

High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 5: Appendix TR-002-00006 – Report 7 of 7

Traffic and transport

Transport Assessment Part 2 Addendum
MA06: Hulseheath to Manchester Airport
MA07: Davenport Green to Ardwick
MA08: Manchester Piccadilly Station
(including MA04 and MA05)

High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 5: Appendix TR-002-00006 – Report 7 of 7

Traffic and transport

Transport Assessment Part 2 Addendum
MA06: Hulseheath to Manchester Airport
MA07: Davenport Green to Ardwick
MA08: Manchester Piccadilly Station
(including MA04 and MA05)



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 | TYPESA | 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, 2023, 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 100% recycled fibre.

Transport Assessment - Overall Structure

Transport Assessment Part 1 Addendum – Introduction

Part 1: Introduction (TR-001-00000)

Section 1	Introduction
Section 2	Policy and guidance
Section 3	Methodology
Section 4	Mitigation measures

Transport Assessment Part 2 Addendum – Existing and future baseline conditions

Part 2: MA01 (TR-002-00001)

Section 5	Hough to Walley's Green (MA01) <i>Section 5.1 Introduction</i> <i>Section 5.2 SES2 changes and AP2 amendments for MA01</i> <i>Section 5.3 Existing and future baseline</i>
-----------	---

Part 2: MA02 (TR-002-00002)

Section 6	Wimboldsley to Lostock Gralam (MA02) <i>Section 6.1 Introduction</i> <i>Section 6.2 SES2 changes and AP2 amendments for MA02</i> <i>Section 6.3 Existing and future baseline</i>
-----------	---

Part 2: MA03 (TR-002-00003)

Section 7	Pickmere to Agden and Hulseheath (MA03) <i>Section 7.1 Introduction</i> <i>Section 7.2 SES2 changes and AP2 amendments for MA03</i> <i>Section 7.3 Existing and future baseline</i>
-----------	--

Part 2: MA06, MA07 and MA08 (including MA04 and MA05) (TR-002-00006)

Report 1 of 7

Section 8	Broomedge to Glazebrook (MA04) <i>Section 8.1 Introduction</i> <i>Section 8.2 Existing and future baseline</i>
-----------	--

Report 2 of 7

Section 9	Risley to Bamfurlong (MA05) <i>Section 9.1 Introduction</i> <i>Section 9.2 Existing and future baseline</i>
-----------	---

Report 3 of 7

Section 10	Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08) <i>Section 10.1 Introduction</i> <i>Section 10.2 SES2 changes and AP2 amendments for MA06, MA07 and MA08</i> <i>Section 10.3 Existing and future baseline</i>
------------	--

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

SES2 and AP2 ES Volume 5

Traffic and transport

Transport Assessment Addendum

Report 4 of 7

Section 10 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
Section 10.3 Existing and future baseline - MA06 junction operation

Report 5 of 7

Section 10 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
Section 10.3 Existing and future baseline - MA07 junction operation

Report 6 of 7

Section 10 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
Section 10.3 Existing and future baseline - MA08 junction operation

Report 7 of 7

Section 10 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
Section 10.3 Existing and future baseline

Transport Assessment Part 3 Addendum – AP2 revised scheme assessment

Part 3: MA01 (TR-003-00001)

Report 1 of 2

Section 11 Hough to Walley's Green (MA01)
11.1 AP2 revised scheme construction description
11.2 AP2 revised scheme assessment of construction impacts

Report 2 of 2

Section 11 Hough to Walley's Green (MA01)
11.3 AP2 revised scheme operation description
11.4 AP2 revised scheme assessment of operation impacts

Part 3: MA02 (TR-003-00002)

Report 1 of 2

Section 12 Wimboldsley to Lostock Gralam (MA02)
12.1 AP2 revised scheme construction description
12.2 AP2 revised scheme assessment of construction impacts

Report 2 of 2

Section 12 Wimboldsley to Lostock Gralam (MA02)
12.3 AP2 revised scheme operation description
12.4 AP2 revised scheme assessment of operation impacts

Part 3: MA03 (TR-003-00003)

Report 1 of 2

Section 13 Pickmere to Agden and Hulseheath (MA03)
13.1 AP2 revised scheme construction description
13.2 AP2 revised scheme assessment of construction impacts

Report 2 of 2

Section 13 Pickmere to Agden and Hulseheath (MA03)
13.3 AP2 revised scheme operation description
13.4 AP2 revised scheme assessment of operation impacts

Part 3: MA06, MA07 and MA08 (including MA04 and MA05) (TR-003-00006)

Report 1 of 12

- Section 14 Broomeedge to Glazebrook (MA04)
14.1 AP2 revised scheme construction description
14.2 AP2 revised scheme assessment of construction impacts

Report 2 of 12

- Section 15 Risley to Bamfurlong (MA05)
15.1 AP2 revised scheme construction description
15.2 AP2 revised scheme assessment of construction impacts

Report 3 of 12

- Section 16 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
16.1 Description of AP2 revised scheme
16.2 AP2 revised scheme construction description
16.3 AP2 revised scheme assessment of construction impacts

Report 4 of 12

- Section 16 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
16.3 AP2 revised scheme assessment of construction impacts – MA06 junction performance

Report 5 of 12

- Section 16 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
16.3 AP2 revised scheme assessment of construction impacts – MA07 junction performance

Report 6 of 12

- Section 16 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
16.3 AP2 revised scheme assessment of construction impacts – MA08 junction performance

Report 7 of 12

- Section 16 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
16.3 AP2 revised scheme assessment of construction impacts

Report 8 of 12

- Section 16 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
16.4 AP2 revised scheme operation description
16.5 AP2 revised scheme assessment of operation impacts

Report 9 of 12

- Section 16 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
16.5 AP2 revised scheme assessment of operation impacts – MA06 junction performance

Report 10 of 12

- Section 16 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
16.5 AP2 revised scheme assessment of operation impacts – MA07 junction performance

Report 11 of 12

- Section 16 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
16.5 AP2 revised scheme assessment of operation impacts – MA08 junction performance

Report 12 of 12

- Section 16 Hulseheath to Manchester Piccadilly Station (MA06, MA07 and MA08)
16.5 AP2 revised scheme assessment of operation impacts

Transport Assessment Part 4 Addendum – Route-wide and off-route assessment and TA Addendum Annexes

Part 4: Route-wide and off-route assessment (TR-005-00000)

Section 17	Introduction
Section 18	Route-wide assessment
Section 19	Off-route assessment

TA Addendum Annexes C to G (TR-005-00000)

Annex C	Model performance report - Greater Manchester SATURN Model (GMSM)
Annex D	Model performance report - M6 Junction 19 Model
Annex E	Model performance report - Winsford and Middlewich Model
Annex F	Model performance report - A500 Crewe Model
Annex G	Model performance report - Northwich Traffic Model

Contents

Tables

Table 11-456: Manchester Piccadilly Station growth in daily rail passengers – baseline and future baseline	10-742
Table 11-457: Manchester Piccadilly Station growth in peak period rail passengers – baseline and future baseline	10-742

Accidents and safety

- 10.3.1401 Accidents and safety are reported in Section 11.4 of the main TA. This section of the main TA is unchanged.
- 10.3.1402 No issues have been identified for the operation of the future baseline network as a result of changes to the highway network or travel demands, and the accident and safety records for the existing baseline are assumed to provide a relevant basis for assessment.

Parking and loading

- 10.3.1403 Parking and loading are reported in Section 11.4 of the main TA.
- 10.3.1404 Since the main TA, Sunnyside Nursery School has closed and the site now sits vacant¹.
- 10.3.1405 The remainder of this section of the main TA is unchanged.

Public transport

Rail network

- 10.3.1406 The rail network is reported in Section 11.5 of the main TA. This section of the main TA is generally replaced by Section 7.3 in this document. Where there is no replacement the text in the main TA remains valid.
- 10.3.1407 Since the main TA, Manchester Piccadilly Station opening hours have changed. Manchester Piccadilly Station is now open from 03:15 to 01:00.
- 10.3.1408 Approximately 30.4 million passengers used Manchester Piccadilly Station in 2018. Table 11-456 shows corresponding daily passenger arrivals and departures of approximately 55,312 and 55,276 respectively². Table 11-457 indicates that in excess of 5,400 passengers alight from rail services in the AM peak hour (08:00–09:00), whilst in excess of 4,800 passengers board rail services. In the PM peak hour (17:00–18:00), in excess of 5,600 passengers alight from rail services, whilst in excess of 6,100 passengers board rail services.
- 10.3.1409 Table 11-456 shows the forecast growth in daily rail passengers, based on PLANET forecasts, of 17% between 2018 and 2039 and 21% between 2018 and 2051. The total daily long-distance rail passenger use is forecast to increase from 47,982 in the 2018 future baseline to 58,478 in 2039 (22% increase) and to 61,888 in 2051 (29% increase). Table 11-457 shows the corresponding growth during the peak periods.

¹ Ofsted (2018), *Sunnyside at Ashley School*, UK. Available online at: <https://reports.ofsted.gov.uk/provider/16/EY373157>.

² Department for Transport (2018), *PLANET Framework Model PFMv9.6*.

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

SES2 and AP2 ES Volume 5, Appendix: TR-002-00006

Traffic and transport

MA06, MA07 and MA08

Transport Assessment Part 2 Addendum - Report 7 of 7

Table 11-456: Manchester Piccadilly Station growth in daily rail passengers – baseline and future baseline

	Daily (16 hour) rail passengers – 2018 baseline	Daily (16 hour) rail passengers – 2039 baseline	Difference 2018 – 2039 (%)	Daily (16 hour) rail passengers – 2051 baseline	Difference 2018-2051 (%)
Boarding long distance	24,064	29,014	21%	30,695	28%
Alighting long distance	23,918	29,465	23%	31,193	30%
Total long distance	47,982	58,478	22%	61,888	29%
Boarding suburban	31,248	35,484	14%	36,504	17%
Alighting suburban	31,358	34,940	11%	35,900	14%
Total suburban	62,606	70,423	12%	72,404	16%
Total rail boarding	55,312	64,497	17%	67,199	21%
Total rail alighting	55,276	64,404	17%	67,093	21%
Total rail	110,588	128,902	17%	134,292	21%

Table 11-457: Manchester Piccadilly Station growth in peak period rail passengers – baseline and future baseline

	AM peak hour rail passengers – 2018 baseline	AM peak hour rail passengers – 2039 baseline	AM peak hour rail passengers – 2051 baseline	PM peak hour rail passengers – 2018 baseline	PM peak hour rail passengers – 2038 baseline	PM peak hour rail passengers – 2051 baseline
Boarding long distance	2,108	2,542	2,689	2,644	3,212	3,398
Alighting long distance	2,351	2,896	3,066	2,460	3,031	3,208
Total long distance	4,459	5,437	5,754	5,124	6,243	6,607
Boarding suburban	2,737	3,108	3,198	3,459	3,928	4,041
Alighting suburban	3,082	3,434	3,528	3,225	3,594	3,693
Total suburban	5,819	6,542	6,726	6,685	7,522	7,734
Total rail boarding	4,845	5,650	5,886	6,124	7,141	7,440
Total rail alighting	5,433	6,330	6,594	5,686	6,624	6,901
Total rail	10,278	11,980	12,480	11,809	13,765	14,341

	AM peak hour rail passengers – 2018 baseline	AM peak hour rail passengers – 2039 baseline	AM peak hour rail passengers – 2051 baseline	PM peak hour rail passengers – 2018 baseline	PM peak hour rail passengers – 2038 baseline	PM peak hour rail passengers – 2051 baseline
Total rail % difference from 2018 baseline	-	17%	21%	-	17%	21%

Local bus network

- 10.3.1410 Local bus services are reported in Section 11.5 of the main TA.
- 10.3.1411 Since the main TA there have been minor changes to local bus services and routes. However, since it is not possible to forecast how services may change in the future, it has been assumed that bus services for the future years of assessment will be the same as those reported in the main TA.

Public transport interchanges

- 10.3.1412 Public transport interchanges are reported in Section 11.5 of the main TA. This section of the main TA is unchanged.

Pedestrians, cyclists and equestrians

- 10.3.1413 Pedestrian, cyclists and equestrian facilities are reported in Section 11.6 of the main TA. This section of the main TA is unchanged.

Pedestrian facilities

- 10.3.1414 Pedestrian facilities are reported in Section 11.6 of the main TA.
- 10.3.1415 Since the main TA, changes to the programme of the Manchester Airport Rainbow Works scheme means that it is now expected to open after 2031. Consequently, these changes have no longer been taken into account in the 2031 future baseline, but the changes have been taken into account in the 2039 and 2051 future baseline.
- 10.3.1416 Since the main TA, the Heatons Cycle Link, the Offerton to Stockport Beeway and the Trafford Road Corridor are currently under construction. The Liverpool Street Corridor is now complete.

Cycle facilities

- 10.3.1417 Cycle facilities are reported in Section 11.6 of the main TA.

- 10.3.1418 Since the main TA, the Heatons Cycle Link, the Offerton to Stockport Beeway, the Chorlton Busy Beeway and the Trafford Road Corridor are currently under construction. The Liverpool Street Corridor is now complete.

Equestrian facilities

- 10.3.1419 Equestrian facilities are reported in Section 11.6 of the main TA. This section of the main TA is unchanged.

Waterways and canals

- 10.3.1420 Waterways and canals are reported in Section 11.7 of the main TA. This section of the main TA is unchanged.

Air transport

- 10.3.1421 Air transport is reported in Section 11.8 of the main TA. This section of the main TA is unchanged.

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