mode
transport planning

Taylor Wimpey, Bloor Homes, Lone Star Limited, Mulbury Homes (Grappenhall) Limited

Regulation 19 Warrington Local Plan (2021)

Highways Representation

November 2021

modetransport.co.uk

Taylor Wimpey, Bloor Homes, Lone Star Limited, Mulbury Homes (Grappenhall) Limited

Regulation 19 Warrington Local Plan (2021)

Highways Representation

OFFICE ADDRESS:
[redacted]

PROJECT NO: 326234

DATE: November 2021

REPORT No:	FILE NAME	PREPARED:	DATE OF ISSUE:	STATUS:	CHECKED:	AUTHORISED:
1	211115 J326234 EIP v1.1.docx	LJ	15 November 2021	Final	MA	ME

CHANGE LOG

VERSION	DATE:	CHECKED BY:	REASON FOR CHANGE:
1.0	12 November 2021	ME	Final for submission
1.1	15 November 2021	ME	Final version following client comments

mode transport planning

CONTENTS

1. Introduction

1.1 Preamble

1.1.1 Mode Transport Planning ('Mode') has been appointed by Taylor Wimpey, Bloor Homes, Lone Star Limited and Mulbury (Grappenhall) Limited (the 'Consortium') to review the transport and highways evidence submitted for the 2nd draft of the Regulation 19 Local Plan – *Warrington's Draft Local Plan 2021* (2nd Draft R19 LP).

1.1.2 The purpose of this report is to review the transport evidence base associated with the 2nd Draft R19 LP. With particular consideration given to the potential highway impacts, sustainable transport accessibility, deliverability of the proposed highway infrastructure required to facilitate the South East Warrington Urban Extension (SEWUE) and wider transport policy aspirations.

1.1.3 The report considers the transport infrastructure proposals and previous technical assessments submitted in support of the 1st and 2nd Draft R19 LPs.

1.1.4 Following this introductory chapter, the TA has been structured as follows:

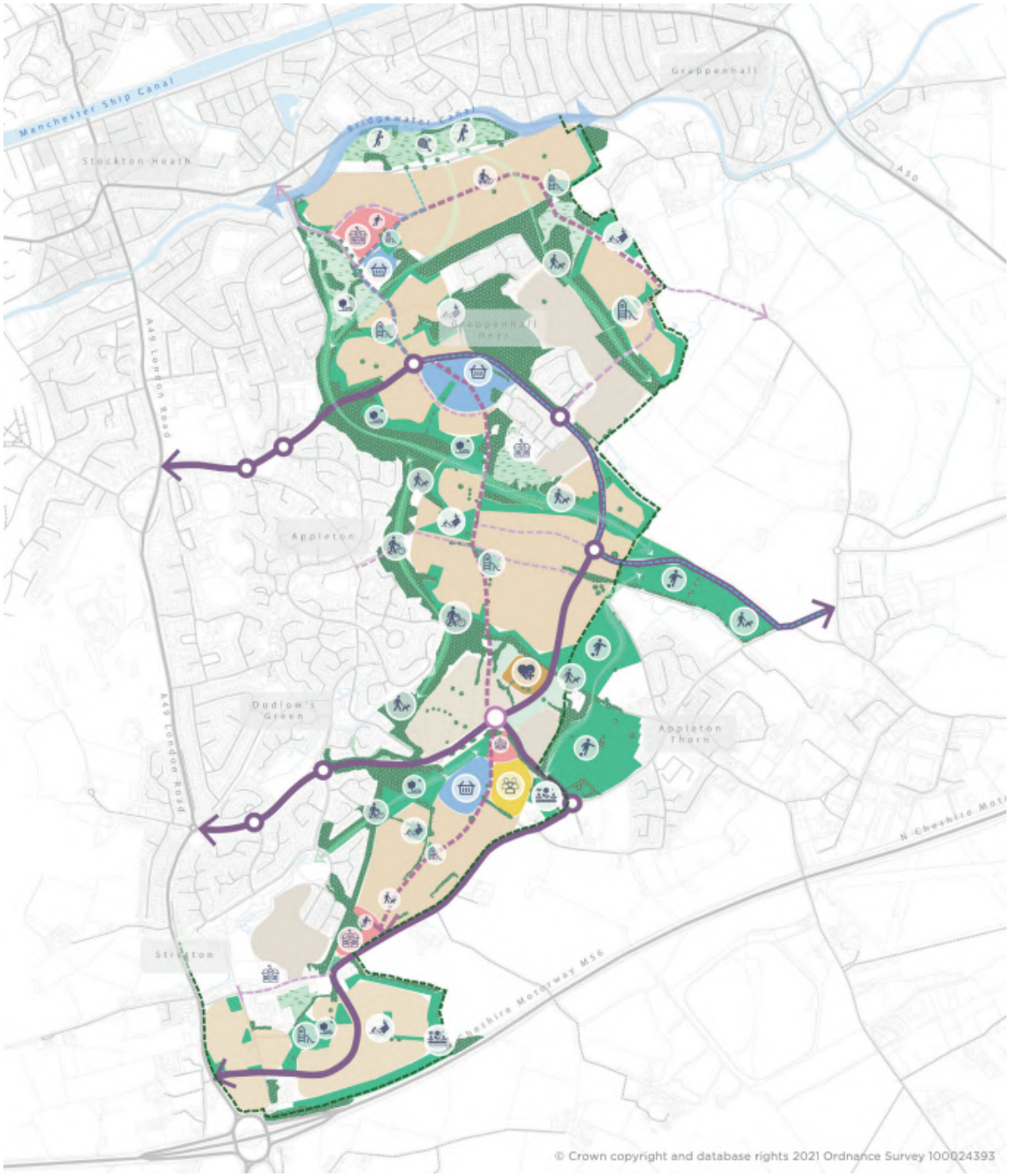
- Chapter 2 summarises the relevant 2nd Draft R19 LP proposals;
- Chapter 3 reviews the deliverability of the proposed SEWUE highway infrastructure proposals;
- Chapter 4 reviews the transport modelling scenarios and network performance statistics;
- Chapter 5 analyses the highway impacts along key corridors;
- Chapter 6 reviews sustainable transport accessibility of the Fiddler's Ferry allocation; and
- Chapter 7 summarises and concludes the findings of the report.

2. Transport Infrastructure and Policy Proposals

2.1 South East Warrington Urban Extension

2.1.1 For Policy MD2 – *South East Warrington Urban Extension* (SEWUE), an illustrative masterplan framework is presented in the *'A Deliverable Proposition'* document (August 2021), which has been produced by Homes England and Miller Homes. This masterplan framework is shown in Figure 2.1.

Figure 2.1 : SWEUE Masterplan Framework (source: *'A Deliverable Proposition'* August 2021)



2.1.2 In the updated proposed 2nd Draft R19 LP document, Policy MD2 states that improvements will include:

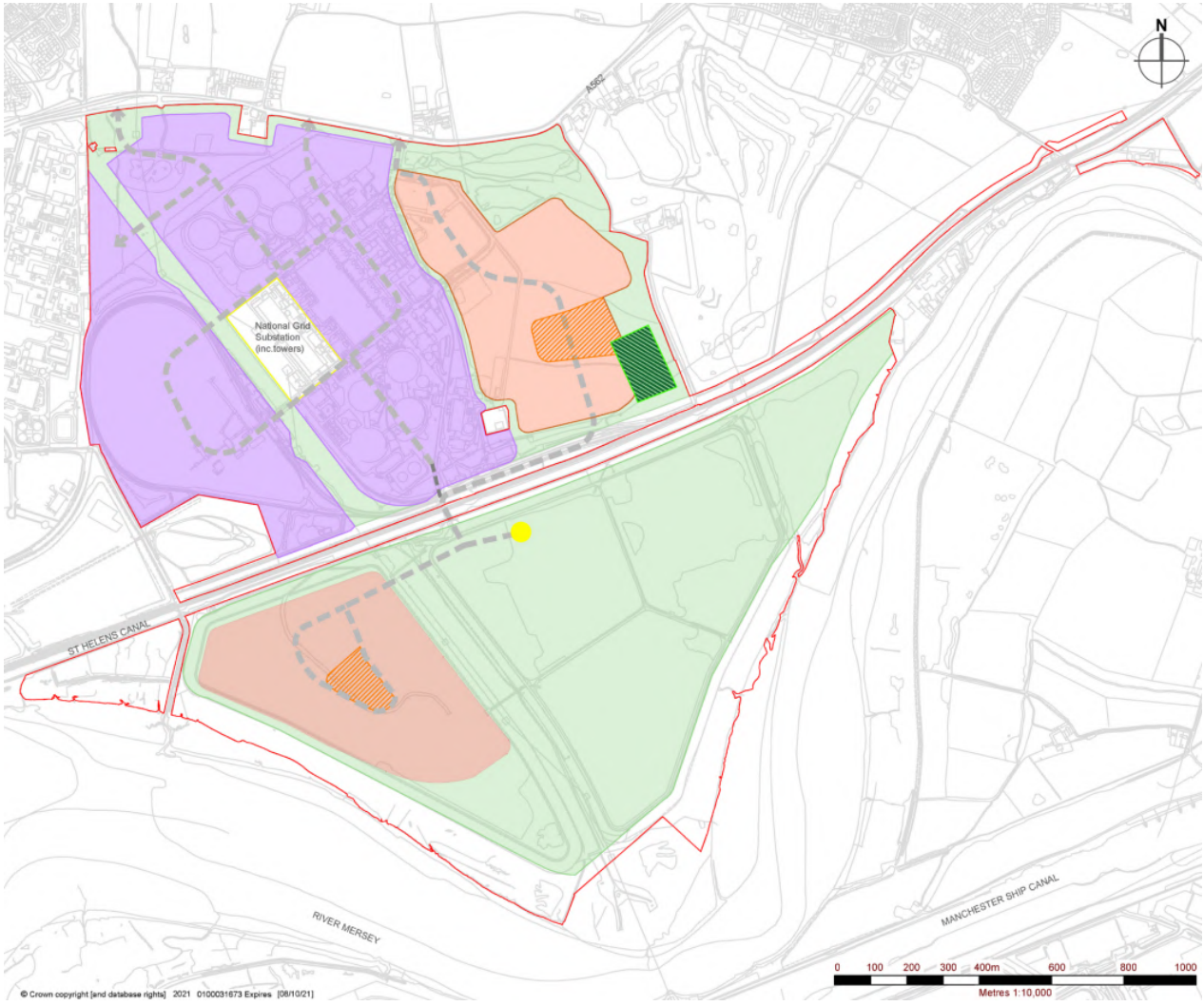
- *'Providing an improved connection from the allocation site to the A50' (point 27(e)); and*
- *'On site safeguarding of potential mass transit routes' (point 27(g)).*

2.1.3 There appears to be a potential connection between the SEWUE site to the A50 via the indicative low traffic community connector route, Broad Lane, Church Lane and the A56.

2.2 Fiddler's Ferry

2.2.1 For Policy MD3 – *Fiddler's Ferry* an illustrative masterplan framework is presented in the *'Fiddler's Ferry Masterplan'* document (April 2021), which has been produced by SLR Consulting. This masterplan framework is shown in Figure 2.2.

Figure 2.2 : Fiddler's Ferry Masterplan Framework (*'Fiddler's Ferry Masterplan' April 2022*)



2.2.2 In the 2nd Draft R19 LP, Policy MD3 states that improvements will include:

- *'Ensuring appropriate access arrangements for the site as a whole and for individual phases of development (point 29(e)); a*
- *Improved cycling and walking routes well related to the green infrastructure network and connecting to the Trans Pennine Trail.*
- *Providing public transport enhancements to connect the new community with Warrington Town Centre and neighbouring Widnes Town Centre (point 29 (c));*
- *Other necessary improvements or mitigation measures to local and strategic highway networks as identified by an appropriate Transport Assessment (point 29 (d));*

2.2.3 Access to the site appears to be proposed via three new connections with the A562.

2.3 Future Highway Infrastructure Schemes

2.3.1 To support the 2nd Draft R19 LP and the delivery of the SEWUE, significant revisions to the development enabling infrastructure have been made since the 1st Draft R19 LP, which included the Warrington Garden Suburb (WGS) masterplan.

2.3.2 The modelling and forecasting report produced as part of the transport evidence base for the 2nd Draft R19 LP consisted of the following Warrington South Strategic Infrastructure Schemes (WSSISs) listed in the *Infrastructure Delivery Plan* (IDP) *2021*:

- Existing Junction Upgrades to A49 / Lyons Lane and A49 / Longwood Road;
- New link Stretton Road to A49 (Phase 1);
- New link Stretton Road to A49 (Phase 2);
- The 'D' Withering Ave / Dipping Brook Link;
- The 'D' Withering Ave / Dipping Brook Link; and
- New link to Grappenhall Lane

2.4 Local Transport Plan 4 - Policy Interventions

2.4.1 The policy interventions considered within the Local Plan Testing Report 2021 (LPTR 2021) were the 'Mass Transit Package' and the 'Go Dutch Cycling Package' both identified and presented in the LTP 4. The combination of these initiatives was forecast to result in a modal shift from cars to public transport and cycling.

2.4.2 The target modal share for public transport and cycling outlined within LTP4 were 15% and 6.2% respectively.

3. South East Warrington Urban Extension – MD2

3.1 Development Enabling Infrastructure Improvements

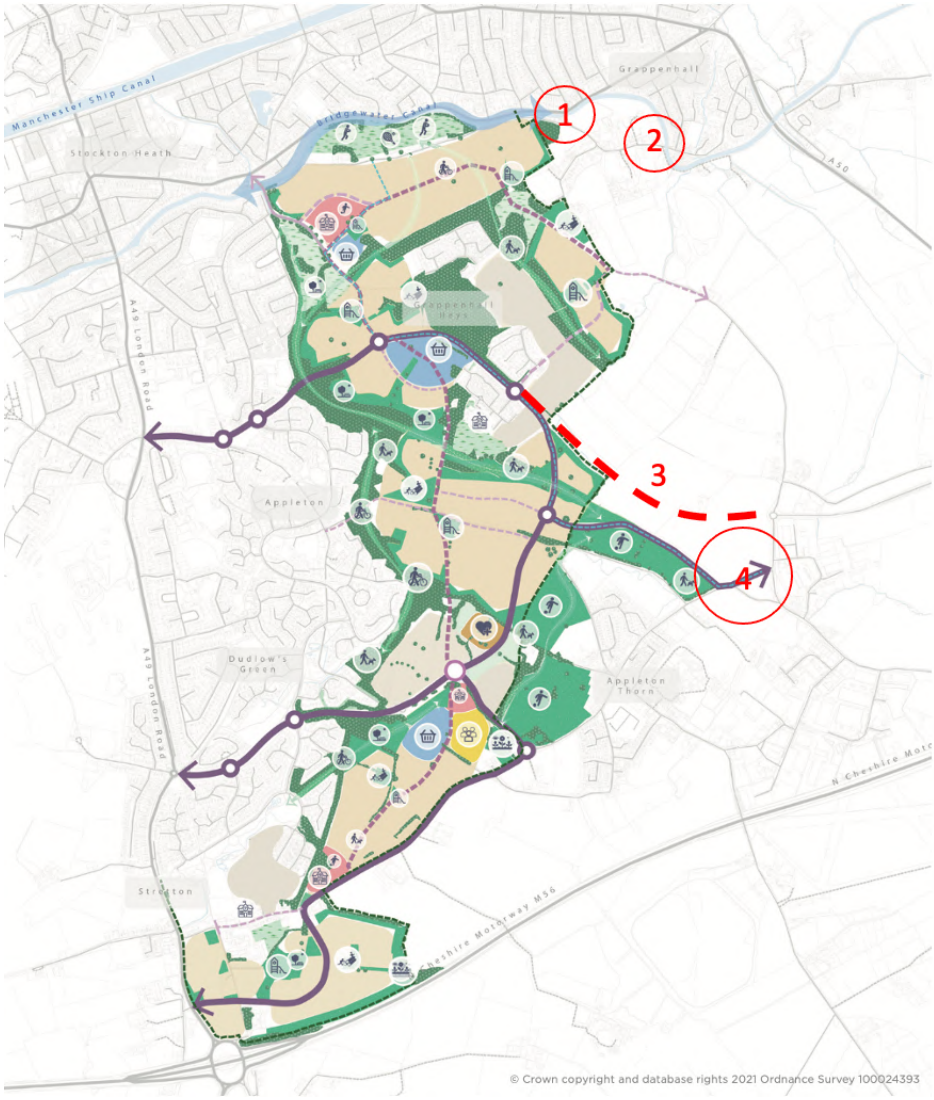
3.1.1 In the 2nd Draft R19 LP document, Policy MD2 states that improvements to facilitate the SEWUE will include:

- *'Providing an improved connection from the allocation site to the A50' (point 27(e)); and*
- *'On site safeguarding of potential mass transit routes' (point 27(g)).*

3.2 Proposed Infrastructure Deliverability

3.2.1 Figure 3.1 shows the SEWUE masterplan and provides numbered references relating to key issues that will be discussed below regarding the deliverability of the proposed MD2 infrastructure and policy objectives.

Figure 3.1 : Annotated SEWUE Masterplan



Connection to A50

3.2.2 There is no reference to the requirements for improvements on the B5356, beyond the new junction to ease congestion at the Cat & Lion junction, which will now be required to continue as the primary connection to the A50.

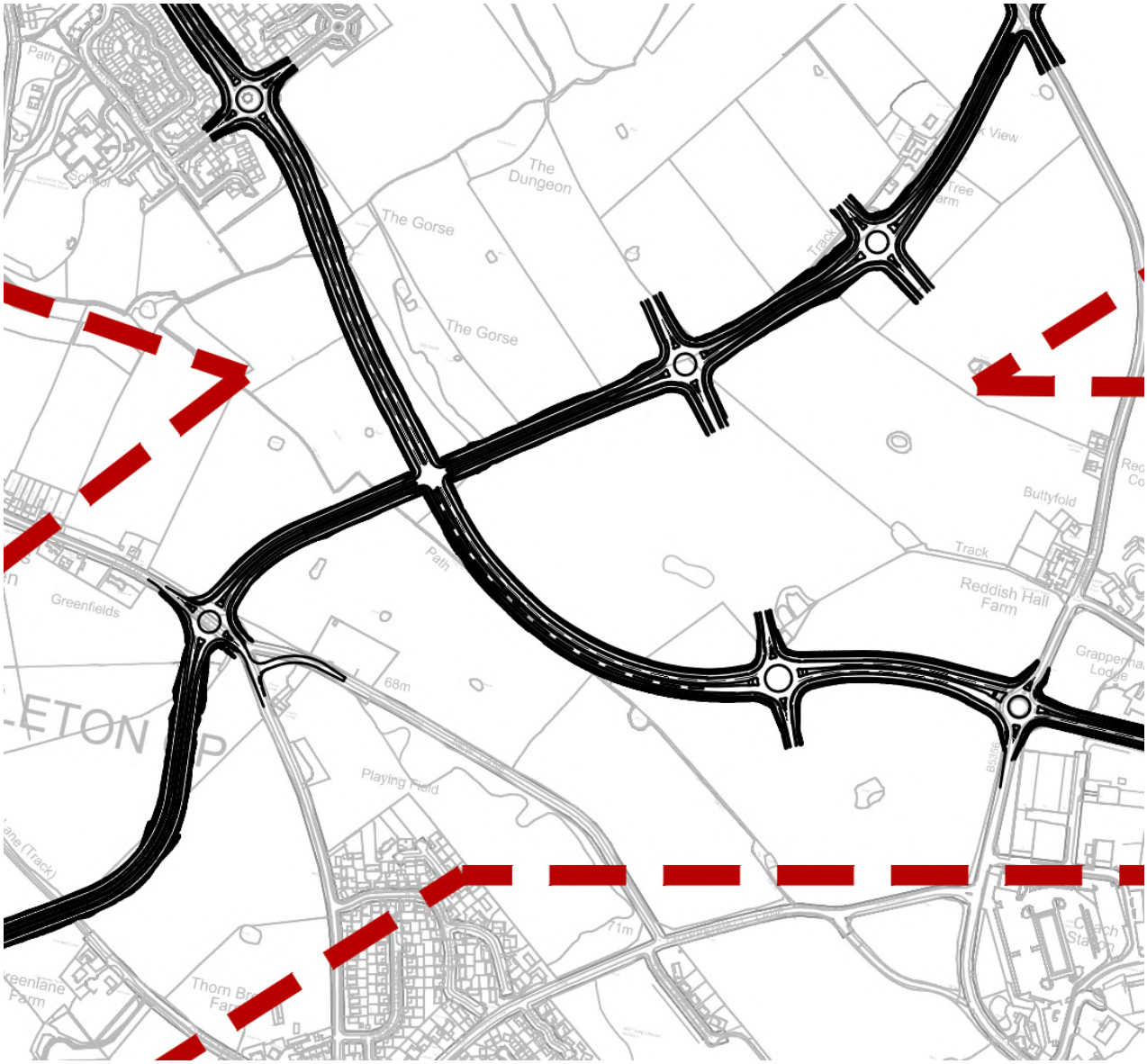
3.2.3 There appears to be a potential connection between the SEWUE site to the A50 via the indicative low traffic community connector route, Broad Lane, Church Lane and the A56; however, this could only be proposed as a limited local traffic route due to the following constraints:

- Narrow single lane signal-controlled bridge at the Church Lane A56 junction (see 1 in Figure 3.1);
- Narrow cobbled road along Church Lane; and
- Narrow single lane bridge on Church Lane over the canal (see 2 in Figure 3.1).

3.2.4 The 'improved' connection to the A50 appears to be via the indicative strategic highway which connects to the B5356 Grappenhall Lane (see 4 in Figure 3.1); this is clearly replacing the missing link (see 3 in Figure 3.1) between Witherwin Avenue roundabout and the Grappenhall Lane roundabout, which was proposed as part of the Strategic Link Road in the 1st Draft R19 LP WGS site.

3.2.5 For reference, the link proposed as part of the 1st Draft R19 LP site is shown in Figure 3.2.

Figure 3.2 : 1st Draft R19 LP – Proposed Link



3.2.6 In addition to providing a connection to the B5356, the strategic highway network shown is also identified as a 'Mass Transit Safeguarded Corridor'.

3.2.7 The SEWUE scheme may be able to safeguard the potential mass transit route within the site and available land, however, this does not safeguard and would in fact lead to potential issues with the future delivery of a mass transit route and connection to the A50.

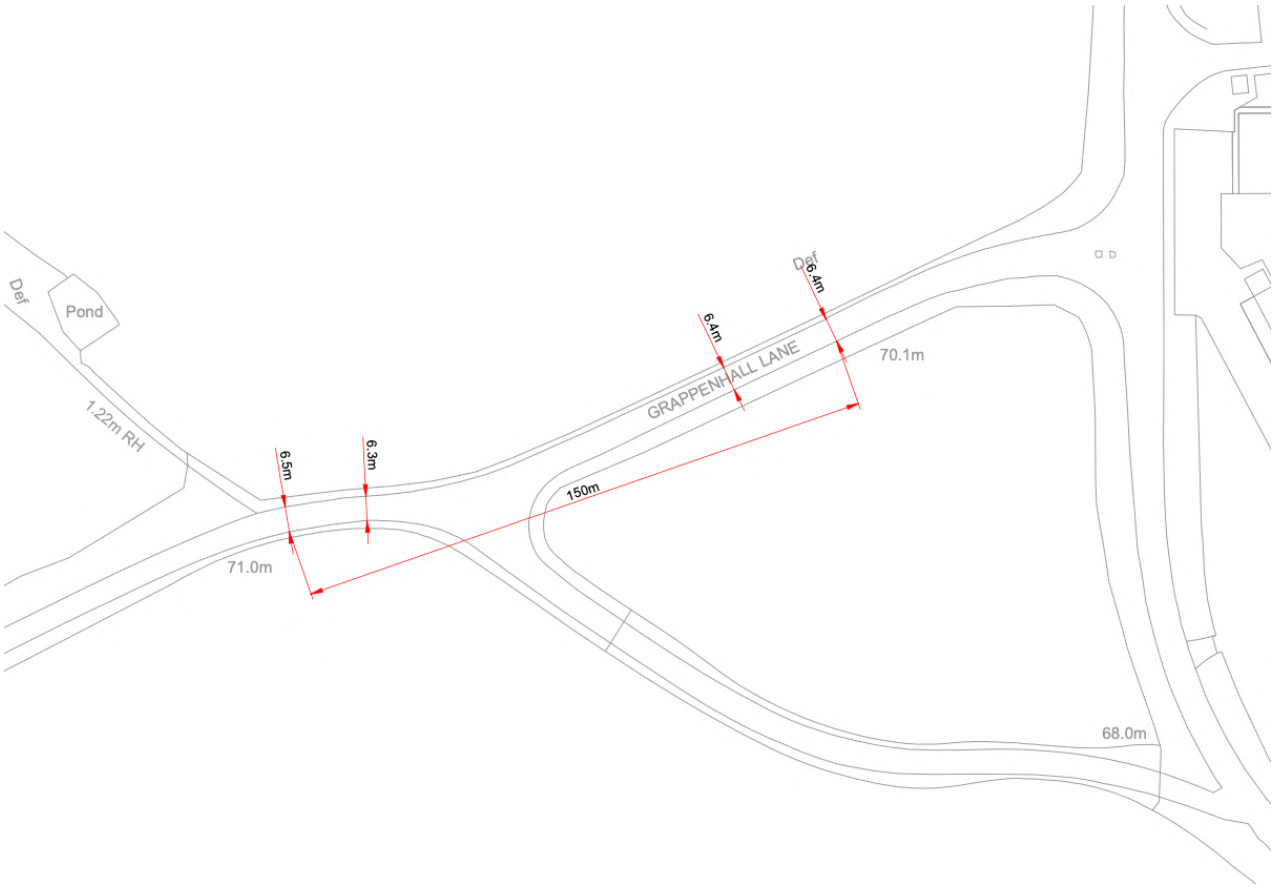
3.2.8 The proposed MD02 site is reliant on the B5356 to connect to the A50 which would become a downgraded variant to the east-west strategic link proposed in the 1st Draft R19 LP within the proposed WGS site.

3.2.9 As noted previously, providing an improved connection from the site to the A50 is set out in proposed Policy MD2 (point 27(e)) and therefore forms a key requirement for the connectivity of the site.

3.2.10 Whilst the B5356 between the Wallace/ Miller Homes' land and the eastern boundary of the Homes England land meets WBC's minimum width requirement for a Local Distributor Road of 6.75m, there is a c.150m section which falls below this standard.

3.2.11 This section of the B5356 is shown in Figure 3.3 and confirms the widths of the road which range from 6.3m to 6.5m.

Figure 3.3 : B5356 – Substandard Road Widths

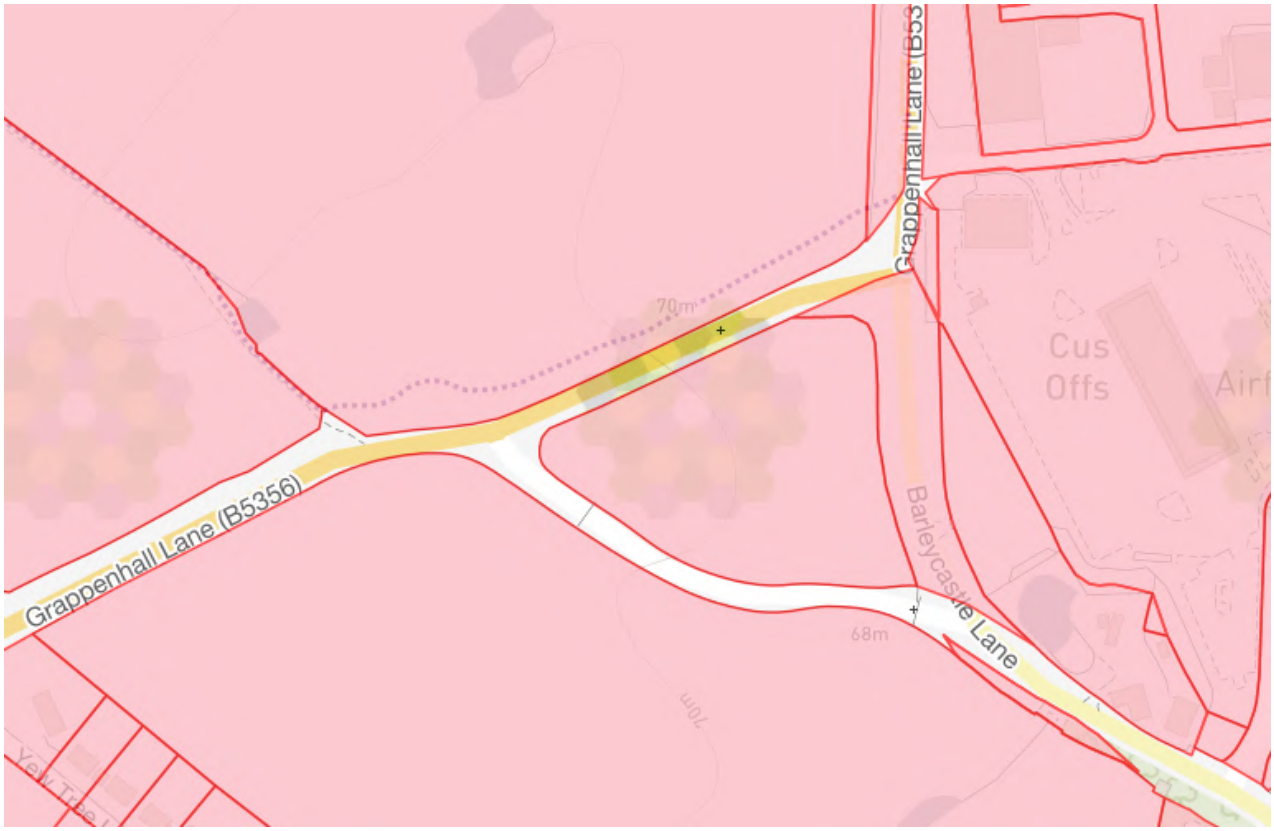


3.2.12 WBC's extent of adopted highway for this section of the B5356 is shown in Figure 3.4. As can be seen, some widening may be achievable but not along the whole length which creates pinch points.

Figure 3.4 : B5356 – Extent of Adopted Highway (source: Warrington Borough Council)

3.2.13 The only way the road could be widened to the required 6.75m would be with land in the ownership of Taylor Wimpey to the north and/ or the third-party land to the south. This is confirmed by the land title plan shown in Figure 3.5.

Figure 3.5 : Land Ownership Boundaries (source: Online HM Land Registry)



3.2.14 As presented, the current Policy MD2 site does not, and is unable to, provide an improved connection to the A50 due to the removal of the strategic infrastructure proposed on the 1st Draft R19 LP and is therefore unable to fully comply with (point 27(e)).

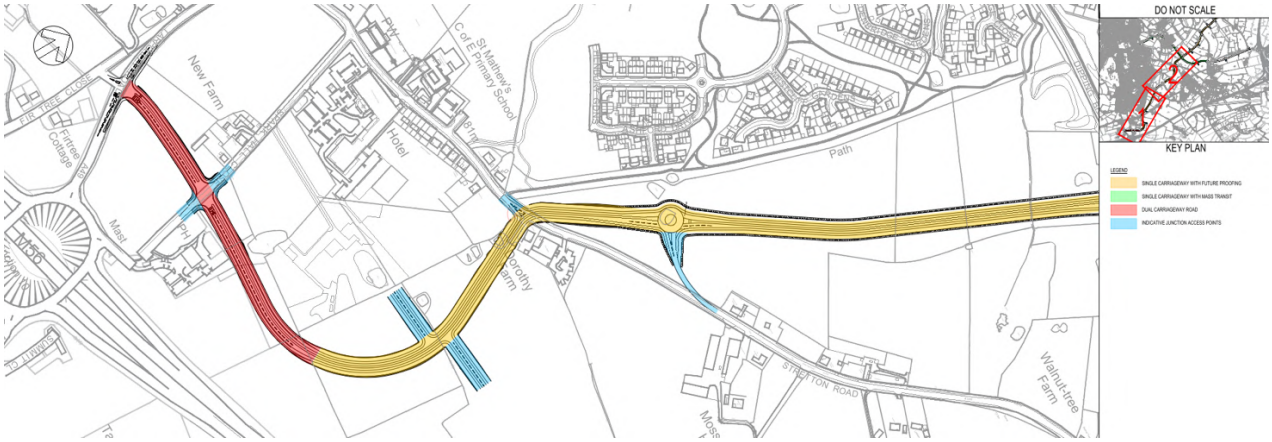
Mass Transit Routes

3.2.15 Whilst previously the mass transit routes were proposed through land which could accommodate the c.30m wide corridor, the clear avoidance of land owned by the Consortium would limit the future potential of the mass transit route outside of Homes England's land.

3.2.16 The ability to widen or improve the B5356 is constrained by third-party land ownership outside of the adopted highway.

3.2.17 In addition to the delivery of the mass transit routes, the SEWUE would also prevent the previously proposed strategic link shown in Figure 3.6 from coming forward, as the B3536 cannot be widened to provide dual carriageway running without third-party land. This will lead to increased traffic movements through Appleton Thorn and issues with future capacity on the local highway network.

Figure 3.6 : Previously Proposed Strategic Link



3.2.18 Based on the avoidance of land owned by the Consortium, the Policy MD2 site in the 2nd Draft R19 LP would jeopardise the future delivery of the mass transit highway network and limit further future development. It would also create a clear disconnect in terms of highway accessibility between the SEWUE and the proposed employment site allocation to the southeast.

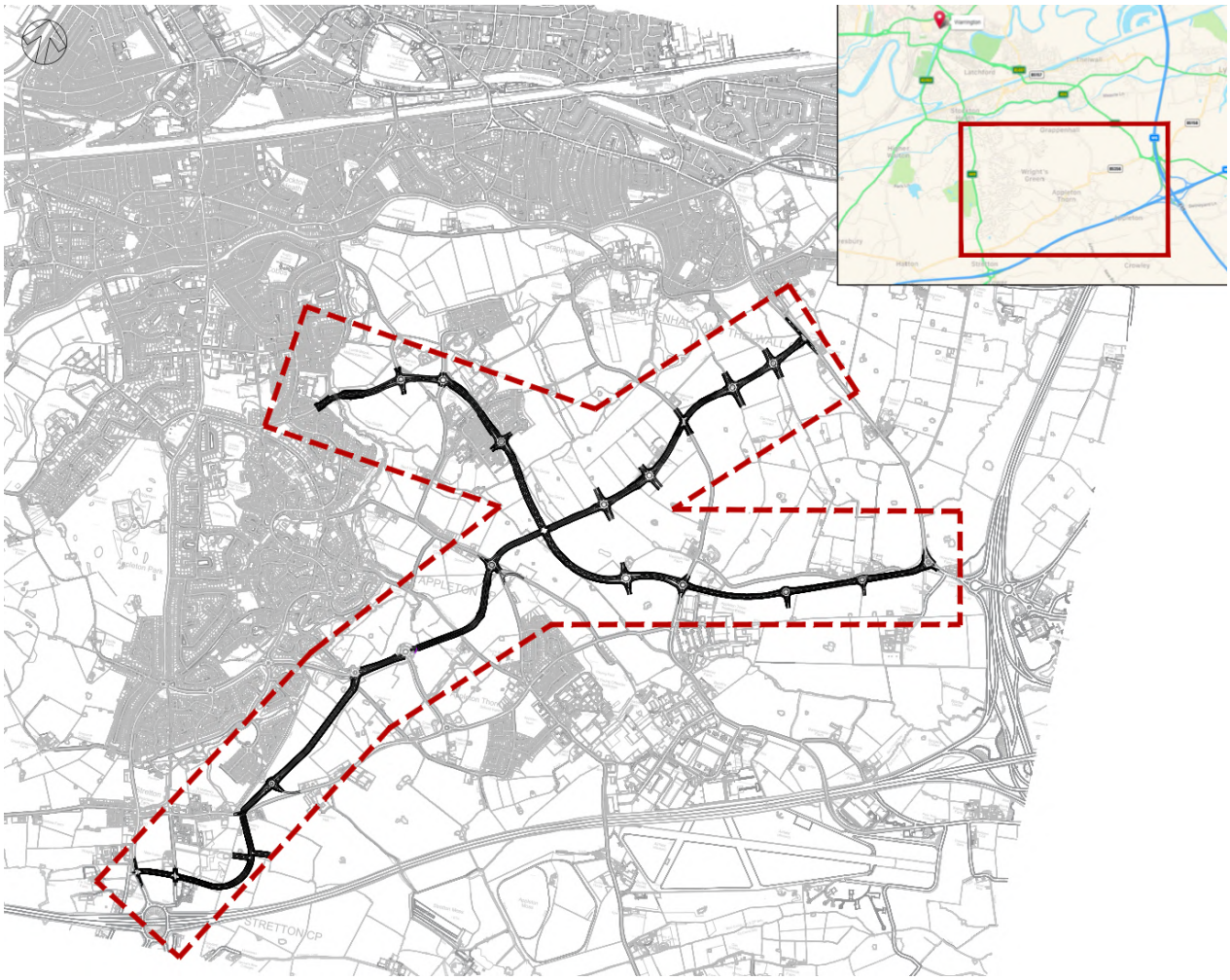
4. Network Performance Statistics

4.1.1 Due to the lack of evidence to the contrary, it is considered that the proposed WGS highway solution put forward by WSP was the optimal highway solution for the 1st Draft R19 LP. This is on the basis that the highway solution unlocked development land, provided additional highway capacity to support increased demand and aligned with the long-term aspiration within the LPT4. The LPT4 proposes mass transit routes across Warrington and provided a high-capacity connection between the A49 and A50 (Policy MD2), as well as connecting residential communities with allocated employment sites.

4.2 1st Draft Regulation 19 Local Plan – Modelling Overview

4.2.1 The strategic highway network proposed by WSP, as shown in Figure 4.1, was considered within the Local Plan Testing Report 2019 (LPTR 2019) produced by AECOM as part of the transport evidence base for the 1st Draft R19 LP.

Figure 4.1 : WGS Highway Infrastructure Proposals (source: WSP)



4.2.2 The LPTR 2019 considered the following WSSISs, listed in the *Infrastructure Delivery Plan* (IDP) *2019*:

- Cat and Lion Bypass;
- Wrights Green Link;
- Howshoots Link; and
- Wrights Green to A50 Link.

4.2.3 The LPTR 2019 considered the following scenarios in 2036:

- **Scenario 1** – Considered all developments and land use changes with only committed highway infrastructure included;
- **Scenario 2** - As Scenario 1 plus a number of additional highway infrastructure schemes that are required to enable the 1st raft R19 LP growth to occur in a number of locations; and
- **Scenario 3** - As Scenario 2 plus 2 policy interventions in addition to those already committed.

4.2.4 The policy interventions considered in 2036 within Scenario 3 were the 'Mass Transit Package' and the 'Go Dutch Cycling Package' both identified and explained in the LTP 4. The combination of these initiatives was forecast to result in a modal shift from cars to public transport and cycling respectively.

4.2.5 The LPTR 2019 assessed the impact on the local highway network only.

Total Delay

4.2.6 The results for total delay in vehicle hours showed that the proposed 1st Draft R19 LP highway infrastructure (Scenarios 2 and 3) and policy interventions (Scenario 3) would result changes relative to Scenario 1, as shown in Table 4.1.

Table 4.1 : 1st Draft R19 LP - Total Delay

Delay	Scenario 1	Scenario 2	Scenario 3
Daily Delay 'Total Vehicle Hours'	22,120	20,900	18,470
Change Relative to Scenario 1	N/A	-6%	-17%

Total Travel Time

4.2.7 The results for total travel time in vehicle hours showed that the proposed 1st Draft R19 LP highway infrastructure (Scenarios 2 and 3) and policy interventions (Scenario 3) would result in changes relative to Scenario 1, as shown in Table 4.2.

Table 4.2 : 1st Draft R19 LP - Total Travel Time

Delay	Scenario 1	Scenario 2	Scenario 3
Daily Travel Time 'Total Vehicle Hours'	70,360	69,320	64,390
Change relative to Scenario 1	N/A	-1%	-8%

4.3 2nd Draft Regulation 19 Local Plan – Modelling Overview

4.3.1 The LPTR 2021 assesses the updated position reflecting the proposals within the draft 2nd Draft R19 LP. The scenarios listed above for the 2019 report remain the same; however, the revised allocations have meant that significant changes to the development enabling infrastructure are proposed as a result of the reduced level of housing proposed in the SEWUE. This is reduced compared to the former WGS in the 1st Draft R19 LP.

4.3.2 The modelling and forecasting report produced as part of the transport evidence base for the 2nd Draft R19 LP consisted of the following WSSISs listed in the *Infrastructure Delivery Plan* (IDP) *2021*:

- Existing Junction Upgrades;
- New link Stretton Road to A49 (Phase 1);
- New link Stretton Road to A49 (Phase 2);
- The 'D' Withering Ave / Dipping Brook Link;
- New link to Grappenhall Lane and Barleycastle; and

4.3.3 The LPTR 2012 considered the following scenarios in 2038.

- Scenario 1 – Considered all developments and land use changes with only committed highway infrastructure included;
- Scenario 2 - As Scenario 1 plus a number of additional highway infrastructure schemes that are required to enable the 1st Draft R19 LP growth to occur in a number of locations;

- **Scenario 3** - As Scenario 2 plus 2 policy interventions in addition to those already committed.

4.3.4 The policy interventions considered in 2038 within Scenario 3 were the 'LTP4 Mass Transit Package' and the 'LTP 4 cycling package', as above. The combination of these initiatives was forecast to result in a modal shift from cars to public transport and cycling respectively.

4.3.5 The results for total delay in vehicle hours showed that the proposed 2nd Draft R19 LP highway infrastructure (Scenarios 2 and 3) and policy interventions (Scenario 3) would result in changes relative to Scenario 1, as shown in Table 4.3.

Table 4.3 : 2nd Draft R19 LP - Total Delay

Delay	Scenario 1	Scenario 2	Scenario 3
Daily Delay 'Total Vehicle Hours'	31,380	31,120	27,310
Change Relative to Scenario 1	N/A	-1%	-13%

4.3.6 The results for total travel time in vehicle hours showed that the proposed 2nd Draft R19 LP highway infrastructure (Scenarios 2 and 3) and policy interventions (Scenario 3) would result in changes relative to Scenario 1, as shown in Table 4.4.

Table 4.4 : 2nd Draft R19 LP - Total Travel Time

Delay	Scenario 1	Scenario 2	Scenario 3
Daily Travel Time 'Total Vehicle Hours'	100,270	94,780	87,860
Change relative to Scenario 1	N/A	-5%	-12%

4.4 Comparison of Network Statistics

Total Delay Comparison

4.4.1 Total delay in vehicle hours and the percentage changes relative to Scenario 1 for the 1st Draft R19 LP are shown with the values for the 2nd Draft R19 LP for comparison in Table 4.5.

Table 4.5 : 1st Draft R19 LP and 2nd Draft R19 LP - Total Delay Comparison

Delay	Scenario 1	Scenario 2	Scenario 3
1st Draft R19 LP Total Delay % change	n/a (22,120)	-6% (20,900)	-17% (18,470)
2nd Draft R19 LP Total Delay % change	n/a (31,380)	-1% (31,120)	-13% (27,310)

Total Travel Time

4.4.2 Total travel time in vehicle hours and the percentage changes relative to Scenario 1 for the 1st Draft R19 LP are shown with the values for the 2nd Draft R19 LP for comparison in Table 4.6.

Table 4.6 : 1st Draft R19 LP and 2nd Draft R19 LP - Total Travel Time Comparison

Delay	Scenario 1	Scenario 2	Scenario 3
1st Draft R19 LP Total Travel Time % change	n/a (70,360)	-1% (69,320)	-8% (64,390)
2nd Draft R19 LP Total travel Time % change	n/a (100,270)	-5% (94,780)	-12% (87,860)

4.4.3 The analysis shows that the highway infrastructure (Scenarios 2 and 3) and policy interventions (Scenario 3) will result in a reduction in total delay and total vehicle hours when compared with Scenario 1, for both the 1st Draft R19 LP and 2nd Draft R19 LP proposals.

4.4.4 The 1st Draft R19 LP proposals result in greater reductions to total delays when compared with the 2nd Draft R19 LP. In contrast, the 2nd Draft R19 LP proposals have a greater percentage impact in terms of reducing total travel time.

4.4.5 It should be noted that total delays and total travel times are significantly higher in all 2nd Draft R19 LP 2038 future year scenarios, when compared with the corresponding values and scenarios assessed within the 1st Draft R19 LP for a future year of 2036.

4.4.6 Both reports recommend that more detailed capacity analysis is undertaken at junctions across the network, due to the limitations associated with the use of strategic modelling software to analyse localised impacts at the microscopic level.

4.4.7 Both reports conclude that *'under Scenarios 2 and 3 there are known locations, such as the A49 Corridor which will require further assessment and targeted interventions throughout the course of the Plan's delivery'*. The reports recommend that *'these locations…. should be the subject of future study and included in future revisions of the Local Plan where appropriate.'*

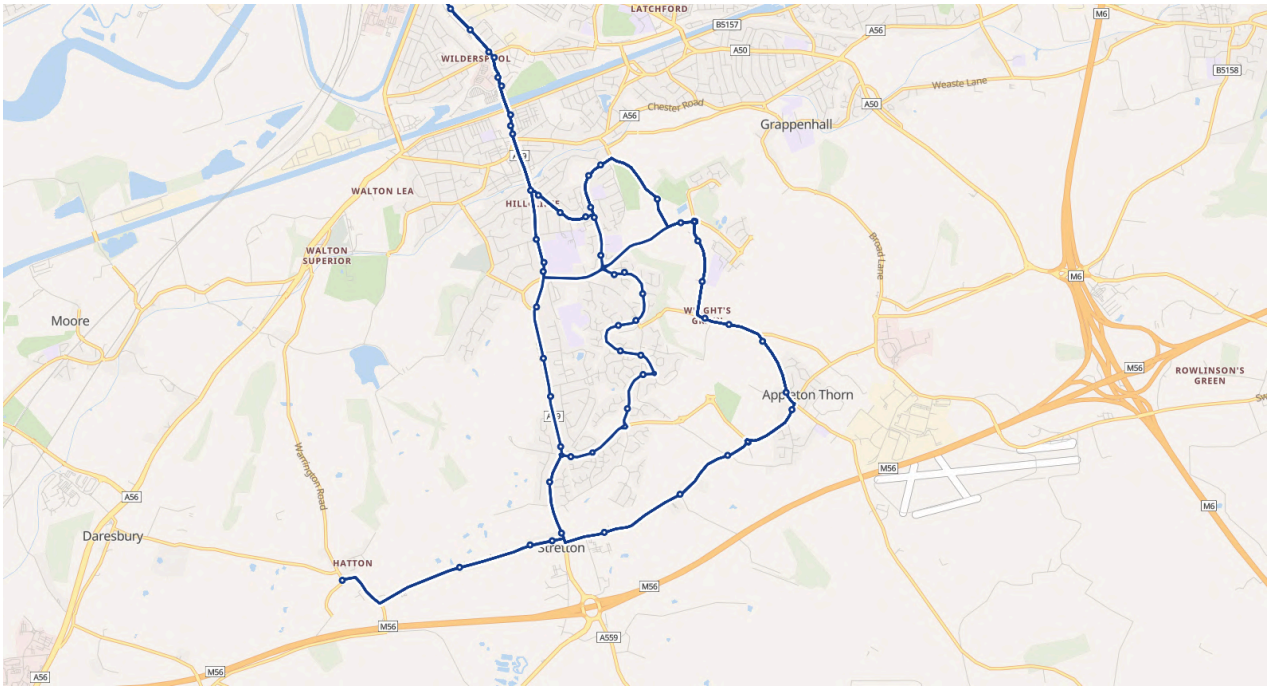
4.4.8 Based on the analysis undertaken as part of this response, it can be stated that the 1st Draft R19 LP proposals resulted in greater levels of reduced delays and travel times across the network when compared with the same statistics for the 2nd Draft R19 LP.

Public Transport

4.4.9 In terms of public transport, the mass transit routes proposed in the 1st Draft R19 LP would provide new corridors the service the wider South East Warrington area.

4.4.10 At present, bus services do not operate beyond Appleton Thorn, as shown in Figure 2.2. Furthermore, the current local highway network would in places, such as Broad Lane, not be of a sufficient standard to accommodate a high frequency bus service.

Figure 4.2 : Existing Bus Route (source: Warrington's Own Buses)



4.4.11 The proposed highway improvements included within the 2nd Draft R19 LP would not be able to improve the east west connection without land controlled by the Consortium or provide / safeguard the mass transit corridors proposed previously.

4.4.12 The current proposals for the SEWUE provide a less direct and comprehensive network of high-capacity routes, which are constrained and cannot be safeguarded. Fewer people may be encouraged to use public transport / active travel; therefore, it brings into question the validly of the forecasting, which assumes the modal shift in percentage terms is the same. Reduced modal share for public transport / cars would place the highway network under greater pressure and could lead to capacity issues at key pinch-points across the local highway network.

5. Localised Highway Impacts

5.1 Strategic Modelling Overview

5.1.1 Although it is the most effective tool for forecasting future traffic impacts and for predicting routeing and journey times across large networks at the strategic level, it should be noted that the use of strategic modelling software to identify localised highway issues is limited. It would be recommended that more detailed highway capacity analysis is undertaken at the microscopic level to determine the effectiveness of proposed infrastructure improvements and to ensure they are compliant with relevant design standards.

5.1.2 It is recommended that the Inspector is made aware of the work undertaken for the 1st Draft R19 LP LPTR 2019, produced by AECOM, with particular consideration given to pages 35-37 which demonstrates the effectiveness of the supporting infrastructure proposed within the 1st Draft R19 LP to enable the delivery of the WGS at reducing node delay.

5.1.3 As no comparable evidence has been presented in the LPTR 2021, the subsequent analysis has sought to compare journey times along the A49 and in an east-west direction between Daresbury and Lymm forecast within the LPTR 2019 and the LPTR 2021.

5.2 Future Highway Capacity

5.2.1 Whilst the reduction in housing numbers proposed as part of the SEWUE is likely to generate fewer trips, the removal of the east-west link road proposed as part of the 1st Draft R19 LP is likely to place more pressure on the existing highway network. Consequently, delivery of 2nd Draft R19 LP places greater emphasis on improving existing highway junctions, particularly along the A49 to enable development.

5.2.2 In addition to the above, the modelling undertaken for the 2nd Draft R19 LP indicates that the proposed highway network in South Warrington would exceed or be approaching capacity during the AM and PM peak period along sections of the B5356 and A50 on existing routes and routes upgraded as part of the SEWUE. This is particularly visible at the proposed employment allocation to the south east near M6 J20. The Volume/Capacity (V/C) plots presented within the LPTR 2021 are shown for Scenario 2 in Figure 5.1.

Figure 5.1 : LPRT 2021 – V/C Plots (source : AECOM LPTR 2021)

Figure B13: 2038 AM Scenario 2 VC

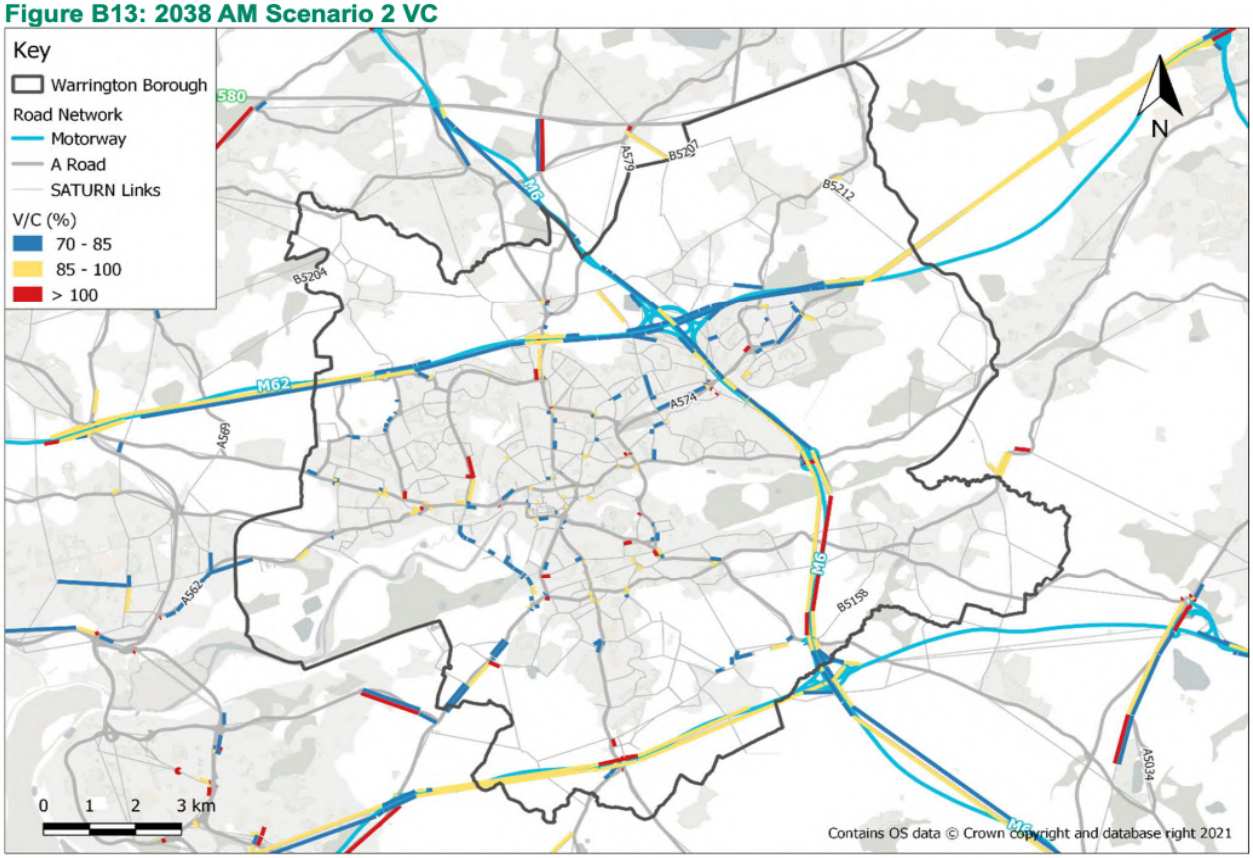
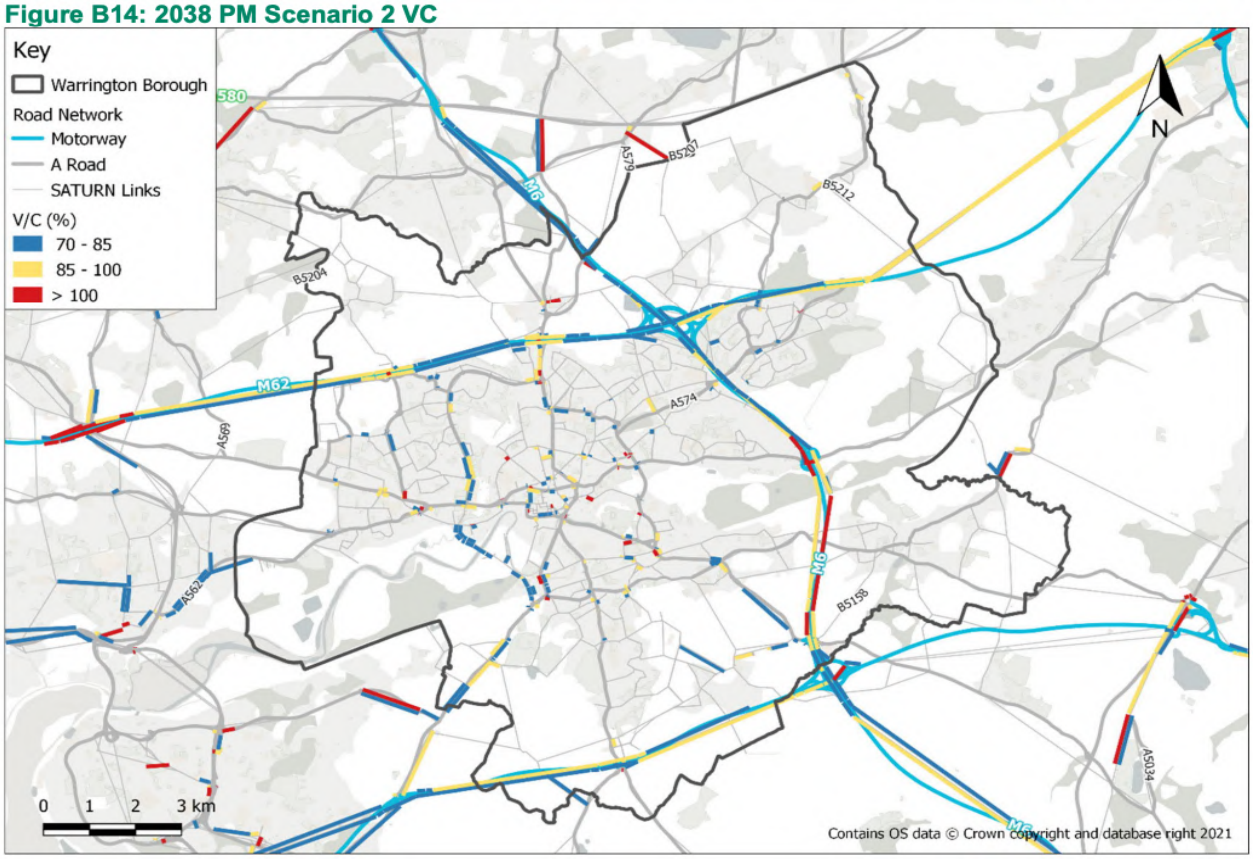


Figure B14: 2038 PM Scenario 2 VC



5.2.3 As no similar plots were provided for comparison within the LPTR 2019, it cannot be definitely concluded that the highway impact of the 2nd Draft R19 LP proposals would be any more severe than those arising from the delivery of the 1st Draft R19 LP, even with the associated highway infrastructure proposed previously.

5.3 Journey Time Analysis

5.3.1 To further understand the traffic impact of the 1st Draft R19 LP and 2nd Draft R19 LP proposals on the A49 corridor (north-south movements) and east west movements between Lymm and Daresbury, a more detailed review of journey times for Northbound (NB) and Southbound (SB) on the A49 and Eastbound (EB) and Westbound (WB) journeys between Daresbury and Lymm has been undertaken.

A49 Corridor

5.3.2 The forecast journey times in seconds for NB and SB movements on the A49 have been extracted from the LPTR 2019 and shown in Table 5.1.

Table 5.1 : 1st Draft R19 LP – A49 Journey Time Analysis

1st Draft R19 LPTR		Scenario 1	Scenario 2	Scenario 3
AM NB	Travel Time (s)	2,366	2,287	2,250
	Actual Change	0	-79	-116
	Percentage Change	0%	-3%	-5%
AM SB	Travel Time (s)	2,306	2,154	2,131
	Actual Change	0	-152	-175
	Percentage Change	0%	-7%	-8%
PM NB	Travel Time (s)	2,776	2,449	2,409
	Actual Change	0	-327	-367
	Percentage Change	0%	-12%	-13%
PM SB	Travel Time (s)	2,143	2,033	2,006
	Actual Change	0	-110	-137
	Percentage Change	0%	-5%	-6%

5.3.3 When compared with Scenario 1, the infrastructure proposed within the 1st Draft R19 LP is forecast to reduce NB and SB journey times in both peak periods. Most notably, the proposed schemes are expected to reduce journey times for NB vehicles in the PM peak by but to 5 minutes, a reduction of 12%.

5.3.4 The forecast journey times in seconds (s) for NB and SB movements on the A49 have been extracted from the LPTR 2021 and shown in Table 5.2.

Table 5.2 : 2nd Draft R19 LP – A49 Journey Time Analysis

2nd Draft R19 LPTR		Scenario 1	Scenario 2	Scenario 3
AM NB	Travel Time (s)	2,317	2,256	2,207
	Actual Change	0	-61	-110
	Percentage Change	0%	-3%	-5%
AM SB	Travel Time (s)	2,249	2,199	2,157
	Actual Change	0	-50	-92
	Percentage Change	0%	-2%	-4%
PM NB	Travel Time (s)	2,845	2,534	2,470
	Actual Change	0	-311	-375
	Percentage Change	0%	-11%	-13%
PM SB	Travel Time (s)	2,043	2,083	2,038
	Actual Change	0	40	-5
	Percentage Change	0%	2%	0%

5.3.5 When compared with Scenario 1, the infrastructure proposed within the 2nd Draft R19 LP is forecast to reduce NB and SB journey times in both peak with the exception of journeys in a SB direction during PM.

5.3.6 Without policy interventions, the infrastructure alone results in an increase in journey time of 40 seconds. Furthermore, the policy intervention does not provide any notable benefits above Scenario 1.

5.3.7 To enable a comparison of the future year journey times on the A49 between the 1st Draft R19 LP and 2nd Draft R19 LP, the 2019 values have been subtracted from the 2021 values for the corresponding scenario, as shown in Table 5.3. It should be noted that a negative value would indicate that 2nd Draft R19 LP journey times are lower, and a positive value would indicate that 2nd Draft R19 LP journey times are higher.

Table 5.3 : 2021 Journey Time Difference – A49 Journey Time Analysis

LPTR 2019 and LPTR 2021 Comparison		Scenario 1	Scenario 2	Scenario 3
AM NB	Difference (s)	-49	-31	-43
	Difference (min)	-1	-1	-1
AM SB	Difference (s)	-57	45	26
	Difference (min)	-1	1	0
PM NB	Difference (s)	69	85	61
	Difference (min)	1	1	1
PM SB	Difference (s)	-100	50	32
	Difference (min)	-2	1	1

5.3.8 In general, Scenario 1 journey times are lower on the A49 in both periods in the LPTR 2021, with the exception of the NB journeys during the PM period.

5.3.9 With the exception of NB journeys during the AM peak period, 2nd Draft R19 LP journey times are higher than 1st Draft R19 LP higher in Scenarios 2 and 3.

5.3.10 Given that Scenario 2 journey times for the 2nd aft R19 LP are generally higher than Scenario 2 for the 1st Draft R19 LP, it could be suggested that the infrastructure proposals for the 1st Draft R19 LP were forecast to have a greater impact at reducing journey times along the A49.

East-West Between Daresbury and Lymm

5.3.11 In the 1st Draft R19 LP, a new dedicated east-west connection between the A49 and a A50 was proposed (Figure 3.2) to enable the development of WGS. The 2021 proposals utilise the existing highway routes supported by localised improvements, offering a less direct connection between the A49 and A50.

5.3.12 The forecast journey times in seconds for WB and EB movements between Daresbury and Lymm have been extracted from the LPTR 2019 and shown in Table 5.4.

Table 5.4 : 1st Draft R19 LP – East-West Journey Time Analysis

1st Draft R19 LPTR		Scenario 1	Scenario 2	Scenario 3
AM WB	Travel Time (s)	1,420	1,149	1,147
	Actual Change	0	-271	-273
	Percentage Change	0%	-19%	-19%
AM EB	Travel Time (s)	1,148	1,129	1,119
	Actual Change	0	-19	-29
	Percentage Change	0%	-2%	-3%
PM WB	Travel Time (s)	1,361	1,112	1,100
	Actual Change	0	-249	-261
	Percentage Change	0%	-18%	-19%
PM EB	Travel Time (s)	1,075	1,051	1,043
	Actual Change	0	-24	-32
	Percentage Change	0%	-2%	-3%

5.3.13 When compared with Scenario 1, the infrastructure proposed within the 1st Draft R19 LP is forecast to reduce WB and EB journey times in both peak periods. Most notably, the proposed schemes are expected to reduce journey times for WB and EB vehicles in the AM and PM peak by 19% and 18% respectively.

5.3.14 The forecast journey times in seconds for WB and EB movements between Daresbury and Lymm have been extracted from the LPTR 2021 and shown in Table 5.5.

Table 5.5 : 2nd Draft R19 LP – East-West Journey Time Analysis

2nd Draft R19 LPTR		Scenario 1	Scenario 2	Scenario 3
AM WB	Travel Time (s)	1,329	1,319	1,308
	Actual Change	0	-10	-21
	Percentage Change	0%	-1%	-2%
AM EB	Travel Time (s)	1,478	1,319	1,308
	Actual Change	0	-159	-170
	Percentage Change	0%	-11%	-12%
PM WB	Travel Time (s)	1,243	1,248	1,242
	Actual Change	0	5	-1
	Percentage Change	0%	0%	0%
PM EB	Travel Time (s)	1,253	1,226	1,223
	Actual Change	0	-27	-30
	Percentage Change	0%	-2%	-2%

5.3.15 When compared with Scenario 1, the infrastructure proposed within the 2021 local plan is forecast to reduce WB and EB journey times in both peaks with the exception of journeys in a WB direction during PM.

5.3.16 To enable a comparison of the future year east-west journey times between the 1st Draft R19 LP and 2nd Draft R19 LP, the 2019 values have been subtracted from the 2021 values for the corresponding scenario, as shown in Table 5.6. It should be noted that a negative value would iridate that 2nd Draft R19 LP journey times are lower, and a positive value would indicate that 2nd Draft R19 LP journey times are higher.

Table 5.6 : 2021 Journey Time Difference – East-West Journey Time Analysis

LPTR 2019 and LPTR 2021 Comparison		Scenario 1	Scenario 2	Scenario 3
AM NB	Difference (s)	-91	170	161
	Difference (min)	-2	3	3
AM SB	Difference (s)	330	190	189
	Difference (min)	6	3	3
PM NB	Difference (s)	-118	136	142
	Difference (min)	-2	2	2
PM SB	Difference (s)	178	175	180
	Difference (min)	3	3	3

5.3.17 All journey times extracted from the LPTR 2021 are higher in Scenarios 2 and 3.

5.3.18 As the east-west route proposed within the 1st Draft R19 LP brings about greater reductions in journey times for vehicles undertaking these movements across both periods, and that overall journey times are considerably lower, it could be suggested that the infrastructure proposals for the 2nd Draft R19 LP are less effective at mitigating the traffic impacts of the SEWUE.

5.3.19 Furthermore, the infrastructure east-west improvements assumed within the modelling are not considered deliverable without land under control of the Consortium and the forecast modal shift assumed within the modelling has been brought into question in Section 4.

6. Fiddler's Ferry – MD3

6.1 Development Enabling Infrastructure Improvements

6.1.1 In the 2nd Draft R19 LP, Policy MD3 states that improvements will include:

- *'Ensuring appropriate access arrangements for the site as a whole and for individual phases of development (point 29(e));*
- *Improved cycling and walking routes well related to the green infrastructure network and connecting to the Trans Pennine Trail.*
- *Providing public transport enhancements to connect the new community with Warrington Town Centre and neighbouring Widnes Town Centre (point 29 (c));*
- *Other necessary improvements or mitigation measures to local and strategic highway networks as identified by an appropriate Transport Assessment (point 29 (d));*

6.2 Sustainable Accessibility Review

6.2.1 Despite the proposed improvements, the opportunities for sustainable travel at the Fiddler's Ferry will be restricted due to the site's relatively isolated location on the eastern outskirts of Widnes.

6.2.2 For resident's, journeys on foot would be unlikely to extend beyond the site boundary given the distance (2-miles) to Widnes. Furthermore, although amenities are proposed within the site, given the scale of development there is still likely to be a need for residents to travel to nearby towns, which cannot be accessed on foot.

6.2.3 The Trans Pennine Trail dissects the site and provides traffic-free cycle routes towards Widnes (c.10-minute journey time) and Warrington (20-minute journey time). Other than the Trans Pennine Trail and any new cycling routes provided within the site, cycling on the local highway network is expected to be limited given the traffic volumes and speeds along Widnes Road (A562).

6.2.4 Widnes Road (A562) is currently served by Service No.110 which provides a half-hourly service during the peak periods. Service No.110 serves bus stops located c.600m from the centre of Phase 1 and c1.6km from the centre of Phase 2 (assuming a direct pedestrian route is available onto Widnes Road). Both these distances exceed the walking distances typically accepted to bus stops from residential development and would significantly reduce the attractiveness and accessibility of bus travel, particularly for young families, elderly and disabled residents.

6.2.5 Improvements to public transport serving Widnes, Warrington and wider employment areas are mentioned in the Fiddler's Ferry masterplan, however no detail is provided to demonstrate how this will be achieved.

6.2.6 Overall, the location of the Fiddler's Ferry site will result in the formation of a relatively isolated community which, in sustainable transport terms, is disconnected from neighbouring settlements. This will result in there being a necessity for residents to travel longer distances, by car, to access services and amenities.

7. Summary

7.1.1 Mode has been appointed by the Consortium to review the transport planning and highways evidence in relation to the Regulation 19 Local Plan – *Warrington's 2nd Draft Local Plan*.

7.1.2 A summary of this review is as follows:

- Based on the avoidance of land owned by the Consortium, the Policy MD02 site in the 2nd Draft R19 LP would jeopardise the future delivery of the mass transit highway network and could limit further future development;
- The current Policy MD02 site does not, and is unable to, provide an improved connection to the A50 due to the removal of the strategic infrastructure proposed on the 1st Draft R19 LP;
- The 2nd Draft R19 LP proposals were assessed to result in higher levels of vehicle delay and total travel time compared to the 1st Draft R19 LP;
- The removal of the east-west link road that was previously proposed is likely to place more pressure on the existing highway network and has been shown to result in capacity issues on the B5356. As such delivery of 2nd Draft R19 LP places greater emphasis on improving existing highway junctions, particularly along the A49 to enable development;
- It has been demonstrated that the majority of future year journey times forecast for 2nd Draft R19 LP along the A49 and in an east-west direction between Daresbury and Lymm are higher than the future year journey times forecast for the 1st Draft R19 LP, despite the reduced level of housing proposed. Furthermore, the impact of the highway infrastructure proposed within the 2nd Draft R19 LP is less effective at reducing journey times than the infrastructure proposed within the 1st Draft R19 LP; and
- The location of the Fiddler's Ferry site will result in the formation of a relatively isolated community which, in sustainable transport terms, is disconnected from neighbouring settlements. This will result in there being a necessity for residents to travel longer distances, by car, to access services and amenities.

mode

transport planning

keep up with mode: