In Parliament – Session 2022 - 2023

HS2

High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 5: Appendix TR-003-00003 – Report 2 of 2

Traffic and transport

Transport Assessment Part 3 Addendum

MA03: Pickmere to Agden and Hulseheath

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S103_B

Department for Transport

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High Speed Two (HS2) Limited
Two Snowhill
Snow Hill Queensway
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.hs2.org.uk

A report prepared for High Speed Two (HS2) Limited:

ARUP+ ERM | FOSTER + PARTNERS | JACOBS
RAMBOLL | TYPSA | COSTAIN

MWJV
Mott MacDonald | WSP

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13.3.1 The MA03 operation description (for the original scheme) is reported in Section 15.4 of the main TA and Section 12.3 of the SES1 and AP1 ES TA (for the AP1 revised scheme). This section of the main TA and the SES1 and AP1 ES TA is unchanged.

13.4 AP2 revised scheme assessment of operation impacts

13.4.1 The SES2 changes and AP2 amendments reported in Section 12.4 of this report mean that Section 15.5 of the main TA and Section 12.4 of the SES1 and AP1 ES TA are replaced by Section 12.4 in this document. Where there is no replacement, the text in the main TA and the SES1 and AP1 ES TA remains valid.

13.4.2 This section provides an overview of the impacts resulting from the operation of the AP2 revised scheme.

13.4.3 In the main TA the future baseline traffic volumes were calculated for 2030, 2038 and 2046. In the SES1 and AP1 ES TA the 2046 future baseline was updated to 2051 in order to give the assessment greater resilience to long-term growth in travel demand. For the SES2 and AP2 ES TA, the 2030 and 2038 future baselines have been updated to 2031 and 2039 to reflect the revised programme reported in SES2 and AP2 ES Volume 2, Community Area report: Pickmere to Agden and Hulseheath (MA03), Section 6. Consequently, the operational assessment of the AP2 revised scheme has been undertaken for the anticipated opening year of 2039 and a further assessment year of 2051.

Key operation transport issues

13.4.4 The key operation transport issues (for the original scheme) are reported in Section 15.5 of the main TA and Section 12.4 of the SES1 and AP1 ES TA (for the AP1 revised scheme). This section of the main TA and the SES1 and AP1 ES TA is unchanged.

Highway network

Highway diversions, realignments and closures

13.4.5 Table 15-37 in the main TA and Table 15-37a of the SES1 and AP1 ES TA summarise the permanent road diversions, realignments and closures and any new or altered junctions required to accommodate the AP1 revised scheme. Table 15-37a summarises the changes to those in Table 15-37 in the main TA and Table 15-37a in the SES1 and AP1 ES TA, identifying new or different permanent changes required to support the AP2 revised

scheme. Those not listed in Table 15-37a remain unchanged to those identified in Table 15-37 of the main TA and Table 15-37a below, of the SES1 and AP1 ES TA.

Table 15-37a: MA03 AP2 revised scheme permanent highway diversion/closure/amendment

Highway name/junction	Description	Change/alteration
M6 junction 19/A556 Chester Road/A556	Modification of the M6 junction 19/A556 Chester Road/A556 junction (AP2-003-002) to mitigate construction impacts at this location. The M6 junction 19 will be permanently modified to include carriageway widening to enable an additional lane on the northbound through-about (i.e. the circular road junction bisected by traffic lanes) and changes to the M6 junction 19 off-slip road.	No change to journey length
M6 junction 20/A50 Cliff Lane/B5158 Cherry Lane	Modification of the M6 junction 20/A50 Cliff Lane / B5185 Cherry Lane Road/A556 junction (AP2-003-004) to mitigate construction impacts at this location. The M6 junction 20 will be permanently modified to include carriageway widening to enable an additional northbound lane for merging traffic.	No change to journey length

Network traffic flows

13.4.1 The highway changes set out above together with changes in traffic flows arising from the operation of the AP2 revised scheme will result in changes to travel patterns in the area.

13.4.2 The strategic traffic model used to assess the impacts of the AP2 revised scheme within the MA03 area has been updated since the SES1 and AP1 ES TA. This has led to traffic flow changes in the baseline and future baseline traffic scenarios, as set out in this report.

Strategic and local road network traffic flows

13.4.3 The impacts of the AP2 revised scheme on the highway network have been assessed by undertaking strategic model runs for the 2039 and 2051 'with AP2 revised scheme' scenarios, and by comparing the flows and delays against the corresponding future baseline scenarios.

13.4.4 Changes have been made within the strategic model to reflect the proposed changes to the road network, including road closures, realigned roads and changes to junction operations.

13.4.5 Table 15-38 to Table 15-41 in the SES1 and AP1 ES TA replaced Table 15-38 to Table 15-41 in the main TA and set out the traffic flows on highway links affected by operation of the AP1 revised scheme for the weekday AM peak hour (08:00-09:00) and weekday PM peak hour (17:00-18:00) for 2038 and 2051 respectively. Table 15-38 to Table 15-41 below replace Table 15-38 to Table 15-41 in the SES1 and AP1 ES TA and include the change from

a 2038 to 2039 assessment year. In both time periods, large percentage changes are generally a result of a relatively low number of movements in the future baseline.

13.4.6 Due to the simplified way in which the road network is represented in the strategic models, the use of some local roads may not be precisely reflected in the forecast traffic flows during operation of the AP2 revised scheme; however, this is not expected to change the conclusions of the assessment. Traffic flows on all other links are either unaffected from the future baseline or result in only small changes.

13.4.7 Figure 15-9 to Figure 15-12 in the SES1 and AP1 ES TA replaced Figure 15-9 to Figure 15-12 in the main TA and set out traffic flow changes for the AM and PM peak hours respectively for 2038 and 2051. Figure 15-13 to Figure 15-16 below set out traffic flow changes for the AM and PM peak hours respectively for 2039 and 2051 and replace Figure 15-9 to Figure 15-12 in the SES1 and AP1 ES TA. It should be noted that due to the simplified way in which the road network is represented in the strategic models, the location of some modelled links may not precisely match the location of the corresponding roads shown on the mapping. However, this does not change the conclusions of the assessment.

13.4.8 The width of the band indicates the proportional change in traffic, with red representing an increase and green a decrease compared with the 2039 and 2051 future baseline scenario. Flow changes are the combination of changes associated with the SES2 changes and AP2 amendments, revised baseline traffic and associated traffic reassignment.

13.4.9 The forecast traffic flow tables presented in this report use the following abbreviations for road direction: NB = northbound; SB = southbound; EB = eastbound; and WB = westbound.

Table 15-38: MA03 AP2 revised scheme impacted links, 2039 AM peak

Location	Direction	2039 future baseline flows		2039 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2039 future baseline		AP2 revised scheme % change from 2039 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
B5391 Pickmere Lane (between Park Lane and School Lane)	EB	119	5	130	5	11	0	9%	0%
	WB	60	4	62	4	2	0	3%	0%
B5391 Pickmere Lane realignment (between School Lane and Budworth Road)	EB	119	5	131	5	12	0	10%	0%
	WB	60	4	69	4	9	0	15%	0%
Old Hall Lane (between Budworth Road and A556 northbound off-slip)*	NB	16	1	25	6	9	5	56%	500%
	SB	3	1	11	4	8	3	267%	300%
B5569 Chester Road (between Old Hall Lane and A50 Warrington Road)	NB	272	7	291	11	19	4	7%	57%
	SB	159	10	133	14	-26	4	-16%	40%
A50 Warrington Road (between A5034 Mereside Road and Clamhunger Lane)	EB	426	13	398	13	-28	0	-7%	0%
	WB	405	10	399	10	-6	0	-1%	0%
A5034 Mereside Road (between Mereheath Lane and A50 Warrington Road)	NB	112	2	102	0	-10	-2	-9%	-100%
	SB	212	6	231	7	19	1	9%	17%
A5034 Mereside Road (between Ashley Road and Mereheath Lane)	NB	140	3	159	0	19	-3	14%	-100%
	SB	511	9	538	9	27	0	5%	0%
A50 Warrington Road (between Clamhunger Lane and B5569 Chester Road)	EB	569	17	543	17	-26	0	-5%	0%
	WB	467	13	435	12	-32	-1	-7%	-8%
A5034 Mereside Road (between Clamhunger Lane and Ciceley Mill Lane)*	NB	27	0	77	0	50	0	185%	0%
	SB	492	8	495	8	3	0	1%	0%
A50 Chester Road (between B5569 Chester Road (south) and B5569 Chester Road (north))	NB	562	14	576	18	14	4	2%	29%
	SB	550	22	526	25	-24	3	-4%	14%
	NB	490	16	531	20	41	4	8%	25%

Location	Direction	2039 future baseline flows		2039 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2039 future baseline		AP2 revised scheme % change from 2039 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A50 Knutsford Road (between B5569 Chester Road (north) and A556 northbound on-slip)	SB	519	18	490	18	-29	0	-6%	0%
B5569 Chester Road (between A50 Knutsford Road and A5034 Mereside Road)	NB	147	1	147	1	0	0	0%	0%
	SB	107	7	137	10	30	3	28%	43%
Hulse Heath Lane (between A50 Knutsford Road and Bowden View Lane)	NB	11	0	12	0	1	0	9%	0%
	SB	8	0	10	0	2	0	25%	0%
Hulse Heath Lane (between Bowden View Lane and Chapel Lane)*	NB	0	0	0	0	0	0	0%	0%
	SB	0	0	0	0	0	0	0%	0%
Chapel Lane (between Hulse Heath Lane and B5569 Chester Road)	NB	33	0	84	0	51	0	155%	0%
	SB	50	0	52	0	2	0	4%	0%
B5569 Chester Road (between Chapel Lane and A556 southbound off-slip)	NB	29	0	29	0	0	0	0%	0%
	SB	509	12	526	15	17	3	3%	25%
Millington Lane (between Booth Bank Lane and Chester Road)	NB	28	0	32	0	4	0	14%	0%
	SB	16	0	17	0	1	0	6%	0%
Back Lane/Thowler Lane (between Peacock Lane and Agden Lane)	NB	53	1	119	1	66	0	125%	0%
	SB	41	1	68	1	27	0	66%	0%
Agden Lane/Agden Park Lane (between Thowler Lane and A56 Higher Lane)	NB	15	0	70	0	55	0	367%	0%
	SB	48	0	60	0	12	0	25%	0%
Reddy Lane (between Millington Lane and A56 Lymm Road)	NB	31	0	37	0	6	0	19%	0%
	SB	6	0	9	0	3	0	50%	0%

** Some traffic movements may not be precisely reflected due to the simplified way in which the road network is represented in the strategic traffic models, however, this is not expected to change the conclusions of the assessment.*

Table 15-39: MA03 AP2 revised scheme impacted links, 2051 AM peak

Location	Direction	2051 future baseline flows		2051 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2051 future baseline		AP2 revised scheme % change from 2051 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
B5391 Pickmere Lane (between Park Lane and School Lane)	EB	133	5	142	5	9	0	7%	0%
	WB	52	4	60	4	8	0	15%	0%
B5391 Pickmere Lane realignment (between School Lane and Budworth Road)	EB	133	5	144	5	11	0	8%	0%
	WB	52	4	67	4	15	0	29%	0%
A5033 Northwich Road (between A50 Manchester Road and B5083 Stanley Road)	EB	487	8	494	8	7	0	1%	0%
	WB	1,134	12	1,137	12	3	0	0%	0%
Old Hall Lane (between Budworth Road and A556 northbound off-slip)*	NB	24	6	27	6	3	0	13%	0%
	SB	5	2	11	4	6	2	120%	100%
A50 Warrington Road (between A5034 Mereside Road and Clamhunger Lane)	EB	471	8	463	8	-8	0	-2%	0%
	WB	453	9	441	11	-12	2	-3%	22%
A5034 Mereside Road (between Mereheath Lane and A50 Warrington Road)	NB	114	2	103	0	-11	-2	-10%	-100%
	SB	160	6	177	7	17	1	11%	17%
A5034 Mereside Road (between Ashley Road and Mereheath Lane)	NB	141	3	152	1	11	-2	8%	-67%
	SB	530	9	559	9	29	0	5%	0%
A50 Warrington Road (between Clamhunger Lane and B5569 Chester Road)	EB	620	11	616	11	-4	0	-1%	0%
	WB	515	11	478	13	-37	2	-7%	18%
A5034 Mereside Road (between Clamhunger Lane and Ciceley Mill Lane)*	NB	27	0	75	0	48	0	178%	0%
	SB	507	8	514	8	7	0	1%	0%
	NB	627	17	621	19	-6	2	-1%	12%

Location	Direction	2051 future baseline flows		2051 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2051 future baseline		AP2 revised scheme % change from 2051 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A50 Chester Road (between B5569 Chester Road (south) and B5569 Chester Road (north))	SB	600	17	600	19	0	2	0%	12%
A50 Knutsford Road (between B5569 Chester Road (north) and A556 northbound on-slip)	NB	556	19	567	21	11	2	2%	11%
	SB	564	12	561	12	-3	0	-1%	0%
B5569 Chester Road (between A50 Knutsford Road and A5034 Mereside Road)	NB	146	1	147	1	1	0	1%	0%
	SB	111	8	131	10	20	2	18%	25%
Hulse Heath Lane (between A50 Knutsford Road and Bowden View Lane)	NB	12	0	13	0	1	0	8%	0%
	SB	8	0	10	0	2	0	25%	0%
Hulse Heath Lane (between Bowden View Lane and Chapel Lane)*	NB	0	0	0	0	0	0	0%	0%
	SB	0	0	0	0	0	0	0%	0%
Chapel Lane (between Hulse Heath Lane and B5569 Chester Road)	NB	34	0	85	0	51	0	150%	0%
	SB	54	0	56	0	2	0	4%	0%
Millington Lane (between Booth Bank Lane and Chester Road)	NB	30	0	35	0	5	0	17%	0%
	SB	20	0	26	0	6	0	30%	0%
Back Lane/Thowler Lane (between Peacock Lane and Agden Lane)	NB	55	1	119	1	64	0	116%	0%
	SB	42	1	73	1	31	0	74%	0%
Peacock Lane (between Moss Lane and Back Lane)*	EB	18	1	17	1	-1	0	-6%	0%
	WB	51	1	34	1	-17	0	-33%	0%
Agden Lane/Agden Park Lane (between Thowler Lane and A56 Higher Lane)	NB	18	0	74	0	56	0	311%	0%
	SB	51	0	73	0	22	0	43%	0%
	NB	29	0	36	0	7	0	24%	0%

Location	Direction	2051 future baseline flows		2051 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2051 future baseline		AP2 revised scheme % change from 2051 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Reddy Lane (between Millington Lane and A56 Lymm Road)	SB	7	0	9	0	2	0	29%	0%

** Some traffic movements may not be precisely reflected due to the simplified way in which the road network is represented in the strategic traffic models, however, this is not expected to change the conclusions of the assessment.*

Table 15-40: MA03 AP2 revised scheme impacted links, 2039 PM peak

Location	Direction	2039 future baseline flows		2039 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2039 future baseline		AP2 revised scheme % change from 2039 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
B5391 Pickmere Lane realignment (between School Lane and Budworth Road)	EB	41	1	55	1	14	0	34%	0%
	WB	114	5	164	6	50	1	44%	20%
A537 Brook Street (between B5085 Mobberley Road and B5085 Hollow Lane)	EB	165	8	176	8	11	0	7%	0%
	WB	403	11	438	12	35	1	9%	9%
B5085 Mobberley Road (between A537 Chelford Road and B5085 Hollow Lane)	NB	269	0	194	0	-75	0	-28%	0%
	SB	662	2	653	2	-9	0	-1%	0%
Tatton Street (between A50 King Edward Road and B5083 Garden Road)*	NB	42	0	26	0	-16	0	-38%	0%
	SB	193	0	243	0	50	0	26%	0%
B5083 Garden Road (between Tatton Street and A50 Manchester Road)*	EB	0	0	0	0	0	0	0%	0%
	WB	139	3	124	3	-15	0	-11%	0%
Tabley Road (between Ladies Mile and A50 Manchester Road)	EB	161	0	159	0	-2	0	-1%	0%
	WB	183	0	104	0	-79	0	-43%	0%
Old Hall Lane (between Budworth Road and A556 northbound off-slip)*	NB	4	0	7	0	3	0	75%	0%
	SB	5	0	7	0	2	0	40%	0%

Location	Direction	2039 future baseline flows		2039 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2039 future baseline		AP2 revised scheme % change from 2039 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A50 Manchester Road (between Sugar Pit Lane and Green Lane)	NB	974	8	993	9	19	1	2%	13%
	SB	240	7	406	8	166	1	69%	14%
B5569 Chester Road (between Old Hall Lane and A50 Warrington Road)	NB	68	4	128	4	60	0	88%	0%
	SB	322	4	265	2	-57	-2	-18%	-50%
A50 Warrington Road (between A5034 Mereside Road and Clamhunger Lane)	EB	38	6	274	7	236	1	621%	17%
	WB	867	6	872	9	5	3	1%	50%
A5034 Mereside Road (between Mereheath Lane and A50 Warrington Road)	NB	104	2	99	0	-5	-2	-5%	-100%
	SB	203	2	133	1	-70	-1	-34%	-50%
Clamhunger Lane (between A50 Warrington Road and A5034 Mereside Road)	NB	17	0	30	0	13	0	76%	0%
	SB	96	1	57	1	-39	0	-41%	0%
A5034 Mereside Road (between Ashley Road and Mereheath Lane)	NB	198	2	188	0	-10	-2	-5%	-100%
	SB	390	2	367	1	-23	-1	-6%	-50%
A50 Warrington Road (between Clamhunger Lane and B5569 Chester Road)	EB	55	6	304	7	249	1	453%	17%
	WB	963	7	929	10	-34	3	-4%	43%
Cann Lane/Whitley Lane/Rowley Bank Lane/Halliwell's Brow (between Budworth Road and A50 Warrington Road)	NB	155	0	168	0	13	0	8%	0%
	SB	191	4	192	4	1	0	1%	0%
A5034 Mereside Road (between Clamhunger Lane and Ciceley Mill Lane)*	NB	104	0	172	0	68	0	65%	0%
	SB	254	1	220	1	-34	0	-13%	0%
A50 Chester Road (between B5569 Chester Road (south) and B5569 Chester Road (north))	NB	797	8	867	13	70	5	9%	63%
	SB	153	8	386	9	233	1	152%	13%
	NB	79	0	66	0	-13	0	-16%	0%

Location	Direction	2039 future baseline flows		2039 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2039 future baseline		AP2 revised scheme % change from 2039 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
B5569 Chester Road (between A50 Knutsford Road and A5034 Mereside Road)	SB	164	2	217	2	53	0	32%	0%
A50 Knutsford Road (between B5569 Chester Road (north) and A556 northbound on-slip)	NB	856	9	960	14	104	5	12%	56%
	SB	127	7	328	8	201	1	158%	14%
A50 Knutsford Road (between A556 northbound on-slip and Hoo Green Lane)	NB	404	8	429	11	25	3	6%	38%
	SB	147	7	360	8	213	1	145%	14%
A50 Warrington Road realignment (between Wrenshot Lane and Hoo Green Lane)	EB	116	7	340	8	224	1	193%	14%
	WB	558	8	579	11	21	3	4%	38%
Hulse Heath Lane (between Bowden View Lane and Chapel Lane)*	NB	0	0	3	0	3	0	0%	0%
	SB	0	0	3	0	3	0	0%	0%
A50 Warrington Road (between Halliwell's Brow and Wrenshot Lane)	EB	116	7	340	8	224	1	193%	14%
	WB	558	8	579	11	21	3	4%	38%
A50 Warrington Road (between B5159 West Lane and Halliwell's Brow)	EB	254	11	485	11	231	0	91%	0%
	WB	660	8	701	11	41	3	6%	38%
Chapel Lane (between Hulse Heath Lane and B5569 Chester Road)	NB	97	0	172	0	75	0	77%	0%
	SB	22	0	21	0	-1	0	-5%	0%
B5159 West Lane east (between A50 Warrington Road and B5159 West Lane west)	NB	251	3	290	3	39	0	16%	0%
	SB	146	2	163	3	17	1	12%	50%
B5159 West Lane west (between A50 Warrington Road and B5159 West Lane east)	NB	56	1	56	1	0	0	0%	0%
	SB	96	8	105	8	9	0	9%	0%
B5569 Chester Road (between Chapel Lane and A556 southbound off-slip)	NB	19	0	18	0	-1	0	-5%	0%
	SB	273	2	296	2	23	0	8%	0%

Location	Direction	2039 future baseline flows		2039 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2039 future baseline		AP2 revised scheme % change from 2039 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A50 Warrington Road (between Swineyard Lane and B5159 West Lane)	EB	164	9	378	10	214	1	130%	11%
	WB	505	13	516	16	11	3	2%	23%
B5159 West Lane (between B5159 West Lane east and Wrenshot Lane)	NB	307	4	346	4	39	0	13%	0%
	SB	241	11	267	11	26	0	11%	0%
Heath Lane (between Swineyard Lane and A50 Warrington Road)	NB	65	0	69	0	4	0	6%	0%
	SB	63	0	91	0	28	0	44%	0%
A50 Warrington Road (between Swineyard Lane and Mag Lane)	EB	102	8	310	9	208	1	204%	13%
	WB	351	9	349	14	-2	5	-1%	56%
A50 Warrington Road (between Heath Lane and Mag Lane)	EB	102	8	310	9	208	1	204%	13%
	WB	305	7	345	12	40	5	13%	71%
Millington Lane (between Booth Bank Lane and Chester Road)	NB	70	0	91	0	21	0	30%	0%
	SB	17	0	16	0	-1	0	-6%	0%
Back Lane/Thowler Lane (between Peacock Lane and Agden Lane)	NB	113	1	189	1	76	0	67%	0%
	SB	32	1	44	1	12	0	38%	0%
A50 Cliff Lane/A50 Warrington Road (between M6 junction 20 and Heath Lane)	EB	165	9	401	9	236	0	143%	0%
	WB	371	8	414	13	43	5	12%	63%
B5159 West Lane (between Wrenshot Lane and Peacock Lane)	NB	444	4	475	4	31	0	7%	0%
	SB	167	2	185	3	18	1	11%	50%
Mag Lane (between A50 Warrington Road and Crouchley Lane)*	NB	45	2	5	2	-40	0	-89%	0%
	SB	0	0	0	0	0	0	0%	0%
B5159 West Lane (between Peacock Lane and Beechtree Lane)	NB	428	3	459	3	31	0	7%	0%
	SB	157	2	161	2	4	0	3%	0%
	NB	136	0	234	0	98	0	72%	0%

Location	Direction	2039 future baseline flows		2039 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2039 future baseline		AP2 revised scheme % change from 2039 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Agden Lane/Agden Park Lane (between Thowler Lane and A56 Higher Lane)	SB	10	0	21	0	11	0	110%	0%
Reddy Lane (between Millington Lane and A56 Lymm Road)	NB	9	0	12	0	3	0	33%	0%
	SB	13	0	22	0	9	0	69%	0%
A56 Lymm Road (between Reddy Lane and Agden Park Lane)	EB	301	5	296	5	-5	0	-2%	0%
	WB	583	3	574	3	-9	0	-2%	0%

** Some traffic movements may not be precisely reflected due to the simplified way in which the road network is represented in the strategic traffic models, however, this is not expected to change the conclusions of the assessment.*

Table 15-41: MA03 AP2 revised scheme impacted links, 2051 PM peak

Location	Direction	2051 future baseline flows		2051 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2051 future baseline		AP2 revised scheme % change from 2051 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
B5391 Pickmere Lane realignment (between School Lane and Budworth Road)	EB	45	1	51	1	6	0	13%	0%
	WB	150	5	212	6	62	1	41%	20%
A537 Brook Street (between B5085 Mobberley Road and B5085 Hollow Lane)	EB	172	13	176	12	4	-1	2%	-8%
	WB	512	9	506	9	-6	0	-1%	0%
B5085 Mobberley Road (between A537 Chelford Road and B5085 Hollow Lane)	NB	196	0	185	0	-11	0	-6%	0%
	SB	674	2	638	2	-36	0	-5%	0%
A5033 Northwich Road (between A50 Manchester Road and B5083 Stanley Road)	EB	798	5	690	3	-108	-2	-14%	-40%
	WB	1,197	8	1,175	7	-22	-1	-2%	-13%
B5083 Garden Road (between Tatton Street and A50 Manchester Road)*	EB	0	0	0	0	0	0	0%	0%
	WB	125	2	112	2	-13	0	-10%	0%

Location	Direction	2051 future baseline flows		2051 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2051 future baseline		AP2 revised scheme % change from 2051 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Old Hall Lane (between Budworth Road and A556 northbound off-slip)*	NB	9	0	9	1	0	1	0%	0%
	SB	9	1	11	1	2	0	22%	0%
A50 Manchester Road (between Sugar Pit Lane and Green Lane)	NB	1,010	9	1,018	10	8	1	1%	11%
	SB	297	11	437	12	140	1	47%	9%
B5569 Chester Road (between Old Hall Lane and A50 Warrington Road)	NB	67	4	71	5	4	1	6%	25%
	SB	239	5	121	3	-118	-2	-49%	-40%
A50 Warrington Road (between A5034 Mereside Road and Clamhunger Lane)	EB	63	9	293	12	230	3	365%	33%
	WB	830	6	751	9	-79	3	-10%	50%
A5034 Mereside Road (between Mereheath Lane and A50 Warrington Road)	NB	115	3	85	1	-30	-2	-26%	-67%
	SB	239	2	145	1	-94	-1	-39%	-50%
Clamhunger Lane (between A50 Warrington Road and A5034 Mereside Road)	NB	18	0	32	0	14	0	78%	0%
	SB	88	2	50	1	-38	-1	-43%	-50%
A5034 Mereside Road (between Ashley Road and Mereheath Lane)	NB	318	2	272	1	-46	-1	-14%	-50%
	SB	454	2	419	1	-35	-1	-8%	-50%
A50 Warrington Road (between Clamhunger Lane and B5569 Chester Road)	EB	81	9	325	12	244	3	301%	33%
	WB	918	8	801	9	-117	1	-13%	13%
A5034 Mereside Road (between Clamhunger Lane and Ciceley Mill Lane)*	NB	150	0	187	0	37	0	25%	0%
	SB	245	1	216	1	-29	0	-12%	0%
A50 Chester Road (between B5569 Chester Road (south) and B5569 Chester Road (north))	NB	809	8	809	14	0	6	0%	75%
	SB	166	12	403	14	237	2	143%	17%
A50 Knutsford Road (between B5569 Chester Road (north) and A556 northbound on-slip)	NB	871	9	937	15	66	6	8%	67%
	SB	148	11	352	13	204	2	138%	18%

Location	Direction	2051 future baseline flows		2051 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2051 future baseline		AP2 revised scheme % change from 2051 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
B5569 Chester Road (between A50 Knutsford Road and A5034 Mereside Road)	NB	82	0	67	0	-15	0	-18%	0%
	SB	162	2	246	3	84	1	52%	50%
A50 Knutsford Road (between A556 northbound on-slip and Hoo Green Lane)	NB	444	8	427	12	-17	4	-4%	50%
	SB	178	11	388	13	210	2	118%	18%
A50 Warrington Road realignment (between Wrenshot Lane and Hoo Green Lane)	EB	140	10	357	12	217	2	155%	20%
	WB	603	8	574	12	-29	4	-5%	50%
Hulse Heath Lane (between Bowden View Lane and Chapel Lane)*	NB	0	0	4	0	4	0	0%	0%
	SB	0	0	0	0	0	0	0%	0%
A50 Warrington Road (between Halliwell's Brow and Wrenshot Lane)	EB	140	10	357	12	217	2	155%	20%
	WB	602	8	574	12	-28	4	-5%	50%
A50 Warrington Road (between B5159 West Lane and Halliwell's Brow)	EB	337	14	551	16	214	2	64%	14%
	WB	685	8	705	12	20	4	3%	50%
Chapel Lane (between Hulse Heath Lane and B5569 Chester Road)	NB	152	0	187	0	35	0	23%	0%
	SB	27	0	23	0	-4	0	-15%	0%
B5159 West Lane east (between A50 Warrington Road and B5159 West Lane west)	NB	208	3	234	3	26	0	13%	0%
	SB	195	3	212	3	17	0	9%	0%
B5569 Chester Road (between Chapel Lane and A556 southbound off-slip)	NB	19	0	16	0	-3	0	-16%	0%
	SB	255	2	295	3	40	1	16%	50%
A50 Warrington Road (between Swineyard Lane and B5159 West Lane)	EB	211	13	407	14	196	1	93%	8%
	WB	571	13	576	17	5	4	1%	31%
Heath Lane (between Swineyard Lane and A50 Warrington Road)	NB	71	0	59	0	-12	0	-17%	0%
	SB	65	0	92	0	27	0	42%	0%

Location	Direction	2051 future baseline flows		2051 AP2 revised scheme flows		AP2 revised scheme actual flow change from 2051 future baseline		AP2 revised scheme % change from 2051 future baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A50 Warrington Road (between Swineyard Lane and Mag Lane)	EB	121	12	293	13	172	1	142%	8%
	WB	421	10	430	15	9	5	2%	50%
A50 Warrington Road (between Heath Lane and Mag Lane)	EB	121	12	293	13	172	1	142%	8%
	WB	385	7	422	13	37	6	10%	86%
Millington Lane (between Booth Bank Lane and Chester Road)	NB	104	0	118	0	14	0	13%	0%
	SB	17	0	19	0	2	0	12%	0%
Back Lane/Thowler Lane (between Peacock Lane and Agden Lane)	NB	169	1	207	1	38	0	22%	0%
	SB	34	1	44	1	10	0	29%	0%
Peacock Lane (between Moss Lane and Back Lane)*	EB	24	1	22	1	-2	0	-8%	0%
	WB	34	1	17	1	-17	0	-50%	0%
A50 Cliff Lane/A50 Warrington Road (between M6 junction 20 and Heath Lane)	EB	185	12	384	13	199	1	108%	8%
	WB	457	8	481	13	24	5	5%	63%
Agden Lane/Agden Park Lane (between Thowler Lane and A56 Higher Lane)	NB	232	0	284	0	52	0	22%	0%
	SB	10	0	22	0	12	0	120%	0%
Crouchley Lane/Beechtree Lane (between Mag Lane and B5159 West Lane)*	EB	0	0	0	0	0	0	0%	0%
	WB	1	0	11	0	10	0	1000%	0%
Reddy Lane (between Millington Lane and A56 Lymm Road)	NB	7	0	10	0	3	0	43%	0%
	SB	16	0	23	0	7	0	44%	0%

** Some traffic movements may not be precisely reflected due to the simplified way in which the road network is represented in the strategic traffic models, however, this is not expected to change the conclusions of the assessment.*

Figure 15-13: MA03 AP2 revised scheme traffic flow changes – 2039 AM peak

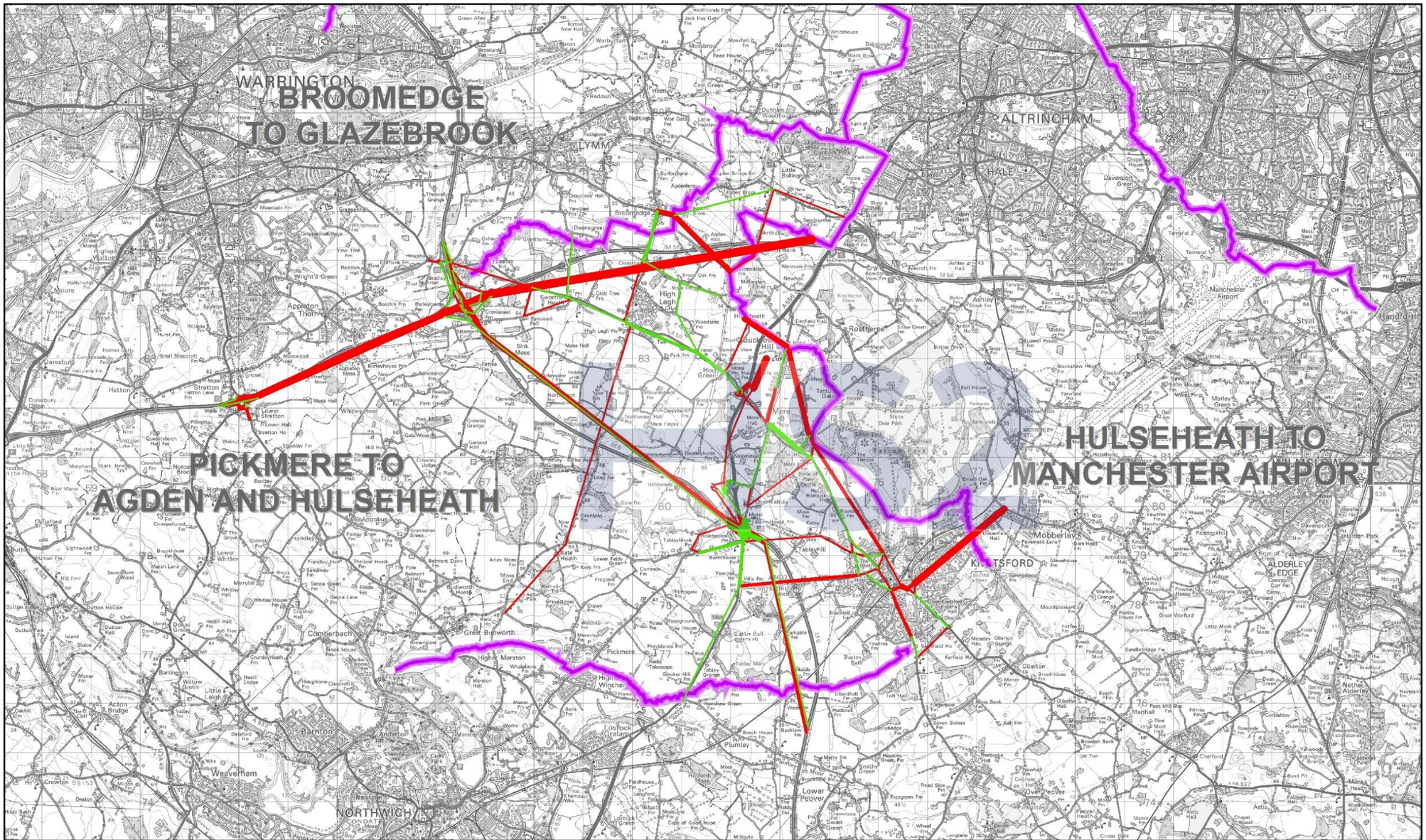


Figure 15-14: MA03 AP2 revised scheme traffic flow changes – 2051 AM peak

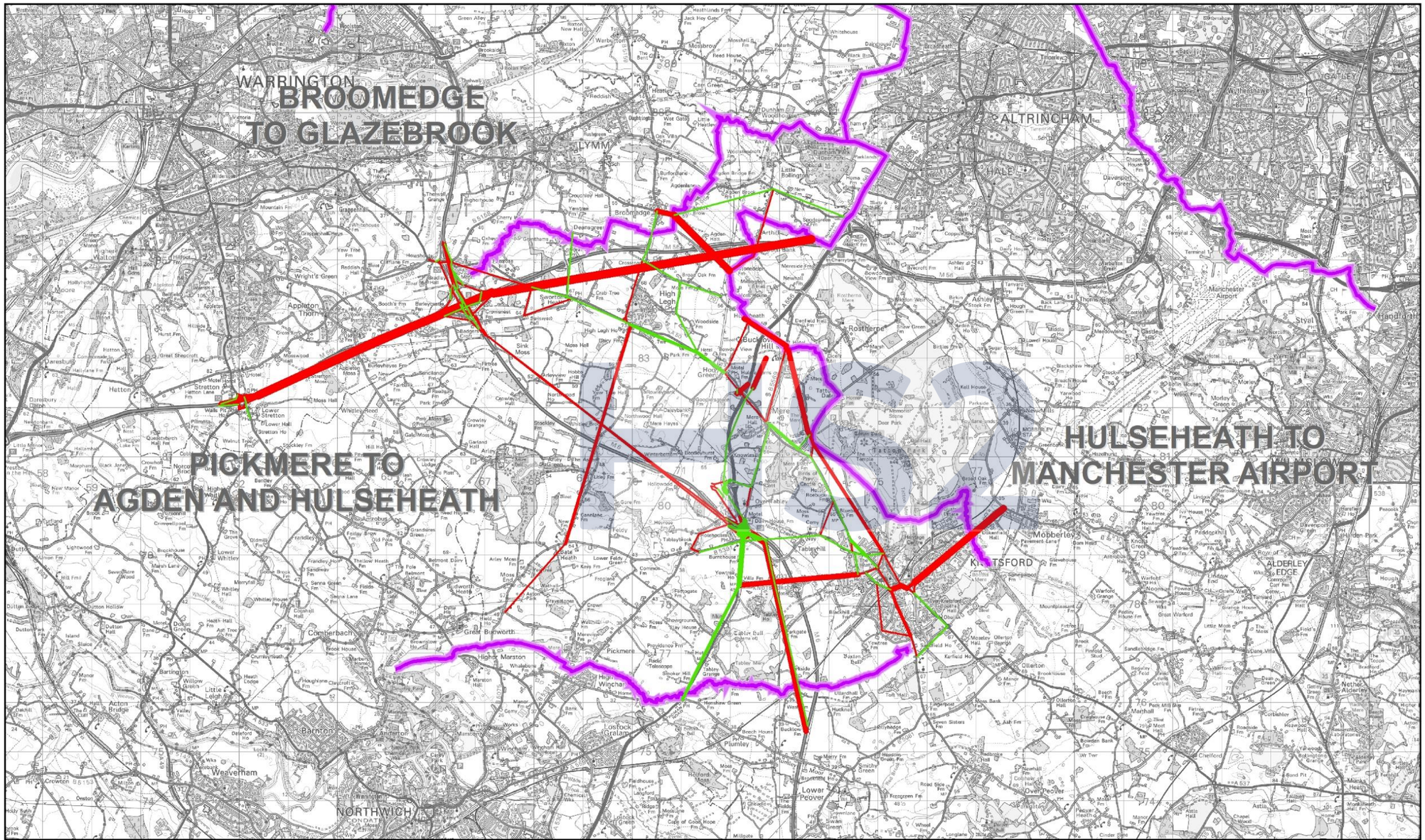


Figure 15-15: MA03 AP2 revised scheme traffic flow changes – 2039 PM peak

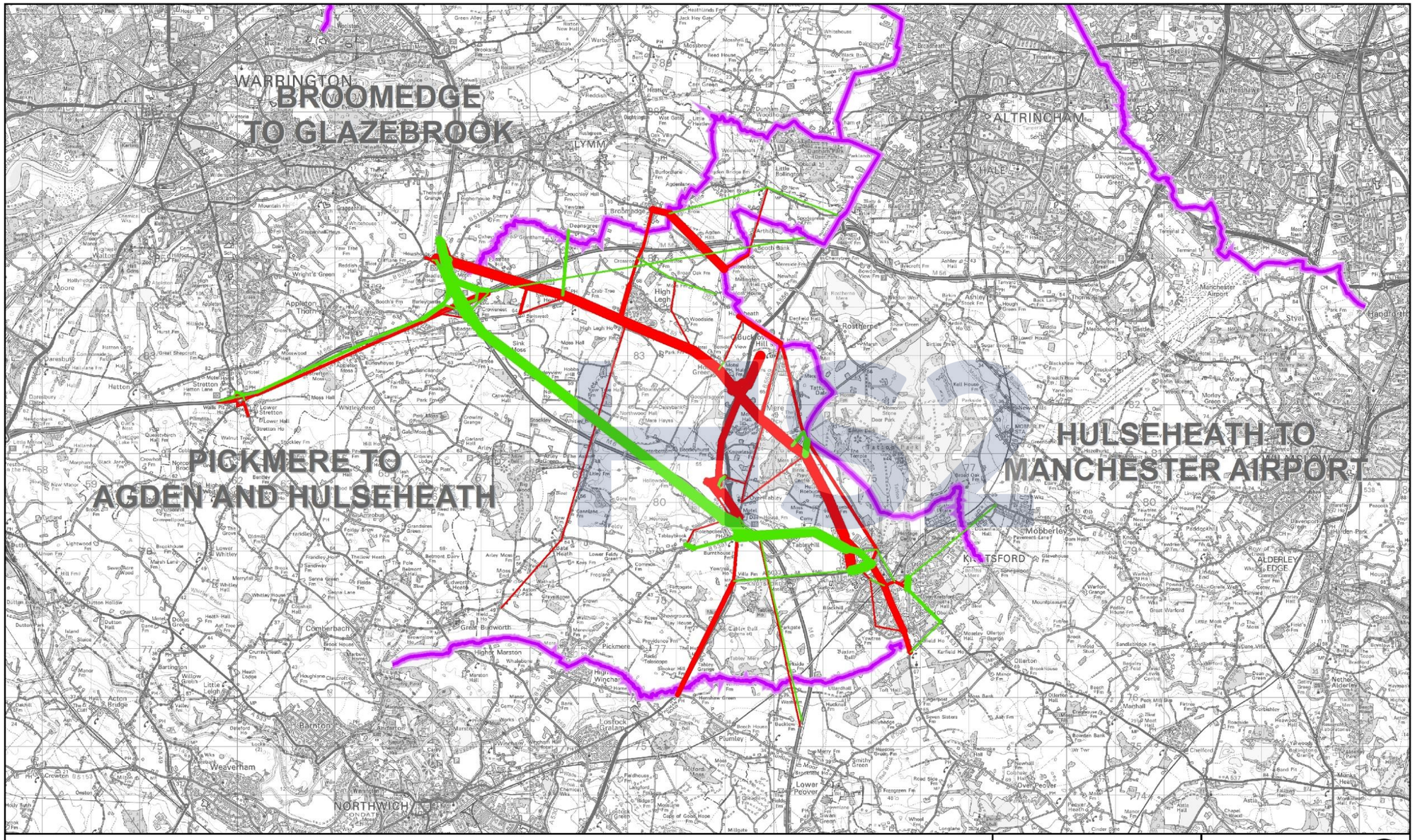
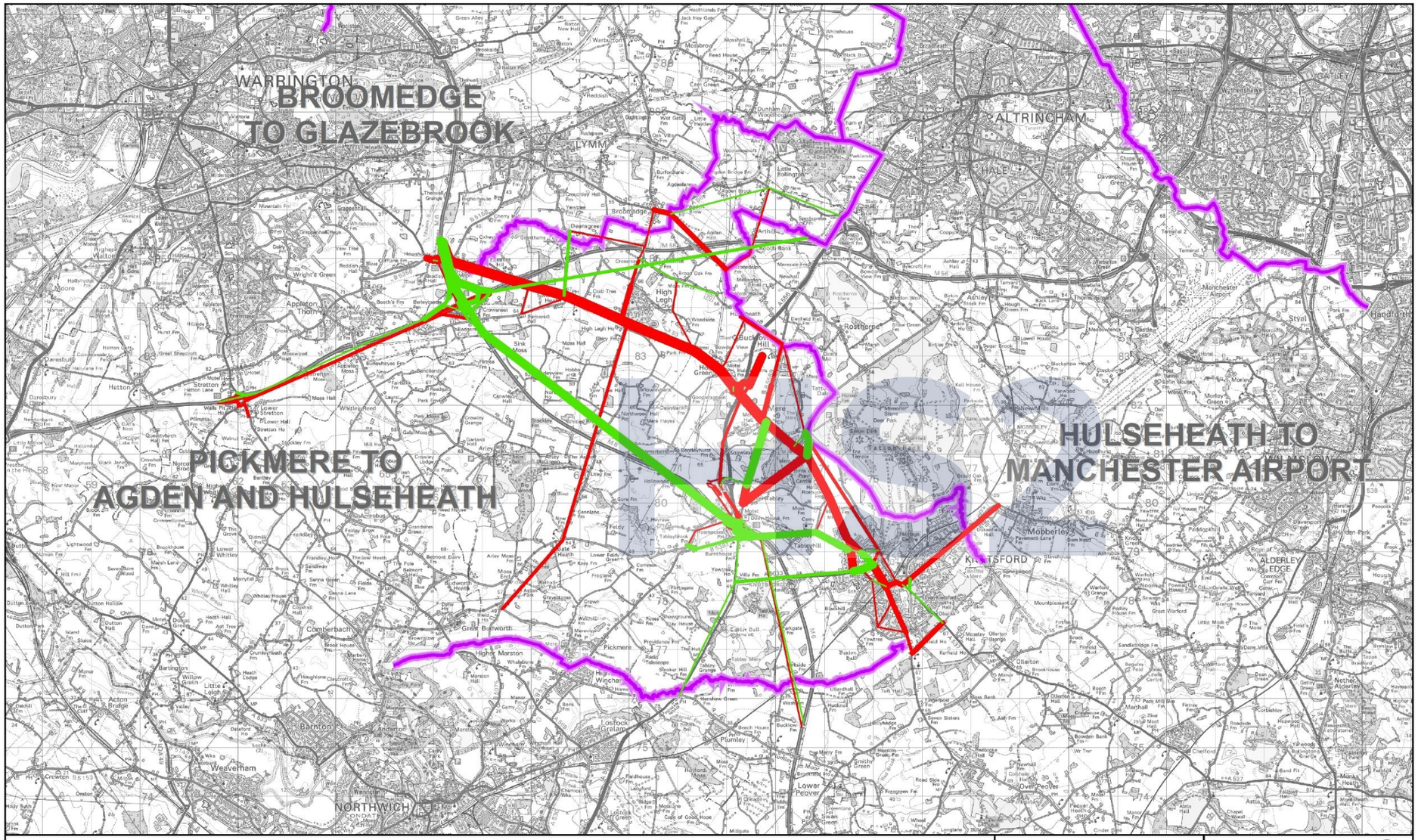


Figure 15-16: MA03 AP2 revised scheme traffic flow changes – 2051 PM peak



Junction performance

13.4.10 Junction capacity analysis was reported in Section 15.5 of the main TA which was undertaken for the 2038 and 2046 weekday AM and PM peak hours, and compared junction operation for the future baseline and original scheme. Updated junction capacity analysis was reported in Section 12.4 of the SES1 and AP1 ES TA and included the change from a 2046 to 2051 assessment year.

13.4.11 Updated junction capacity analysis has been undertaken for the AP2 revised scheme taking account of the revised baseline traffic, changes in traffic flows associated with the SES2 changes and AP2 amendments and associated traffic reassignment. Junction capacity analysis has been undertaken for the weekday AM and PM peak hours comparing junction operation in the future baseline with the AP2 revised scheme for 2039 and 2051.

13.4.12 The results are presented from south to north through the MA03 area, firstly for junctions on the strategic road network, followed by junctions on other roads. The 2039 and 2051 future baseline results are included for comparison. The models developed to assess the existing and future baseline have been used, except where otherwise stated. Where there are changes to infrastructure compared to the main TA and SES1 and AP1 ES TA, these are highlighted.

13.4.13 The results are presented in the same order as presented in the main TA and SES1 and AP1 ES TA. Junctions that were not modelled in the main TA or SES1 and AP1 ES TA are provided at the end of the junction performance section after the Tabley Road/Sugar Pit Lane Junction (Table 15-58). Where no updates to junction operation are provided, junction operation is as described in Section 12.4 of the SES1 and AP1 ES TA.

13.4.14 Only those scenarios relevant to each assessment are presented, therefore not all scenarios are discussed at each junction.

13.4.15 The junction performance tables presented in this report use the following abbreviations: PCU = Passenger Car Unit; VoC = Volume over Capacity; DoS = Degree of Saturation; RFC = Ratio of Flow to Capacity; and Q = Queue.

M6 junction 19/A556 Chester Road/A556 and A556 Chester Road/B5391 Pickmere Lane/Tabley Hill Lane

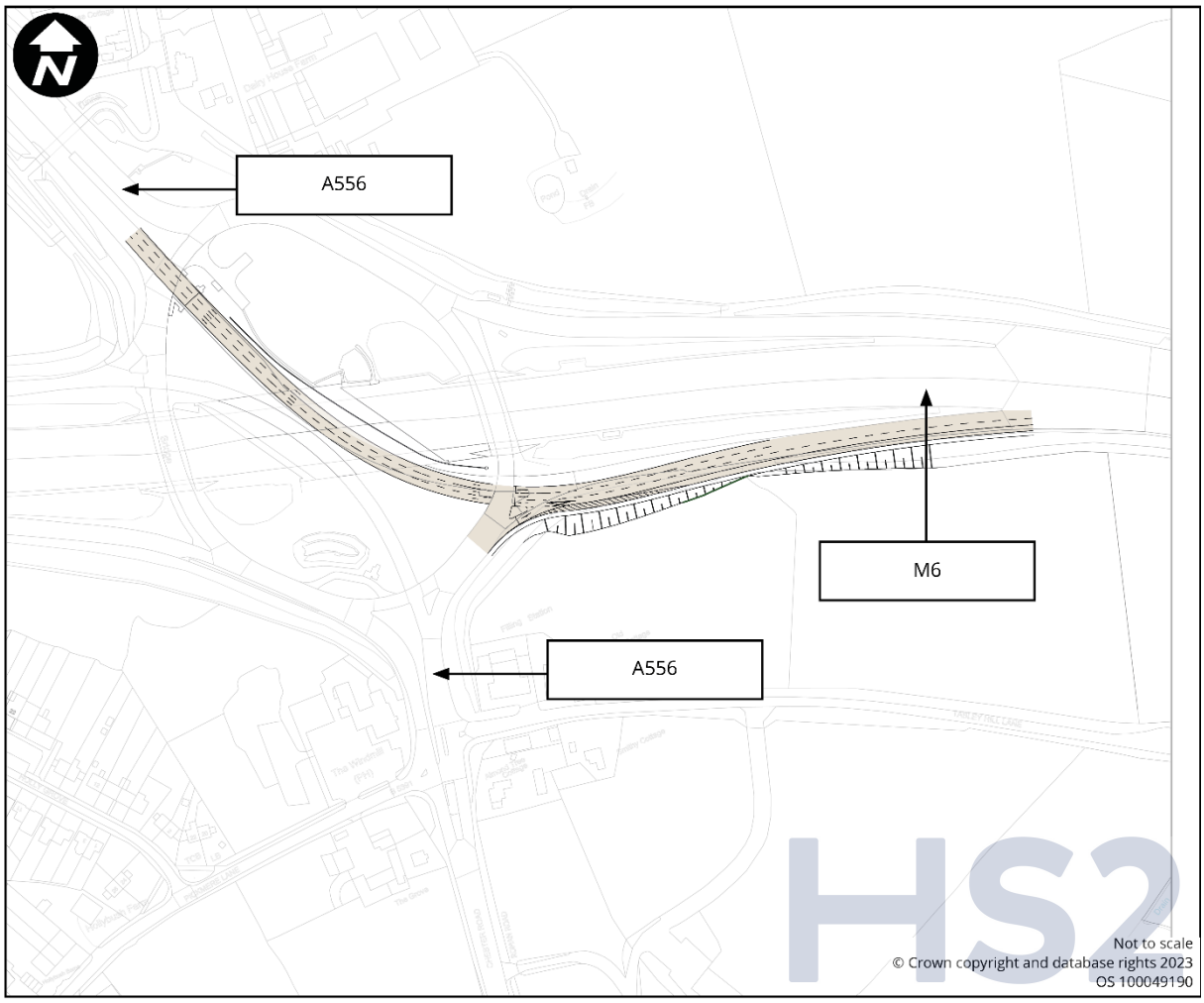
13.4.16 The assessment of M6 junction 19 and the nearby junction of A556 Chester Road/B5391 Pickmere Lane/Tabley Hill Lane have been assessed as part of a combined network with results for each junction presented separately.

M6 junction 19/A556 Chester Road/A556

13.4.17 The M6 junction 19/A556 Chester Road/A556 junction will be permanently modified as a result of the AP2 revised scheme to mitigate impacts at this location during construction. The modifications comprise the provision of an additional lane on the northbound bridge across the centre of the junction and an additional lane on the M6 northbound off-slip

approach. Figure 15-17 shows the junction layout introduced as part of the AP2 revised scheme.

Figure 15-17: Junction layout diagram (M6 junction 19/A556 Chester Road/A556)



13.4.18 Table 15-42 summarises the results of the changes in performance of the junction as a result of the AP2 revised scheme based on the existing junction layout. Table 15-42 summarises the performance of the junction as a result of the AP2 revised scheme with the proposed permanent junction layout introduced.

13.4.19 Table 15-42 in the SES1 and AP1 ES TA replaced Table 15-42 of the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-42 and Table 15-42.1 below replace Table 15-42 in the SES1 and AP1 ES TA.

Table 15-42: M6 junction 19/A556 Chester Road/A556 junction 2039 and 2051 future baseline and AP2 revised scheme (existing layout) junction capacity assessment

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
08:00-09:00	**2039 future baseline**			**2039 with the AP2 revised scheme (existing layout)**			**2051 future baseline**			**2051 with the AP2 revised scheme (existing layout)**		
M6 junction 19 southbound off-slip (nearside) (left)	277	24%	3	292	28%	4	280	26%	3	285	26%	3
M6 junction 19 southbound off-slip (offside) (left)	312	27%	4	293	27%	4	288	27%	4	292	26%	3
Circulatory at M6 junction 19 southbound off-slip (nearside and centre)	353	72%	7	365	65%	7	377	67%	7	376	73%	7
Circulatory at M6 junction 19 southbound off-slip (offside)	793	82%	8	815	73%	8	863	77%	9	886	87%	9
Cut-through northbound (nearside) (ahead)	1,053	86%	6	1,059	87%	7	1,079	90%	10	1,076	90%	9
Cut-through northbound (centre and offside) (ahead)	1,144	67%	1	1,140	67%	1	1,136	68%	1	1,134	67%	1
Circulatory at Cut-through northbound (nearside) (left)	358	82%	1	370	84%	2	382	83%	1	379	82%	1
Circulatory at Cut-through northbound (centre) (left)	398	91%	1	408	93%	2	432	93%	2	445	96%	3
Circulatory at Cut-through northbound (offside) (left and ahead)	395	90%	1	407	93%	2	431	93%	2	441	95%	2
A556 (north) (nearside) (left)	1,678	86%	3	1,671	86%	3	1,727	89%	4	1,716	88%	4
A556 (north) (centre) (ahead and left)	720	72%	1	714	72%	1	770	77%	2	760	76%	2
A556 (north) (offside) (ahead)	451	45%	0	477	48%	1	492	49%	1	492	49%	1
M6 junction 19 northbound off-slip (nearside and centre) (left and ahead)	1,068	89%	24	1,076	91%	25	1,086	93%	27	1,082	94%	29

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
M6 junction 19 northbound off-slip (offside) (ahead)	1,144	96%	32	1,140	97%	35	1,136	97%	34	1,134	99%	39
Circulatory at M6 junction 19 northbound off-slip (nearside)	443	96%	10	425	87%	9	467	96%	10	457	89%	10
Circulatory at M6 junction 19 northbound off-slip (centre)	444	96%	10	464	95%	10	488	100%	11	488	95%	11
Circulatory at M6 junction 19 northbound off-slip (offside)	8	2%	0	14	3%	0	4	1%	0	4	1%	0
Cut-through southbound (nearside) (ahead)	272	33%	2	287	36%	3	275	39%	2	280	36%	2
Cut-through southbound (offside) (ahead)	312	38%	2	293	36%	3	288	41%	3	292	37%	2
Circulatory at Cut-through southbound (nearside) (left)	450	56%	0	433	52%	0	469	51%	0	459	54%	1
Circulatory at Cut-through southbound (centre 1) (left)	452	56%	0	471	57%	0	493	53%	0	493	58%	1
Circulatory at Cut-through southbound (centre 2 offside) (ahead)	8	4%	0	14	7%	0	4	2%	0	5	3%	0
A556 Chester Road (nearside) (ahead and left)	943	59%	2	968	57%	2	1,013	65%	2	1,020	65%	2
A556 Chester Road (offside) (ahead)	793	56%	2	815	58%	2	863	61%	1	886	63%	2
17:00-18:00	**2039 future baseline**			**2039 with the AP2 revised scheme (existing layout)**			**2051 future baseline**			**2051 with the AP2 revised scheme (existing layout)**		
M6 junction 19 southbound off-slip (left and right)	240	44%	5	225	19%	2	248	26%	3	217	19%	2
M6 junction 19 southbound off-slip (right)	261	47%	5	248	21%	3	275	28%	4	246	21%	3
Circulatory at M6 junction 19 southbound off-slip (nearside and centre)	227	21%	0	211	46%	4	270	41%	2	307	66%	6
Circulatory at M6 junction 19 southbound off-slip (offside)	626	37%	0	670	74%	7	713	57%	3	769	83%	8

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
Cut-through northbound (nearside) (ahead)	1,120	89%	7	1,095	86%	4	1,140	84%	8	1,123	86%	4
Cut-through northbound (centre and offside) (ahead)	1,122	64%	0	1,142	63%	0	1,140	61%	3	1,156	62%	0
Circulatory at Cut-through northbound (nearside) (left)	231	53%	4	219	56%	1	272	70%	5	309	77%	1
Circulatory at Cut-through northbound (centre) (left)	320	73%	6	341	87%	1	366	94%	8	385	93%	2
Circulatory at Cut-through northbound (offside) (left and ahead)	306	70%	6	329	84%	1	347	89%	7	364	88%	1
A556 (north) (left)	1,765	91%	5	1,764	91%	5	1,797	92%	6	1,800	92%	6
A556 (north) (ahead and left)	794	81%	2	795	81%	2	824	84%	3	830	84%	3
A556 (north) (ahead)	822	84%	3	786	80%	2	798	81%	3	765	78%	2
M6 junction 19 northbound off-slip (ahead and right)	1,142	103%	53	1,118	101%	44	1,161	107%	73	1,143	106%	67
M6 junction 19 northbound off-slip (right)	1,122	102%	50	1,142	104%	58	1,140	106%	68	1,156	108%	75
Circulatory at M6 junction 19 northbound off-slip (nearside)	553	99%	12	564	101%	14	576	99%	13	587	100%	14
Circulatory at M6 junction 19 northbound off-slip (centre)	552	99%	12	564	101%	14	575	98%	13	587	100%	14
Circulatory at M6 junction 19 northbound off-slip (offside)	276	49%	5	224	40%	4	224	38%	4	178	30%	3
Cut-through southbound (nearside) (ahead)	236	77%	4	217	31%	2	246	31%	2	215	29%	2
Cut-through southbound (offside) (ahead)	261	82%	5	248	35%	2	275	34%	2	246	33%	2
Circulatory at Cut-through southbound (nearside) (left)	561	43%	0	573	62%	0	584	70%	2	595	68%	0
Circulatory at Cut-through southbound (centre 1) (left)	566	43%	0	577	62%	0	588	71%	2	599	68%	0

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
Circulatory at Cut-through southbound (centre 2 offside) (ahead)	276	43%	6	225	84%	5	224	84%	5	178	81%	4
A556 Chester Road (nearside) (ahead and left)	689	61%	7	763	49%	2	764	50%	2	769	51%	2
A556 Chester Road (offside) (ahead)	626	64%	12	670	50%	3	713	53%	3	769	54%	3
A556 Chester Road (ahead)	626	64%	12	670	50%	3	713	53%	3	769	54%	3

Table 15-42.1: M6 junction 19/A556 Chester Road/A556 junction 2039 and 2051 future baseline and AP2 revised scheme (proposed layout) junction capacity assessment

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
08:00-09:00	**2039 future baseline**			**2039 with the AP2 revised scheme (proposed layout)**			**2051 future baseline**			**2051 with the AP2 revised scheme (proposed layout)**		
M6 junction 19 southbound off-slip (nearside) (left)	277	24%	3	330	48%	8	280	26%	3	302	46%	7
M6 junction 19 southbound off-slip (offside) (left)	312	27%	4	327	47%	7	288	27%	4	300	45%	7
Circulatory at M6 junction 19 southbound off-slip (nearside and centre)	353	72%	7	260	26%	3	377	67%	7	251	24%	3
Circulatory at M6 junction 19 southbound off-slip (offside)	793	82%	8	801	54%	4	863	77%	9	900	59%	6
Cut-through northbound (nearside) (ahead)	1,053	86%	6	935	79%	14	1,079	90%	10	968	87%	13
Cut-through northbound (centre) (ahead)	1,144	67%	1	763	64%	8	1,136	68%	1	782	70%	6
Cut-through northbound (offside) (ahead)				586	49%	7				532	48%	5
Circulatory at Cut-through northbound (nearside) (left)	358	82%	1	262	50%	3	382	83%	1	253	42%	3
Circulatory at Cut-through northbound (centre) (left)	398	91%	1	405	77%	5	432	93%	2	460	76%	5

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
Circulatory at Cut-through northbound (offside) (left and ahead)	395	90%	1	396	75%	5	431	93%	2	440	73%	5
A556 (north) (nearside) (left)	1,678	86%	3	1,635	84%	3	1,727	89%	4	1,679	86%	3
A556 (north) (centre) (ahead and left)	720	72%	1	718	72%	1	770	77%	2	724	73%	1
A556 (north) (offside) (ahead)	451	45%	0	419	42%	0	492	49%	1	500	50%	1
M6 junction 19 northbound off-slip (nearside and centre 1) (left and ahead)	1,068	89%	24	950	80%	22	1,086	93%	27	986	91%	29
M6 junction 19 northbound off-slip (centre 2 and offside) (ahead)	1,144	96%	32	1,349	88%	20	1,136	97%	34	1,314	94%	30
Circulatory at M6 junction 19 northbound off-slip (nearside)	443	96%	10	390	76%	10	467	96%	10	380	61%	9
Circulatory at M6 junction 19 northbound off-slip (centre)	444	96%	10	416	79%	11	488	100%	11	497	80%	13
Circulatory at M6 junction 19 northbound off-slip (offside)	8	2%	0	3	1%	0	4	1%	0	3	1%	0
Cut-through southbound (nearside) (ahead)	272	33%	2	328	37%	0	275	39%	2	300	35%	3
Cut-through southbound (offside) (ahead)	312	38%	2	327	37%	0	288	41%	3	300	35%	3
Circulatory at Cut-through southbound (nearside) (left)	450	56%	0	400	50%	0	469	51%	0	393	47%	0
Circulatory at Cut-through southbound (centre 1) (left)	452	56%	0	421	53%	0	493	53%	0	502	60%	0
Circulatory at Cut-through southbound (centre 2 offside) (ahead)	8	4%	0	3	2%	0	4	2%	0	3	2%	0
A556 Chester Road (nearside) (ahead and left)	943	59%	2	884	53%	2	1,013	65%	2	931	56%	5
A556 Chester Road (offside) (ahead)	793	56%	2	801	53%	2	863	61%	1	900	59%	7

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
17:00-18:00	**2039 future baseline**			**2039 with the AP2 revised scheme (proposed layout)**			**2051 future baseline**			**2051 with the AP2 revised scheme (proposed layout)**		
M6 junction 19 southbound off-slip (nearside) (left)	240	44%	5	163	28%	4	248	26%	3	180	22%	3
M6 junction 19 southbound off-slip (offside) (left)	261	47%	5	170	29%	4	275	28%	4	187	22%	3
Circulatory at M6 junction 19 southbound off-slip (nearside and centre)	227	21%	0	148	13%	1	270	41%	2	201	23%	2
Circulatory at M6 junction 19 southbound off-slip (offside)	626	37%	0	688	43%	2	713	57%	3	711	53%	3
Cut-through northbound (nearside) (ahead)	1,120	89%	7	978	88%	16	1,140	84%	8	970	80%	18
Cut-through northbound (centre) (ahead)	1,122	64%	0	822	76%	9	1,140	61%	3	809	67%	11
Cut-through northbound (offside) (ahead)				476	43%	6				495	41%	7
Circulatory at Cut-through northbound (nearside) (left)	231	53%	4	149	25%	1	272	70%	5	202	40%	3
Circulatory at Cut-through northbound (centre) (left)	320	73%	6	347	57%	5	366	94%	8	363	72%	5
Circulatory at Cut-through northbound (offside) (left and ahead)	306	70%	6	341	56%	5	347	89%	7	348	69%	5
A556 (north) (nearside) (left)	1,765	91%	5	1,750	90%	4	1,797	92%	6	1,773	91%	5
A556 (north) (centre) (ahead and left)	794	81%	2	790	80%	2	824	84%	3	828	83%	2
A556 (north) (offside) (ahead)	822	84%	3	759	77%	2	798	81%	3	779	79%	2
M6 junction 19 northbound off-slip (nearside and centre 1) (left and ahead)	1,142	103%	53	1,002	92%	30	1,161	107%	73	996	97%	36
M6 junction 19 northbound off-slip (centre 2 and offside) (ahead)	1,122	102%	50	1,298	96%	35	1,140	106%	68	1,304	100%	45

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
Circulatory at M6 junction 19 northbound off-slip (nearside)	553	99%	12	541	87%	14	576	99%	13	577	85%	15
Circulatory at M6 junction 19 northbound off-slip (centre)	552	99%	12	583	93%	16	575	98%	13	589	86%	15
Circulatory at M6 junction 19 northbound off-slip (offside)	276	49%	5	176	28%	4	224	38%	4	190	28%	4
Cut-through southbound (nearside) (ahead)	236	77%	4	162	20%	0	246	31%	2	179	23%	1
Cut-through southbound (offside) (ahead)	261	82%	5	170	21%	0	275	34%	2	187	24%	1
Circulatory at Cut-through southbound (nearside) (left)	561	43%	0	554	63%	0	584	70%	2	592	65%	0
Circulatory at Cut-through southbound (centre 1) (left)	566	43%	0	594	68%	0	588	71%	2	600	66%	0
Circulatory at Cut-through southbound (centre 2 offside) (ahead)	276	43%	6	176	90%	5	224	84%	5	190	89%	5
A556 Chester Road (nearside) (ahead and left)	689	61%	7	684	42%	2	764	50%	2	715	45%	2
A556 Chester Road (offside) (ahead)	626	64%	12	688	46%	3	713	53%	3	711	49%	3

13.4.20 The conclusions drawn in paragraph 12.4.19 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that, based on the existing layout, in the AM peak hour the junction operates close to capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP2 revised scheme.

The assessment shows that in 2051, based on the existing layout, in the AM peak hour the junction operates over capacity in the future baseline and close to capacity with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP2 revised scheme.

With the proposed layout, the change in traffic due to operation of the AP2 revised scheme will decrease the maximum DoS from 96% in the 2039 future baseline to 76% with the AP2 revised scheme in 2039 on the circulatory at M6 junction 19 northbound off-slip (nearside) approach in the AM peak hour, with no change in corresponding queue length. In the PM peak hour, the maximum DoS will decrease from 103% in the 2039 future baseline to 92% with the AP2 revised scheme in 2039 on the M6 junction 19 northbound off-slip (nearside and centre 1) (left and ahead) approach, with a corresponding change in queue length from 53 PCU in the future baseline to 30 PCU. The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in the future baseline and close to capacity with the AP2 revised scheme. The AP2 amendment to this junction will have a beneficial impact on its operation.

The change in traffic due to operation of the AP2 revised scheme will decrease the maximum DoS from 100% in the 2051 future baseline to 80% with the AP2 revised scheme in 2051 on the circulatory at M6 junction 19 northbound off-slip (centre) approach in the AM peak hour, with a corresponding change queue length from 11 PCU in the future baseline to 13 PCU. In the PM peak hour, the maximum DoS will decrease from 107% in the 2051 future baseline to 97% with the AP2 revised scheme in 2051 on the M6 junction 19 northbound off-slip (nearside and centre 1) (left and ahead) approach, with a corresponding change in queue length from 73 PCU in the future baseline to 36 PCU. The assessment shows that in the AM peak hour the junction operates over capacity in the future baseline and close to capacity with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The AP2 amendment to this junction will have a beneficial impact on the operation of the junction, which is, in any case, predicted to operate over its capacity in the future baseline."

A556 Chester Road/B5391 Pickmere Lane/Tabley Hill Lane

13.4.21 Table 15-54 in the SES1 and AP1 ES TA replaced Table 15-54 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-54 below replaces Table 15-54 in the SES and AP1 ES TA.

Table 15-54: A556 Chester Road/B5391 Pickmere Lane/Tabley Hill Lane junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
08:00-09:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
A556 Chester Road (north) (left and ahead)	722	59%	6	728	53%	2	764	61%	5	693	51%	8
A556 Chester Road (north) (ahead and right)	764	60%	6	768	54%	2	781	62%	5	802	57%	8
Tabley Hill Lane (left and ahead)	4	2%	0	2	1%	0	5	3%	0	4	3%	0
A556 Chester Road (south) (left and ahead)	814	70%	13	773	58%	12	882	75%	16	842	64%	14
A556 Chester Road (south) (ahead)	775	66%	12	776	59%	12	850	73%	15	842	64%	14
B5391 Pickmere Lane (left)	167	41%	2	145	36%	2	164	43%	3	157	41%	2
17:00-18:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
A556 Chester Road (north) (left and ahead)	797	67%	4	716	53%	2	830	71%	9	771	59%	5
A556 Chester Road (north) (ahead and right)	827	67%	4	764	56%	2	863	71%	10	787	59%	5
Tabley Hill Lane (left and ahead)	119	54%	3	96	55%	3	168	69%	5	150	70%	5
A556 Chester Road (south) (left and ahead)	645	66%	12	651	50%	9	696	75%	14	680	54%	11
A556 Chester Road (south) (ahead)	581	60%	10	652	50%	9	667	72%	13	681	54%	11
B5391 Pickmere Lane (left)	96	20%	1	77	17%	1	100	22%	1	72	16%	1

13.4.22 The conclusions drawn in paragraph 12.4.21 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2039 will not result in substantial changes in DoS and queue lengths in the AM or PM peak hours. The assessment shows that in the AM and PM peak hours the junction operates well within capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction.

The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2051 will not result in substantial changes in DoS and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates within capacity in the future baseline and well within with the AP2 revised scheme. In the PM peak hour, the junction operates within capacity in the future baseline and well within capacity with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction."

Local network change in the Pickmere area

13.4.23 There are a number of changes to the local road network in the Pickmere area as part of the original scheme. Details of the changes are presented in Section 15.5 of the main TA.

B5391 Pickmere Lane/School Lane realignment

13.4.24 Table 15-43 in the SES1 and AP1 ES TA replaced Table 15-43 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-43 replaces Table 15-43 in the SES and AP1 ES TA.

Table 15-43: B5391 Pickmere Lane/School Lane realignment junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00-09:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
B5391 Pickmere Lane (east) (ahead, left and right)	60	0.02	0	156	0.15	0	54	0.02	0	170	0.17	0
B5391 Pickmere Lane (west) (ahead, left and right)	189	0.00	0	188	0.00	0	212	0.00	0	204	0.00	0
School Lane (ahead and left)	12	0.02	0	72	0.11	0	13	0.02	0	78	0.12	0
School Lane (ahead and right)	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0
17:00-18:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
B5391 Pickmere Lane (east) (ahead, left and right)	134	0.02	0	423	0.44	1	172	0.02	0	460	0.48	1
B5391 Pickmere Lane (west) (ahead, left and right)	53	0.00	0	66	0.00	0	56	0.00	0	71	0.00	0
School Lane (ahead and left)	12	0.02	0	98	0.15	0	13	0.02	0	107	0.16	0
School Lane (ahead and right)	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0

13.4.25 The conclusions drawn in paragraph 12.4.24 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2039 and 2051 will not result in substantial changes in RFC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM and PM peak hours the junction operates well within capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction."

B5391 Pickmere Lane realignment/Flittogate Lane diversion

13.4.26 Table 15-44 in the SES1 and AP1 ES TA replaced Table 15-44 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-44 below replaces Table 15-44 in the SES1 and AP1 ES TA.

Table 15-44: B5391 Pickmere Lane realignment/Flittogate Lane diversion junction 2039 and 2051 with the AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00-09:00	**2039 with the AP2 revised scheme (proposed layout)**			**2051 with the AP2 revised scheme (proposed layout)**		
B5391 Pickmere Lane realignment (north) (ahead)	153	-	-	167	-	-
Flittogate Lane diversion (left)	12	0.02	0	13	0.02	0
Flittogate Lane diversion (right)	68	0.17	0	74	0.18	0
B5391 Pickmere Lane realignment (south) (ahead and right)	248	0.07	0	269	0.08	0
17:00-18:00	**2039 with the AP2 revised scheme (proposed layout)**			**2051 with the AP2 revised scheme (proposed layout)**		
B5391 Pickmere Lane realignment (north) (ahead)	414	-	-	450	-	-
Flittogate Lane diversion (left)	12	0.02	0	13	0.03	0
Flittogate Lane diversion (right)	19	0.05	0	20	0.05	0
B5391 Pickmere Lane realignment (south) (ahead and right)	152	0.04	0	164	0.05	0

13.4.27 The conclusions drawn in paragraph 12.4.26 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that this junction operates well within capacity in 2039 and 2051 with the AP2 revised scheme."

School Lane realignment/Frog Lane realignment

13.4.28 Table 15-45 in the SES1 and AP1 ES TA replaced Table 15-45 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-45 below replaces Table 15-45 in the SES1 and AP1 ES TA.

Table 15-45: School Lane/Frog Lane realignment junction 2039 and 2051 with the AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00-09:00	**2039 with the AP2 revised scheme (proposed layout)**			**2051 with the AP2 revised scheme (proposed layout)**		
Frog Lane realignment (left, ahead and right)	73	0.00	0	79	0.00	0
Frog Lane (left, ahead and right)	1	0.00	0	1	0.00	0
School Lane realignment (left, ahead and right)	99	0.00	0	108	0.00	0
Farm Access (left, ahead and right)	0	0.00	0	0	0.00	0
17:00-18:00	**2039 with the AP2 revised scheme (proposed layout)**			**2051 with the AP2 revised scheme (proposed layout)**		
Frog Lane realignment (left, ahead and right)	102	0.01	0	111	0.01	0
Frog Lane (left, ahead and right)	1	0.00	0	1	0.00	0
School Lane realignment (left, ahead and right)	258	0.00	0	281	0.00	0
Farm Access (left, ahead and right)	0	0.00	0	0	0.00	0

13.4.29 The conclusions drawn in paragraph 12.4.28 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that this junction operates well within capacity in 2039 and 2051 with the AP2 revised scheme."

Budworth Road/Frog Lane realignment

13.4.30 Table 15-46 in the SES1 and AP1 ES TA replaced Table 15-46 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-46 below replaces Table 15-46 in the SES1 and AP1 ES TA.

Table 15-46: Budworth Road/Frog Lane junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00-09:00	**2039 with the AP2 revised scheme**			**2051 with the AP2 revised scheme**		
Budworth Road (west) (ahead and left)	55	-	-	59	-	-
Budworth Road (east) (left)	19	0.03	0	21	0.03	0
Budworth Road (east) (right)	2	0.00	0	2	0.00	0
Frog Lane realignment (ahead and right)	99	0.04	0	108	0.04	0
17:00-18:00	**2039 with the AP2 revised scheme**			**2051 with the AP2 revised scheme**		
Budworth Road (west) (ahead and left)	41	-	-	45	-	-
Budworth Road (east) (left)	62	0.09	0	68	0.10	0
Budworth Road (east) (right)	1	0.00	0	2	0.01	0
Frog Lane realignment (ahead and right)	259	0.12	0	281	0.14	0

13.4.31 The conclusions drawn in paragraph 12.4.30 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that this junction operates well within capacity in 2039 and 2051 with the AP2 revised scheme."

A50 Toft Road/A537 Adams Hill/B5083 Stanley Road

13.4.32 Table 15-47 in the SES1 and AP1 ES TA replaced Table 15-47 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-47 below replaces Table 15-47 in the SES1 and AP1 ES TA.

Table 15-47: A50 Toft Road/A537 Adams Hill/B5083 Stanley Road junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00-09:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
A50 Toft Road (north)	1,207	101%	6	1,216	102%	6	1,232	103%	7	1,238	103%	7
A537 Adams Hill	772	91%	10	777	91%	10	793	94%	10	806	95%	10
A50 Toft Road (south)	406	30%	6	433	32%	7	451	33%	7	489	36%	8
17:00-18:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
A50 Toft Road (north)	933	78%	5	1,024	86%	6	938	78%	5	1,046	87%	6
A537 Adams Hill	859	108%	11	860	106%	11	865	102%	12	863	102%	12
A50 Toft Road (south)	772	45%	11	772	45%	11	850	49%	12	853	49%	12

13.4.33 The conclusions drawn in paragraph 12.4.32 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2039 will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the maximum VoC will decrease from 108% in the 2039 future baseline to 106% with the AP2 revised scheme in 2039 on the A537 Adams Hill approach, with no change in corresponding queue length. The assessment shows that in the AM and PM peak hours the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and a beneficial impact on the operation of the junction in the PM peak hour, which is, in any case, predicted to operate over its capacity in the future baseline.

The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2051 will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the change in traffic due to operation of the AP2 revised scheme will increase the VoC from 78% in the 2051 future baseline to 87% with the AP2 revised scheme in 2051 on the A50 Toft Road (north) approach. Queue length will increase from five PCU in the future baseline to six PCU with the AP2 revised scheme. The assessment shows that in the AM and PM peak hours the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour, which is, in any case, predicted to operate over its capacity in the future baseline."

A537 Brook Street/B5085 Hollow Lane/Lilybrook Drive

13.4.34 Table 15-48 in the SES1 and AP1 ES TA replaced Table 15-48 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-48 below replaces Table 15-48 in the SES1 and AP1 ES TA.

Table 15-48: A537 Brook Street/B5085 Hollow Lane/Lilybrook Drive junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00-09:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
A537 Brook Street (west)	804	74%	7	838	78%	7	765	71%	7	808	75%	7
B5085 Hollow Lane	524	50%	8	524	50%	8	524	50%	8	525	50%	8
A537 Brook Street (east)	424	39%	4	443	41%	4	474	44%	4	486	45%	4
Lilybrook Drive*	-	-	-	-	-	-	-	-	-	-	-	-
17:00-18:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
A537 Brook Street (west)	702	85%	9	732	89%	10	730	88%	10	784	100%	10
B5085 Hollow Lane	747	69%	8	725	67%	8	680	64%	7	681	64%	7
A537 Brook Street (east)	417	53%	6	453	54%	6	523	102%	7	517	102%	7
Lilybrook Drive*	-	-	-	-	-	-	-	-	-	-	-	-

** Minor approach arm not represented within the strategic traffic model.*

13.4.35 The conclusions drawn in paragraph 12.4.34 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2039 will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the maximum VoC will increase from 85% in the 2039 future baseline to 89% with the AP2 revised scheme in 2039 on the A537 Brook Street (west) approach, with a corresponding change in queue length from nine PCU in the future baseline to 10 PCU. The assessment shows that in the AM peak hour the junction operates well within capacity in the future baseline and within capacity with the AP2 revised scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2051 will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the maximum VoC will increase from 88% in the 2051 future baseline to 100% with the AP2 revised scheme in 2051 on the A537 Brook Street (west) approach, with no change in corresponding queue length. The assessment shows that in the AM peak hour the junction operates well within capacity in the future baseline and within capacity with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour, which is, in any case, predicted to operate over its capacity in the future baseline."

B5085 Mobberley Road/B5085 Hollow Lane

13.4.36 Table 15-49 in the SES1 and AP1 ES TA replaced Table 15-49 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-49 below replaces Table 15-49 in the SES1 and AP1 ES TA.

Table 15-49: B5085 Mobberley Road/B5085 Hollow Lane junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00-09:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
B5085 Hollow Lane	450	42%	1	489	45%	2	422	39%	1	458	42%	1
B5085 Mobberley Road (north)	734	42%	0	751	43%	0	799	46%	0	814	47%	0
B5085 Mobberley Road (south)	190	57%	1	193	61%	1	164	62%	1	168	62%	1
17:00-18:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
B5085 Hollow Lane	530	49%	6	567	52%	6	548	51%	6	597	55%	6
B5085 Mobberley Road (north)	564	33%	0	611	35%	0	523	30%	0	554	32%	0
B5085 Mobberley Road (south)	269	95%	4	195	101%	6	196	101%	6	185	101%	6

13.4.37 The conclusions drawn in paragraph 12.4.36 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2039 will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the maximum VoC will increase from 95% in the 2039 future baseline to 101% with the AP2 revised scheme in 2039 on the B5085 Mobberley Road (south) approach, with a corresponding change in queue length from four PCU in the future baseline to six PCU. The assessment shows that in the AM peak hour the junction operates well within capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates close to capacity in the future baseline and over capacity with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2051 will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates well within capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction, which is, in any case, predicted to operate over its capacity in the future baseline."

A537 Brook Street/A537 Adams Hill/B5083 King Street

13.4.38 Table 15-50 in the SES1 and AP1 ES TA replaced Table 15-50 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-50 below replaces Table 15-50 in the SES1 and AP1 ES TA.

Table 15-50: A537 Brook Street/A537 Adams Hill/B5083 King Street junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00-09:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
B5083 King Street (north)*	-	-	-	-	-	-	-	-	-	-	-	-
A537 Brook Street (east)	947	88%	3	966	89%	4	996	92%	4	1,009	93%	4
A537 Adams Hill (west)**	804	94%	1	838	99%	1	765	90%	0	808	95%	0
17:00-18:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
B5083 King Street (north)*	-	-	-	-	-	-	-	-	-	-	-	-
A537 Brook Street (east)	1,161	107%	7	1,157	107%	7	1,163	108%	5	1,163	108%	5
A537 Adams Hill (west)**	702	82%	1	732	86%	1	730	86%	1	784	92%	1

** Minor approach arm not represented within the strategic traffic model.*

*** This approach is unopposed; the VoC reported represents the capacity of the link approaching the junction not at the entry to the junction itself.*

13.4.39 The conclusions drawn in paragraph 12.4.38 of the SES1 and AP1 ES TA are replaced by:

"The change in traffic due to operation of the AP2 revised scheme will increase the maximum VoC from 94% in the 2039 future baseline to 99% with the AP2 revised scheme in 2039 on the A537 Adams Hill (west) approach in the AM peak hour, with no change in corresponding queue length. In the PM peak hour, the change in traffic due to operation of the AP2 revised scheme will increase the VoC from 82% in the 2039 future baseline to 86% with the AP2 revised scheme in 2039 on the A537 Adams Hill (west) approach with no change in corresponding queue length. The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have an adverse impact on the operation of the junction, which is, in any case, predicted to operate over its capacity in the future baseline.

The change in traffic due to operation of the AP2 revised scheme will not substantially increase the maximum VoC between the 2051 future baseline and the AP2 revised scheme in the AM peak hour. However, in the AM peak hour, the change in traffic due to operation of the AP2 revised scheme will increase the VoC from 90% in the 2051 future baseline to 95% with the AP2 revised scheme in 2051 on the A537 Adams Hill (west) approach. There will be no change in queue lengths. In the PM peak hour, the change in traffic due to operation of the AP2 revised scheme will increase the VoC from 86% in the 2051 future baseline to 92% with the AP2 revised scheme in 2051 on the A537 Adams Hill (west) approach. There will be no change in queue lengths. The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have an adverse impact on the operation of the junction, which is, in any case, predicted to operate over its capacity in the future baseline."

A556 Chester Road/A5033 Northwich Road

13.4.40 Table 15-51 in the SES1 and AP1 ES TA replaced Table 15-51 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-51 below replaces Table 15-51 in the SES1 and AP1 ES TA.

Table 15-51: A556 Chester Road/A5033 Northwich Road junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00-09:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
A556 Chester Road (north)	1,353	105%	18	1,347	105%	18	1,372	106%	18	1,363	105%	18
A5033 Northwich Road	604	67%	9	618	68%	9	638	99%	9	666	99%	9
A556 Chester Road (south)	1,703	88%	18	1,679	87%	18	1,847	95%	19	1,800	93%	19
17:00-18:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
A556 Chester Road (north)	1,385	105%	29	1,392	106%	29	1,507	102%	31	1,517	103%	31
A5033 Northwich Road	830	110%	16	826	94%	18	799	114%	16	789	112%	16
A556 Chester Road (south)	1,517	76%	23	1,519	76%	23	1,632	82%	23	1,590	80%	22

13.4.41 The conclusions drawn in paragraph 12.4.40 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2039 will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the maximum VoC will decrease from 110% in the 2039 future baseline to 94% with the AP2 revised scheme in 2039 on the A5033 Northwich Road approach, with a corresponding change in queue length from 16 PCU in the future baseline to 18 PCU. The assessment shows that in the AM and PM peak hours the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and a beneficial impact on the operation of the junction in the PM peak hour, which is, in any case, predicted to operate over its capacity in the future baseline.

The change in traffic due to operation of the AP2 revised scheme will not substantially decrease the maximum VoC between the 2051 future baseline and the AP2 revised scheme in the AM peak hour. However, in the AM peak hour, the change in traffic due to operation of the AP2 revised scheme will decrease the VoC from 95% in the 2051 future baseline to 93% with the AP2 revised scheme in 2051 on the A556 Chester Road (south) approach. There will be no change in queue lengths. In the PM peak hour, the maximum VoC will decrease from 114% in the 2051 future baseline to 112% with the AP2 revised scheme in 2051 on the A5033 Northwich Road approach, with no change in corresponding queue length. The assessment shows that in the AM and PM peak hours the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a beneficial impact on the operation of the junction, which is, in any case, predicted to operate over its capacity in the future baseline."

A5033 Northwich Road/Ladies Mile

13.4.42 Table 15-52 in the SES1 and AP1 ES TA replaced Table 15-52 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-52 below replaces Table 15-52 in the SES1 and AP1 ES TA.

Table 15-52: A5033 Northwich Road/Ladies Mile junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00-09:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
Ladies Mile	337	80%	1	338	80%	1	333	75%	1	333	76%	1
A5033 Northwich Road (east)	1,156	39%	0	1,149	38%	0	1,272	42%	0	1,274	43%	0
A5033 Northwich Road (west)	640	36%	0	664	37%	0	595	33%	0	622	35%	0
17:00-18:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
Ladies Mile	180	79%	2	207	86%	2	157	78%	2	190	84%	2
A5033 Northwich Road (east)	1,439	51%	0	1,408	50%	0	1,405	51%	0	1,382	49%	0
A5033 Northwich Road (west)	535	30%	0	524	29%	0	543	30%	0	514	29%	0

13.4.43 The conclusions drawn in paragraph 12.4.42 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2039 will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates within capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates within capacity in the future baseline and close to capacity with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2051 will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM and PM peak hours the junction operates within capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour."

A50 Manchester Road/A50 King Edward Road/A5033 Northwich Road/Gaskell Avenue/Canute Place

13.4.44 Table 15-53 in the SES1 and AP1 ES TA replaced Table 15-53 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-53 below replaces Table 15-53 in the SES1 and AP1 ES TA.

Table 15-53: A50 Manchester Road/A50 King Edward Road/A5033 Northwich Road/Gaskell Avenue/Canute Place junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00-09:00	**2039 future baseline (existing layout)**			**2039 with the AP2 revised scheme**			**2051 future baseline (existing layout)**			**2051 with the AP2 revised scheme**		
A50 Manchester Road	507	74%	1	505	74%	1	536	78%	1	529	77%	1
Canute Place	309	41%	0	317	42%	0	381	50%	1	393	52%	1
A50 King Edward Road	1,061	89%	2	1,054	88%	2	1,102	92%	2	1,100	92%	2
Gaskell Avenue*	-	-	-	-	-	-	-	-	-	-	-	-
A5033 Northwich Road	519	46%	0	529	47%	0	508	45%	0	515	46%	0
17:00-18:00	**2039 future baseline (existing layout)**			**2039 with the AP2 revised scheme**			**2051 future baseline (existing layout)**			**2051 with the AP2 revised scheme**		
A50 Manchester Road	522	76%	1	541	79%	1	518	76%	1	526	77%	1
Canute Place	193	25%	0	243	32%	0	231	30%	0	296	39%	0
A50 King Edward Road	1,222	102%	8	1,225	102%	8	1,261	105%	8	1,266	106%	8
Gaskell Avenue*	-	-	-	-	-	-	-	-	-	-	-	-
A5033 Northwich Road	784	75%	0	646	62%	0	803	81%	1	693	69%	0

** Minor approach arm not represented within the strategic traffic model.*

13.4.45 The conclusions drawn in paragraph 12.4.44 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2039 will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction, which is, in any case, predicted to operate over its capacity in the future baseline.

The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2051 will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction, which is, in any case, predicted to operate over its capacity in the future baseline."

A50 Warrington Road realignment/Hoo Green Lane diversion

13.4.46 Details of the junction layout introduced as part of the original scheme are presented in Section 15.5 of the main TA.

13.4.47 Table 15-55 in the SES1 and AP1 ES TA replaced Table 15-55 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-55 below replaces Table 15-55 in the SES1 and AP1 ES TA.

Table 15-55: A50 Warrington Road realignment/Hoo Green Lane diversion junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00-09:00	**2039 with the AP2 revised scheme (proposed layout)**			**2051 with the AP2 revised scheme (proposed layout)**		
A50 Warrington Road realignment (east) (ahead)	225	-	-	269	-	-
Realigned A50 Warrington Road realignment (east) (left)	77	-	-	82	-	-
Hoo Green Lane diversion (left)	64	0.08	0	48	0.09	0
Hoo Green Lane diversion (right)	82	0.25	0	88	0.29	0
A50 Warrington Road realignment (west) (ahead and right)	584	0.23	1	648	0.25	1
17:00-18:00	**2039 with the AP2 revised scheme (proposed layout)**			**2051 with the AP2 revised scheme (proposed layout)**		
A50 Warrington Road realignment (east) (ahead)	352	-	-	342	-	-

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
Realigned A50 Warrington Road realignment (east) (left)	111	-	-	117	-	-
Hoo Green Lane diversion (left)	241	0.51	1	247	0.52	1
Hoo Green Lane diversion (right)	70	0.2	0	79	0.23	0
A50 Warrington Road realignment (west) (ahead and right)	349	0.12	0	373	0.12	0

13.4.48 The conclusions drawn in paragraph 12.4.47 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that this junction operates well within capacity in 2039 and 2051 with the AP2 revised scheme."

Local network change in the Hulseheath area

13.4.49 There are a number of changes to the local road network in the Hulseheath area as part of the original scheme. Details of the changes are presented in Section 15.5 of the main TA.

Peacock Lane realignment/Back Lane diversion

13.4.50 Table 15-56 and Table 15-57 in the SES1 and AP1 ES TA replaced Table 15-56 and 15-57 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-56 and Table 15-57 below replace Table 15-56 and 15-57 in the SES and AP1 ES TA.

Table 15-56: Peacock Lane/Back Lane junction 2039 and 2051 future baseline junction capacity assessment

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00-09:00	**2039 future baseline (existing layout)**			**2051 future baseline (existing layout)**		
Peacock Lane (west) (ahead)	80	-	-	83	-	-
Peacock Lane (west) (left)	8	-	-	8	-	-
Back Lane (left and right)	14	0.03	0	14	0.03	0
Peacock Lane (east) (ahead and right)	40	0.00	0	43	0.00	0
17:00-18:00	**2039 future baseline (existing layout)**			**2051 future baseline (existing layout)**		
Peacock Lane (west) (ahead)	17	-	-	26	-	-
Peacock Lane (west) (left)	0	-	-	3	-	-
Back Lane (left and right)	29	0.06	0	31	0.07	0
Peacock Lane (east) (ahead and right)	135	0.03	0	158	0.04	0

Table 15-57: Peacock Lane realignment/Back Lane diversion junction 2039 and 2051 AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00-09:00	**2039 with the AP2 revised scheme (proposed layout)**			**2051 with the AP2 revised scheme (proposed layout)**		
Back Lane diversion (left and right)	71	0.11	0	75	0.12	0
Peacock Lane realignment (east) (ahead and right)	86	0.15	0	87	0.15	0
17:00-18:00	**2039 with the AP2 revised scheme (proposed layout)**			**2051 with the AP2 revised scheme (proposed layout)**		
Back Lane diversion (left and right)	45	0.08	0	45	0.08	0
Peacock Lane realignment (east) (ahead and right)	172	0.29	0	190	0.32	1

13.4.51 The conclusions drawn in paragraph 12.4.50 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that this junction operates well within capacity in 2039 and 2051 with the AP2 revised scheme."

Tabley Road/Sugar Pit Lane

13.4.52 Table 15-59 in the SES1 and AP1 ES TA replaced Table 15-59 in the main TA and summarised the results of the changes in performance of the junction as a result of the AP1 revised scheme. Table 15-59 below replaces Table 15-59 in the SES1 and AP1 ES TA.

Table 15-59: Tabley Road/Sugar Pit Lane junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00-09:00	**2039 future baseline (existing layout)**			**2039 with the AP2 revised scheme**			**2051 future baseline (existing layout)**			**2051 with the AP2 revised scheme**		
Tabley Road (west)	67	6%	0	74	7%	0	94	9%	0	79	7%	0
Sugar Pit Lane	146	73%	0	146	73%	0	116	58%	0	132	66%	0
Tabley Road (east)	142	71%	0	135	67%	0	144	72%	0	144	72%	0
17:00-18:00	**2039 future baseline (existing layout)**			**2039 with the AP2 revised scheme**			**2051 future baseline (existing layout)**			**2051 with the AP2 revised scheme**		
Tabley Road (west)	186	17%	0	49	5%	0	126	12%	0	32	3%	0
Sugar Pit Lane	73	36%	0	157	78%	0	136	68%	0	181	90%	0
Tabley Road (east)	187	94%	1	194	97%	0	202	101%	1	201	100%	1

13.4.53 The conclusions drawn in paragraph 12.4.54 of the SES1 and AP1 ES TA are replaced by:

"The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2039 will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the maximum VoC will increase from 94% in the 2039 future baseline to 97% with the AP2 revised scheme in 2039 on the Tabley Road (east) approach, with a corresponding change in queue length from one PCU in the future baseline to no queue. The assessment shows that in the AM peak hour the junction operates well within capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2051 will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the change in traffic due to operation of the AP2 revised scheme will increase the VoC from 68% in the 2051 future baseline to 90% with the AP2 revised scheme in 2051 on the Sugar Pit Lane approach. There will be no change in queue lengths. The assessment shows that in the AM peak hour the junction operates well within capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour, which is, in any case, predicted to operate over its capacity in the future baseline."

M6 junction 20/A50 Cliff Lane/B5158 Cherry Lane

13.4.54 The M6 junction 20/A50 Cliff Lane/B5158 Cherry Lane junction will be permanently modified as part of the AP2 revised scheme to mitigate construction impacts at this location. The modification comprises the provision of an additional merge lane on the M6 northbound on-slip from the junction, giving traffic the opportunity to merge further north, away from junction 20, improving main line efficiency.

13.4.55 Table 15-60 summarises the results of the changes in performance of the junction as a result of the AP2 revised scheme based on the existing junction layout. Table 15-60.1 summarises the performance of the junction as a result of the AP2 revised scheme with the proposed modification to the northbound on-slip merge with the M6 mainline introduced.

13.4.56 The AP2 amendment to this junction has limited impact on the reporting of the operation of this junction itself, because the mitigation scheme alters the layout of the northbound on-slip merge, used by vehicles to join the M6 mainline after exiting this junction. Reporting of junction performance is instead based on movements into the junction. Differences in operation between the existing and proposed layout reflect the wider changes in traffic

flows resulting from all junction modifications and other traffic changes within the M6 junction 19 strategic model area.

Table 15-60: M6 junction 20/A50 Cliff Lane/B5158 Cherry Lane junction 2039 and 2051 future baseline and AP2 revised scheme (existing layout) junction capacity assessment

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
08:00-09:00	**2039 future baseline**			**2039 with the AP2 revised scheme (existing layout)**			**2051 future baseline**			**2051 with the AP2 revised scheme (existing layout)**		
M6 southbound off-slip (nearside) (left and ahead)	527	64%	1	473	54%	1	517	62%	1	463	53%	1
M6 southbound off-slip (offside) (ahead)	325	58%	4	304	47%	1	298	53%	1	278	44%	0
B5158 Cherry Lane (nearside) (ahead)	170	25%	0	437	52%	1	160	24%	0	441	52%	1
B5158 Cherry Lane (offside) (ahead)	246	64%	3	152	28%	0	266	66%	3	160	29%	0
A50 Cliff Lane (east) (nearside) (left)	386	44%	0	151	23%	0	432	49%	1	154	24%	0
M6 Cliff Lane (east) (offside) (ahead)	606	58%	1	172	26%	0	765	76%	1	232	40%	0
M6 northbound off-slip (nearside) (ahead)	554	63%	11	467	39%	6	566	70%	12	495	40%	6
M6 northbound off-slip (offside) (ahead)	504	53%	9	498	39%	6	550	63%	11	527	40%	7
A50 Cliff Lane (west) (nearside) (left)	482	59%	4	325	34%	0	476	63%	5	339	37%	1
A50 Cliff Lane (west) (offside) (ahead)	480	67%	4	415	48%	2	430	66%	4	406	49%	2
A50 Cliff Lane (nearside) (ahead)	1,598	81%	2	1,158	59%	1	1,621	83%	2	1,176	60%	1

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
17:00-18:00	**2039 future baseline**			**2039 with the AP2 revised scheme (existing layout)**			**2051 future baseline**			**2051 with the AP2 revised scheme (existing layout)**		
M6 southbound off-slip (nearside) (left and ahead)	364	42%	0	379	43%	0	296	36%	0	399	47%	0
M6 southbound off-slip (offside) (ahead)	245	40%	0	309	48%	2	191	34%	0	310	51%	3
B5158 Cherry Lane (nearside) (ahead)	131	14%	0	386	41%	0	137	15%	0	410	44%	0
B5158 Cherry Lane (offside) (ahead)	75	12%	0	65	10%	0	88	13%	0	76	12%	0
A50 Cliff Lane (east) (nearside) (left)	227	26%	0	176	25%	0	237	27%	0	252	36%	0
M6 Cliff Lane (east) (offside) (ahead)	435	43%	0	201	30%	0	534	48%	1	204	30%	0
M6 northbound off-slip (nearside) (ahead)	1,021	100%	39	619	74%	14	973	95%	29	588	70%	12
M6 northbound off-slip (offside) (ahead)	436	40%	7	504	56%	10	491	44%	8	562	62%	11
A50 Cliff Lane (west) (nearside) (left)	399	40%	0	353	35%	0	423	43%	0	379	38%	0
A50 Cliff Lane (west) (offside) (ahead)	421	45%	2	367	40%	2	447	49%	2	401	45%	2
A50 Cliff Lane (nearside) (ahead)	865	44%	0	764	38%	0	916	47%	0	804	41%	0

Table 15-60.1: M6 junction 20/A50 Cliff Lane/B5158 Cherry Lane junction 2039 and 2051 future baseline and AP2 revised scheme (proposed layout) junction capacity assessment

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
08:00-09:00	**2039 future baseline**			**2039 with the AP2 revised scheme (proposed layout)**			**2051 future baseline**			**2051 with the AP2 revised scheme (proposed layout)**		
M6 Southbound off-slip (nearside) (left and ahead)	527	64%	1	458	52%	1	517	62%	1	457	53%	1
M6 southbound off-slip (offside) (ahead)	325	58%	4	297	46%	0	298	53%	1	277	44%	0
B5158 Cherry Lane (nearside) (ahead)	170	25%	0	434	51%	1	160	24%	0	441	52%	1
B5158 Cherry Lane (offside) (ahead)	246	64%	3	154	28%	0	266	66%	3	160	29%	0
A50 Cliff Lane (east) (nearside) (left)	386	44%	0	163	25%	0	432	49%	1	154	24%	0
M6 Cliff Lane (east) (offside) (ahead)	606	58%	1	187	29%	0	745	74%	1	238	41%	0
M6 northbound off-slip (nearside) (ahead)	554	63%	11	471	40%	6	566	70%	12	503	40%	6
M6 northbound off-slip (offside) (ahead)	504	53%	9	482	38%	6	550	63%	11	524	39%	6
A50 Cliff Lane (west) (nearside) (left)	482	59%	4	325	34%	0	476	63%	5	340	37%	1
A50 Cliff Lane (west) (offside) (ahead)	480	67%	4	406	47%	2	430	66%	4	406	49%	2
A50 Cliff Lane (nearside) (ahead)	1,598	81%	2	1,149	59%	1	1,621	83%	2	1,172	60%	1

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
17:00-18:00	**2039 future baseline**			**2039 with the AP2 revised scheme (proposed layout)**			**2051 future baseline**			**2051 with the AP2 revised scheme (proposed layout)**		
M6 southbound off-slip (nearside) (left and ahead)	364	42%	0	526	59%	1	296	36%	0	507	59%	1
M6 southbound off-slip (offside) (ahead)	245	40%	0	369	56%	3	191	34%	0	347	56%	4
B5158 Cherry Lane (nearside) (ahead)	131	14%	0	386	44%	0	137	15%	0	409	45%	0
B5158 Cherry Lane (offside) (ahead)	75	12%	0	67	12%	0	88	13%	0	81	14%	0
A50 Cliff Lane (east) (nearside) (left)	227	26%	0	145	20%	0	237	27%	0	197	28%	0
M6 Cliff Lane (east) (offside) (ahead)	435	43%	0	284	28%	0	534	48%	1	301	30%	0
M6 northbound off-slip (nearside) (ahead)	1,021	100%	39	621	72%	13	973	95%	29	600	72%	13
M6 northbound off-slip (offside) (ahead)	436	40%	7	470	51%	9	491	44%	8	546	60%	11
A50 Cliff Lane (west) (nearside) (left)	399	40%	0	319	33%	0	423	43%	0	350	37%	0
A50 Cliff Lane (west) (offside) (ahead)	421	45%	2	391	44%	2	447	49%	2	410	48%	2
A50 Cliff Lane (nearside) (ahead)	865	44%	0	803	41%	0	916	47%	0	873	44%	0

13.4.57 The assessment shows that in 2039, based on the existing layout, in the AM peak hour the junction operates within capacity in the future baseline and well within capacity with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in the future baseline and well within capacity with the AP2 revised scheme.

13.4.58 The assessment shows that in 2051, based on the existing layout, the junction operates within capacity in the future baseline and well within capacity with the AP2 revised scheme. In the PM peak hour, the junction operates close to capacity in the future baseline and well within capacity with the AP2 revised scheme.

13.4.59 With the proposed layout, the assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2039 will not result in substantial changes in DoS and queue lengths in the AM peak hour. In the PM peak hour, the maximum DoS will decrease from 100% in the 2039 future baseline to 72% with the AP2 revised scheme in 2039 on the M6 northbound off-slip (nearside) (ahead) approach, with a corresponding change in queue length from 39 PCU in the future baseline to 13 PCU. The assessment shows that in the AM peak hour the junction operates within capacity in the future baseline and well within capacity with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in the future baseline and well within with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and a beneficial impact on the operation of the junction in the PM peak hour.

13.4.60 The change in traffic due to operation of the AP2 revised scheme in 2051 will not result in substantial changes in DoS and queue lengths in the AM peak hour. In the PM peak hour, the maximum DoS will decrease from 95% in the 2051 future baseline to 72% with the AP2 revised scheme in 2051 on the M6 northbound off-slip (nearside) (ahead) approach, with a corresponding change in queue length from 29 PCU in the future baseline to 13 PCU. The assessment shows that in the AM peak hour the junction operates within capacity in the future baseline and well within capacity with the AP2 revised scheme. In the PM peak hour, the junction operates close to capacity in the future baseline and well within capacity with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and a beneficial impact on the operation in the PM peak hour.

Tabley Road/Ladies Mile

13.4.61 Table 15-61 summarises the performance of the junction as a result of the AP2 revised scheme in both 2039 and 2051.

Table 15-61: Tabley Road/Ladies Mile junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
Tabley Road (east)	203	101%	1	203	102%	1	204	102%	1	204	102%	1
Ladies Mile	193	29%	0	191	28%	0	203	30%	0	200	30%	0
Tabley Road (west)	201	101%	0	201	101%	0	202	101%	0	202	101%	0
17:00–18:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
Tabley Road (east)	195	98%	0	175	87%	0	186	93%	0	138	69%	0
Ladies Mile	150	22%	0	281	43%	0	178	27%	0	289	44%	0
Tabley Road (west)	183	91%	0	104	52%	0	150	75%	0	126	63%	0

13.4.62 The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2039 will not result in substantial changes in VoC and queue lengths in the AM peak hour. The changes in traffic due to operation of the AP2 revised scheme will decrease the maximum VoC from 98% in the 2039 future baseline to 87% with the AP2 revised scheme in 2039 on the Tabley Road (east) approach in the PM peak hour, with no change in corresponding queue length. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and a beneficial impact on the operation of the junction in the PM peak hour.

13.4.63 The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2051 will not result in substantial changes in VoC and queue lengths in the AM peak hour. The changes in traffic due to operation of the AP2 revised scheme will decrease the maximum VoC from 93% in the 2051 future baseline to 69% with the AP2 revised scheme in 2051 on the Tabley Road (east) approach in the PM peak hour, with no change in corresponding queue length. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates close to capacity in the future baseline and well within capacity with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and a beneficial impact on the operation of the junction in the PM peak hour.

A50 Warrington Road/A50 Chester Road/B5569 Chester Road (south)

13.4.64 Table 15-62 summarises the results of the changes to the performance of the junction as a result of the AP2 revised scheme.

Table 15-62: A50 Warrington Road/A50 Chester Road/B5569 Chester Road (south) junction 2039 and 2051 future baseline and AP2 revised scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
B5569 Chester Road	287	22%	4	312	24%	4	305	24%	4	318	25%	4
A50 Chester Road	591	52%	8	572	51%	7	636	59%	8	639	58%	8
A50 Warrington Road	494	46%	6	461	45%	6	541	51%	7	506	49%	6
17:00–18:00	**2039 future baseline**			**2039 with the AP2 revised scheme**			**2051 future baseline**			**2051 with the AP2 revised scheme**		
B5569 Chester Road	72	6%	1	133	10%	2	72	6%	1	76	6%	1
A50 Chester Road	163	107%	2	397	52%	5	181	106%	2	421	52%	5
A50 Warrington Road	971	94%	12	941	100%	12	927	101%	12	812	102%	10

13.4.65 The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2039 will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the maximum VoC will increase from 94% in the 2039 future baseline to 100% with the AP2 revised scheme in 2039 on the A50 Warrington Road approach, with no change in corresponding queue length. The assessment shows that in the AM peak hour the junction operates well within capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour, which is, in any case, predicted to operate over its capacity in the future baseline,

13.4.66 The assessment shows that for this junction, the change in traffic due to operation of the AP2 revised scheme in 2051 will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the maximum VoC will decrease from 106% in the 2051 future baseline to 52% with the AP2 revised scheme in 2051 on the A50 Chester Road approach, with a corresponding change in queue length from two PCU in future baseline to five PCU. The assessment shows that in the AM peak hour the junction operates well within capacity in both the future baseline and with the AP2 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP2 revised scheme. The changes in traffic will have a negligible impact on the operation of the junction in the AM peak hour and a beneficial impact on the operation of the junction in the PM peak hour, which is, in any case, predicted to operate over its capacity in the future baseline.

Accidents and safety

13.4.67 The impacts on accidents and safety during operation are reported in Section 15.5 of the main TA and Section 12.4 of the SES1 and AP1 ES TA.

13.4.68 The baseline analysis of accidents and safety identified one location, M6 junction 19/A556 Chester Road/A556, which had experienced an accident cluster over the three-year period from July 2016 to June 2019.

13.4.69 Whilst there are locations in the MA03 area where there are substantial forecast increases in traffic flows due to the operation of the AP2 revised scheme, these will not affect locations with known safety concerns and, consequently, no unacceptable impacts on accident and safety risks are expected. This represents no change to the conclusions of the analysis of accidents of safety for the original scheme reported in Section 15.5 of the main TA and Section 12.4 of the SES1 and AP1 ES TA.

13.4.70 New highway links and junctions will be constructed to current standards and/or in keeping with the existing infrastructure. The AP2 revised scheme is not expected to create any new safety concerns.

Parking and loading

13.4.71 The impacts on parking and loading during operation are reported in Section 15.5 of the main TA and Section 12.4 of the SES1 and AP1 ES TA. This section of the main TA and the SES1 and AP1 ES TA is unchanged.

Public transport

Local bus services

13.4.72 The impacts on local bus services during operation are reported in Section 15.5 of the main TA and Section 12.4 of the SES1 and AP1 ES TA. This section of the main TA and the SES1 and AP1 ES TA is unchanged.

Rail network

13.4.73 The impacts on the rail network during operation are reported in Section 15.5 of the main TA and Section 12.4 of the SES1 and AP1 ES TA. This section of the main TA and the SES1 and AP1 ES TA is unchanged.

Public transport interchanges

13.4.74 The impacts on public transport interchanges during operation are reported in Section 15.5 of the main TA and Section 12.4 of the SES1 and AP1 ES TA. This section of the main TA and the SES1 and AP1 ES TA is unchanged.

Pedestrians, cyclists and equestrians

13.4.75 The impacts on pedestrians, cyclists and equestrians during operation are reported in Section 15.5 of the main TA and Section 12.4 of the SES1 and AP1 ES TA. This section of the main TA and the SES1 and AP1 ES TA is unchanged.

Waterways and canals

13.4.76 The impacts on waterways and canals during operation are reported in Section 15.5 of the main TA and Section 12.4 of the SES1 and AP1 ES TA. This section of the main TA and the SES1 and AP1 ES TA is unchanged.

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High Speed Two (HS2) Limited
Two Snowhill
Snow Hill Queensway
Birmingham B4 6GA
Freephone: 08081 434 434
Minicom: 08081 456 472
Email: HS2enquiries@hs2.org.uk