

High Speed Rail (Crewe – Manchester)

Background information and data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality
assessment

High Speed Rail (Crewe – Manchester)

Background Information and data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality
assessment



Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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 | TYPSPA | COSTAIN

MWJV

Mott MacDonald | WSP

High Speed Two (HS2) Limited has actively considered the needs of blind and partially sighted people in accessing this document. The text will be made available in full on the HS2 website. The text may be freely downloaded and translated by individuals or organisations for conversion into other accessible formats. If you have other needs in this regard please contact High Speed Two (HS2) Limited.

© High Speed Two (HS2) Limited, 2022, except where otherwise stated.

Copyright in the typographical arrangement rests with High Speed Two (HS2) Limited.

This information is licensed under the Open Government Licence v3.0. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/version/3 **OGL** or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk. Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.



Printed in Great Britain on paper containing at least 75% recycled fibre.

Contents

1	Introduction	2
2	Relevant policies and guidance	3
2.2	Warrington Borough Council	3
2.3	St Helens Borough Council	4
2.4	Wigan Metropolitan Borough Council	4
3	Baseline air quality data	6
3.1	Local air quality monitoring data	6
3.2	Industrial emission sources	7
4	Construction traffic data	9
5	Operational traffic data	25
6	References	28

Tables

Table 1:	Annual mean pollutant concentrations recorded at continuous monitoring sites	6
Table 2:	Number of hours when hourly mean NO ₂ concentrations exceed 200µg/m ³ at continuous monitoring sites	6
Table 3:	Number of days when daily mean PM ₁₀ concentrations exceed 50µg/m ³ at continuous monitoring sites	6
Table 4:	Annual mean NO ₂ concentrations recorded at diffusion tube monitoring sites	7
Table 5:	Annual mean NO ₂ concentrations recorded at HS2 monitoring sites	7
Table 6:	Industrial installations with permits for emissions to air	8
Table 7:	Traffic data (AADT) used for the construction assessment	9
Table 8:	Traffic data (HDV) used for the construction assessment	15
Table 9:	Construction traffic flows on the site haul routes	21
Table 10:	Traffic data used for the operational assessment	26

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

1 Introduction

1.1.1 This report presents additional data used in the air quality assessment of the Risley to Bamfurlong area (MA05) and comprises:

- relevant policies and guidance; and
- baseline air quality data;

1.1.2 Volume 5, Appendix AQ-001-0MA05¹ should be referred to for details of the air quality impact assessment.

¹ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement, Air quality report*, Appendix AQ-001-0MA05. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

2 Relevant policies and guidance

- 2.1.1 The Risley to Bamfurlong area lies within the administrative areas of Warrington Borough Council (WBC), St Helens Borough Council (SHBC) and Wigan Metropolitan Borough Council (WMBC).

2.2 Warrington Borough Council

- 2.2.1 The WBC Local Plan Core Strategy² is the overarching strategic policy document in the council's local planning framework. It sets out the planning framework for guiding the location and level of development in the borough until 2027.
- 2.2.2 Policy CS 4 for transport states that the council will support improvements in Warrington's transport network that reduce the impact on traffic on air quality and reduce carbon emissions to help tackle climate change. In addition to Policy CS 4, the Core Strategy Policy QE 6 – Environment and Amenity Protection, states:
- 'the Council, in consultation with other Agencies, will only support development which would not lead to an adverse impact on the environment or amenity of future occupiers or those currently occupying adjoining or nearby properties, or does not have an unacceptable impact on the surrounding area. The Council will take into consideration the following: [...]
 - air quality; [...] Proposals may be required to submit detailed assessments in relation to any of the above criteria to the Council for approval; and
 - where development is permitted which may have an impact on such considerations, the Council will consider the use of conditions or planning obligations to ensure any appropriate mitigation or compensatory measures are secured...'
- 2.2.3 The WBC Local Plan Core Strategy is currently under review and a new local plan³ is being developed for Warrington. It sets out the planning framework for guiding the location and level of development in the borough until 2037.
- 2.2.4 Policy ENV8 on Environmental and Amenity Protection builds on policy QE6 of the adopted plan with the following considerations on air quality:

² Warrington Borough Council (2014), *Adopted Local Plan Core Strategy*. Available online at: <https://www.warrington.gov.uk/adopted-local-plan-2014>.

³ Warrington Borough Council (2019), *Warrington Proposed Submission Version Local Plan 2017 – 2037*. Available online at: https://www.warrington.gov.uk/sites/default/files/2019-09/proposed_submission_version_local_plan_v4.pdf.

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

- '3. the Council will seek to ensure that proposals for new development will not have an unacceptable negative impact on air quality and will not further exacerbate air quality in the Council's designated Air Quality Management Areas (AQMAs); or will contribute to air pollution in areas which may result in further areas being designated.
- 4. new development that would result in increased traffic flows on the M62 past Manchester Mosses Special Area of Conservation (SAC) of more than 1000 vehicles per day or 200 heavy goods vehicles (HGV) per day must be accompanied by evidence identifying whether the resultant impacts on air quality would cause a significant effect on ecological interests within the SAC. Where such effects are identified they would need to be considered in accordance with Policy DC4.'

2.3 St Helens Borough Council

2.3.1 The SHBC Core Strategy⁴ is the principal document in a framework of planning policy documents known as the St Helens Local Plan. It provides an overall strategy of how much development is required, where development should be located and how this will be delivered for the period until 2027. The Core Strategy Policy CP 1 - Ensuring Quality Development in St. Helens, states:

- '[...] All proposals for development within the Borough will be expected, where appropriate, to meet the following standards as a minimum: [...]
- 3. Environmental quality;
 - i. Minimise and mitigate against the effects of air, light and water pollution (including contamination of soil, surface water and ground water resources) and noise, vibration, smells, dust and electromagnetic fields caused by the development; and
 - ii. Development that is located within or would impact on Air Quality Management Areas will require special consideration with regards to their impacts on air quality.'

2.4 Wigan Metropolitan Borough Council

2.4.1 The WMBC Core Strategy⁵ is the strategic local plan for the borough. It sets out the spatial vision through to 2026 and a range of strategic objectives and policies. The Core Strategy Objective NRP 1 states:

⁴ Knowsley Council (2012), *Local Development Framework Core Strategy (LDF43E)*. Available online at: [http://www.knowsley.gov.uk/pdf/LC21_StHelensLocalPlanCoreStrategy\[1\].pdf](http://www.knowsley.gov.uk/pdf/LC21_StHelensLocalPlanCoreStrategy[1].pdf).

⁵ Wigan Council (2013), *Local Plan. Core Strategy: Development Plan Document*. Available online at: <https://www.wigan.gov.uk/Docs/PDF/Council/Strategies-Plans-and-Policies/Planning/Adopted-Core-Strategy.pdf>.

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

- 'To maintain soil quality; tackle pollution and ground stability problems from contaminated and derelict land and ensure that no new pollution arises as a result of development; ensure that development does not result in unacceptable levels of air pollution or will not have an unacceptable effect on air quality, through traffic or emissions [...]'.
2.4.2 Policy CP 17 - Environmental Protection, states:

- 'We will help maintain, enhance and protect our environment for the benefit of people and wildlife, and make the borough a better place for people to live and businesses to locate and thrive, by: [...]
- 4. Managing air quality, particularly in our Air Quality Management Areas, including by minimising the air pollution (and carbon dioxide emissions) likely to arise from new development.'

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

3 Baseline air quality data

3.1 Local air quality monitoring data

3.1.1 Table 1 to Table 4 present the monitoring data from the continuous monitors and diffusion tube sites within the Risley and Bamfurlong area. Table 5 also presents the NO₂ measurements from the HS2 monitoring sites in this area.

Table 1: Annual mean pollutant concentrations recorded at continuous monitoring sites

Pollutant ^{6 7}	Annual mean concentrations (µg/m ³)				
	2014	2015	2016	2017	2018
Wigan Centre (357816, 406024)					
NO ₂	22.0	19.0	21.0	18.0	17.0
PM ₁₀	18.0	18.0	16.0	15.0	17.0
PM _{2.5}	No data	11.0	11.0	10.0	12.0
Southworth Road (360045, 395643)					
NO ₂	47.0	53.0	51.0	50.0	45.1
High Street (358975, 395804)					
NO ₂	33.0	33.0	38.0	31.0	35.5

Table 2: Number of hours when hourly mean NO₂ concentrations exceed 200µg/m³ at continuous monitoring sites

Site ^{6 7}	Number of exceedances of hourly mean NO ₂ standard				
	2014	2015	2016	2017	2018
Wigan Centre	0	0	0	0	0
Southworth Road	2	0	3	3	0
High Street	0	0	0	0	0

Table 3: Number of days when daily mean PM₁₀ concentrations exceed 50µg/m³ at continuous monitoring sites

Site ⁶	Number of exceedances of daily mean PM ₁₀ standard				
	2014	2015	2016	2017	2018
Wigan Centre	1	1	0	3	1

⁶ Greater Manchester Combined Authority (2019), *2018 Air Quality Annual Status Report (ASR)*. Available online at: https://www.manchester.gov.uk/downloads/download/4166/air_quality_reports.

⁷ St Helens Council (2019), *2019 Air Quality Annual Status Report (ASR)*. Available online at: https://www.sthelens.gov.uk/media/11210/asr_st-helens_2019_final.pdf.

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Table 4: Annual mean NO₂ concentrations recorded at diffusion tube monitoring sites

Site ⁶	Ordnance Survey coordinates	Annual mean NO ₂ concentrations (µg/m ³)				
		2014	2015	2016	2017	2018
T1	360109, 395661	32.8	32.8	29.2	26.5	25.0
T2	356549, 399577	34.6	35.8	30.5	25.0	25.9
T6	359498, 394646	24.0	23.6	24.3	23.6	21.3
T7	360055, 395638	41.4	40.3	36.4	37.6	33.2
T8	358774, 395880	28.5	26.5	25.5	22.5	24.1
T9	359915, 395639	25.9	24.1	24.1	20.9	21.8
T10	360055, 395638	40.1	41.7	37.3	37.9	33.6
T14	359147, 395705	36.7	34.9	33.3	33.3	31.3
T15	358220, 397077	33.9	32.8	32.3	31.4	28.4
T23	359147, 395705	34.4	34.1	33.7	33.3	31.6
T25	358975, 395804	No data	32.5	34.2	31.4	30.8
T31	360055, 395638	No data	39.8	34.7	37.7	34.9
T32	358975, 395804	No data	32.0	32.6	30.7	31.5
WI23	361835, 404090	33.5	29.8	36.3	34.5	35.9
WI33	359723, 405537	39.8	38.4	41.8	37.6	38.9
WI35	357132, 398670	41.2	38.9	39.0	41.0	34.9
WI52	362137, 399948	42.1	41.1	41.7	41.6	37.3
WI61	364025, 403080	33.9	33.8	35.5	33.9	33.0
WI63	356928, 404982	No data	No data	No data	26.9	27.5
WI117	357048, 405200	No data	No data	No data	34.5	32.0
WI121	357088, 405158	No data	No data	No data	36.6	37.6

Table 5: Annual mean NO₂ concentrations recorded at HS2 monitoring sites

Site	Ordnance Survey coordinates	Annual mean NO ₂ concentrations (µg/m ³)	
		2018	2019
MA05.01	357942, 399323	45.0	36.3
MA05.02	360648, 398677	37.2	32.9
MA05.03	363154, 397530	25.2	22.7
MA05.04	360383, 402354	28.3	27.6
MA05.05	362463, 397005	30.5	31.8
MA05.06	365098, 392947	40.4	35.8
MA05.07,8,9	358975, 395805	34.6	30.1

3.2 Industrial emission sources

3.2.1 Table 6 presents the industrial installations (regulated by the Environment Agency) with permits for emissions to air within the Risley to Bamfurlong area.

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Table 6: Industrial installations with permits for emissions to air

Operator	Permit number	Process
Greencore Prepared Meals Limited	BO2226IU	Treating of animal and vegetable matter for food
Biffa Waste Services Limited	BV7877IR	Waste landfilling
Electric Glass Fibre UK Limited	UP3836DF	Glass fibre manufacture in a plant with a melting capacity exceeding 20 tonnes per day.
Chemviron Carbon Limited	BS5584IP	Ashton activated carbon (chemical industry). Carbon disulphide or ammonia; carbon disulphide release to air (any activity)
Alkane Energy CM Limited	FP3203PF	Haydock Electricity Generation Site. Medium combustion plant.
Karas Plating Limited	FP3636YZ	Surface treating metals and plastics
UK Power Reserve Limited	BP3708PL	Lodge Lane Power Station. Medium combustion plant.

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

4 Construction traffic data

- 4.1.1 Table 7 and Table 8 outline the predicted flows for construction traffic on the highway network. The data presented are split into annual average daily traffic (AADT) (Table 7) and heavy duty vehicles (HDV) (Table 8) in the 'without the Proposed Scheme' and 'with the Proposed Scheme' scenarios.
- 4.1.2 The air quality assessment of construction traffic emissions has used traffic data based on an estimate of the average daily flows in the peak year during the construction period (2025 – 2037). The assessment assumes vehicle emission rates and background pollutant concentrations from year 2025 as a worst case.
- 4.1.3 Table 6 outlines the predicted flows of construction traffic on the site haul routes. The data are presented for the 'with the Proposed Scheme' scenario only split in HGV and articulated dump trucks (ADT).

Table 7: Traffic data (AADT) used for the construction assessment

Road ID	Start and end coordinates	AADT			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
103669_103670	360464, 397894 to 360288, 397947	5,579	5,579	5,579	
103669_103674	360464, 397894 to 360450, 397855	13,036	13,605	13,724	
103671_103672	360321, 397176 to 359759, 397288	3,050	3,050	3,050	
103671_103674	360321, 397176 to 360450, 397855	13,036	13,605	13,724	
103671_R	360321, 397176	7,509	7,793	7,852	
103674_103671	360450, 397855 to 360321, 397176	13,036	13,605	13,724	
103680_87766	361164, 396931 to 360315, 397070	17,212	17,592	17,521	
103684_80604_01	362388, 396914 to 362233, 396904	16,451	16,754	16,718	
103684_81665	362388, 396914 to 364491, 397362	19,361	19,537	19,500	
103684_95008	362388, 396914 to 363491, 397911	13,716	14,224	14,217	
103686_103687	362027, 396507 to 361529, 396899	416	416	416	
103687_103680	361529, 396899 to 361164, 396931	15,812	16,192	16,120	
103687_103686_01	361529, 396899 to 362027, 396507	120	120	120	
103714_R	364936, 394898	0	0	7,541	Realignment
1460_2670	386234, 394897 to 365119, 393000	19,987	20,236	20,206	
1460_4059	386234, 394897 to 365206, 393476	15,673	15,913	15,886	
1460_4152	386234, 394897 to 364492, 393167	4,674	4,683	4,680	
1461_103714	365467, 394797 to 364936, 394898	0	0	2,216	Realignment
1461_103715	365467, 394797 to 365571, 393860	0	0	15,015	Realignment
1461_2669	365467, 394797 to 389163, 390216	13,615	13,700	13,701	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Road ID	Start and end coordinates	AADT			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
1461_4168	365467, 394797 to 386964, 389107	14,832	14,917	438	
1488_2669	365588, 395150 to 389163, 390216	13,615	13,700	13,701	
1597_2329	363943, 390930 to 363918, 390966	3,547	3,595	3,593	
1684_1687	387733, 393518 to 382379, 393448	18,769	18,927	18,889	
1684_3600	387733, 393518 to 362184, 396781	7,753	8,303	8,148	
1684_4149	387733, 393518 to 363078, 396017	3,387	3,389	3,389	
1685_2697	387370, 394183 to 368697, 393600	8,242	8,391	8,335	
2329_1597_01	363918, 390966 to 363943, 390930	3,561	3,616	3,608	
2329_2399	363918, 390966 to 363915, 391167	8,073	8,154	8,140	
2330_2399	363825, 391223 to 363915, 391167	7,762	7,843	7,829	
2330_2414_01	363825, 391223 to 376666, 388498	8,990	9,075	9,056	
2330_4006	363825, 391223 to 363740, 391245	6,092	6,116	6,113	
2330_4006_01	363825, 391223 to 363740, 391245	6,092	6,116	6,113	
2330_R	363825, 391223	5,711	5,759	5,750	
2388_2437	363003, 392989 to 389424, 390109	1,702	1,773	1,759	
2389_2437	363838, 393145 to 389424, 390109	2,530	2,530	2,530	
2405_4135	362011, 393241 to 361811, 393171	6,037	6,134	6,111	
2414_2330	376666, 388498 to 363825, 391223	8,990	9,075	9,056	
2414_2415	376666, 388498 to 376998, 389978	8,990	9,075	9,056	
2415_4008	376998, 389978 to 363919, 391589	8,990	9,075	9,056	
2417_2405	362285, 393409 to 362011, 393241	6,037	6,134	6,111	
2422_4135	378985, 388470 to 361811, 393171	6,037	6,134	6,111	
2437_2442	389424, 390109 to 363580, 392422	4,231	4,303	4,288	
2442_2556	363580, 392422 to 363591, 392405	4,231	4,303	4,288	
2502_4149	362974, 395630 to 363078, 396017	2,931	2,933	2,933	
2512_103714	364762, 394762 to 364936, 394898	0	0	438	Realignment
2512_2540	364762, 394762 to 364405, 394592	14,469	14,478	0	Realignment
2512_2542	364762, 394762 to 365009, 395048	13,026	13,040	0	Realignment
2512_2668	364762, 394762 to 365341, 394335	2,206	2,216	0	Realignment
2517_2842	365140, 395196 to 381854, 390875	18,888	18,894	18,891	
2539_2540	364011, 394362 to 364405, 394592	2,395	2,403	2,400	
2540_103714	364405, 394592 to 364936, 394898	0	0	14,474	Realignment
2541_2842	364965, 395309 to 381854, 390875	3,011	3,018	3,019	
2542_103714	365009, 395048 to 364936, 394898	0	0	13,038	Realignment
2542_2842_01	365009, 395048 to 381854, 390875	13,026	13,040	13,038	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Road ID	Start and end coordinates	AADT			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
2542_R	365009, 395048	6,513	6,520	3,260	
2556_2823	363591, 392405 to 376980, 388301	4,231	4,303	4,288	
2668_4001	365341, 394335 to 365860, 385010	16,329	16,569	438	
2668_4168	365341, 394335 to 386964, 389107	15,428	15,663	0	Realignment
2670_4060	365119, 393000 to 377709, 389683	19,987	20,236	20,206	
2697_4147	368697, 393600 to 366771, 395283	8,242	8,391	8,335	
3600_103684_01	362184, 396781 to 362388, 396914	15,943	16,433	16,312	
3600_80604	362184, 396781 to 362233, 396904	1,346	1,447	1,396	
3600_85989	362184, 396781 to 362102, 396541	15,551	15,596	15,594	
3798_85872	382773, 387262 to 366841, 393093	17,503	17,573	17,569	
4001_103715	365860, 385010 to 365571, 393860	0	0	15,015	Realignment
4001_4059	365860, 385010 to 365206, 393476	15,602	15,842	15,815	
4002_4060	365064, 392737 to 377709, 389683	19,987	20,236	20,206	
80027_80466	353821, 403592 to 356187, 401054	56,609	56,989	57,012	
80096_81633	363782, 392546 to 364030, 392649	48,321	48,742	48,742	
80097_80329	366180, 393155 to 364672, 392912	55,010	55,455	55,443	
80098_81669	367637, 393356 to 374295, 398615	51,768	52,028	52,152	
80100_81433	374323, 398610 to 367334, 393293	55,442	55,741	55,853	
80104_85834	365774, 389726 to 363689, 391647	72,951	74,500	74,651	
80107_80557	362062, 393234 to 361710, 393499	50,179	51,257	51,351	
80217_80555	358419, 396811 to 361045, 394269	49,692	50,733	50,810	
80221_85973	357650, 398017 to 356653, 399349	40,823	41,692	41,770	
80222_80418	356570, 399643 to 356390, 400636	84,259	85,134	85,213	
80223_80403	356348, 400783 to 356614, 399560	98,776	99,729	99,811	
80229_85847	364075, 391192 to 364264, 390982	54,506	55,822	55,853	
80233_80393	360963, 394383 to 358255, 396940	54,115	55,175	55,268	
80234_85848	361852, 393418 to 362834, 392602	44,045	45,098	45,176	
80329_80330	364672, 392912 to 364173, 392666	16,192	16,305	16,320	
80329_85843	364672, 392912 to 364299, 392751	38,818	39,150	39,123	
80330_85844	364173, 392666 to 363906, 392405	19,162	19,577	19,556	
80332_80229	363891, 391425 to 364075, 391192	54,506	55,822	55,853	
80393_86006	358255, 396940 to 358205, 396995	55,492	56,577	56,673	
80403_85974	356614, 399560 to 356675, 399357	98,776	99,729	99,811	
80418_80465	356390, 400636 to 356306, 400818	84,259	85,134	85,213	
80419_80108	364524, 390744 to 364803, 390536	65,134	66,796	66,925	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Road ID	Start and end coordinates	AADT			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
80429_80419	364088, 391213 to 364524, 390744	10,630	11,071	11,079	
80462_80332	363676, 391728 to 363891, 391425	17,461	17,848	17,861	
80462_85836	363676, 391728 to 363706, 391660	108	110	116	
80465_80475	356306, 400818 to 353782, 403936	61,302	61,614	61,634	
80465_87835	356306, 400818 to 356803, 402055	22,956	23,520	23,578	
80466_80223	356187, 401054 to 356348, 400783	98,776	99,729	99,811	
80500_95010	360462, 402417 to 371870, 380490	14,131	14,237	14,229	
80591_85992	360290, 397076 to 358170, 397347	19,293	19,707	19,685	
80599_103671	360311, 397133 to 360321, 397176	6,762	7,049	7,109	
80599_R	360311, 397133	24,408	24,976	24,970	
80604_103684	362233, 396904 to 362388, 396914	18,900	19,059	19,024	
80604_103687	362233, 396904 to 361529, 396899	15,501	15,880	15,809	
80604_3600_01	362233, 396904 to 362184, 396781	757	818	786	
80604_95005	362233, 396904 to 361438, 397645	7,930	8,198	8,209	
80617_81665	366885, 398275 to 364491, 397362	16,114	16,453	16,425	
81433_85877	367334, 393293 to 366926, 393182	9,172	9,271	9,335	
81433_85879	367334, 393293 to 366499, 393194	46,151	46,351	46,429	
81631_80096	363326, 392382 to 363782, 392546	3,568	3,588	3,598	
81633_85880	364030, 392649 to 366492, 393213	48,320	48,742	48,742	
81665_103684	364491, 397362 to 362388, 396914	17,199	17,510	17,478	
81665_80622	364491, 397362 to 366874, 398310	18,404	18,859	18,834	
81733_84347	360316, 395818 to 360302, 397054	6,567	6,610	6,620	
81736_82203	360295, 395798 to 360135, 395702	6,878	6,909	6,908	
82185_87839	356818, 402405 to 356834, 402751	28,762	29,326	29,384	
82186_87836	356828, 402407 to 356863, 402051	49,167	49,740	49,799	
82188_103719	360768, 400580 to 360306, 400304	0	0	16,052	Realignment
82188_86004	360768, 400580 to 360628, 398724	15,673	16,032	0	Realignment
82188_87863	360768, 400580 to 360502, 402343	19,987	20,050	20,057	
82203_85978	360135, 395702 to 359346, 395443	6,878	6,909	6,908	
82206_87457	357272, 398980 to 356884, 399082	7,463	7,490	7,487	
82208_85994	357984, 397621 to 358106, 397415	15,967	16,092	16,096	
84347_81733	360302, 397054 to 360316, 395818	3,473	3,490	3,494	
85772_85773	356668, 399076 to 356701, 399081	70,011	70,011	70,011	
85773_85973	356701, 399081 to 356653, 399349	43,436	43,449	43,448	
85773_87460	356701, 399081 to 356843, 399084	66,112	66,124	66,123	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Road ID	Start and end coordinates	AADT			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
85834_85835	363689, 391647 to 362594, 392115	21,856	22,117	22,129	
85834_85846	363689, 391647 to 363023, 392384	50,989	52,277	52,415	
85836_80332	363706, 391660 to 363891, 391425	37,039	37,969	37,986	
85837_85836	363211, 392220 to 363706, 391660	36,931	37,859	37,871	
85838_80096	363488, 392417 to 363782, 392546	44,749	45,150	45,140	
85839_80462	362523, 392265 to 363676, 391728	17,569	17,958	17,976	
85841_85842	362542, 392695 to 362309, 393036	12,142	12,295	12,346	
85842_80107	362309, 393036 to 362062, 393234	50,180	51,259	51,352	
85843_85840	364299, 392751 to 363272, 392314	35,849	35,878	35,887	
85844_80429	363906, 392405 to 364088, 391213	10,630	10,947	10,913	
85844_85841	363906, 392405 to 362542, 392695	8,532	8,631	8,647	
85846_85842	363023, 392384 to 362309, 393036	38,065	39,000	39,029	
85847_80419	364264, 390982 to 364524, 390744	54,506	55,822	55,853	
85848_81631	362834, 392602 to 363326, 392382	3,573	3,661	3,674	
85848_85837	362834, 392602 to 363211, 392220	40,472	41,400	41,412	
85872_3798	366841, 393093 to 382773, 387262	12,837	12,915	12,909	
85872_85873	366841, 393093 to 366836, 393172	17,503	17,573	17,569	
85873_85876_01	366836, 393172 to 366813, 393303	10,326	10,449	10,506	
85873_85879	366836, 393172 to 366499, 393194	8,348	8,629	8,576	
85874_81432	366919, 393317 to 367325, 393314	10,328	10,454	10,527	
85874_85877_01	366919, 393317 to 366926, 393182	3,948	4,192	4,099	
85876_85874_01	366813, 393303 to 366919, 393317	14,357	14,791	14,804	
85877_85872	366926, 393182 to 366841, 393093	12,837	12,915	12,909	
85877_85873_01	366926, 393182 to 366836, 393172	435	784	821	
85880_81432	366492, 393213 to 367325, 393314	42,700	42,871	42,958	
85880_85876	366492, 393213 to 366813, 393303	4,076	4,394	4,345	
85957_86097	357911, 397348 to 355988, 397521	19,275	19,617	19,634	
85958_85964_01	357915, 397360 to 357951, 397348	47,203	47,471	47,482	
85964_85957	357951, 397348 to 357911, 397348	52,753	53,095	53,112	
85964_85967_01	357951, 397348 to 357955, 397380	14,724	14,968	14,929	
85964_85996_01	357951, 397348 to 358120, 397347	92,300	92,905	92,937	
85967_85975	357955, 397380 to 357828, 397753	8,770	8,893	8,882	
85967_86000_01	357955, 397380 to 358075, 397402	5,954	6,075	6,047	
85970_87647_01	357994, 397303 to 357967, 397319	22,296	22,665	22,649	
85970_87649_01	357994, 397303 to 357963, 397286	10,605	10,617	10,619	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Road ID	Start and end coordinates	AADT			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
85973_80222	356653, 399349 to 356570, 399643	84,259	85,134	85,213	
85974_80394	356675, 399357 to 357784, 397863	54,714	55,661	55,742	
85974_87460	356675, 399357 to 356843, 399084	44,062	44,075	44,074	
85976_86000	357830, 397796 to 358075, 397402	20,327	20,499	20,489	
85976_86007	357830, 397796 to 358207, 397033	34,388	35,172	35,258	
85977_87649	358732, 395925 to 357963, 397286	22,138	22,151	22,152	
85993_80592	358160, 397358 to 360297, 397114	22,403	22,851	22,845	
85994_85998_01	358106, 397415 to 358103, 397387	8,587	8,650	8,651	
85995_85970_01	358111, 397319 to 357994, 397303	9,461	9,494	9,480	
85995_86007	358111, 397319 to 358207, 397033	15,305	15,581	15,559	
85996_85995_01	358120, 397347 to 358111, 397319	24,766	25,075	25,038	
85998_85996_01	358103, 397387 to 358120, 397347	28,673	28,966	28,927	
86000_85994	358075, 397402 to 358106, 397415	6,194	6,257	6,258	
86000_85998_01	358075, 397402 to 358103, 397387	20,087	20,320	20,294	
86004_103719	360628, 398724 to 360306, 400304	0	0	16,052	Realignment
86004_86005	360628, 398724 to 360744, 398569	16,598	17,328	17,503	
86004_95009	360628, 398724 to 359540, 399187	7,809	7,809	7,809	
86005_103669	360744, 398569 to 360464, 397894	10,367	10,936	11,054	
86005_95005	360744, 398569 to 361438, 397645	6,998	7,159	7,216	
86005_R	360744, 398569	8,490	8,856	8,943	
86006_85970	358205, 396995 to 357994, 397303	23,440	23,789	23,789	
86006_85975	358205, 396995 to 357828, 397753	32,052	32,807	32,890	
86007_80217	358207, 397033 to 358419, 396811	49,692	50,733	50,810	
86095_85958	356696, 397523 to 357915, 397360	16,175	16,443	16,454	
86099_85772	356019, 398685 to 356668, 399076	70,011	70,011	70,011	
86942_80604	360323, 397110 to 362233, 396904	18,208	18,628	18,573	
87457_87460	356884, 399082 to 356843, 399084	26,418	26,443	26,440	
87647_85964_01	357967, 397319 to 357951, 397348	33,831	34,200	34,184	
87649_87647_01	357963, 397286 to 357967, 397319	11,534	11,534	11,534	
87835_82185	356803, 402055 to 356818, 402405	28,762	29,326	29,384	
87838_80466	356826, 402000 to 356187, 401054	42,167	42,740	42,799	
87838_R	356826, 402000	38,965	0	39,592	Realignment
87839_82186	356834, 402751 to 356828, 402407	49,167	49,740	49,799	
95005_80604	361438, 397645 to 362233, 396904	7,930	8,198	8,209	
95005_95006	361438, 397645 to 362537, 398882	13,903	14,010	13,964	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Road ID	Start and end coordinates	AADT			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
95006_95007	362537, 398882 to 363180, 399794	8,036	8,036	8,036	
95006_95008	362537, 398882 to 363491, 397911	5,207	5,243	5,228	
95008_103684	363491, 397911 to 362388, 396914	13,716	14,224	14,217	

Table 8: Traffic data (HDV) used for the construction assessment

Road ID	Start and end coordinates	HDV			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
103669_103670	360464, 397894 to 360288, 397947	211	211	211	
103669_103674	360464, 397894 to 360450, 397855	374	688	662	
103671_103672	360321, 397176 to 359759, 397288	8	8	8	
103671_103674	360321, 397176 to 360450, 397855	374	688	662	
103671_R	360321, 397176	192	349	336	
103674_103671	360450, 397855 to 360321, 397176	374	688	662	
103680_87766	361164, 396931 to 360315, 397070	895	1,053	1,011	
103684_80604_01	362388, 396914 to 362233, 396904	931	1,089	1,047	
103684_81665	362388, 396914 to 364491, 397362	1,164	1,328	1,283	
103684_95008	362388, 396914 to 363491, 397911	601	656	643	
103686_103687	362027, 396507 to 361529, 396899	11	11	11	
103687_103680	361529, 396899 to 361164, 396931	817	974	933	
103687_103686_01	361529, 396899 to 362027, 396507	0	0	0	
103714_R	364936, 394898	0	0	96	Realignment
1460_2670	386234, 394897 to 365119, 393000	288	386	377	
1460_4059	386234, 394897 to 365206, 393476	426	525	515	
1460_4152	386234, 394897 to 364492, 393167	6	6	6	
1461_103714	365467, 394797 to 364936, 394898	0	0	34	Realignment
1461_103715	365467, 394797 to 365571, 393860	0	0	274	Realignment
1461_2669	365467, 394797 to 389163, 390216	294	295	295	
1461_4168	365467, 394797 to 386964, 389107	185	185	0	
1488_2669	365588, 395150 to 389163, 390216	294	295	295	
1597_2329	363943, 390930 to 363918, 390966	116	116	116	
1684_1687	387733, 393518 to 382379, 393448	210	210	210	
1684_3600	387733, 393518 to 362184, 396781	106	253	153	
1684_4149	387733, 393518 to 363078, 396017	74	74	74	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Road ID	Start and end coordinates	HDV			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
1685_2697	387370, 394183 to 368697, 393600	349	349	349	
2329_1597_01	363918, 390966 to 363943, 390930	229	229	229	
2329_2399	363918, 390966 to 363915, 391167	171	171	171	
2330_2399	363825, 391223 to 363915, 391167	168	169	168	
2330_2414_01	363825, 391223 to 376666, 388498	200	200	199	
2330_4006	363825, 391223 to 363740, 391245	177	177	177	
2330_4006_01	363825, 391223 to 363740, 391245	177	177	177	
2330_R	363825, 391223	136	136	136	
2388_2437	363003, 392989 to 389424, 390109	48	48	48	
2389_2437	363838, 393145 to 389424, 390109	8	8	8	
2405_4135	362011, 393241 to 361811, 393171	155	155	155	
2414_2330	376666, 388498 to 363825, 391223	200	200	199	
2414_2415	376666, 388498 to 376998, 389978	200	200	199	
2415_4008	376998, 389978 to 363919, 391589	200	200	199	
2417_2405	362285, 393409 to 362011, 393241	155	155	155	
2422_4135	378985, 388470 to 361811, 393171	155	155	155	
2437_2442	389424, 390109 to 363580, 392422	57	57	57	
2442_2556	363580, 392422 to 363591, 392405	57	57	57	
2502_4149	362974, 395630 to 363078, 396017	104	104	104	
2512_103714	364762, 394762 to 364936, 394898	0	0	0	Realignment
2512_2540	364762, 394762 to 364405, 394592	87	87	0	Realignment
2512_2542	364762, 394762 to 365009, 395048	262	262	0	Realignment
2512_2668	364762, 394762 to 365341, 394335	34	34	0	Realignment
2517_2842	365140, 395196 to 381854, 390875	210	210	210	
2539_2540	364011, 394362 to 364405, 394592	70	70	70	
2540_103714	364405, 394592 to 364936, 394898	0	0	87	Realignment
2541_2842	364965, 395309 to 381854, 390875	42	42	42	
2542_103714	365009, 395048 to 364936, 394898	0	0	262	Realignment
2542_2842_01	365009, 395048 to 381854, 390875	262	262	262	
2542_R	365009, 395048	131	131	66	
2556_2823	363591, 392405 to 376980, 388301	57	57	57	
2668_4001	365341, 394335 to 365860, 385010	229	327	0	
2668_4168	365341, 394335 to 386964, 389107	231	328	0	Realignment
2670_4060	365119, 393000 to 377709, 389683	288	386	377	
2697_4147	368697, 393600 to 366771, 395283	349	349	349	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Road ID	Start and end coordinates	HDV			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
3600_103684_01	362184, 396781 to 362388, 396914	760	853	792	
3600_80604	362184, 396781 to 362233, 396904	13	105	44	
3600_85989	362184, 396781 to 362102, 396541	843	844	844	
3798_85872	382773, 387262 to 366841, 393093	488	538	533	
4001_103715	365860, 385010 to 365571, 393860	0	0	274	Realignment
4001_4059	365860, 385010 to 365206, 393476	254	351	344	
4002_4060	365064, 392737 to 377709, 389683	288	386	377	
80027_80466	353821, 403592 to 356187, 401054	7,597	7,597	7,594	
80096_81633	363782, 392546 to 364030, 392649	4,339	4,588	4,537	
80097_80329	366180, 393155 to 364672, 392912	4,692	4,940	4,888	
80098_81669	367637, 393356 to 374295, 398615	4,587	4,661	4,733	
80100_81433	374323, 398610 to 367334, 393293	4,945	5,017	5,093	
80104_85834	365774, 389726 to 363689, 391647	12,176	12,778	12,797	
80107_80557	362062, 393234 to 361710, 393499	8,154	8,633	8,615	
80217_80555	358419, 396811 to 361045, 394269	7,841	8,317	8,302	
80221_85973	357650, 398017 to 356653, 399349	6,372	6,798	6,806	
80222_80418	356570, 399643 to 356390, 400636	8,325	8,752	8,759	
80223_80403	356348, 400783 to 356614, 399560	8,574	9,005	9,012	
80229_85847	364075, 391192 to 364264, 390982	8,274	8,659	8,588	
80233_80393	360963, 394383 to 358255, 396940	8,047	8,519	8,506	
80234_85848	361852, 393418 to 362834, 392602	7,448	7,923	7,905	
80329_80330	364672, 392912 to 364173, 392666	1,692	1,692	1,692	
80329_85843	364672, 392912 to 364299, 392751	2,997	3,247	3,199	
80330_85844	364173, 392666 to 363906, 392405	1,861	2,109	2,060	
80332_80229	363891, 391425 to 364075, 391192	8,274	8,659	8,588	
80393_86006	358255, 396940 to 358205, 396995	8,246	8,720	8,701	
80403_85974	356614, 399560 to 356675, 399357	8,574	9,005	9,012	
80418_80465	356390, 400636 to 356306, 400818	8,325	8,752	8,759	
80419_80108	364524, 390744 to 364803, 390536	9,926	10,509	10,532	
80429_80419	364088, 391213 to 364524, 390744	1,653	1,944	1,937	
80462_80332	363676, 391728 to 363891, 391425	1,051	1,051	1,050	
80462_85836	363676, 391728 to 363706, 391660	1	1	1	
80465_80475	356306, 400818 to 353782, 403936	7,693	7,689	7,692	
80465_87835	356306, 400818 to 356803, 402055	631	1,061	1,066	
80466_80223	356187, 401054 to 356348, 400783	8,574	9,005	9,012	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Road ID	Start and end coordinates	HDV			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
80500_95010	360462, 402417 to 371870, 380490	307	403	360	
80591_85992	360290, 397076 to 358170, 397347	1,007	1,091	1,051	
80599_103671	360311, 397133 to 360321, 397176	174	331	318	
80599_R	360311, 397133	1,211	1,411	1,364	
80604_103684	362233, 396904 to 362388, 396914	1,257	1,410	1,370	
80604_103687	362233, 396904 to 361529, 396899	814	969	929	
80604_3600_01	362233, 396904 to 362184, 396781	11	66	30	
80604_95005	362233, 396904 to 361438, 397645	265	362	320	
80617_81665	366885, 398275 to 364491, 397362	909	1,072	1,028	
81433_85877	367334, 393293 to 366926, 393182	178	182	213	
81433_85879	367334, 393293 to 366499, 393194	4,204	4,280	4,353	
81631_80096	363326, 392382 to 363782, 392546	218	219	218	
81633_85880	364030, 392649 to 366492, 393213	4,339	4,588	4,537	
81665_103684	364491, 397362 to 362388, 396914	994	1,159	1,113	
81665_80622	364491, 397362 to 366874, 398310	1,101	1,264	1,218	
81733_84347	360316, 395818 to 360302, 397054	85	85	85	
81736_82203	360295, 395798 to 360135, 395702	326	326	326	
82185_87839	356818, 402405 to 356834, 402751	656	1,085	1,089	
82186_87836	356828, 402407 to 356863, 402051	1,008	1,435	1,439	
82188_103719	360768, 400580 to 360306, 400304	0	0	714	Realignment
82188_86004	360768, 400580 to 360628, 398724	426	739	0	Realignment
82188_87863	360768, 400580 to 360502, 402343	288	310	300	
82203_85978	360135, 395702 to 359346, 395443	326	326	326	
82206_87457	357272, 398980 to 356884, 399082	601	625	613	
82208_85994	357984, 397621 to 358106, 397415	476	548	514	
84347_81733	360302, 397054 to 360316, 395818	34	34	34	
85772_85773	356668, 399076 to 356701, 399081	4,670	4,670	4,670	
85773_85973	356701, 399081 to 356653, 399349	1,955	1,967	1,961	
85773_87460	356701, 399081 to 356843, 399084	2,823	2,835	2,829	
85834_85835	363689, 391647 to 362594, 392115	2,629	2,630	2,629	
85834_85846	363689, 391647 to 363023, 392384	9,530	10,130	10,153	
85836_80332	363706, 391660 to 363891, 391425	7,230	7,610	7,543	
85837_85836	363211, 392220 to 363706, 391660	7,227	7,611	7,543	
85838_80096	363488, 392417 to 363782, 392546	4,121	4,374	4,323	
85839_80462	362523, 392265 to 363676, 391728	1,052	1,052	1,052	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Road ID	Start and end coordinates	HDV			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
85841_85842	362542, 392695 to 362309, 393036	220	333	366	
85842_80107	362309, 393036 to 362062, 393234	8,154	8,633	8,616	
85843_85840	364299, 392751 to 363272, 392314	2,828	2,831	2,831	
85844_80429	363906, 392405 to 364088, 391213	1,653	1,833	1,789	
85844_85841	363906, 392405 to 362542, 392695	207	277	275	
85846_85842	363023, 392384 to 362309, 393036	7,921	8,292	8,232	
85847_80419	364264, 390982 to 364524, 390744	8,274	8,659	8,588	
85848_81631	362834, 392602 to 363326, 392382	219	282	282	
85848_85837	362834, 392602 to 363211, 392220	7,228	7,611	7,541	
85872_3798	366841, 393093 to 382773, 387262	448	498	493	
85872_85873	366841, 393093 to 366836, 393172	488	538	533	
85873_85876_01	366836, 393172 to 366813, 393303	300	327	347	
85873_85879	366836, 393172 to 366499, 393194	341	548	460	
85874_81432	366919, 393317 to 367325, 393314	309	341	374	
85874_85877_01	366919, 393317 to 366926, 393182	218	440	347	
85876_85874_01	366813, 393303 to 366919, 393317	524	778	718	
85877_85872	366926, 393182 to 366841, 393093	448	498	493	
85877_85873_01	366926, 393182 to 366836, 393172	14	213	177	
85880_81432	366492, 393213 to 367325, 393314	4,022	4,101	4,171	
85880_85876	366492, 393213 to 366813, 393303	226	460	374	
85957_86097	357911, 397348 to 355988, 397521	1,241	1,242	1,241	
85958_85964_01	357915, 397360 to 357951, 397348	6,061	6,062	6,063	
85964_85957	357951, 397348 to 357911, 397348	4,373	4,375	4,376	
85964_85967_01	357951, 397348 to 357955, 397380	417	536	464	
85964_85996_01	357951, 397348 to 358120, 397347	8,990	8,993	8,996	
85967_85975	357955, 397380 to 357828, 397753	158	188	168	
85967_86000_01	357955, 397380 to 358075, 397402	258	347	296	
85970_87647_01	357994, 397303 to 357967, 397319	2,002	2,120	2,049	
85970_87649_01	357994, 397303 to 357963, 397286	188	187	187	
85973_80222	356653, 399349 to 356570, 399643	8,325	8,752	8,759	
85974_80394	356675, 399357 to 357784, 397863	6,538	6,965	6,971	
85974_87460	356675, 399357 to 356843, 399084	2,036	2,048	2,042	
85976_86000	357830, 397796 to 358075, 397402	504	536	516	
85976_86007	357830, 397796 to 358207, 397033	6,035	6,438	6,462	
85977_87649	358732, 395925 to 357963, 397286	317	317	317	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Road ID	Start and end coordinates	HDV			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
85993_80592	358160, 397358 to 360297, 397114	1,328	1,414	1,372	
85994_85998_01	358106, 397415 to 358103, 397387	287	323	307	
85995_85970_01	358111, 397319 to 357994, 397303	159	189	169	
85995_86007	358111, 397319 to 358207, 397033	1,808	1,897	1,846	
85996_85995_01	358120, 397347 to 358111, 397319	1,966	2,087	2,013	
85998_85996_01	358103, 397387 to 358120, 397347	734	854	780	
86000_85994	358075, 397402 to 358106, 397415	316	352	336	
86000_85998_01	358075, 397402 to 358103, 397387	446	532	491	
86004_103719	360628, 398724 to 360306, 400304	0	0	714	Realignment
86004_86005	360628, 398724 to 360744, 398569	362	675	650	
86004_95009	360628, 398724 to 359540, 399187	223	223	223	
86005_103669	360744, 398569 to 360464, 397894	330	643	617	
86005_95005	360744, 398569 to 361438, 397645	248	248	248	
86005_R	360744, 398569	235	392	379	
86006_85970	358205, 396995 to 357994, 397303	2,030	2,119	2,069	
86006_85975	358205, 396995 to 357828, 397753	6,215	6,616	6,640	
86007_80217	358207, 397033 to 358419, 396811	7,841	8,317	8,302	
86095_85958	356696, 397523 to 357915, 397360	1,089	1,089	1,088	
86099_85772	356019, 398685 to 356668, 399076	4,670	4,670	4,670	
86942_80604	360323, 397110 to 362233, 396904	1,143	1,302	1,259	
87457_87460	356884, 399082 to 356843, 399084	935	959	947	
87647_85964_01	357967, 397319 to 357951, 397348	2,131	2,252	2,178	
87649_87647_01	357963, 397286 to 357967, 397319	130	130	130	
87835_82185	356803, 402055 to 356818, 402405	656	1,085	1,089	
87838_80466	356826, 402000 to 356187, 401054	978	1,411	1,415	
87838_R	356826, 402000	830	0	1,266	Realignment
87839_82186	356834, 402751 to 356828, 402407	1,008	1,435	1,439	
95005_80604	361438, 397645 to 362233, 396904	265	362	320	
95005_95006	361438, 397645 to 362537, 398882	92	189	147	
95006_95007	362537, 398882 to 363180, 399794	96	96	96	
95006_95008	362537, 398882 to 363491, 397911	79	112	98	
95008_103684	363491, 397911 to 362388, 396914	601	656	643	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Table 9: Construction traffic flows on the site haul routes

ID	No. 40 tonne ADT	No. 20 tonne HGV	No. 40 tonne ADT (along the route)
MA05/01	0	24	0
MA05/01 (TN10a)	149	298	0
MA05/02	0	58	0
MA05/02 (TN10b)	112	224	0
MA05/03	0	63	0
MA05/04	0	23	0
MA05/05	0	13	0
MA05/06	0	24	0
MA05/07	0	22	0
MA05/09	0	16	0
MA05/10	0	47	0
MA05/11	0	37	0
MA05/11_2	0	43	0
MA05/11 (TN11)	72	144	0
MA05/12	0	40	0
MA05/12_2	0	46	0
ML_289000	0	6	221
ML_289100	0	6	221
ML_289200	0	6	221
ML_289300	0	6	221
ML_289400	0	6	221
ML_289500	0	6	221
ML_289600	0	6	221
ML_289700	0	0	221
ML_289800	0	0	35
ML_289900	0	6	35
ML_290000	0	6	35
ML_290100	0	6	144
ML_290200	0	6	114
ML_290300	0	6	114
ML_290400	0	6	114
ML_290500	0	6	114
ML_290600	0	6	114
ML_290700	0	6	114
ML_290800	0	6	114
ML_290900	0	6	260
ML_291000	0	6	226

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

ID	No. 40 tonne ADT	No. 20 tonne HGV	No. 40 tonne ADT (along the route)
ML_291100	0	6	226
ML_291200	0	6	226
ML_291300	0	6	226
ML_291400	0	6	226
ML_291500	0	6	226
ML_291600	0	6	226
ML_291700	0	6	226
ML_291800	0	6	226
ML_291900	0	6	226
ML_292000	0	6	226
ML_292100	0	6	226
ML_292200	0	6	226
ML_292300	0	6	226
ML_292400	0	8	226
ML_292500	0	0	226
ML_292600	0	24	226
ML_292700	0	24	226
ML_292800	0	7	226
ML_292900	0	7	317
ML_293000	0	7	197
ML_293100	0	7	197
ML_293200	0	7	197
ML_293300	0	7	197
ML_293400	0	0	197
ML_293500	0	6	197
ML_293600	0	6	197
ML_293700	0	6	197
ML_293800	0	6	197
ML_293900	0	6	197
ML_294000	0	6	197
ML_294100	0	6	197
ML_294200	0	6	197
ML_294300	0	6	197
ML_294400	0	6	197
ML_294500	0	6	246
ML_294600	0	6	212
ML_294700	0	6	212
ML_294800	0	6	212

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

ID	No. 40 tonne ADT	No. 20 tonne HGV	No. 40 tonne ADT (along the route)
ML_294900	0	6	212
ML_295000	0	6	212
ML_295100	0	6	212
ML_295200	0	7	212
ML_295300	0	0	212
ML_295400	0	8	212
ML_295500	0	6	212
ML_295600	0	6	212
ML_295700	0	6	212
ML_295800	0	6	212
ML_295900	0	10	212
ML_296000	0	0	212
ML_296100	0	37	423
ML_296200	0	37	215
ML_296300	0	6	215
ML_296400	0	6	215
ML_296500	0	6	215
ML_296600	0	6	215
ML_296700	0	0	215
ML_296800	0	6	215
ML_296900	0	6	215
ML_297000	0	6	215
ML_297100	0	6	215
ML_297200	0	6	215
ML_297300	0	6	215
ML_297400	0	6	215
ML_297500	0	6	191
ML_297600	0	6	191
ML_297700	0	10	191
ML_297800	0	10	188
ML_297900	0	10	188
ML_298000	0	6	188
ML_298100	0	6	188
ML_298200	0	6	188
ML_298300	0	6	188
ML_298400	0	6	188
ML_298500	0	6	188
ML_298600	0	6	188

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

ID	No. 40 tonne ADT	No. 20 tonne HGV	No. 40 tonne ADT (along the route)
ML_298700	0	6	188
ML_298800	0	6	188
ML_298900	0	6	188
ML_299000	0	6	188
ML_299100	0	6	188
ML_299200	0	6	116
ML_299300	0	6	116
ML_299400	0	6	116
ML_299500	0	6	116
ML_299600	0	6	116
ML_299700	0	6	116
ML_299800	0	6	116
ML_299900	0	0	116
ML_300000	0	6	116
ML_300100	0	6	116
ML_300200	0	12	152
ML_300300	0	11	111
ML_300400	0	11	111
ML_300500	0	16	111
ML_300600	0	14	111
ML_300700	0	10	105
ML_300800	0	10	105
ML_300900	0	12	96
ML_301000	0	12	96
ML_301100	0	17	96
ML_301200	0	22	89
ML_301300	0	22	37
ML_301400	0	22	37
ML_301500	0	22	37
ML_301600	0	22	37
ML_301700	0	22	37

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

5 Operational traffic data

- 5.1.1 Table 10 outlines the predicted flows of traffic on the highway network relating to the operation of the Proposed Scheme in 2038. The data presented is split into AADT and HDV in the 'without the Proposed Scheme' and 'with the Proposed Scheme' scenarios, together with the change between the two scenarios. It also notes whether the road will be closed, diverted or realigned permanently, due to the operation of the Proposed Scheme.

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Table 10: Traffic data used for the operational assessment

Road ID	Road name	AADT			HDV			Notes
		2038 without the Proposed Scheme	2038 with the Proposed Scheme	Change	2038 without the Proposed Scheme	2038 with the Proposed Scheme	Change	
103714_R	Wigshaw Lane	0	8,029	8,029	0	96	96	New roundabout
1461_103714		0	2,338	2,338	0	34	34	New road
1461_103715	A574 Warrington Road	0	15,722	15,722	0	187	187	New road
1461_2669	A574 Warrington Road	14,585	14,585	0	298	298	0	
1461_4168	A574 Warrington Road	15,722	438	- 15,284	187	0	-187	Road closed - access only
1488_2669	A574 Warrington Road	14,585	14,585	0	298	298	0	
1684_1687	B5207 Wilton Lane	19,914	19,914	0	211	211	0	Realignment
1684_3600	B5207 Kenyon Lane	8,224	8,224	0	107	107	0	
1684_4149	Kenyon Lane	3,635	3,635	0	75	75	0	
2502_4149	Kenyon Lane	3,097	3,097	0	109	109	0	
2512_103714	Wighsaw Lane	0	438	438	0	0	0	Realignment
2512_2540	Wigshaw Lane	15,360	0	0	88	0	-88	
2512_2542	Wigshaw Lane	13,981	0	0	264	0	-264	
2512_2668	Glaziers Lane	2,338	0	0	34	0	-34	Road closed
2517_2842	Wigshaw Lane	20,040	20,040	0	210	210	0	
2539_2540	Mustard Lane	2,693	2,693	0	72	72	0	
2540_103714		0	15,360	15,360	0	88	88	New Road
2541_2842	Hob Hey Lane	3,716	3,716	0	69	69	0	
2542_103714	Wigshaw Lane	0	13,981	13,981	0	264	264	
2542_R	Wigshaw Lane	6,990	6,990	0	132	132	0	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

Road ID	Road name	AADT			HDV			Notes
		2038 without the Proposed Scheme	2038 with the Proposed Scheme	Change	2038 without the Proposed Scheme	2038 with the Proposed Scheme	Change	
2668_103713	Glaziers Lane	0	0	0	0	0	0	Road closed and re-aligned - access only
2668_4001	A574 Warrington Road	17,313	438	- 16,875	230	0	-230	Road closed - access only
2668_4168	A574 Warrington Road	16,357	0	0	232	0	-232	Road closed
4001_103715	A574 Warrington Road	0	15,722	15,722	0	187	187	New road
4001_4059	A574 Warrington Road	16,537	16,537	0	256	256	0	Realignment
82188_103719	A573 Wigan Road	0	16,837	16,837	0	431	431	Realignment
82188_86004	A573 Wigan Road	16,837	0	0	431	0	-431	
82188_87863	A573 Wigan Road	21,186	21,186	0	290	290	0	Realignment
86004_103719	A573 Wigan Road	0	16,837	16,837	0	431	431	Realignment
86004_86005	A573 Ashton Road	17,625	17,626	1	365	365	0	
86004_95009	B5207 Ashton Road	8,283	8,283	0	224	224	0	
95005_95006	Slag Lane	14,761	14,761	0	93	93	0	Realignment
95006_95007	Slag Lane	8,534	8,534	0	96	96	0	Realignment
95006_95008	Byrom Lane	5,593	5,593	0	80	80	0	

Background Information and Data

Air quality

BID AQ-002-0MA05

MA05: Risley to Bamfurlong

Additional data used in the air quality assessment

6 References

Greater Manchester Combined Authority (2019), *2018 Air Quality Annual Status Report (ASR)*.

Available online at:

https://www.manchester.gov.uk/downloads/download/4166/air_quality_reports.

High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement, Air quality report*, Appendix AQ-001-0MA05. Available online at:

<https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

Knowsley Council (2012), *Local Development Framework Core Strategy (LDF43E)*. Available online at: [http://www.knowsley.gov.uk/pdf/LC21_StHelensLocalPlanCoreStrategy\[1\].pdf](http://www.knowsley.gov.uk/pdf/LC21_StHelensLocalPlanCoreStrategy[1].pdf).

St Helens Council (2019), *2019 Air Quality Annual Status Report (ASR)*. Available online at:

https://www.sthelens.gov.uk/media/11210/asr_st-helens_2019_final.pdf.

Warrington Borough Council (2014), *Adopted Local Plan Core Strategy*. Available online at:

<https://www.warrington.gov.uk/adopted-local-plan-2014>.

Warrington Borough Council (2019), *Warrington Proposed Submission Version Local Plan 2017 – 2037*. Available online at: https://www.warrington.gov.uk/sites/default/files/2019-09/proposed_submission_version_local_plan_v4.pdf.

Wigan Council (2013), *Local Plan. Core Strategy: Development Plan Document*. Available online at:

<https://www.wigan.gov.uk/Docs/PDF/Council/Strategies-Plans-and-Policies/Planning/Adopted-Core-Strategy.pdf>.

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

