, then reshape it as necessary, as onward change will not stand still.

That said, it is not about collaboration for its own sake, or automatic collaboration with anyone who happens to ask. We would recommend a much more conscious process, where possible partners and stakeholders are considered and approached for the specific value and opportunity that they bring, and their alignment with your plans and goals. The process is, by definition, two-way.

We can see this beginning to happen in practice. We are moving from connected and automated vehicle trials designed to prove a specific technology, to efforts to marshal this learning and to understand the potential and impacts on places and routes. Similarly, some of the newer shared mobility providers are now learning that collaboration and the formulation of shared goals with the relevant national and local planning and transit authorities can pay dividends in terms of their integration with – rather than competition with – other modes and services.

The other aspect of vital collaboration is with the travelling public. New Mobility is a highly technical and specialized area, and yet the everyday experience of moving around our places and networks is familiar to everyone. Efforts to explain, listen and demystify the changes ahead will be the key to public perception and popularity.

New Mobility Business Case Framework



Conclusion

Step 4

Adapt what you already have

Having focused on aspects of change, it is easy to forget that some of what is already planned or available could be adapted to suit New Mobility futures. In the case of infrastructure, where is there potential to get more from the existing network? Similarly, for proposed developments, how can we adapt existing plans to fit with what we see ahead?

The simple framework above can be helpful in rethinking and adapting existing investment plans.

Step 5

Find your 'springboard'

Through the previous steps, a series of early actions will emerge. Some will be well defined and others will need further exploration before they can be added to plans for next steps. Our final recommendation is to identify a specific 'springboard' or focal point that can be delivered in the short term to make a statement about the tone, style and speed of your move towards New Mobility in your context. This might reflect a prior involvement in existing pilots and trials or an area where you are already in a market leadership position, or it might be an area where you are lagging, but where you can see enormous short-run potential for visible change and benefit.

In combination, these five steps should provide a balanced start-point for an action plan across all the strands of New Mobility, with plenty of routes for immediate focus and action. We hope that the details of this publication will provide useful connections to recent examples and learning from around the world, as well as insight into the current opportunities and challenges of New Mobility.

We would love to hear your feedback on this research and sincerely hope that you have found it helpful. If you would like to speak to one of our local experts about New Mobility in your region or elsewhere, please do get in touch at NewMobility@wsp.com.

#FutureReady

#NewMobility

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EP6

Lumber Lane, Burtonwood

Landscape Briefing Note (11193/R01)

1.0 Introduction

- 1.1. This report has been prepared by Tyler Grange LLP on behalf of Wainhomes North West following desktop analysis and preliminary fieldwork undertaken in September 2017.
- 1.2. The overview provides advice relating to landscape character and visual amenity at a high level to appraise the feasibility of the future residential development of land off Lumber Lane to the north of Burtonwood (hereafter referred to as 'the site').
- 1.3. The overview report does not constitute a full Landscape and Visual Appraisal (LVA) / Landscape and Visual Impact Assessment (LVIA). It is intended that this work will inform potential development going forward and provide a review of the suitability of the land for release from the Green Belt.
- 1.4. The report should be read alongside the following plans which are contained at the rear of this report:
 - **Landscape Context Plan and Photoviewpoint Locations** (11151/P01);
 - **Landscape Opportunities and Constraints Plan** (11151/P02);
 - **Photoviewpoints 1-6** (11151/P03);

2.0 Site Context

(See **Plan 1: Landscape Context Plan** (11151/P01))

- 2.1 A site walkover survey was conducted on the 19th of September to assess the landscape character and visual amenity of the site. The weather was sunny/cloudy with clear views. A desktop study using available data sources was undertaken including national and local landscape designations and policies.
- 2.2 Burtonwood is a small village and civil parish within the Warrington borough of Cheshire, in North West England. It is situated approximately 5.6 miles north west of Warrington, 4.6km west of the M6 and 1.5km north of M62. The civil parish also incorporates Westbrook, which is a council ward and suburb of Warrington.
- 2.3 The site is an approximately 10.1 hectare area of greenfield land, centred on OS grid reference SJ 56815 93391. There are three fields within the site divided by ditches lined with scrubby vegetation and isolated trees. The largest field to the north is approximately 5.5 hectares and

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is used as arable farmland, a central field of 2.5 hectares and a southern field of 2.1 are improved grassland. The site is adjacent to the residential edge of Burtonwood to the southeast. To the west are two other fields, separated from the site by a line of scrubby vegetation and trees. Beyond this to the west is Green Lane and an adjacent line of residential properties. Lumber Lane aligns to the northern site boundary, beyond which is agricultural land for approximately 1km up to the Sankey Brook and Sankey Canal.

The large flat fields create a generally open site, with some sense of enclosure created within the site by scrubby vegetation and trees. To the south and east the visual extents is defined by the residential edge of Burtonwood. To the west a number of suburban properties aligned to Green Lane create the visual extents. To the north longer distance views are available towards the riparian woodland aligned to the Sankey Brook and industrial buildings at the southern edge of Newton-le-Willows. The site is generally flat, sloping gently from a low point at the north of approximately 29m AOD to a high point in the south of 31m AOD.

3.0 Planning Policy Context

- 3.1. Warrington Borough Council's Local Planning Framework currently consists of the Warrington Local Plan Strategy which was adopted on 21 July 2014. The Local Plan is being updated, in particular the housing policies, as part of this the Council is undertaking a review of the Green Belt to identify new land for development. The site is located wholly within the Green Belt and a review of the site's performance and suitability for release from the Green Belt is set out in this report.

Warrington Borough Council Local Plan Core Strategy (Adopted July 2014)

- Policy CS 1 Overall Spatial Strategy - Delivering Sustainable Development;
 - Policy CS 2 Overall Spatial Strategy - Quantity and Distribution of Development;
 - Policy CS 5 Overall Spatial Strategy - Green Belt;
 - Policy CS 6 Overall Spatial Strategy – Strategic Green Links;
 - Policy QE 3 Green Infrastructure;
 - Policy QE 6 Environment and Amenity Protection;
 - Policy QE 7 Ensuring a High-Quality Place; and
 - Policy CC 2 Protecting the Countryside.
- 3.2. The Overall Spatial Strategy policies focus on sustainable development, managing the quantity and distribution, housing supply, the Green Belt and strategic Green Links. In relation to the Green Belt, the Strategic Vision for Warrington notes that: *“The focus on regeneration has limited outward growth of the town and has enabled the continued protection of the Green Belt.”* This links into Strategic Objective W2: *“To maintain the permanence of the Green Belt and the character of the countryside in the borough and protect them from inappropriate development.”*
- 3.3. Policy CS 1 states that *“development proposals that are sustainable will be welcomed and approved without delay”*. The policy goes on to list the criteria by which development should accord with alongside national and local planning policy frameworks and the material considerations in order to be considered sustainable. Specific material considerations relevant to the site and proposed residential development include:
- *“Priority afforded to the protection of the Green Belt and the character of the countryside;*
 - *The need to address the causes of and be resilient to the effects of climate change;*
 - *The need to safeguard environmental standards and residential amenity;*

- *The delivery of high standards of design and construction, that have regard to local distinctiveness and efficiency; and*
 - *The need to make the best use of existing transport, utility, social and environmental infrastructure within existing settlements, and ensure additional provision where needed to support development.”*
- 3.4. Policy CS 2 relates to the quantity and distribution of development. Principles in the policy relevant to the site and residential development include:
- *“The general extent of the Green Belt and the detailed boundaries as indicated on the Local Plan Core Strategy Policies Map will be maintained for as long as can be seen ahead and at least until 2032;*
 - *Within the Green Belt area, development will only be allowed where it is considered to be appropriate in accordance with national policy; and*
 - *All new development should where appropriate make provision for supporting infrastructure in accordance with Policy MP10.”*
- 3.5. Policy CS 3 states that:
- “Should monitoring indicate that an on-going, 5 years’ deliverable and a subsequent 5 years’ supply of developable housing land can no longer be sustained or where it can be demonstrated that housing need cannot be met within Warrington, the Council will review its housing land provision, and bring on-stream additional housing sites as required, with priority given to encouraging the reuse of previously developed land and avoiding sites in the Green Belt where possible.”*
- 3.6. In relation to Policy CS 5, planning permission for new buildings in the Green Belt *“will be approved where they accord with relevant national policy.”* The site is being considered for release from the Green Belt for the purposes of residential development in the emerging Warrington Borough Council’s Green Belt Review.
- 3.7. Policy CS 6 relates to Green Infrastructure and states that the Council *“is committed to supporting wider programmes and initiatives which seek to connect the borough’s Strategic Green Links with employment areas, residential communities, and Green Infrastructure Assets”*. Further requirements in relation to Green Infrastructure are set out in Policy QE3 which provides more detail on the criteria against which applications will be assessed.
- 3.8. Policy QE 6 considers the protection of environment and amenity within development. Areas taken into consideration relevant to site and residential development include:
- *“The quality of water bodies, including canals, rivers, ponds and lakes;*
 - *Land quality;*
 - *Levels of light pollution and impacts on the night sky; and*
 - *The need to respect the living conditions of existing neighbouring residential occupiers and future occupiers of new housing schemes in relation to overlooking / loss of privacy, outlook, sunlight, daylight, overshadowing, noise and disturbance.”*
- 3.9. Policy QE 7 describes the Council’s expectations in term of the quality of place in relation to development. Proposals which have considered the following aspects will be positively received:

- *“Be sustainable, durable, adaptable and energy efficient; create inclusive, accessible and safe environments;*
 - *function well in relation to existing patterns of movement and activity;*
 - *reinforce local distinctiveness and enhance the character, appearance and function of the street scene, local area and wider townscape;*
 - *harmonise with the scale, proportions and materials of adjacent and / or existing buildings;*
 - *maintain and respect the landscape character and, where appropriate, distinctiveness of the surrounding countryside;*
 - *use the density and mix of development to optimise the potential of the site without damaging the character of the area; and*
 - *be visually attractive as a result of good architecture and the inclusion of appropriate public space.”*
- 3.10. The remaining applicable landscape and visual related policies deal with improvements to the Green Infrastructure of Warrington Borough the retention of landscape features and recreational public routes, including cycleways, as well as the requirement for built form to complement the materiality of the locality in order to preserve local distinctiveness and the local character features to ensure the suitable assimilation of development proposals. The policies also direct development towards achieving high quality design within new development, and providing landscaping as an integral part of the overall design.
- 3.11. Policy CC 1 covers Green Belt Settlements.
- “Within these settlements development proposals will be subject to Green Belt policies set out in national planning policy. New build development maybe appropriate where it can be demonstrated that the proposal constitutes limited infill development of an appropriate scale, design and character in that it constitutes a small break between existing development which has more affinity with the built form of the settlement as opposed to the openness of the Green Belt; unless the break contributes to the character of the settlement.”*
- 3.12. The contribution the site makes to the Green Belt in landscape and visual terms is covered further in **Section 5** of this report.
- 3.13. Policy CC 2 supports development within the countryside provided that:
- *“the detailed siting and design of the development relates satisfactorily to its rural setting, in terms of its scale, layout and use of materials;*
 - *they respect local landscape character, both in terms of immediate impact, or from distant views;*
 - *unobtrusive provision can be made for any associated servicing and parking facilities or plant, equipment and storage;*
 - *they relate to local enterprise and farm diversification; and*
 - *it can be demonstrated that there would be no detrimental impact on agricultural interests.”*
- 3.14. The remaining applicable landscape and visual related policies deal with improvements to the Green Infrastructure of Warrington Borough the retention of landscape features and recreational public routes, including cycleways, as well as the requirement for built form to complement the materiality of the locality in order to preserve local distinctiveness and the local character features to ensure the suitable assimilation of development proposals. The policies also direct development towards achieving high quality design within new development, and providing landscaping as an integral part of the overall design.

- 3.15. In addition to the above policies, the following Supplementary Planning Documents (SPD) and Supplementary Planning Guidance (SPG) also need to be taken into consideration:

Supplementary Planning Documents

Environmental Protection SPD (May 2013)

- 3.16. This SPD supports Policy QE6 Environment and Amenity Protection and details the councils approach to dealing with environmental protection including light pollution. Development schemes which include street lighting proposals should adhere to the design principles set out in the SPD. Principles relating to landscape and visual include:

- *“Limiting the light levels to a designed uniformity;*
- *limiting the use of lighting schemes to identified uses or users;*
- *the retention of screening vegetation; and*
- *the use of planting and bunding to contain lighting effects.*

- 3.17. The SPD states that *“these conditions will be applied as necessary by the LPA to help reduce obtrusive light from new proposals, particularly glare and spillage, from areas of wildlife importance, open countryside and residential amenity.”*

Design and Construction (October 2010)

- 3.18. This document provides advice and guidance to developers about aspects of the design and construction process. The document states that *“A well designed landscape scheme should enhance the appearance and setting of any new development and its location. A successful scheme will have considered and correctly interpreted the landscape character of the location so as to produce the most appropriate design solution for the development.”*

Landscape Design Guide for New Developments

- 3.19. This document is to provide advice and guidance to developers who are required to submit landscape schemes as part of detailed planning applications.

- 3.20. The key objectives are:

- *Ensure high quality environments in which to live and work through excellent landscape designs in new developments;*
- *ensure the design of new landscapes feature at an early stage in the design process to ensure they are well integrated into new developments;*
- *ensure biodiversity and geological features are conserved and enhanced through landscape improvements;*
- *promote the health and wellbeing of the community through new landscape schemes*
- *promote quality landscape schemes which are sensitive to the locality and provide local distinctiveness; and*
- *ensure that the design of new landscapes do not increase fear of crime or give rise to criminal behaviour.*

Open Space and Recreation Provision (September 2007)

- 3.21. This policy details a number of key objectives for open space within the borough including:

- *“To ensure an adequate provision of open space in quantitative, qualitative and accessibility terms subsequently helping to ensure the creation of sustainable communities;*
- *to create opportunities for and enhance biodiversity;*
- *to create opportunities for travel by more sustainable modes such as by walking or cycling;*
- *to assist in maintaining and improving public health by providing opportunities for recreation and sport;*
- *to provide educational opportunities in the form of ‘outside classrooms’ through providing opportunities for contact with nature;*
- *to provide focal points for social interaction and community events;*
- *to contribute to local distinctiveness through helping to create a sense of place and belonging;*
- *to help secure safe and well-designed open spaces where the design has intended to deter crime; and*
- *to assist in tackling climate change through the plantation of trees and creation of green ‘breathing’ spaces.”*

Planning Obligations (September 2007)

3.22. This SPD details the councils approach to the use of planning obligations to facilitate decision making, relevant key objectives include:

- *“Ensure appropriate environmental and biodiversity protection and enhancement and mitigation measures where appropriate;*
- *Ensure no detrimental impacts on amenity (visual, residential, noise, flood risk, landscape);*
- *Ensure conservation of heritage assets and mitigation where appropriate.”*

Suitability of the Site for Release from the Green Belt

3.23. A review of the site’s performance and suitability for release from the Green Belt is summarised below in relation to the applicable principal Green Belt objectives as set out within the NPPF (the Framework) from a landscape perspective and in relation to the findings of the Warrington Borough Council Green Belt Assessment.

3.24. The NPPF framework sets out five key purposes for green belt:

- *“to check the unrestricted sprawl of large built-up areas*
- *to prevent neighbouring towns merging into one another*
- *to assist in safeguarding the countryside from encroachment*
- *to preserve the setting and special character of historic towns*
- *to assist in urban regeneration, by encouraging the recycling of derelict and other urban land”*

3.25. Stage 1 of The Warrington Borough Council Green Belt Assessment (WBCGBA) marked out 24 General Areas based on common features and characteristics. Each area was then assessed against the NPPF five key purposes of green belt marked out above. The proposed site lies within General Area 18. Stage 2 involves defining smaller green belt parcels around settlements focussing on technical site assessments of the areas, looking at site constraints. The proposed site lies within BW3.

3.26. The sites are reviewed within the context of the NPPF Green Belt objectives below:

- ***To check unrestricted sprawl***

The WBCGBA defined General Area 18 as making a moderate contribution towards this objective. At a more detailed level land parcel BW3 is considered to make no contribution towards checking unrestricted urban sprawl, with the reason being that it is not adjacent to the Warrington urban area.

To the southwest, the site is bordered by residential properties and gardens. To the north is Lumber Lane and to the east are two fields. Beyond fields to the east are Green Lane and a number of houses aligned to the road.

The residential garden boundaries which line the site to the southwest could be considered vulnerable to urban sprawl due to being rear facing. Lumber Lane creates a more rigid boundary to the north and could be utilised together with appropriate development frontages and soft landscaping, to restrict development from spreading beyond this point into open countryside to the north.

The western boundary is currently aligned by two fields. Beyond this is Green Lane and an associated line of suburban houses (c.150-250m from the site boundary dependant on latitude of measurement). Despite Green Lane not being directly adjacent to the site, the boundary acts to perceptually separate the site from the wider countryside and act as a limit to development. Further to this, buffer planting could be developed along the western site boundary which would create a more robust edge.

- ***To prevent neighbouring towns merging into one another***

General Area 18 is assessed to make a strong contribution towards this objective. At a more detailed level, land parcel BW3 is assessed within the WBCGBA to make a weak contribution to preventing towns merging into one another. It is assessed that this parcel forms a less essential gap between the Warrington urban area, Newton-le-Willows and St Helens. The assessment points out that whilst development in this area would reduce the actual gap to an extent, this would not reduce the perceived gap.

The site is located between Burtonwood, Newton-le-Willows, Bold and St Helens. The site's southwest boundary sits directly adjacent to Burtonwood. St Helens is c.2.2km northwest of the site, Bold is c.2km west of the site and Newton-le-Willows is c.1.35km north of the site. The distance between the development site and other surrounding settlements means this site can have little influence in preventing towns from merging.

Another consideration in terms of the merging of settlements, is the strength and permanence of existing boundaries. There are significant transport links and other boundaries that separate the afore mentioned urban areas from the site. Directly adjacent to the north of the site is Lumber Lane and beyond this Newton-le-Willows is separated by the Sankey Canal, Sankey Brook and an electricity transmission line. To the northwest, the railway line linking Newton-le-Willows to Liverpool and Manchester crosses between the site and St Helens. To the east Green lane, Back Lane and Bold Lane lie between Bold and the site, alongside industrial developments.

- ***Safeguarding the countryside from encroachment***

General Area 18 is deemed to make a moderate contribution to this green belt objective within the WBCGBA. At a more detailed level land parcel BW3 is deemed to make a strong

contribution towards safeguarding the countryside from encroachment. The boundary between BW3 and Burtonwood is assessed as being non-durable, consisting of fenced/hedged garden boundaries, and therefore unable to prevent encroachment into this parcel long term. The assessment highlights that Green Lane and Lumber Lane create durable boundaries between the site and the wider countryside.

A relationship to Burtonwood is created through views available to residential properties at the southeast of the site as acknowledged by the WBCGBA. A relationship to a more rural character is created through views of countryside to the north and to two fields adjacent to the site to the west. The view north incorporates a line of pylons and larger transmission towers detracting from the countryside view.

The Warrington Landscape Character Assessment suggests key objectives for managing LCA 1E: Burtonwood are to reduce the negative views of pylons and to consider additional planting as an envelope to the village of Burtonwood. An attractively designed development could help to screen pylons for views looking north from Burtonwood, improving countryside views from these locations. Native planting around the edge of the development could assist in contribute to an attractive planted envelope at the settlement edge and further strengthen this boundary as robust to countryside encroachment.

As highlighted in the WBCGBA, whilst there is a connection to two fields adjacent to the site at the east, the site is separated from the wider countryside by Lumber Lane and Green Lane. The most vulnerable boundary to countryside encroachment in a developed site would be to these two fields to the west. Whilst there is some scrubby vegetation and trees which separate the site from these fields, this boundary could also be strengthened with a landscape buffer extending across the full eastern boundary. This would provide the opportunity to create a more characteristic settlement edge than exists at the northern edge of Burtonwood at present, and would enable a robust, defensible and permanent settlement edge to be created. Ultimately, Lumber Lane and Green Lane provide the most appropriate defensible edges to restrict encroachment into the countryside in this location and development of the site would be contained within the limits of these features.

- ***Preserve the setting and special character of historic towns***

General Area 18 is assessed within the WBCGBA as making a weak contribution towards preserving the setting and special character of historic towns and land parcel BW3 is assessed to make no contribution to this green belt objective. The assessment states that the parcel is not adjacent to a historic town and does not cross an important viewpoint of the parish church.

The site sits at the northwest edge of Burtonwood, lined with predominantly bungalow style housing. There is currently no conservation area status in Burtonwood suggesting the character of the town is not valued for its historic setting.

Towards the northeast is the grade II listed Bradlegh Old Hall, which sits in the visual envelope of the proposed development site. Hedgerows would be expected to filter views towards the site, which are also viewed in the context of other properties aligning Lumber Lane. Sensitive landscape design along the northern boundary of the site could create a village edge feel, creating attractive views to the site from the north.

Long distance views from the site are available to the grade I listed Sankey Viaduct and to the spire of the grade II listed church of St Mary and St John. Development at this site

would be expected to have little impact on the setting of these heritage assets due to the distance at which it would be viewed together with the presence of intervening vegetation.

Landscape Character Context

- 3.27. At the national level, the majority of the site sits within the 'Mersey Valley' Character Area (National Character Area 60). A small section of the north-west corner of the site is within Lancashire Coal Measures (National Character Area 56). At a local level, the site is identified within LCT 1: Undulating Enclosed Farmland and LCA 1E: Burtonwood as part of the Warrington Landscape Character Assessment.
- 3.28. Key characteristics of LCA 1E are noted as:
- *Exposed, open, large scale, arable fields*
 - *Good views to the east*
 - *Absence of, or highly-fragmented, hedgerows between fields*
 - *Change of landscape character immediately around the fringes of Burtonwood village due to horse grazing and suburban landscape*
 - *Noticeable appearance of pylons and telegraph poles*
 - *Dominant presence of the well-wooded Nine Arches embankment north-west of Burtonwood village and through the middle of Collins Green*
 - *Interesting, more varied, topography of Phipp's Brook valley*
- 3.29 Key elements of landscape sensitivity are:
- *Location of the village on crest line*
 - *Open landscape with sparsity of hedgerows and hedgerow trees*
 - *Exposed to views and weather*
- 3.30 Key objectives for managing this landscape character area are:
- *Restore and enhance remaining field patterns by additional hedgerow planting*
 - *Reintroduce hedgerow trees to the hedgerows to create shelter*
 - *Consider additional native planting as an envelope to the village of Burtonwood*
 - *Consider a visual impact study to reduce the negative views of pylons*
 - *Encourage traditional hedgerow management and protection within horse grazing paddocks*
 - *Retain open views towards Sankey Viaduct, together with selected longer views to the east and south*
 - *Consider stream associated native trees and shrubs to Phipps Brook through farmland to the confluence with Sankey Brook*
 - *Consider removal of privet hedges where possible and replacement with hawthorn, holly, etc.*
- 3.31. Whilst the character information set out above does provide some context relevant to the promotion of the site, it does not address the characteristics specific to the site. In response to fieldwork and desktop research, further observations have been made with regards the site and its immediate surroundings:

- The site is comprised of three fields of improved grassland and one containing arable crops. The fields are divided by ditches lined with scrubby vegetation and isolated trees.
- The site is bounded by vegetation to the west, Lumber Lane to the north and residential properties on the edge of Burtonwood to the east and south.
- The site is generally flat, the gradient falls approximately 2m from south to north.
- The visual envelope is created by the settlement edge of Burtonwood to the south and east, residential properties which line Green Lane in the west and longer distance views to the north including vegetation associated with Sankey Brook and the Liverpool-Manchester railway line.

3.32. It is evident from fieldwork, that the site has a high degree of openness, particularly towards countryside to the north, however the site's character is defined through a combination of more urban and rural characteristics due to the surrounding context. Urban factors making up the site's landscape character include the settlement edge of Burtonwood, properties aligning Green Lane, the adjoining road (Lumber Lane), electricity pylons which run north-south through the site and transmission towers running east-west past the north of the site. These all affect the degree to which the site can be considered rural, and whilst intervisibility with the wider Green belt is possible, the site itself is recognised in character terms as being more associated with the settlement edge than the wider countryside beyond Lumber Lane and Green Lane.

Visual Context

(See *Landscape Context Plan* (11193/P01) and *Photoviewpoints* (11193/P03))

3.33. The site is broadly open due to its current usage. Views within the site are broken up by scrubby vegetation and woodland lining two ditches which run through the site, dividing the area into three fields. Residential properties at the edge of Burtonwood to the east and south are visible from within the site. Bungalows and ground floors are less visible behind a solid concrete panel fence which lies at the site boundary. There are views to two other fields towards the west beyond which is a line of properties adjacent to Green Lane. More long-distance views are available to the north across open countryside extending out to vegetation associated with the Sankey Brook and vegetation aligned to a railway line linking Newton-le-Willows to Liverpool and Manchester. Buildings in an industrial estate at the southern edge of Newton le Willows are also visible from within the site.

3.34. The approximate extent of the visual envelope (VE) is set out below:

- To the north - views are open across countryside extending approximately 1km out to riparian woodland associated with the Sankey Brook and trees aligned to a railway line linking Newton-le-Willows to Liverpool and Manchester. Buildings in an industrial estate at the southern edge of Newton le Willows are also visible. Some heritage assets are visible including the grade I listed Sankey Viaduct, a spire of the grade II listed Saint Mary's and St. John's Church and the grade II listed Bradlegh Hall.
- To the south-east and east - a mixture of bungalows and two storey properties at the edge of the settlement of Burtonwood create the visual extents. A concrete panel fence creates a solid visual barrier at ground floor level.
- To the south-west and west - two fields are separated from the site by scrubby vegetation and a line of trees. Beyond the fields is Green Lane. To the west of Green Lane is a line of properties, which create the visual extents. There is a row of houses to the north east of Phipps Lane that are visible from the site, beyond these properties landform and vegetation obscures views.

- 3.35. Overall, the site is visible from properties to the west, south and east and these properties form the visual extents containing the site from wider visibility. Views towards the north are longer distance and extend towards vegetation associated with the Sankey Brook and Manchester-Liverpool railway line. Characteristic features are visible including the Sankey Viaduct, the spire of St Mary's and St John's church and Bradlegh old Hall. Detracting elements also feature within views and include electricity transmission towers and the Newton-le-Willows industrial estate. The drains within the site and associated scrubby vegetation create some sense of enclosure to the large flat fields within the site. Views do not extend into Burtonwood beyond the adjacent settlement edge.
- 3.36. Potential visual receptors to development of the site include:
- Users of the Public Rights of Way-footpath Burtonwood 30 aligned to the south-east site boundary, and footpath Burtonwood 33 to the north of the site.
 - Private residents associated with the adjacent residential edge of Burtonwood to the southeast and south, residential receptors of properties aligned to Green Lane, residential receptors aligned to Phipps Lane, residential receptors aligned to Lumber Lane, residential receptors of the Grade II* listed Bradlegh Old Hall and residential receptors of New Bradley Hall Farm in the north east.
 - Mill Farm Cottage is connected by a private access track to Lumber Lane, other than this connecting access track it is surrounded by the site on all sides.
 - Highway views from vehicular users of surrounding roads including Lumber Lane, Melrose Avenue, Aldridge Drive, Winsford Drive, Green Lane and Hall Lane.
- 3.37. The above is not an extensive list of all Public Rights of Way within the local area but lists those where users would be likely to experience discernible change. Further Public Rights of Way are shown on the Landscape Context Plan 11151/P01.
- 3.38. Due to the relationship between the site and surrounding infrastructure, vegetation and settlement edge, the site appears separate visually from the wider Green Belt, despite the site's location on the settlement edge. There are opportunities to utilise and develop the screening provided by the framework of green infrastructure present at the site boundaries to develop the site sensitively in a way which does not impact upon the perceived openness of the wider Green Belt landscape. There are further opportunities to improve the landscape quality of the site in line with the management guidelines for this landscape character area.
- 3.39. A key consideration in terms of visual impact will be the visual amenity of the users of the Public Right of Way along the south-eastern boundary and residents at close proximity to the site. Their amenity will need to be respected through appropriate development offsets and to ensure existing screening vegetation is retained and built upon where appropriate to ensure the new development is not overbearing.

Landscape Conclusion and Recommendations

- 3.40. In response to the desktop and fieldwork undertaken, the following conclusions and recommendations are presented:
- The existing character of the site is somewhat open and agricultural in nature, Lumber Lane and Green Lane act as development boundaries to separate this parcel of land from the wider countryside and Green Belt;

- Views are available to countryside in the north, though at some locations within the site these views will be filtered by trees and vegetation and will be seen in the context of transmission towers passing east to west. A planted envelope around the northern boundary of the site would screen views to transmission towers and create a characteristic vegetated boundary to Burtonwood, meeting management guidelines set out in the Warrington Landscape Character Assessment. This would also contribute towards the strengthening of the northern edge of the site as a new Green Belt boundary;
- In terms of boundaries, the northern boundary of Lumber Lane is strong in Green Belt terms, although it could be strengthened with appropriate development offsets and soft landscaping to limit the visual influence of new development over the land to the north. The western and south-western boundaries are aligned to the existing settlement edge of Burtonwood. There is an opportunity to strengthen the western boundary utilising new soft landscaping to create a strong landscape buffer which could contain development visually and ensure the settlement edge does not encroach onto the adjoining agricultural land, Ultimately, development along Green Lane provides the most defensible edge to encroachment within the context of the site;
- In terms of receptors to change as a result of development, the main visual receptors will be users of the footpath along the south-eastern boundary and residential properties in close proximity to the site also to the south and south-east. The visual amenity of these receptors should be carefully considered in the development of the site through the incorporation of appropriate development offsets and new soft landscaping, in particular to ensure the visual amenity of users of the footpath adjoining the site are respected;
- As set out within this note, the existing settlement edge to the south-east has a visual and perceptible influence over the character of the site, and is not robust as a green belt boundary to restrict urban sprawl or encroachment as properties are rear facing over the adjoining landscape, with built form not filtered by any vegetation. This could be addressed within any future development proposals for the site through the strengthening of the existing vegetation as well as the incorporation of development offsets, layout considerations and landscape buffers to create a more defensible settlement edge; and
- Development of the site would be unlikely to affect the integrity of the wider Green Belt beyond the extent to which the existing settlement edge and detracting features within the landscape do; indeed, the site presents an opportunity to create a more appropriate and robust settlement edge, which is defensible to additional sprawl in the future, as well as to reduce the extent to which built form influences the wider open countryside and remaining Green Belt north of Lumber Lane and west of Green Lane.

3.41. Whilst it is appreciated that only a broad level assessment has been undertaken, this technical note has demonstrated that residential development within the site could be accommodated with reference to the site-specific conditions.

3.42. The site is considered capable of being developed without resulting in unrestricted urban sprawl or coalescence of urban areas. Although the site is currently somewhat open as an unused pastoral field, urban influences are present in the form of views towards the adjacent residential edge of Burtonwood and the presence of transmission towers and pylons in the locality.

3.43. The most likely adverse effects are deemed to relate to the change in views for users of the public footpath running alongside the south-eastern site boundary and for users of residential properties along the adjacent urban edge. These will need to be sensitively considered as part of future design proposals for the site, with development offsets, the consideration of appropriate screen planting and the provision of new soft landscaping.

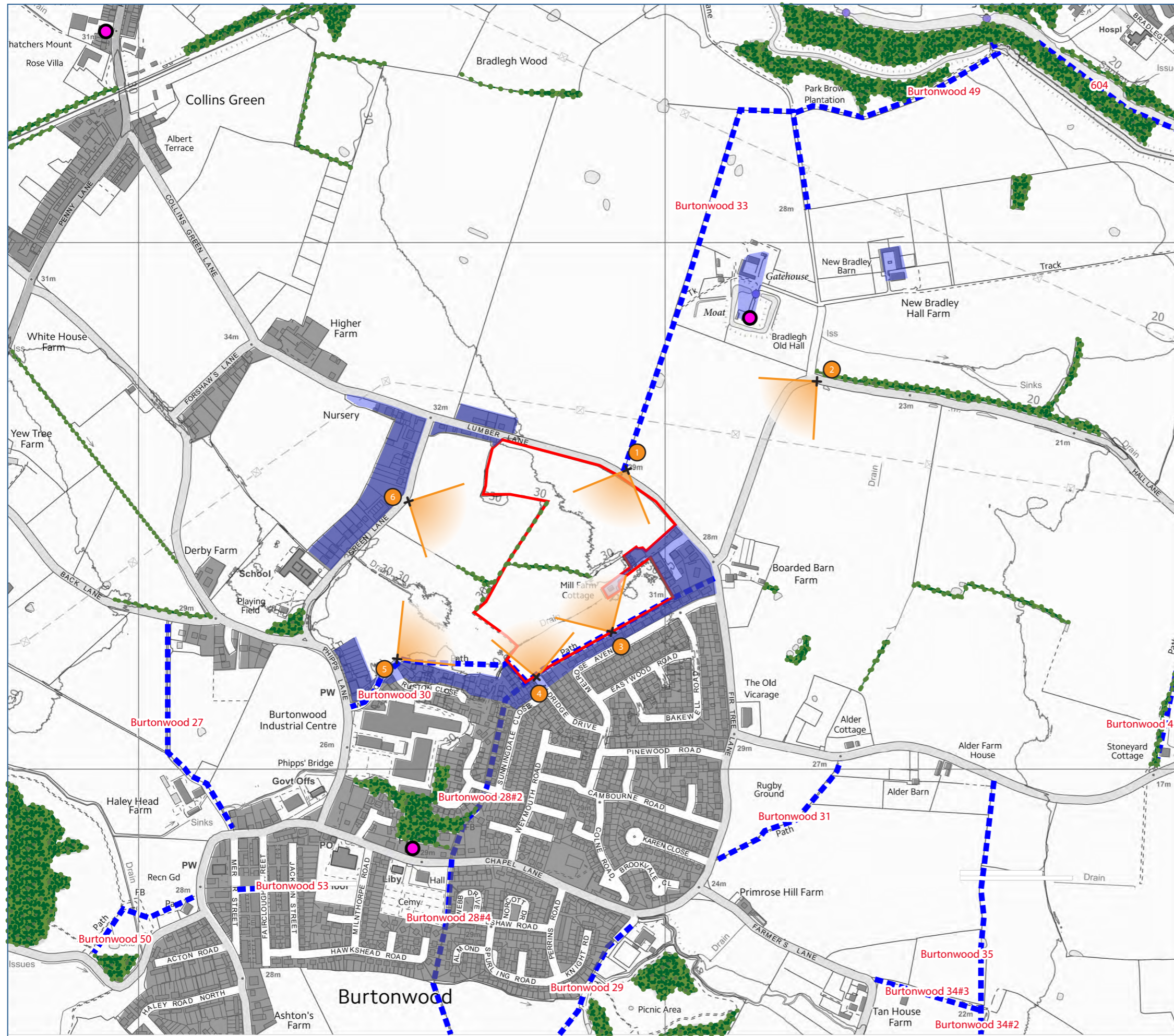
- 3.44. With the above conclusions taken into account and with respect to landscape and visual matters, this site should therefore be considered suitable for residential development and release from the Green Belt.








4.0 Plans and Photoviewpoints

Landscape Context Plan (11151/P01)

Opportunities and Constraints Plan (11151/P02)

Photoviewpoints 1-6 (11151/P03)

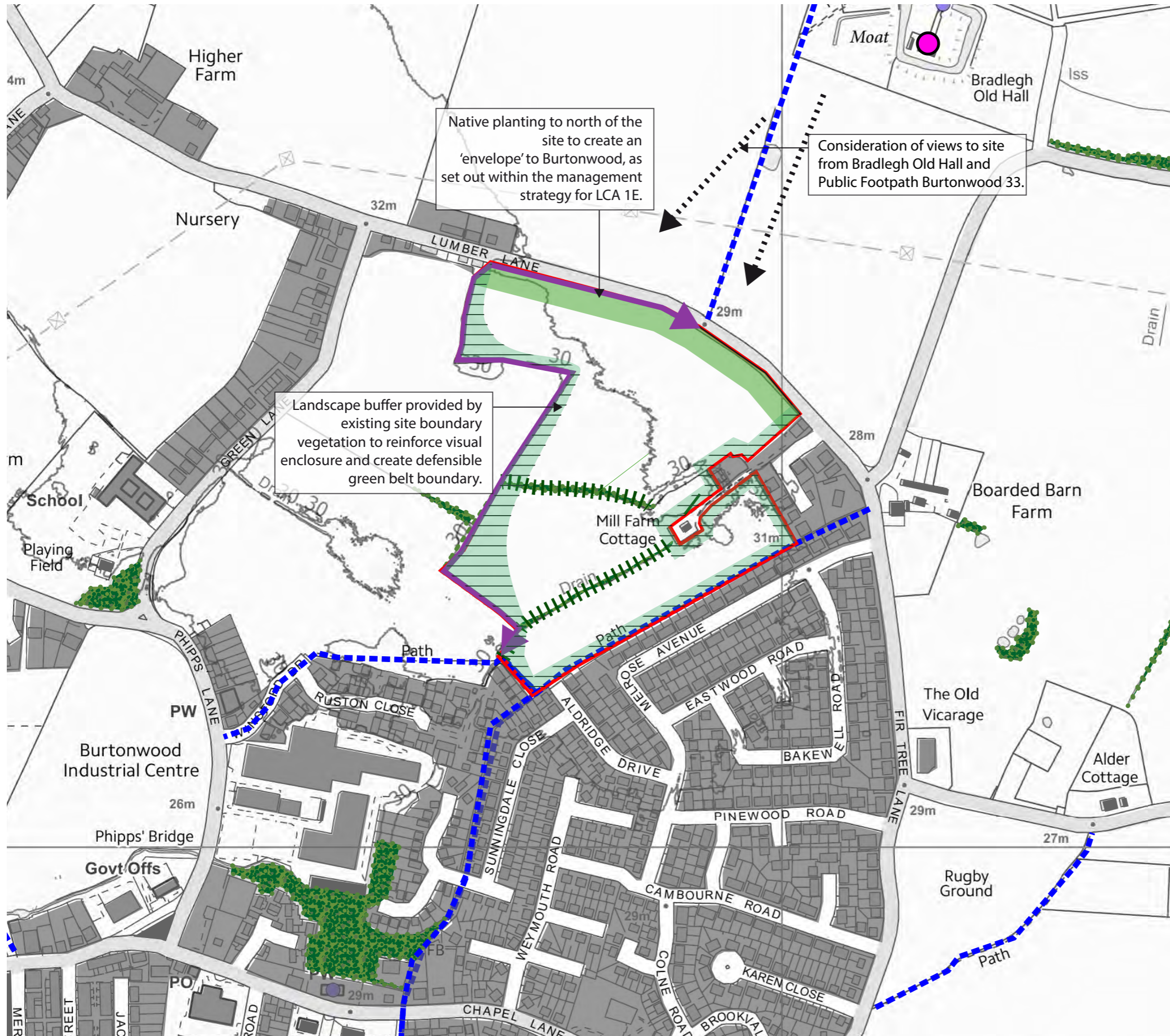


-  Site Boundary
-  Dwellings with Primary Views of the Site
-  Built Areas
-  Existing Woodland
-  Photoviewpoint Locations
-  Public Rights of Way
-  Listed Buildings
-  Contours



Project | Lumber Lane, Burtonwood, Warrington
 Drawing Title | **Landscape Context Plan and Photoviewpoint Locations**
 Scale | 1:7,500 @ A3
 Drawing No. | 11193/P01
 Date | September 2017
 Checked | HCT/NC












Native planting to north of the site to create an 'envelope' to Burtonwood, as set out within the management strategy for LCA 1E.

Consideration of views to site from Bradlegh Old Hall and Public Footpath Burtonwood 33.

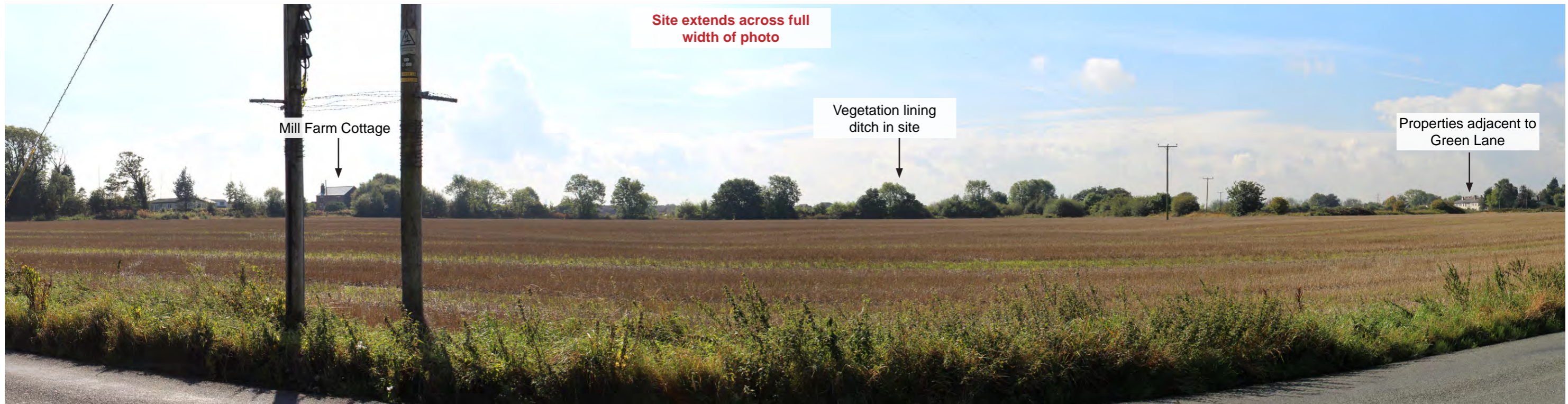
Landscape buffer provided by existing site boundary vegetation to reinforce visual enclosure and create defensible green belt boundary.

-  Site Boundary
-  Built Areas
-  Existing Woodland
-  Public Rights of Way
-  Grade II listed Bradlegh Old Hall
-  Green Envelope to Burtonwood
-  Landscape Buffer
-  Enhance Existing Vegetation in Site
-  Views to be Filtered
-  Potential recreational route to connect PRoW



Project Lumber Lane, Burtonwood, Warrington
 Drawing Title **Landscape Opportunities and Constraints**
 Scale As Shown (Approximate)
 Drawing No. 11193/P02
 Date September 2017
 Checked HCT/NC





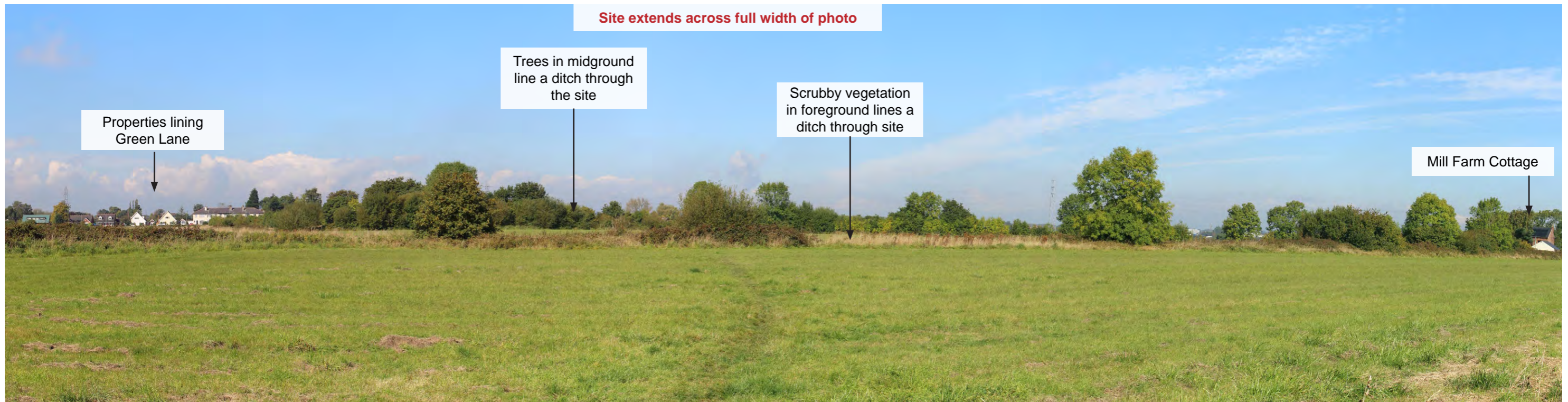
Photoviewpoint 1: View from Lumber Lane looking south



Photoviewpoint 2: View from Hall Lane near Bradlegh Old Hall looking south-west



Photoviewpoint 3: View from footpath Burtonwood 28 looking west



Photoviewpoint 4: View from footpath 28 looking north

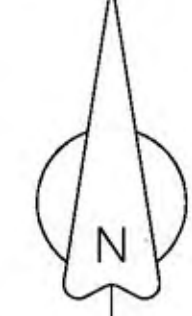


Photoviewpoint 5: View from public footpath Burtonwood 30 looking north east



Photoviewpoint 6: View from Green Lane looking east

EP7



Key:

-  Main Access
-  Well overlook Public Open Space
-  Arrival Point
-  Possible Future Access
-  Focal Point
-  Proposed Pedestrian Footway
-  Existing Public Right of Way
-  Phase One Loop Road
-  Phase Two Loop Road
-  Proposed Emergency Link
-  Outward Facing Street Scene with Open Views
-  Natural Surveillance
-  Retained Open View



Lumber Lane, Burtonwood

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Plotted Scale - 1:2500

Baldwin		Design	
Consultancy Ltd			
Revision:			
Project Title: Residential Development			
Address: Lumber Lane, Burtonwood			
Drawing: Proposed Masterplan			
Drawing No: WLLBM01			
Drawn: GB	Ch'd: STB	Date: 18/09/2017	Paper Size: A0
Scale: 1:500			

Proposed Residential Development

Lumber Lane, Burtonwood

DR/17368/TN01 - 15 September 2017

1. We are instructed to advise on the transport aspects of developing land situated at Lumber Lane, Burtonwood for residential development. The location of the site is shown on the aerial photograph below:



2. The site could accommodate up to 200 dwellings, after taking account of requirements for landscaping, open space and drainage attenuation requirements.
3. A single point of vehicular access would be sufficient to serve the site, although there are opportunities for a second access to be provided if necessary. There is a frontage of almost 400m to Lumber Road within which to create an access point with excellent levels of visibility.

4. There are opportunities to create further pedestrian and cycle links to Lumber Road, The Brambles, and a public footpath which forms the south-eastern boundary of the site. These pedestrian and cycle connections to Lumber Lane and The Brambles can also provide access for emergency vehicles if necessary.
5. The site is well connected to the urban area of Burtonwood. There is a convenience store, post office, primary school, nursery school, church, sports fields, hairdressers, hot food take-aways, and other shops and services, all within 1km of the site.
6. There are two regular bus services within Burtonwood and further school and college buses. Service 141 connects Burtonwood to St Helens and Newton-le-Willows at a frequency of 60 minutes during the daytime. This service passes along the site frontage. Bus service 329 links St Helens to Warrington via Burtonwood and operates at a frequency of 30 minutes during the daytime.
7. Lumber Lane is utilised as a local route which connects the eastern part of Burtonwood towards Earlestown and Newton-le-Willows. The road has a 30mph speed limit which is poorly observed by many drivers. A 30mph speed limit is associated with speeds within an urban area although, as can be seen from the aerial photograph above, in the vicinity of the site, Lumber Lane does not have a developed frontage, which is incongruous with the speed limit. The development will provide a frontage that is more in-keeping with an urban speed limit and will assist in reinforcing the speed limit. It would also be possible to introduce further traffic calming measures if there is a desire to reduce the speed of traffic in this area.
8. Within the frontage available to the site, there would be no difficulties in achieving visibility splays that would correspond with the speed limit (30mph requires 43m visibility splays) or correspond with vehicle speeds of up to 50mph (requiring visibility splays of 160m), although it should be reiterated that there should be an aim to reduce speeds to within the speed limit by better enforcement of the limit and other speed reducing features, to which the site can contribute.
9. Overall, the site is in a sustainable location, with access to both local facilities and nearby towns on foot, by cycle and by public transport. A safe vehicular access can be created to the site and the development would offer an opportunity to improve road safety by reducing vehicle speeds along the site frontage to reflect the current speed limit.
10. There are no transport reasons to resist the principle of a residential development on this site.