

High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area reports

MA08: Manchester Piccadilly Station

High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area reports

MA08: Manchester Piccadilly Station



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 | TYPISA | 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.

Contents

Structure of the HS2 Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement	4
1 Introduction	8
Part 1: Supplementary Environmental Statement 2	11
2 Summary of changes in the Manchester Piccadilly Station area	11
2.1 New environmental baseline information	11
2.2 Changes to the design or to construction assumptions not requiring a change to the Bill	16
2.3 Corrections to the main ES	27
3 Assessment of changes in the Manchester Piccadilly Station area	36
3.1 Introduction	36
3.2 Community	36
3.3 Ecology and biodiversity	39
3.4 Health	42
3.5 Historic environment	45
3.6 Landscape and visual	48
3.7 Socio-economics	58
3.8 Sound, noise and vibration	63
3.9 Summary of new or different likely residual significant effects as a result of the SES2 changes	71
3.10 Summary of likely residual significant effects that will be removed as a result of the SES2 changes	74
Part 2: Additional Provision 2 Environmental Statement	75
4 Summary of AP2 amendments in the Manchester Piccadilly Station area	75
4.1 Engineering amendments	75
5 Assessment of engineering amendments in the Manchester Piccadilly Station area	78
5.1 Additional land permanently required for modifications to the A635/A665 Pin Mill Brow gyratory (AP2-008-001)	78
5.2 Additional land permanently required for provision of an access ramp from the realigned B6469 Fairfield Street to the Network Rail viaduct deck at Manchester Piccadilly Station (AP2-008-002)	84
5.3 Change to Bill powers for modifications to the multi-modal transport hub (AP2-008-003)	86

5.4	Additional land permanently required for a new loading/unloading bay to provide access to the catering areas within the Network Rail facilities building at Manchester Piccadilly High Speed station (AP2-008-004)	94
5.5	Additional land permanently required for the reprovision of Blue Badge parking off the B6469 Fairfield Street (AP2-008-005)	95
5.6	Change to Bill powers for the diversion of Travis Street sewer via Ducie Street with a new compound within Ducie Street and the A665 Great Ancoats Street junction (AP2-008-006)	99
6	Construction programme	109
6.1	Introduction	109
7	Combined effects of changes and amendments in the Manchester Piccadilly Station area due to changes in traffic flows	116
7.1	Introduction	116
7.2	SES2 changes and AP2 amendments of relevance to this assessment	116
7.3	Traffic and transport	117
7.4	Air quality	170
7.5	Community	172
7.6	Ecology and biodiversity	175
7.7	Health	180
7.8	Socio-economics	182
7.9	Sound, noise and vibration	185
7.10	Summary of new or different likely residual significant effects as a result of combined effects due to changes in traffic flows	190
7.11	Summary of likely residual significant effects that will be removed	196

Tables

Table 1:	Summary of changes to the engineering or utility design not requiring a change to the Bill in the Manchester Piccadilly Station area	16
Table 2:	Summary of corrections to the main ES Volume 2 Community Area for the Manchester Piccadilly Station area	28
Table 3:	Committed developments of relevance to community during construction	38
Table 4:	Committed developments of relevance to ecology and biodiversity during construction	41
Table 5:	Committed developments of relevance to health during construction	44
Table 6:	Committed developments of relevance to socio-economics during construction	59
Table 7:	Committed developments relevant to sound, noise and vibration	64

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Table 8: Direct adverse construction effects on residential communities and shared open areas that are considered to be significant on a community basis and are new or different to those reported in the main ES	67
Table 9: Summary of AP2 amendments in the Manchester Piccadilly Station area	75
Table 10: Typical vehicle trip generation for construction compounds in the Manchester Piccadilly Station area	121
Table 11: Construction traffic routes for construction compounds in the Manchester Piccadilly Station area	122
Table 12: Construction highway interventions by scenario	125
Table 13: Junctions with changes resulting in new or different significant effects on delays to vehicle occupants and congestion, 2031	126
Table 14: Roads with changes in daily all vehicle movements (more than 30%) resulting in new or different significant effects on traffic-related severance for non-motorised users, 2031	131
Table 15: Roads with changes in daily HGV movements (more than 30%) resulting in new or different significant effects on traffic-related severance for non-motorised users, 2031	135
Table 16: Junctions with changes resulting in new or different significant effects on delays and congestion to vehicle occupants, 2039	140
Table 17: Junctions with changes resulting in new or different significant effects on delays and congestion to vehicle occupants, 2051	143
Table 18: Roads with changes in traffic flow resulting in significant effects on traffic-related severance for non-motorised users, 2039 and 2051	147
Table 19: Committed developments of relevance to community during construction	173
Table 20: Committed developments of relevance to health during construction	181
Table 21: Direct adverse operational effects on residential communities and shared open areas that are considered significant on a community basis and removed compared to those reported in the main ES	189
Table 22: Direct beneficial operational effects on residential communities and shared open areas that are considered significant on a community basis and are different compared to those reported in the main ES	189
Figures	
Figure 1: Structure of the SES2 and AP2 ES	6
Figure 2: Locations of SES2 design changes not requiring a change to the Bill in the Manchester Piccadilly Station area	19
Figure 3: Locations of AP2 amendments in the Manchester Piccadilly Station area	77
Figure 4: Indicative construction programme for the SES2 and AP2 ES compared to the main ES	110

Structure of the HS2 Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

This report is part of the suite of documents that make up the SES2 and AP2 ES for the High Speed Rail (Crewe – Manchester) Bill. The SES2 and the AP2 ES are separate documents; however, they are bound together and presented in a number of volumes shown in Figure 1 and described below:

- **Non-technical summary (NTS).** This provides a summary in non-technical language of the SES2 (Part 1) and the AP2 ES (Part 2). It presents a summary of any likely residual significant environmental effects (i.e. effects which are likely to remain after mitigation measures are put in place), both beneficial and adverse, which are new, different or have been removed compared to those reported in the main ES or the SES1 and AP1 ES, where relevant;
- **Glossary of terms, list of abbreviations and references.** This contains any terms and abbreviations used throughout the SES2 and the AP2 ES, and provides all references cited in each of the volumes listed below;
- **Volume 1: Introduction to the SES2 and the AP2 ES.** This introduces the supplementary environmental information and changes to the design and to the construction assumptions included within the SES2 and amendments within the AP2 ES. The report explains the environmental impact assessment (EIA) process which has been applied;
- **Volume 2: Community area reports and map books.** These report the supplementary environmental information and changes to the design and to the construction assumptions included within the SES2 (Part 1), amendments within the AP2 ES (Part 2) and any new, different or removed likely significant environmental effects arising from these changes and amendments in the following community areas:
 - MA01: Hough to Walley's Green;
 - MA02: Wimboldsley to Lostock Gralam;
 - MA03: Pickmere to Agden and Hulseheath;
 - MA06: Hulseheath to Manchester Airport;
 - MA07: Davenport Green to Ardwick; and
 - MA08: Manchester Piccadilly Station.
- Note, through the SES1, the removal of the HS2 West Coast Main Line (WCML) connection, included in the original scheme, has removed the community areas of Broomedge to Glazebrook (MA04) and Risley to Bamfurlong (MA05) from the HS2 Phase 2b Western Leg. Where changes in the combined traffic assessment result in effects that would have been reported in these two community areas, they are instead reported in the Hulseheath to Manchester Airport (MA06) community area report;

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

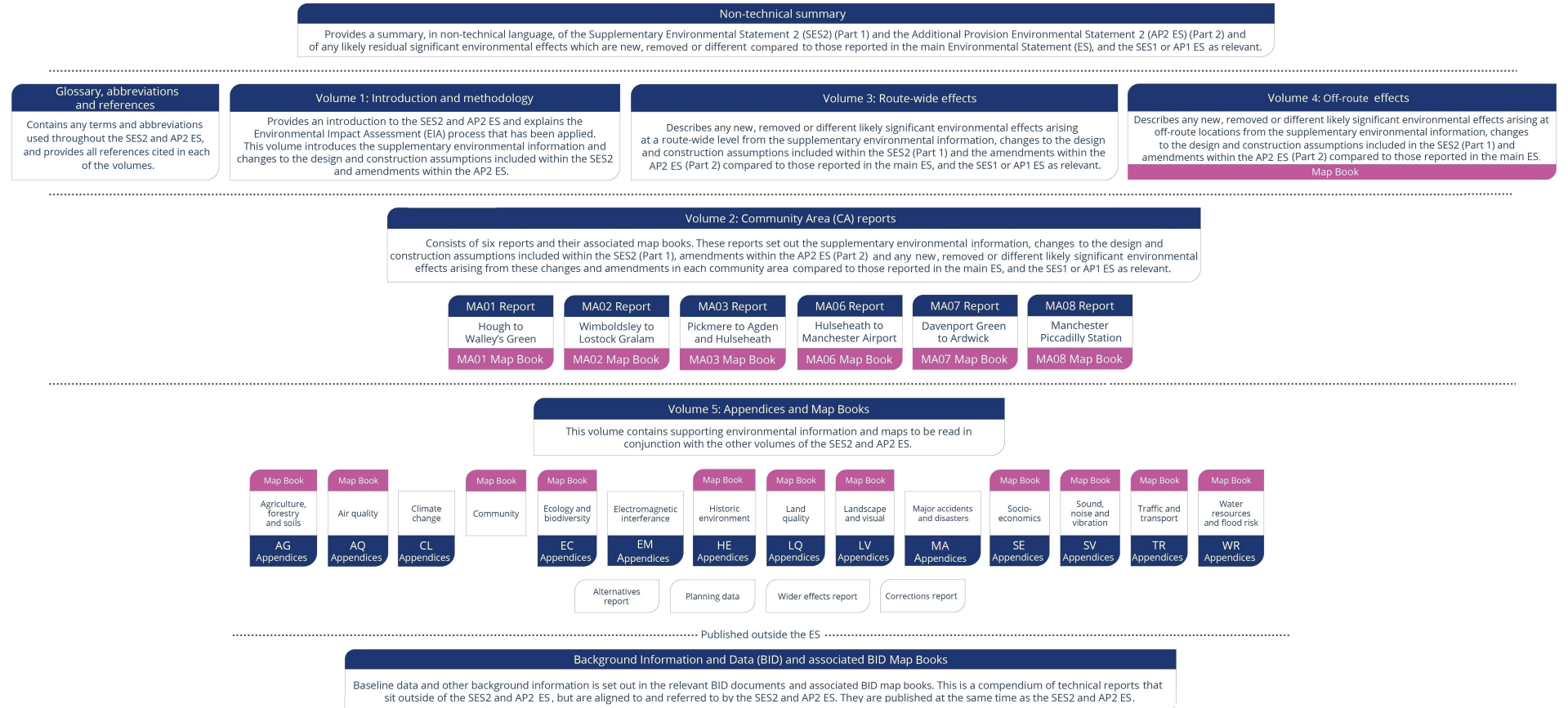
Volume 2: Community Area report MA08 Manchester Piccadilly Station

- The environmental effects in the Volume 2 reports are compared to those reported in the main ES, the SES1 or AP1 ES as relevant. The maps relevant to each community area are provided in separate Volume 2 map books and should be read in conjunction with the relevant community area report;
- **Volume 3: Route-wide effects.** This describes any new, different or removed likely significant environmental effects arising at a route-wide level from the supplementary environmental information and changes to the design and to the construction assumptions included within the SES2 (Part 1) and the amendments within the AP2 ES (Part 2) compared to those reported in the main ES, the SES1 or AP1 ES as relevant;
- **Volume 4: Off-route effects.** Describes any new, different or removed likely significant environmental effects arising at locations beyond the route corridor between Crewe and Manchester from the supplementary environmental information, changes to the design and construction assumptions included in the SES2 (Part 1) and amendments within the AP2 (Part 2) compared to those reported in the main ES; and
- **Volume 5: Appendices and map books.** These contain supporting environmental information and associated maps.
- Certain reports and maps containing background information and data (BID) have been produced, which do not form part of the SES2 and AP2 ES. These documents are available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-2-and-additional-provision-2-environmental-statement>. The BID documents and maps present background survey information and other relevant background material.

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Figure 1: Structure of the SES2 and AP2 ES



Structure of this report

This volume of the SES2 and AP2 ES is divided into Community Area (CA) reports. Each of these reports is in turn divided into two parts.

Part 1 (SES2) provides supplementary environmental information, where relevant, relating to:

- new baseline information with respect to environmental surveys completed and additional information received since the production of the main ES and the SES1 and AP1 ES;
- changes to the design and construction assumptions that do not require changes to the Bill; and
- corrections to the main ES and the SES1 and AP1 ES.

Part 2 (AP2 ES) provides environmental assessment information relating to proposed amendments to the design that have resulted in the need to alter the powers conferred by the Bill and the Additional Provisions to the Bill.

Parts 1 and 2 also include the following, where relevant:

- a description of the SES2 changes (Part 1) or the proposed AP2 amendments (Part 2) within the community area that have triggered the need for reassessment;
- an assessment of the environmental effects of the SES2 changes (Part 1) or the proposed AP2 amendments (Part 2) for relevant environmental topics, considering the:
 - scope, assumptions and limitations of the assessment;
 - environmental baseline;
 - effects arising during construction;
 - effects arising from operation; and
 - mitigation and residual effects;
- a summary of any new, removed or different likely residual significant effects as a result of the SES2 changes (Part 1) and the proposed AP2 amendments (Part 2) compared to those reported in the main ES and the SES1 and AP1 ES (as relevant).

1 Introduction

- 1.1.1 The High Speed Rail (Crewe – Manchester) Bill was submitted to Parliament together with an Environmental Statement ('the main ES') in January 2022. The SES1 and AP1 ES, which was submitted in July 2022, updated the main ES and contained changes and amendments to the design of the original scheme (i.e. the scheme submitted in January 2022) for the following community areas:
- MA01: Hough to Walley's Green;
 - MA02: Wimboldsley to Lostock Gralam;
 - MA03: Pickmere to Agden and Hulseheath;
 - MA04: Broomedge to Glazebrook; and
 - MA05: Risley to Bamfurlong.
- 1.1.2 The Bill and the Additional Provisions to the Bill, if enacted by Parliament, will provide the powers to construct, operate and maintain the HS2 Phase 2b Western Leg.
- 1.1.3 Since submission of the main ES and SES1 and AP1 ES, a number of further updates or changes to environmental baseline information, to the design and to construction assumptions have occurred, which may lead to new, removed or different significant effects. These effects, depending on the type of change, are reported in the SES2 or the AP2 ES, which form Part 1 and Part 2 of this report respectively.
- 1.1.4 The SES2 (Part 1) contains updated environmental baseline information and scheme information relating to changes within the current limits and powers of the Bill, which therefore do not require an Additional Provision to the Bill. The SES2 changes within the Manchester Piccadilly Station area include:
- additional environmental baseline information (which may be relevant to the SES2 scheme and/or AP2 revised scheme) for: air quality; ecology and biodiversity; historic environment; land quality; socio-economics; sound, noise and vibration; traffic and transport; and water resources and flood risk;
 - changes to the design and to construction assumptions that do not require changes to the Bill; and
 - corrections to the main ES and the SES1 and AP1 ES.
- 1.1.5 These changes are described in Part 1 and are assessed on a topic by topic basis, where relevant.
- 1.1.6 The purpose of the SES2 is to describe the assessment and identify any new, removed or different likely significant environmental effects arising from the changes. These will be compared to the main ES or SES1 as relevant for each topic assessment.
- 1.1.7 The AP2 ES (Part 2) describes the likely significant effects of amendments to the design of the scheme which require the use of land outside the original limits of the Bill, additional

access rights or other extensions to the powers conferred by the Bill, making it necessary to submit an Additional Provision to the Bill.

- 1.1.8 The AP2 ES reports the assessment of each amendment separately for all relevant topics. The purpose of the AP2 ES is to provide an assessment of any new, removed or different likely significant environmental effects arising from the amendments, as compared to the main ES, the SES1 or the SES2 as relevant. Consideration is also given to the interaction between AP1 amendments and AP2 amendments, where relevant.
- 1.1.9 A combined assessment of new, removed or different significant construction and operation traffic and traffic related effects, as a result of changes in traffic flows, is reported in Section 7. This is because alterations in traffic flows cannot generally be directly attributed to particular SES2 changes or AP2 amendments. Traffic and transport effects are reported first, since the effects arise from changes in traffic flows. Other topics affected by traffic and transport changes are then reported, as necessary.
- 1.1.10 All other new, removed or different significant traffic and transport effects are reported with the relevant SES2 change or AP2 amendment section of this report.
- 1.1.11 The standard measures that will be used to mitigate likely significant adverse environmental effects during construction and operation of the scheme are described in Section 9 of Volume 1 of the main ES and in the draft Code of Construction Practice (CoCP)¹ submitted in support of the Bill. Implementation of these measures has been assumed in this SES2 and AP2 ES.
- 1.1.12 In order to differentiate between the original proposals assessed as part of the main ES and subsequent changes, the following terms are used throughout the SES2 and the AP2 ES to define the scheme:
- ‘the SES1 scheme’ – the original scheme with any changes described in SES1 that are within the existing powers of the Bill;
 - ‘the AP1 revised scheme’ – the original scheme as amended by SES1 changes and AP1 amendments;
 - ‘the SES2 scheme’ – the original scheme with any changes described in SES1 (submitted in July 2022) and SES2; and
 - ‘the AP2 revised scheme’ – the original scheme as amended by SES1 changes, SES2 changes and AP2 amendments.

¹ High Speed Two Ltd (2022), High Speed Rail (Crewe - Manchester), *Environmental Statement, draft Code of Construction Practice*, Volume 5, Appendix: CT-002-00000. Available online at: <https://www.gov.uk/government/collections/cross-topic-technical-appendices-for-high-speed-rail-crewe-manchester-environmental-statement#draft-code-of-construction-practice>.

1.1.13 The following terms are used to differentiate between changes included in the SES2 and those included in the AP2 ES:

- ‘SES2 design changes’ – changes to the scheme design reported in the SES2 that do not require additional powers;
- ‘SES2 changes’ – all changes reported in the SES2 that do not require additional powers. This may include new baseline information, changes to the design and to construction assumptions, and corrections; and
- ‘AP2 amendments’ – amendments to the scheme reported in the AP2 ES that include requirements for additional powers in the Bill.

1.1.14 In addition, the following terms are used in the SES2 and AP2 ES, where relevant:

- ‘SES1 design changes’ – changes to the scheme design reported in the SES1 that do not require additional powers;
- ‘SES1 changes’ – all changes reported in the SES1 that do not require additional powers. These may include new baseline information, changes to the design and construction assumptions, and corrections; and
- ‘AP1 amendments’ – amendments to the scheme reported in the AP1 ES that include requirements for additional powers in the Bill.

Part 1: Supplementary Environmental Statement 2

2 Summary of changes in the Manchester Piccadilly Station area

2.1 New environmental baseline information

- 2.1.1 Since the main ES, updates to the environmental baseline information have occurred which may lead to new or different significant effects.
- 2.1.2 An update to the baseline information for traffic and transport effects is reported first, since this has implications for other topics. The other topics where updated baseline information may lead to new or different significant effects are then reported, in the following sequence:
- air quality;
 - ecology and biodiversity;
 - historic environment;
 - land quality;
 - socio-economics;
 - sound, noise and vibration; and
 - water resources and flood risk.

Traffic and transport

- 2.1.3 Since the main ES, additional traffic information has been used in the development of updated baseline and future baseline models for the SES2 scheme and AP2 revised scheme in the Manchester Piccadilly Station area. This includes traffic data from National Highways and Transport for Greater Manchester (TfGM) and Trafficmaster journey time data from the Department for Transport (DfT), as set out in the Background Information and Data (BID)² report BID TR-004-00001 SES2 and AP2 ES. This data has been combined with the

² High Speed Two Ltd (2023), High Speed Rail (Crewe – Manchester), *Background Information and Data accompanying Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement, Transport Assessment policy and data*, BID TR-004-00001 SES2 and AP2 ES. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-2-and-additional-provision-2-environmental-statement>.

information collected for local junction modelling set out in the BID³ report BID TR-004-00001 which accompanied the main ES.

- 2.1.4 The baseline and future baseline models have been updated for the assessment of the SES2 scheme and AP2 revised scheme to reflect:
- additional traffic information outlined above;
 - refinement of network coding to improve model performance in key areas of interest;
 - inclusion of recently committed or completed transport schemes and development proposals that have come forward since the models used in the assessment reported in the main ES were developed;
 - refinements to future baseline traffic demand to reflect changes to future growth patterns and the release of updated road traffic forecasts by the DfT since the models used in the assessment reported in the main ES were developed;
 - the change in the future baseline forecast years from 2030 to 2031, 2038 to 2039 and 2046 to 2051; and
 - updates to transport model parameters to reflect the July 2020 release of the DfT's Transport Analysis Guidance (TAG) data book.
- 2.1.5 In addition, the Planet Framework Model (PFM) future baseline has been updated for the SES2 and AP2 ES from PFM9.6, which was used in the assessment of the original scheme, to PFM10A. Changes from PFM9.6 to PFM10A reflect updated data including revised population and employment estimates.
- 2.1.6 The assessment of the changes to traffic flows associated with the updated baseline and future baseline models in combination with all SES2 design changes and AP2 amendments is reported in Section 7 of this report.

Air quality

- 2.1.7 Road traffic data, as discussed in Section 7, and air quality assessment years have been updated for both construction (2026 as a worst case earliest construction year) and operation (2039) for the Manchester Piccadilly Station area. Details of the additional traffic data and associated background air pollution concentrations in this area are provided in the BID⁴ document AQ-002-0MA08 SES2 and AP2 ES, SES2 and AP2 ES Volume 5, Appendix: AQ-001-0MA08 and SES2 and AP2 ES Volume 5, Air Quality Map Book: Map Series AQ-01 Monitoring Locations and Receptors.

³ High Speed Two Ltd (2022), High Speed Rail (Crewe - Manchester), *Background Information and Data, Transport Assessment policy and data report*, BID TR-004-00001. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

⁴ High Speed Two Ltd (2023), High Speed Rail (Crewe - Manchester), *Background Information and Data, Additional data used in the air quality assessment*. Available online at: <https://www.gov.uk/government/collections/hs2-phase2b-crewe-manchester-environmental-statement>.

Ecology and biodiversity

- 2.1.8 Since the main ES, additional bat surveys have been completed in the Manchester Piccadilly Station area. Details of additional ecological surveys completed in the Manchester Piccadilly Station area are provided in BID documents⁵ BID EC-011-00000 and BID Ecology Map Book⁶: Map Series EC-05 EC-06 and EC-11, which accompany the SES2 and AP2 ES.
- 2.1.9 Additional effects significant at the local/parish level that are likely to occur as a consequence of changes to the SES2 baseline and AP2 amendments are identified in SES2 and AP2 ES Volume 5, Appendix: EC-015-00000.
- 2.1.10 Detailed supplementary ecological information that is relevant to the SES2 assessment is provided in Section 3.

Historic environment

- 2.1.11 The historic environment baseline information is as described in Volume 2, Community Area report: Manchester Piccadilly Station (MA08) of the main ES.
- 2.1.12 Details of additional historic environment baseline are provided in SES2 and AP2 ES Volume 5, Appendix: HE-002-00000 and BID HE-001-00000 SES2 and AP2 ES.
- 2.1.13 The baseline information for two assets has been updated as a result of additional surveys.
- 2.1.14 The Train shed and undercroft at Manchester Piccadilly Station (MA08_0476) is a Grade II listed building of moderate value, located within the land required for the SES2 scheme. The heritage value of the asset is derived from its historic and architectural interest. Additional surveys have further revealed remains of the brick undercroft and retaining wall to Store Street. These provide further archaeological interest to that previously detailed in the main ES.
- 2.1.15 The Goods Shed (site of) (MA08_0686) is a non-designated asset of low value, located within the land required for the SES2 scheme. The heritage value of the asset is derived from its archaeological remains. Additional surveys have indicated that the surviving brick remains of the former Goods Shed have been incorporated into the foundations of Gateway House (MA08_0999). This provides further archaeological interest to that previously detailed in the

⁵ High Speed Two Ltd (2023), High Speed Rail (Crewe – Manchester), *Background Information and Data accompanying Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement, Ecology and biodiversity baseline data*. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-2-and-additional-provision-2-environmental-statement>.

⁶ High Speed Two Ltd (2023), High Speed Rail (Crewe – Manchester), *Background Information and Data accompanying Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement, Ecology Map Book*. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-2-and-additional-provision-2-environmental-statement>.

main ES. The Goods Shed also has group value with the Grade II listed Train shed and undercroft at Manchester Piccadilly Station (MA08_0476).

- 2.1.16 Since the main ES, Gateway House (MA08_0999) has been identified as a non-designated asset of low value located within the land required for the SES2 scheme. This has been included in the historic environment baseline for the SES2 scheme. Gateway House has architectural and historical interest due to its modernist style and association with architect Richard Seifert, who was best known for designing the NatWest Tower in London.

Land quality

- 2.1.17 Environmental regulatory data has been updated. This data includes information on pollution incidents, radioactive and hazardous substances consents, environmental permits (previously integrated pollution control and integrated pollution prevention and control licences) and ecological receptors.
- 2.1.18 In the Manchester Piccadilly Station area (MA08), this includes three additional discharge consents to surface water associated with sewage discharge and two additional radioactive consents within the study area.
- 2.1.19 Further details of these are presented in the BID⁷ report (BID LQ-002-00000 SES2 and AP2 ES). No new, different or removed significant effects have been identified.

Socio-economics

- 2.1.20 Since the main ES, the following baseline information has been updated:
- datasets reflecting changes to the business and labour market from the Office for National Statistics (ONS), namely:
 - UK Business Counts (UKBC) (January – December 2021);
 - Business Register and Employment Survey (BRES) (January – December 2021); and
 - Annual Population Survey (APS) (January – December 2021).
 - vacancy rates for industrial and warehousing property and for office space, with information supplied by Estates Gazette.
- 2.1.21 A review of local authority level employment land reports has been undertaken.
- 2.1.22 This baseline information has been considered, where relevant, in the assessment and is presented in the SES2 and AP2 ES Volume 5, Appendix: SE-001-00000, Updated socio-economic baseline information.

⁷ High Speed Two Ltd (2023), High Speed Rail (Crewe – Manchester), *Background Information and Data accompanying Supplementary Environmental Statement and Additional Provision 2 Environmental Statement, Land quality baseline data*, BID LQ-002-00000 SES2 and AP2 ES. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-2-and-additional-provision-2-environmental-statement>.

Sound, noise and vibration

2.1.23 Road traffic information, such as flows and speeds, is used to determine the baseline sound levels. Additional road traffic information has been obtained for the SES2 scheme and AP2 revised scheme. Where relevant, this road traffic information has been used to update the existing and future baseline sound modelling. Details of the updated baseline information that is relevant to the assessment are provided in SES2 and AP2 ES Volume 5, Appendix: SV-002-00000.

Water resources and flood risk

2.1.24 Since the main ES, the Environment Agency has issued updated datasets for groundwater source protection zones (SPZ), discharge consents and licensed water abstractions. However, these updated datasets do not introduce any new water receptors or change existing receptors for the water resources and groundwater flood risk topics in the Manchester Piccadilly Station area. For the SES2 scheme, the additional data does not result in any new or different significant effects compared to the main ES.

2.1.25 In July 2021, the Environment Agency published revised guidance and climate change allowances for peak river flows to reflect the UK Climate Projections 2018 (UKCP18)⁸. In May 2022 updated peak rainfall intensity allowances were published by the Environment Agency using UKCP local projections of extreme rainfall⁸. Further details are provided in the SES2 and AP2 ES Volume 5, Appendix: CT-001-00005 - Water resources and flood risk technical note – Updated guidance on flood risk assessment. The main changes to the guidance of relevance to the SES2 and AP2 ES are:

- peak river flow and rainfall intensity allowances are given for ‘management catchments’ instead of river basin districts. The smaller geographical units better reflect variability of the catchment response to climate change impact;
- the ‘Higher central’ allowance should be used for catchments which contain ‘essential infrastructure’, elsewhere the ‘Central’ allowance should be used; and
- the ‘Upper end’ peak rainfall intensity allowance should be used for all development with a lifespan beyond 2100.

2.1.26 This information has been used in the water resources and flood risk assessment undertaken for the SES2 changes and AP2 amendments, where relevant.

⁸ Environment Agency (2022), *Flood risk assessments: climate change allowances*. Available online at: <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>.

2.2 Changes to the design or to construction assumptions not requiring a change to the Bill

Introduction

2.2.1 The following have been identified for the Manchester Piccadilly Station area:

- changes to construction assumptions;
- changes to the construction programme; and
- design changes.

2.2.2 These changes, which are described below, do not require a change to the Bill.

Changes to construction assumptions

2.2.3 The main ES provided indicative details of the construction works to be managed from the construction compounds in the area – see Section 2 of Volume 2, Community Area report: Manchester Piccadilly Station (MA08) of the main ES. The information included the duration of works, number of workers and a summary of the works to be undertaken. A construction programme was also provided, which included indicative periods for each of the core construction activities.

2.2.4 A route-wide review of earthworks and the movement of materials has been undertaken since the main ES. Changes to assumed construction methods have also been made. The review and the changes have resulted in the need to alter the indicative construction programme. The revised programme is provided in Section 6 and described in Section 3 of the SES2 and Section 5 of the AP2 ES.

2.2.5 There will be no changes to the construction workforce at compounds as a result of the AP2 revised scheme. An assessment of socio-economic effects on employment at a route-wide level is reported in Volume 3 of the SES2 and AP2 ES.

SES2 engineering design changes

2.2.6 Table 1 provides a summary of the SES2 design changes which result in new or different significant effects in the Manchester Piccadilly Station area. Table 1 shows the locations of these changes.

2.2.7 Please note that all dimensions in the following sections are approximate.

Table 1: Summary of changes to the engineering or utility design not requiring a change to the Bill in the Manchester Piccadilly Station area

Name of the SES2 design change	Description of the original scheme	Description of the SES2 scheme
Provision of a 6.6kV underground cable between the existing Electricity North West Primary	As part of the original scheme, utilities and drainage requirements for the Piccadilly Metrolink stop	A new connection point will be required to supply the Piccadilly Metrolink stop. A new supply will be

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Name of the SES2 design change	Description of the original scheme	Description of the SES2 scheme
<p>Substation and the relocated Piccadilly Metrolink stop beneath Manchester Piccadilly High Speed station</p> <p>SES2-008-001</p> <p>Map CT-05-365b, F5 to J5 and map CT-06-365b, F5 to J5, in the SES2 and AP2 ES Volume 2, MA08 Map Book</p>	<p>would be relocated. The electrical connection would be taken from the existing Metrolink Substation off the B6469 Fairfield Street and the other utilities would be supplied from the diverted supplies in New Sheffield Street.</p>	<p>taken from the proposed Electricity North West Limited substation located in the Ardwick area, requiring a new 1.3km long 6.6kV underground cable.</p>
<p>Alterations to the pier structures beneath Piccadilly approach viaduct and gyratory northbound highway alignment</p> <p>SES2-008-002</p> <p>Map CT-05-365b, D5 to F6 and map CT-06-365b, D4 to F6, in the SES2 and AP2 ES Volume 2, MA08 Map Book</p>	<p>Realignment of the A635 Mancunian Way northbound carriageway within the footprint of the existing road for 307m, crossing the route of the original scheme under the Piccadilly approach viaduct.</p>	<p>The Piccadilly approach viaduct piers will be reconfigured, reducing the number of piers by one. The A635 Mancunian Way northbound carriageway will be realigned to accommodate the resultant change in pier spacing.</p>
<p>Relocation of North Block comprising Network Rail facilities at Manchester Piccadilly High Speed station</p> <p>SES2-008-003</p> <p>Map CT-05-365b, G5 to H5 and map CT-06-365b, G5 to H5, in the SES2 and AP2 ES Volume 2, MA08 Map Book</p>	<p>The existing North Block, comprising Network Rail facilities, would be relocated from its current location north-west of the existing Manchester Piccadilly Station to above the existing Network Rail relay room.</p>	<p>Construction of a new North Block building on the existing Network Rail viaduct deck, 16m west of the existing Relay Room. The new North Block building, comprising Network Rail facilities, will incorporate the existing Network Rail catering facilities into the ground floor at viaduct level.</p>
<p>Relocation of six substations at Manchester Piccadilly High Speed station</p> <p>SES2-008-004</p> <p>Map CT-05-365b, I6 and map CT-06-365b, I6, in the SES2 and AP2 ES Volume 2, MA08 Map Book</p>	<p>Six Electricity North West substations in the Piccadilly area (Sheffield Street; Piccadilly Station; Boad Street; Generator (associated with Boad Street Substation); Gateway House and Store Street) will be relocated to an area off Store Street, outside the footprint of the Manchester Piccadilly High Speed station.</p>	<p>The substations located at Sheffield Street, Manchester Piccadilly Station and Store Street will be relocated as described in the main ES.</p> <p>The relocation and alteration of the substation on Boad Street and its associated generator will be removed from the SES2 scheme.</p> <p>An additional substation, Railway Tower Substation, located in the Store Steet underpass will be re-provided to an area off Store Street. In addition, a Network Rail Switch Room, located in the substation rooms beneath the Manchester Piccadilly Station, will be re-provided within the Piccadilly Station basement.</p>

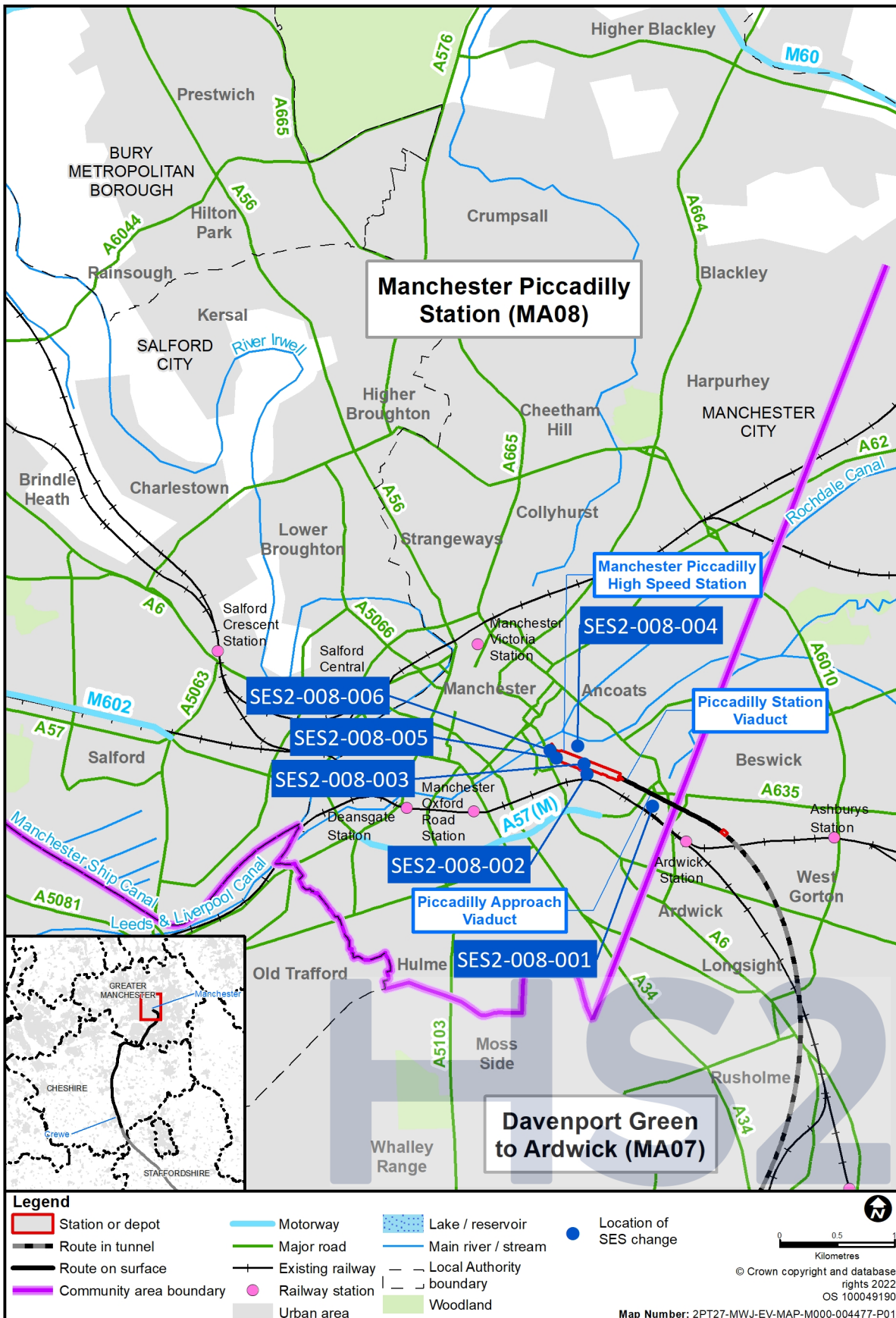
Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Name of the SES2 design change	Description of the original scheme	Description of the SES2 scheme
		<p>In the event Gateway House is demolished, the Gateway House Substation will be decommissioned.</p> <p>In the event Gateway House is not demolished, the Gateway House substation will be relocated to an area off Store Street, outside the footprint of the Manchester Piccadilly High Speed station.</p>
<p>Change to requirement/assessment assumption for the demolition of Gateway House</p> <p>SES2-008-005</p> <p>Map CT-05-365b, I5 to J6 and map CT-06-365b, I5 to J6, in the SES2 and AP2 ES Volume 2, MA08 Map Book</p>	<p>Although the Bill provides demolition powers, it is assumed in the main ES that Gateway House would be retained in its current location.</p>	<p>Since the main ES, it has been identified that there is the potential requirement to demolish Gateway House, however this would be a worst case scenario.</p>
<p>Provision of a 60m section of water main at Store Street</p> <p>SES2-008-006</p> <p>Map CT-05-365b, I6 and map CT-06-365b, I6, in the SES2 and AP2 ES Volume 2, MA08 Map Book</p>	<p>The original scheme provides for the permanent diversion or decommissioning of minor utilities along Store Street, they include:</p> <ul style="list-style-type: none"> • Electricity North West electricity cables; • Vodafone, Openreach, Instalcoms, Sky, Level 3 and Virgin telecommunications cables; • United Utilities wastewater sewers and potable water main; and • a Cadent gas main. 	<p>A new section of water main is required in order to maintain supply of water to the existing Manchester Piccadilly Station during the construction and operation of the proposed Manchester Piccadilly High Speed station.</p>

Figure 2: Locations of SES2 design changes not requiring a change to the Bill in the Manchester Piccadilly Station area



Provision of a 6.6kV underground cable between the existing Electricity North West Primary Substation and the relocated Piccadilly Metrolink stop beneath Manchester Piccadilly High Speed station (SES2-008-001)

- 2.2.8 The Bill identified connection points for utility requirements for the Piccadilly Metrolink stop, relocated as part of the original scheme. The electrical connection would be taken from the existing Metrolink Substation off the B6469 Fairfield Street (in the Manchester Piccadilly Station) and the other utilities would be supplied from the diverted supplies in New Sheffield Street (see Volume 2, MA08 Map Book: map CT-06-365b in the main ES).
- 2.2.9 Drainage for the relocated Piccadilly Metrolink stop was not included in the original scheme.
- 2.2.10 Since the main ES, further stakeholder engagement with Electricity North West Limited (ENWL) has identified that the existing Metrolink Substation will not be suitable for supplying the relocated Piccadilly Metrolink stop. This has resulted in the need to identify a new connection point. The new supply will be taken from the proposed ENWL Primary substation, which is to be relocated in Ardwick as part of amendment AP2-007-008 (Additional land permanently required for changes to design elements managed by the Manchester tunnel north portal main compound) (see SES2 and AP2 ES Volume 2, MA07 Map Book: map CT-05-364 I5 to J3 and CT-05-365a, A4 to D6). A new 1.3km section of 6.6kV underground cabling will be installed within existing or new public highways between the ENWL Primary substation and the relocated Piccadilly Metrolink stop.
- 2.2.11 Additionally, since the main ES, the design for surface water drainage for Manchester Piccadilly High Speed station has been developed. The surface water drainage is split into three different catchment areas: Piccadilly Central Metrolink stop to the east of the Manchester Piccadilly High Speed station; the Ashton line connection retained cutting; and the box structure associated with the relocated Piccadilly Metrolink stop.
- 2.2.12 The design change consists of the following, with references to the SES2 and AP2 ES Volume 2, MA08 Map Book:
- a new 1.3km section of 6.6kV underground cabling will be installed within existing or new public highways between the ENWL Primary substation and the relocated Piccadilly Metrolink stop (see map CT-06-365b, F5 to F6);
 - the drainage design within the Piccadilly Central Metrolink stop catchment will provide drains to connect surface water flows to a new underground attenuation tank. The attenuation tank will be located beneath New Sheffield Street on the north side of Manchester Piccadilly High Speed station and will attenuate surface water flows prior to discharging to a diverted combined sewer along New Sheffield Street which is included as part of the original scheme (see map CT-06-365b, F5 to F6);
 - the drainage within the Ashton Line connection catchment will capture surface water flows from the Metrolink track to the north of Manchester Piccadilly High Speed station. Surface water flows will be connected via drains to a new underground attenuation tank

located 4m west of Portugal Street East and will discharge to a diverted wastewater sewer along Chapeltown Street which was included as part of the original scheme (see map CT-06-365b, G6);

- the drainage within the relocated Piccadilly Metrolink stop catchment will capture water flows used for firefighting (fire water flows) in concrete channels and will then drain via pipes within the basement. Flows will be controlled via a new underground attenuation tank located adjacent to the Aston Line connection and Portugal Street East. Fire water flows will then be pumped up from the basement level to discharge to the New Chapeltown Street wastewater sewer which is included in the original scheme (see map CT-06-365b, G6); and
- provision for a grated channel or other interception feature will be installed at the A6 London Road Metrolink entrance to prevent water entering the Metrolink basement in the event of a burst main. The provision for a piped outfall connection to a combined sewer along the A6 London Road will also be included as part of the SES2 scheme (see map CT-06-365b, I5 to J5).

2.2.13 This design change will be constructed from the Manchester Piccadilly High Speed station within the revised programme provided in Section 6.

Topics included in the SES2 assessment

2.2.14 The design change is not considered to require a reassessment of the environmental effects or mitigation as set out in the main ES with respect to any environmental topics.

2.2.15 A combined assessment of new or different significant traffic and traffic related effects, as a result of changes in traffic flows, is reported in Section 7. Topics where a significant effect has been identified due to changes to traffic flows are reported in Section 7 and include: air quality; community; ecology and biodiversity; health; sound, noise and vibration; and traffic and transport.

Alterations to the pier structures beneath Piccadilly approach viaduct and gyratory northbound highway alignment (SES2-008-002)

2.2.16 The Bill provides for the Piccadilly approach viaduct. The Bill also provides for the realignment of the A635 Mancunian Way northbound carriageway within the footprint of the existing road for 307m, crossing the route of the original scheme under the Piccadilly approach viaduct (see Volume 2, MA08 Map Book: map CT-06-365b in the main ES).

2.2.17 Since the main ES, further design development on the station throat has led to the reconfiguring of the piers of Piccadilly approach viaduct. The A635 Mancunian Way northbound carriageway will be realigned to accommodate the resultant change in pier spacing. The carriageway will be moved 4m west and the radius of the highway curve will be widened by 10m north of the Piccadilly approach viaduct to improve visibility for users.

- 2.2.18 The design change consists of the following (with references to the SES2 and AP2 ES Volume 2, MA08 Map Book):
- the spacing between the Piccadilly approach viaduct piers will be reconfigured to accommodate the structure expansion gaps, reducing the number of piers by one (see map CT-06-365b, D5 to F6);
 - the proposed depth of the deck will be increased by a maximum of 0.45m (see map CT-06-365b, D5 to F6);
 - the A635 Mancunian Way northbound carriageway will be moved 4m west of its current alignment to avoid a viaduct pier. The radius of the curve of the A635 Mancunian Way northbound carriageway will be widened by 10m to the north of the Piccadilly approach viaduct (see map CT-06-365b, E6);
 - realignment of a new section of road, introduced in the original scheme, known as New Sheffield Street, between Helmet Street and the realigned B6469 Fairfield Street, by 8m to the west to avoid the reconfigured pier (see map CT-06-365b, F5 to F6);
 - the surface water drainage layout will be amended to accommodate the changes made to the alignment of the A635 Mancunian Way and New Sheffield Street (see map CT-06-365b, E5 to F6);
 - the diversion route of a 1500mm concrete combined sewer will be amended between Helmet Street and the B6469 Fairfield Street to follow a new section of road, introduced in the original scheme, known as New Sheffield Street (see map CT-06-365b, F5 to F6);
 - the diversion route of a 450mm potable water main will be altered to follow the realigned A635 Mancunian Way northbound carriageway (see map CT-06-365b, E5 to E6); and
 - realignment of minor utilities along Helmet Street, including: Openreach telecommunication cables and a Cadent Gas main (see map CT-06-365b, F6).
- 2.2.19 Construction of the design change will be managed from the Manchester approach viaduct satellite compound and will be completed within the indicative construction programme for this compound shown in Section 6.

Local alternatives

- 2.2.20 The SES2 and AP2 ES Alternatives report (see SES2 and AP2 ES Volume 5, Appendix: CT-003-00000) describes the local alternatives considered as part of the design development of this SES2 design change.

Topics included in the SES2 assessment

- 2.2.21 The design change is not considered to require a reassessment of the environmental effects or mitigation as set out in the main ES with respect to any environmental topics.
- 2.2.22 A combined assessment of new or different significant traffic and traffic related effects, as a result of changes in traffic flows, is reported in Section 7. Topics where a significant effect has been identified due to changes to traffic flows are reported in Section 7 and include: air

quality; community; ecology and biodiversity; health; sound, noise and vibration; and traffic and transport.

Relocation of North Block comprising Network Rail facilities at Manchester Piccadilly High Speed station (SES2-008-003)

- 2.2.23 The Bill provides for the relocation of the existing North Block, comprising Network Rail facilities north-west of the existing Manchester Piccadilly Station, to above the existing Network Rail catering facility on the viaduct deck to allow the new Manchester Piccadilly High Speed station to be constructed.
- 2.2.24 Since the main ES, it has been identified that access to this area of the viaduct deck will not be possible through the Network Rail maintenance depot. As such, the viaduct deck will instead be accessed via the proposed Piccadilly Network Rail access ramp. Therefore, a new, separate building on the viaduct deck is required that can be accessed without going through the Network Rail maintenance depot.
- 2.2.25 This design change consists of the following (with references to the SES2 and AP2 ES Volume 2, MA08 Map Book):
- construction of a new North Block building, 17m long, 15m wide and 16m high, on the existing Network Rail viaduct deck, 16m west of the existing Relay Room. The new North Block building will incorporate the existing Network Rail catering facilities into the ground floor at viaduct level, which will be accessible from the viaduct deck (see map CT-06-365b, G5 to H5);
 - access to the Network Rail catering facilities in the new North Block building from street level will be gained via a series of lifts located within the catering facilities loading bay. Details of the catering facilities loading bay are described under the amendment AP2-008-004 (Additional land permanently required for a new loading/unloading bay to provide access to the catering areas within the Network Rail facilities building at Manchester Piccadilly High Speed station) (see map CT-06-365b, G5 to H5); and
 - relocation of a vehicle turning area from adjacent to the existing North Block to between the existing Relay Room and the new North Block building (see map CT-06-365b, G5 to H5).
- 2.2.26 A 650m² temporary catering facility, comprising portacabins, will be set up on the existing Network Rail viaduct deck 140m west of the existing Relay Room. This will enable continuity of catering services while the permanent new North Block building is constructed. The temporary catering facilities will be required for up to nine months.
- 2.2.27 This design change will be constructed from the Manchester Piccadilly High Speed station main compound and will be completed within the revised programme provided in Section 6.

Local alternatives

- 2.2.28 The SES2 and AP2 ES Alternatives report (see SES2 and AP2 ES Volume 5, Appendix: CT-003-00000) describes the local alternatives considered as part of the design development of this SES2 design change.

Topics included in the SES2 assessment

- 2.2.29 The assessments of the following topics are reported for this design change: historic environment; and landscape and visual. These are reported in Section 3.
- 2.2.30 A combined assessment of new or different significant traffic and traffic related effects, as a result of changes in traffic flows, is reported in Section 7. Topics where a significant effect has been identified due to changes to traffic flows are reported in Section 7 and include: air quality; community; ecology and biodiversity; health; sound, noise and vibration; and traffic and transport.

Relocation of six substations at Manchester Piccadilly High Speed station (SES2-008-004)

- 2.2.31 The Bill provides for the relocation of six Electricity North West substations in the Piccadilly and Store Street area (Sheffield Street; Piccadilly Station; Boad Street; Generator (associated with Boad Street Substation); Gateway House and Store Street) to an area off Store Street, outside the footprint of the Manchester Piccadilly High Speed station. This would ensure that Electricity North West can maintain its existing network whilst the Manchester Piccadilly High Speed station is constructed. See Volume 2, MA08 Map Book: map CT-06-365b of the main ES.
- 2.2.32 Since the main ES, design refinement has resulted in the requirement to alter a number of the substation designs. It was identified in the main ES that the best location for the re-provided substations was an area off Store Street. However, the number of substations that were to be re-provided has since changed. Two of the six substations identified in the original scheme will no longer be moved to Store Street. In addition, the Railtrack Tower Substation located in the Store Street underpass and a Network Rail Switch Room located beneath the Manchester Piccadilly Station will now be relocated.
- 2.2.33 The design change consists of the following (with references to the SES2 and AP2 ES Volume 2, MA08 Map Book):
- the relocation and alteration of the existing Boad Street Substation and the existing generator associated with Boad Street Substation, will be removed from the design (see map CT-06-365b, I6);
 - the Railtrack Tower Substation, currently located in the Store Street underpass, will be re-provided to an area off Store Street (see map CT-06-365b, I6);

- a Network Rail Switch Room, currently located in the substation rooms beneath the Manchester Piccadilly Station, will be re-provided within the Manchester Piccadilly Station basement (see map CT-06-365b, I6); and
- additional cabling, 614m in length, will be required to connect the Piccadilly Station Substation and the re-provided Network Rail Switch Room (see map CT-06-365b, I6).

- 2.2.34 The Sheffield Street, Manchester Piccadilly Station, Gateway House and Store Street substations will be re-provided to an area of land off Store Street within the land required for the SES2 scheme. All cabling diversions associated with the substations will be retained as per the original scheme.
- 2.2.35 The Gateway House Substation will only be re-provided if Gateway House is retained – see SES2-008-005 (Change to the requirement/assessment assumption for the demolition of Gateway House). The substation will be decommissioned in the event that Gateway House is demolished.
- 2.2.36 This design change will be constructed from the Manchester Piccadilly High Speed station main compound and will be completed within the indicative construction programme for this compound shown in Section 6.

Topics included in the SES2 assessment

- 2.2.37 The assessment of the following topic is reported for this design change: historic environment. This is reported in Section 3.
- 2.2.38 A combined assessment of new or different significant traffic and traffic related effects, as a result of changes in traffic flows, is reported in Section 7. Topics where a significant effect has been identified due to changes to traffic flows are reported in Section 7 and include: air quality; community; ecology and biodiversity; health; sound, noise and vibration; and traffic and transport.

Change to requirements/assessment assumption for the demolition of Gateway House at Manchester Piccadilly station (SES2-008-005)

- 2.2.39 Although the Bill provides demolition powers, it was assumed for the main ES that Gateway House would be retained in its current location. The Bill includes the realignment of the existing Metrolink north-east of its current alignment at the junction with the A6 London Road. The Metrolink route would pass beneath Gateway House and into Manchester Piccadilly High Speed station (see Volume 2, Map Book: MA08, map CT-06-365b of the main ES).
- 2.2.40 Since the main ES it has been identified that there is the potential requirement for the Gateway House building to be removed. The demolition of Gateway House to the existing ramp level is therefore assessed as a worst case scenario.

- 2.2.41 In the event that the demolition of Gateway House is necessary, the following would be required (with references to the SES2 and AP2 ES Volume 2, MA08 Map Book):
- removal of Gateway House to the existing ramp level (map CT-06-365b, I5 to J6);
 - a new slab would be constructed at ramp level and would be supported by the existing Gateway House columns. The new slab would be accessible via the existing ramp and would be suitable for pedestrian access and emergency vehicle use (see map CT-06-365b, I5 to J6);
 - the proposed cycle hub facility would be moved from the top to the bottom of Station Approach Ramp to tie in with the cycleway along New Sheffield Street (see map CT-06-365b, I5 to J6);
 - station accommodation located in the southern facilities block would be consolidated into the western and lower concourse facilities (see map CT-06-365b, I5 to J6);
 - alternate provision for the Station Approach Ramp undercroft fire escape would be provided (see map CT-06-365b, I5 to J6);
 - the diversion of one Virgin telecommunications cable underneath the footpath of Station Approach ramp would be required to maintain supply to Manchester Piccadilly Station (see map CT-06-365b, I5 to J6);
 - existing utilities within Gateway House and the basement area would be removed as part of the demolition process, with the Gateway House Substation being decommissioned as a result (as described in SES2-008-090 (see map CT-06-365b, I5 to J6)); and
 - the area would be protected by hoarding and would be available for return to suitable development.
- 2.2.42 The design change will be constructed from the Manchester Piccadilly High Speed station main compound and will be completed within the revised programme provided in Section 6.

Topics included in the SES2 assessment

- 2.2.43 The assessments of the following topics are reported for this design change: historic environment; landscape and visual; socio-economics; and sound, noise and vibration. These are reported in Section 3.
- 2.2.44 A combined assessment of new or different significant traffic and traffic related effects, as a result of changes in traffic flows, is reported in Section 7. Topics where a significant effect has been identified due to changes to traffic flows are reported in Section 7 and include: air quality; community; ecology and biodiversity; health; sound, noise and vibration; and traffic and transport.

Provision of a 60m section of water main at Store Street (SES2-008-006)

- 2.2.45 The Bill provides for the permanent diversion or decommissioning of a range of minor utilities along Store Street (see Volume 2, MA08 Map Book: map CT-06-365b in the main ES).

- 2.2.46 Since the main ES, design refinement following further consultation with Network Rail has identified the need to install a new section of water main. This new section of water main is required in order to maintain the supply of water to the existing Manchester Piccadilly Station during the construction and operation of the Manchester Piccadilly High Speed station. The existing water main to Manchester Piccadilly Station, identified in the original scheme, will be decommissioned during the permanent closure of the southern end of Store Street (as described in the main ES).
- 2.2.47 The design change requires the installation of a new 60m section of potable water main underneath the section of Store Street that will be retained as the access road to a combined station loading bay, to connect with an existing water main underneath the A6 London Road (see SES2 and AP2 ES Volume 2, MA08 Map Book: map CT-06-365b, 14 to 15).
- 2.2.48 The design change will be constructed from the Manchester Piccadilly High Speed station main compound and will be completed within the revised programme provided in Section 6.

Topics included in the SES2 assessment

- 2.2.49 The assessments of the following topics are reported for this design change: air quality; and traffic and transport. These are reported in Section 3.
- 2.2.50 A combined assessment of new or different significant traffic and traffic related effects, as a result of changes in traffic flows, is reported in Section 7. Topics where a significant effect has been identified due to changes to traffic flows are reported in Section 7 and include: air quality; community; ecology and biodiversity; health; sound, noise and vibration; and traffic and transport.

2.3 Corrections to the main ES

- 2.3.1 The need for a number of corrections to the contents of the main ES has been identified since submission of the Bill. Table 2 provides the following:
- corrections to the Volume 2, Community Area report: Manchester Piccadilly Station (MA08) that have the potential to alter the significant environmental effects previously reported;
 - corrections to any factual inaccuracies relating to significant effects previously reported;
 - clarifications to elements of the scheme description previously reported;
 - the location of the text that is subject to the correction in the relevant report;
 - the reason for the correction;
 - the original text from the relevant report and, where applicable, revised text; and
 - whether the correction changes a significant effect previously reported.
- 2.3.2 These corrections were considered, where relevant, in the technical assessments reported in Section 3 of this SES2.

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Table 2: Summary of corrections to the main ES Volume 2 Community Area for the Manchester Piccadilly Station area

Reference in the main ES	Reason for correction	Text in the main ES	Revised text	Change to significant effects and mitigation
Overview of the area and description of the Proposed Scheme Paragraphs 2.2.18, Volume 2, MA08 of the main ES	The incorrect length and width of the Manchester Piccadilly High Speed station was reported in the main ES, the correct length is 586m and the correct width is 65m.	Paragraph 2.2.18: The Manchester Piccadilly High Speed station will be 445m in length and 60m in width, located above ground on the Piccadilly station viaduct (see Volume 2, MA08 Map Book: map CT-06-365b, F5 to I6).	Paragraph 2.2.18: The Manchester Piccadilly High Speed station will be 586m in length and 65m in width, located above ground on the Piccadilly station viaduct (see Volume 2, MA08 Map Book: map CT-06-365b, F5 to I6).	N/A
Overview of the area and description of the Proposed Scheme Paragraphs 2.2.33, Volume 2, MA08 of the main ES	The incorrect width of the box structure containing the Metrolink sub-surface tram stop was reported in the main ES, the correct width is 52m.	Paragraph 2.2.33: To provide for the relocation of the existing Piccadilly Metrolink stop underneath Manchester Piccadilly High Speed station, the Proposed Scheme will include a box structure 400m in length, 40m in width and 10m in depth. The relocated Piccadilly Metrolink stop will be positioned within this box structure and the capacity of the stop will be increased. The number of platforms will increase from the two provided at the existing stop, to four. Each platform will be 80m in length and positioned at the western end of the box structure. Two sets of lifts and escalators will provide access to the Piccadilly Metrolink stop from Manchester Piccadilly High Speed station.	Paragraph 2.2.33: To provide for the relocation of the existing Piccadilly Metrolink stop underneath Manchester Piccadilly High Speed station, the Proposed Scheme will include a box structure 400m in length, 52m in width and 10m in depth. The relocated Piccadilly Metrolink stop will be positioned within this box structure and the capacity of the stop will be increased. The number of platforms will increase from the two provided at the existing stop, to four. Each platform will be 80m in length and positioned at the western end of the box structure. Two sets of lifts and escalators will provide access to the Piccadilly Metrolink stop from Manchester Piccadilly High Speed station.	N/A
Overview of the area and description of the Proposed Scheme Paragraph 2.2.40, Volume 2, MA08 of the main ES	The main ES incorrectly reported the conversion of a car park to blue badge parking.	Paragraph 2.2.40, second bullet: relocation of the short stay car parking spaces at the southern entrance of the existing Manchester Piccadilly Station to the new Manchester Piccadilly High	Paragraph 2.2.40, second bullet: Second sentence would be removed.	N/A

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Reference in the main ES	Reason for correction	Text in the main ES	Revised text	Change to significant effects and mitigation
		Speed station car parks. The existing short stay car park will be converted to blue badge parking comprising 38 bays, including the three existing spaces at this location;		
Overview of the area and description of the Proposed Scheme Paragraph 2.3.14, Volume 2, MA08 of the main ES	The potential demolition of the building extension next to Gateway House, which has planning approval and is yet to be constructed, was not included within the main ES.	Paragraph 2.3.14, footnote 10: Based on information currently available, it is considered that these works will not require the demolition of Gateway House. However, as the design develops, the situation will be kept under review given the potential impacts of the Proposed Scheme upon this building.	Paragraph 2.3.14, footnote 10: Based on information currently available, it is considered that these works will not require the demolition of Gateway House. However, as the design develops, the situation will be kept under review given the potential impacts of the Proposed Scheme upon this building. It is considered that these works will potentially require the demolition of the building extension next to Gateway House (which currently has planning approval). However, it is considered that the building extension will be unimplementable.	N/A
Land Quality Paragraph 10.3.15, Volume 2, MA08 of the main ES.	The main ES incorrectly omitted 14 potential land contamination sites	Current potentially contaminative land uses within the study area include four industrial and commercial sites, and one railway site	Current potentially contaminative land uses within the study area include ten industrial and commercial sites, and one railway site.	No change. This correction will not lead to new, removed or different significant effects.
Land Quality Paragraph 10.3.16, Volume 2, MA08 of the main ES	The main ES incorrectly omitted 14 potential land contamination sites	Historical land uses identified within the study area with the potential to have caused contamination include one landfill site and 154 industrial and commercial sites.	Historical land uses identified within the study area with the potential to have caused contamination include one landfill site and 162 industrial and commercial sites.	No change. This correction will not lead to new, removed or different significant effects.

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Reference in the main ES	Reason for correction	Text in the main ES	Revised text	Change to significant effects and mitigation
Land Quality Paragraph 10.3.30, Volume 2, MA08 of the main ES	The main ES incorrectly identified the location of current or historical underground coal mining activities in MA08.	Paragraph 10.3.30: Available records from the Coal Authority show that the route of the Proposed Scheme will not pass through areas of recorded historical underground coal mining activities.	Paragraph 10.3.30: However, available records from the Coal Authority show that the route of the Proposed Scheme, with the exception of highways and utilities works, will not cross areas of recorded current or historical underground coal mining activities.	No change. This correction does not lead to new, removed or different significant effects.
Socio-economics Paragraph 12.4.34, Volume 2, MA08 of the main ES	The main ES incorrectly reported the socio-economic impact upon parking at West Way Nissan Manchester.	Paragraph 12.4.34: The construction of the Manchester tunnel north main portal, located in the Davenport Green to Ardwick area (MA07), will require use of approximately 30% of the area used by West Way Nissan Manchester for storing vehicles for nine years. Construction of Manchester to Leeds embankment and the diverted A665 Chancellor Lane will require the use of approximately a further 50% of the vehicle storage for at least one year and six months. Approximately 35% of the total car parking spaces will be required permanently. The operations of the business might be affected by the loss of approximately 259 parking spaces...	Paragraph 12.4.34: The construction of Manchester to Leeds embankment and the diverted A665 Chancellor Lane will require the use of approximately 27% of the vehicle storage spaces used by West Way Nissan Manchester for at least one year and six months. Approximately 23% of the total car parking spaces will be required permanently. The operations of the business might be affected by the loss of approximately 105 parking spaces...	No change. This correction does not lead to a new or changed significant effect.
Socio-economics Paragraph 12.4.39, Volume 2, MA08 of the main ES	The incorrect estimated number of impacted business units on North Western Street has been reported; the correct number is eight.	Paragraph 12.4.39: Construction works to provide access to the Network Rail viaduct via a new ramp will require sections of North Western Street and Mellor Street to be closed permanently. Approximately seven	Paragraph 12.4.39: Construction works to provide access to the Network Rail viaduct via a new ramp will require sections of North Western Street and Mellor Street to be closed permanently. Eight business units,	No change. This correction does not lead to a new or different significant effect.

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Reference in the main ES	Reason for correction	Text in the main ES	Revised text	Change to significant effects and mitigation
		businesses units, which are on North Western Street, will be physically isolated and will therefore not be able to operate from these premises. Business activities include breweries, Frontline Fitness Performance Centre (including its car park) and a printing and IT equipment wholesaler. For the reasons stated above, the disruption as a result of the Proposed Scheme is considered to represent a moderate adverse significant isolation effect on this group of businesses, which commences part way through the construction phase but continues into operation.	which are on North Western Street, will be physically isolated and will therefore not be able to operate from these premises. Business activities comprise breweries, Frontline Fitness Performance Centre (including its car park) and a printing and IT equipment wholesaler. For the reasons stated above, the disruption as a result of the Proposed Scheme is considered to represent a moderate adverse significant isolation effect on this group of businesses, which commences part way through the construction phase but continues into operation.	
Sound, Noise and Vibration Paragraph 13.4.29, Volume 2, MA08 of the main ES	The main ES incorrectly reported a significant vibration effect for DoubleTree by Hilton Hotel.	Paragraph 13.4.29: ...The DoubleTree by Hilton Hotel is identified, on the basis of a precautionary assessment, as being subject to a likely significant adverse effect (denoted by MA08-C-N14 in Table 7 of Volume 5, Appendix: SV-002-0MA08) due to noise and vibration.	Paragraph 13.4.29: ...The DoubleTree by Hilton Hotel is identified, on the basis of a precautionary assessment, as being subject to a likely significant adverse effect (denoted by MA08-C-N14 in Table 7 of Volume 5, Appendix: SV-002-0MA08) due to noise.	No change. This correction does not lead to a new or changed significant effect.
Sound, Noise and Vibration Paragraphs 13.4.18, 13.4.19, 13.4.21 to 13.4.31, and 13.4.33 to 13.4.50 Volume 2, MA08 of the main ES	The main ES incorrectly makes reference to Table 7, instead of Table 6, for a number of non-residential significant effects.	Paragraphs 13.4.18, 13.4.19, 13.4.21 to 13.4.31 and 13.4.33 to 13.4.50 ... in Table 7 of Volume 5, Appendix: SV-002- 0MA08).	Paragraphs 13.4.18, 13.4.19, 13.4.21 to 13.4.31 and 13.4.33 to 13.4.50 ... in Table 6 of Volume 5, Appendix: SV-002- 0MA08).	No change. This correction does not lead to a new or changed significant effect.
Traffic and transport	The main ES incorrectly reported the traffic diversion route and change in journey	Paragraph 14.4.26, ninth bullet: Chapelton Street – partial temporary closure of an 85m section at the south-	Paragraph 14.4.26, ninth bullet: Chapelton Street – partial temporary closure of an 85m section at the south-	Yes. This correction will lead to a new temporary moderate adverse

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Reference in the main ES	Reason for correction	Text in the main ES	Revised text	Change to significant effects and mitigation
Paragraphs 14.4.26 and 14.4.27, Volume 2, MA08 of the main ES	distance due to the partial temporary closure of Chapeltown Street during construction.	western end of Chapeltown Street, for a period of nine months, to enable construction of a new junction with New Sheffield Street. Traffic travelling from Store Street to Chapeltown Street will be diverted via Jutland Street, Peak Street, Laystall Street and the A665 Great Ancoats Street, increasing journey length by up to 736m;	western end of Chapeltown Street, for a period of nine months, to enable construction of a new junction with New Sheffield Street. Traffic travelling from Store Street to Chapeltown Street will be diverted via Old Mill Street, Carruthers Street, the A662 Pollard Street and the A665 Great Ancoats Street, increasing journey length by up to 1.7km; Paragraph 14.4.27 insert new bullet (second bullet): Chapeltown Street – moderate adverse effect from an increase in journey length of up to 1.7km;	significant effect with regard to changes to journey lengths for vehicle occupants on Chapeltown Street.
Traffic and transport Paragraph 14.5.16, Volume 2, MA08 of the main ES	The main ES incorrectly reported that the permanent diversion of the A665 Chancellor Lane would result in an increase in journey length for vehicle occupants of up to 436m. The correct change in journey length is 208m.	Paragraph 14.5.16, second bullet: A665 Chancellor Lane – permanent diversion of the A665 Chancellor Lane, 70m north-west of its current alignment for 210m, increasing journey length by up to 436m.	Paragraph 14.5.16, second bullet: A665 Chancellor Lane – permanent diversion of the A665 Chancellor Lane, 70m north-west of its current alignment for 210m, increasing journey length by up to 208m.	No change. This correction will not lead to a new or different significant effect.
Traffic and transport Paragraph 14.4.29, Volume 2, MA08 of the main ES	The main ES incorrectly reported a new significant adverse effect on delays to vehicle occupants and congestion at the A635 Mancunian Way/Hoyle Street junction during construction	Paragraph 14.4.29, eighth bullet: A635 Mancunian Way/Hoyle Street - major adverse effect during scenarios 2, 3 and 4;	Paragraph 14.4.29, eighth bullet: None included – text removed.	Yes. The correction will remove the major adverse effect on delays to vehicle occupants and congestion at the A635 Mancunian Way/Hoyle

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Reference in the main ES	Reason for correction	Text in the main ES	Revised text	Change to significant effects and mitigation
	and operation when no effect should have been reported			Street junction during construction.
Traffic and transport Paragraph 14.5.20, Volume 2, MA08 of the main ES		Paragraph 14.5.20, fifth bullet: A635 Mancunian Way/Hoyle Street - major adverse effect;	Paragraph 14.5.20, fifth bullet: None included – text removed.	Yes. The correction will remove the major adverse effect on delays to vehicle occupants and congestion at the A635 Mancunian Way/Hoyle Street junction in 2038 during operation.
Traffic and transport Paragraph 14.5.21, Volume 2, MA08 of the main ES		Paragraph 14.5.21, fifth bullet: A635 Mancunian Way/Hoyle Street - major adverse effect;	Paragraph 14.5.21, fifth bullet: None included – text removed.	Yes. The correction will remove the major adverse effect on delays to vehicle occupants and congestion at the A635 Mancunian Way/Hoyle Street junction in 2046 during operation.
Traffic and transport Paragraph 14.5.26, Volume 2, MA08 of the main ES	The main ES incorrectly reported a new significant adverse effect on parking under Gateway House and ramp during operation when no effect should have been reported.	Paragraph 14.5.26, second bullet: Parking under Gateway House and ramp – major adverse effect due to the permanent loss of 140 spaces;	None included – text removed.	Yes. The correction will remove the major adverse effect on parking under Gateway House and ramp during operation.
Traffic and transport Paragraph 14.5.20, Volume 2, MA08 of the main ES	The main ES incorrectly reported the effect on delays to vehicle occupants and congestion at the A665	Paragraph 14.5.20, sixth bullet: A665 Chancellor Lane diversion/A635 Mancunian Way Southbound	None included – main ES text removed.	Yes. The correction will remove the major adverse effect on

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Reference in the main ES	Reason for correction	Text in the main ES	Revised text	Change to significant effects and mitigation
	Chancellor Lane diversion/ A635 Mancunian Way Southbound realignment/ A635 Fairfield Street diversion junction during operation in 2038 as major adverse. No effect should have been reported.	realignment/A635 Fairfield Street diversion - major adverse effect		congestion and delay for vehicle occupants at the A665 Chancellor Lane diversion/A635 Mancunian Way Southbound realignment/A635 Fairfield Street diversion junction in 2038.
Traffic and transport Paragraph 14.5.20, Volume 2, MA08 of the main ES	The main ES incorrectly reported the effect on delays to vehicle occupants and congestion at the A665 Pin Mill Brow realignment/A635 Mancunian Way Northbound realignment junction during operation in 2038 as major adverse. The correct effect was moderate adverse.	Paragraph 14.5.20, 11th bullet: A665 Pin Mill Brow realignment/A635 Mancunian Way Northbound realignment – major adverse effect;	Paragraph 14.5.20, 11th bullet: A665 Pin Mill Brow realignment/A635 Mancunian Way Northbound realignment – moderate adverse effect;	Yes. The effect changes from major adverse to moderate adverse.
Traffic and transport Paragraph 14.5.20, Volume 2, MA08 of the main ES	The main ES incorrectly reported the effect on delays to vehicle occupants and congestion at the A6 Crescent/A6 Chapel Street/A5066 Adelphi Street/A5066 Oldfield Road junction during operation in 2038 as major adverse. The correct effect was moderate adverse.	Paragraph 14.5.20, 23rd bullet: A6 Crescent/A6 Chapel Street/A5066 Adelphi Street/A5066 Oldfield Road - major adverse effect;	Paragraph 14.5.20, 23rd bullet: A6 Crescent/A6 Chapel Street/A5066 Adelphi Street/A5066 Oldfield Road - moderate adverse effect;	Yes. The effect changes from major adverse to moderate adverse.
Traffic and transport	The main ES incorrectly reported the effect on delays	Paragraph 14.5.21, sixth bullet:	None included – main ES text removed.	Yes.

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Reference in the main ES	Reason for correction	Text in the main ES	Revised text	Change to significant effects and mitigation
Paragraph 14.5.21, Volume 2, MA08 of the main ES	to vehicle occupants and congestion at the A665 Chancellor Lane diversion/A635 Mancunian Way Southbound realignment/A635 Fairfield Street diversion junction during operation in 2046 as major adverse. No effect should have been reported.	A665 Chancellor Lane diversion/A635 Mancunian Way Southbound realignment/A635 Fairfield Street diversion - major adverse effect;		The correction will remove the major adverse effect on congestion and delay for vehicle occupants at the A665 Chancellor Lane diversion/A635 Mancunian Way Southbound realignment/A635 Fairfield Street diversion junction in 2046.
Traffic and transport Paragraph 14.5.21, Volume 2, MA08 of the main ES	The main ES incorrectly reported the effect on delays to vehicle occupants and congestion at the A6041 Chapel Street/A6 Blackfriars Street/A6 Chapel Street/A6041 Blackfriars Road junction during operation in 2046 as major adverse. The correct effect was moderate adverse.	Paragraph 14.5.21, 33rd bullet: A6041 Chapel Street/A6 Blackfriars Street/A6 Chapel Street/A6041 Blackfriars Road - major adverse effect;	Paragraph 14.5.21, 33rd bullet: A6041 Chapel Street/A6 Blackfriars Street/A6 Chapel Street/A6041 Blackfriars Road - moderate adverse effect;	Yes. The effect changes from major adverse to moderate adverse.

3 Assessment of changes in the Manchester Piccadilly Station area

3.1 Introduction

3.1.1 This section describes the effects of the SES2 changes in the Manchester Piccadilly Station area on:

- community;
- ecology and biodiversity;
- health;
- historic environment;
- landscape and visual;
- socio-economics; and
- sound, noise and vibration.

3.1.2 Any new or different likely significant environmental effects as a result of the baseline and design changes summarised in Section 2 are identified, compared to the original scheme.

3.1.3 The assessment of the changes to traffic flows and traffic related effects as a result of all SES2 changes and AP2 amendments is reported in Section 7.

3.2 Community

Introduction

3.2.1 The environmental baseline relevant to the community assessment is described below. Any new or different likely significant environmental effects as a result of the changes introduced in Section 2 are then identified, compared to those reported in the main ES.

Scope, assumptions and limitations

3.2.2 The assessment scope, key assumptions and limitations for community are as set out in Volume 1 and the EIA Scope and Methodology Report (SMR)⁹ of the main ES.

⁹ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement, Environmental Impact Assessment Scope and Methodology Report*, Volume 5, Appendix: CT-001-00001. Available online at: <https://www.gov.uk/government/collections/cross-topic-technical-appendices-for-high-speed-rail-crewe-manchester-environmental-statement#environmental-impact-assessment-scope-and-methodology-report>.

- 3.2.3 The SES2 changes of relevance to this assessment have the potential to result in new or different significant construction effects only. Therefore, there is no operational assessment for community.

SES2 changes relevant to the assessment

- 3.2.4 The implications of changes to the sound, noise and vibration assessment are considered in this assessment. Changes to the sound, noise and vibration assessment have the potential to result in a new significant construction effect.

Environmental baseline

Existing baseline

- 3.2.5 The baseline community information is as described in Section 6 of the main ES Volume 2, Community Area report Manchester Piccadilly Station (MA08). A summary of the baseline information relevant to the assessment of the SES2 changes is provided below.
- 3.2.6 This area of central Manchester is urban in character and comprises a mix of industrial units, retail units, transport infrastructure and residential flats. The area contains many community and recreational facilities. These include places of worship, community centres, libraries, medical facilities, care homes, public houses, museums, theatres and sporting venues. Rochdale Canal, Ashton Canal, Bridgewater Canal and the River Medlock run through the area. Towpaths and moorings are associated with recreational use of the canals.

Future baseline

- 3.2.7 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 3.2.8 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.
- 3.2.9 The committed developments of relevance to the community assessment in this area are set out in Table 3.

Table 3: Committed developments of relevance to community during construction

Map book reference ¹⁰	Planning reference	Description	How this is considered in the assessment
MA08/424S	130356/FO/2021	Location: Ancoats Dispensary Old Mill Street Manchester M4 6EB Creation of 39 residential apartments (Use Class C3a) within retained and refurbished facades of the former Ancoats Dispensary Building facilitated by partial demolition works and the erection of a ground plus 5 storey extension, re-instatement of the central tower, removal of the entrance steps and lowering of the ground floor together with associated external cycle and bin store, boundary treatment and other associated works	Informing future baseline
MA08/433S	128911/FO/2020	Location: 32 - 34 Laystall Street Manchester M1 2JZ Erection of 9 storey residential building (Use Class C3) comprising 89 residential units (28 x 1 bed and 61 x 2 bed) and conversion of and 3 storey extension to 32-34 Laystall Street for use as offices (Class E) with associated external works following demolition of outrigger and associated structures along with other associated works including access, servicing, landscaping and secure cycle parking	Informing future baseline

3.2.10 The following committed developments have been included as part of the future baseline and considered within this assessment:

- the implementation of committed development MA08/424S, will result in a new residential building with 39 apartments located 90m to the north of the land required for the construction of the SES2 revised scheme; and
- the implementation of committed development MA08/433S, will result in a new residential building with 89 apartments located 35m to the north-east of the land required for the construction of the AP2 revised scheme.

Effects arising during construction

Avoidance and mitigation measures

3.2.11 No avoidance or mitigation measures, additional to those reported in the main ES, are proposed.

Assessment of impacts and effects

3.2.12 The main ES reported a major adverse in-combination effect on approximately 800 residential properties in the vicinity of Old Mill Street, New Islington. Significant noise effects

¹⁰ Volume 5, Planning Data/Committed Development Map Book: Maps SES2 and AP2 ES Volume 5, Appendix: CT-004-00000, *Planning Data/Committed Development Map Book: Maps CT-13-327 to CT-13-328.*

were expected to combine with significant visual effects for approximately one year and ten months.

- 3.2.13 An increase in the duration of noise effects will result in different significant noise effects on approximately 800 residential properties in the vicinity of Old Mill Street, New Islington for approximately three years and eleven months. The visual effects reported in the main ES will remain significant. This will result in a different in-combination effect on amenity for residents of these properties, which is significant. However, this will not change the level of significance of the effect reported in the main ES.
- 3.2.14 The locations of significantly affected resources are shown in the SES2 and AP2 ES Volume 5, Community Map Book: Map Series CM-01.

Other mitigation measures

- 3.2.15 No mitigation measures, additional to those reported in the main ES, have been identified.

Summary of likely residual significant effects

- 3.2.16 The SES2 changes will result in a different major significant residual in-combination effect on approximately 800 residential properties in the vicinity of Old Mill Street, New Islington, due to different noise effects and visual effects reported in the main ES.

Cumulative effects

- 3.2.17 No new, removed or different significant cumulative effects have been identified.

3.3 Ecology and biodiversity

Introduction

- 3.3.1 The environmental baseline relevant to the ecology and biodiversity assessment is described below. Any new or different likely significant environmental effects as a result of the changes introduced in Section 2 are then identified, compared to those reported in the main ES.

Scope, assumptions and limitations

- 3.3.2 The assessment scope, key assumptions and limitations for ecology and biodiversity are as set out in Volume 1 and the SMR of the main ES.
- 3.3.3 The SES2 changes of relevance to this assessment have the potential to result in new or different significant construction effects only. Therefore, there is no operational assessment for ecology and biodiversity.
- 3.3.4 Ecology and biodiversity effects that result from the assessment of the changes to traffic flows as a result of all SES2 design changes in combination with all AP2 amendments are reported in Section 7.

SES2 changes relevant to the assessment

- 3.3.5 New baseline information resulting from additional ecological surveys in the Manchester Piccadilly Station area is relevant to the assessment.

Environmental baseline

Existing baseline

- 3.3.6 The baseline ecology and biodiversity information is as described in Section 7 of Volume 2, Community Area report: Manchester Piccadilly Station of the main ES. A summary of the baseline information relevant to the assessment of the SES2 scheme is provided below.

Designated sites

- 3.3.7 There are no changes to the baseline for designated sites reported in the main ES as a result of the SES2 scheme in the Manchester Piccadilly Station area.

Species

Bats

- 3.3.8 The main ES reported an assemblage of at least three species in the Manchester Piccadilly Station area that is considered to be of up to county/metropolitan value. The presence of maternity and hibernation roosts of Pipistrelle species in commercial properties and the viaducts at Manchester Piccadilly Station within the land required for the construction of the original scheme was confirmed by desk study records. There are numerous desk study records for common pipistrelle, soprano pipistrelle and noctule and field surveys confirmed the presence of common pipistrelle, soprano pipistrelle, and noctule within this assemblage. Additional surveys have been carried out at five buildings in the Manchester Piccadilly Station area since the main ES, but no roosts were identified. However, a desk study record confirmed the presence of a *Myotis* species roost within the Fairfield Street viaduct. *Myotis* species are considered rarer species and on a precautionary basis, the bat assemblage in the Manchester Piccadilly Station area is valued at up to regional level. This is a change from the value of the assemblage reported in the main ES, where the assemblage was considered to be of county/metropolitan value.

Future baseline

- 3.3.9 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 3.3.10 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future

baseline where relevant, and their potential to give rise to cumulative effects has been assessed.

- 3.3.11 The committed developments of relevance to the ecology and biodiversity assessment in this area, are set out in Table 4.

Table 4: Committed developments of relevance to ecology and biodiversity during construction

Map book reference ¹¹	Planning reference	Description	How this is considered in the assessment
MA08/433S	128911/FO/2020	Erection of 9 storey residential building with associated external works following demolition of outrigger and associated structures.	Future baseline
MA08/444S	130394/FO/2021	Refurbishment, removal/demolition, repair and reconfiguration of Brunswick Mill	Future baseline
MA08/256	124972/FO/2019	Phased creation of circa 2.4ha of public park and new bridges across the River Medlock. Erection of 9 storey office development and 11 storey car park including the creation of new junction from London Road to provide access to the multi-storey car park.	Future baseline

- 3.3.12 Implementation of committed developments 128911/FO/2020, 130394/FO/2021 and 124972/FO/2019 will result in the loss of two transitional common pipistrelle roosts and a common pipistrelle day roost that are associated with the assemblage of bats at Manchester Piccadilly Station. As such, these committed developments have been included as part of the future baseline and considered within this assessment.

Effects arising during construction

Avoidance and mitigation measures

- 3.3.13 No avoidance or mitigation measures additional to those reported in the main ES and draft Code of Construction Practice (CoCP)¹² are proposed.

¹¹ Volume 5, Planning Data/Committed Development Map Book: Maps SES2 and AP2 ES Volume 5, Appendix: CT-004-00000, *Planning Data/Committed Development Map Book: Maps CT-13-327 to CT-13-328*.

¹² High Speed Two Ltd (2022), High Speed Rail (Crewe - Manchester), *Environmental Statement, draft Code of Construction Practice*, Volume 5, Appendix: CT-002-00000. Available online at: <https://www.gov.uk/government/collections/cross-topic-technical-appendices-for-high-speed-rail-crewe-manchester-environmental-statement#draft-code-of-construction-practice>.

Assessment of impacts and effects

Species

Bats

- 3.3.14 The main ES reported an assemblage of at least three species in the Manchester Piccadilly Station area, and the loss of maternity and hibernation roosts of pipistrelle bats that form part of this assemblage resulting in an adverse effect at up to county/metropolitan level. An additional desk study record has confirmed the presence of a *Myotis* species roost within the viaduct and the land required for the construction of the SES2 scheme. The loss and disturbance of this roost will result in an additional impact on the bat assemblage. This will result in a different significant effect to that reported in the main ES and will change the level of significance of the effect to up to regional level.

Other mitigation measures

- 3.3.15 The main ES reported that significant effects to the bat assemblage in the Manchester Piccadilly Station area would be addressed by artificial roosts, which will be provided in accordance with the Ecological Principles of Mitigation within the SMR. This will address the potential for loss or disturbance of maternity roosts of common and soprano pipistrelle bats, which are component species of the bat assemblage in the vicinity of the existing Manchester Piccadilly Station. The loss of the additional possible roost of *Myotis* species located within land required for the SES2 scheme will also be addressed through the provision of suitable replacement roosts within nearby existing habitat, which is being utilised by foraging and commuting bats. Following implementation of these measures, the effects on the bat assemblage in the Manchester Piccadilly Station area will be reduced to a level that is not significant.

Summary of likely residual significant effects

- 3.3.16 There are no changes to the likely residual significant construction ecology and biodiversity effects identified in the main ES as a result of the SES2 changes.

Cumulative effects

- 3.3.17 No new, removed or different significant cumulative effects have been identified.

3.4 Health

Introduction

- 3.4.1 The environmental baseline relevant to the health assessment is described below. Any new or different likely environmental effects as a result of the changes introduced in Section 2 are then identified, compared to those reported in the main ES.

Scope, assumptions and limitations

- 3.4.2 The assessment scope, key assumptions and limitations for health are as set out in Volume 1 and the SMR of the main ES.
- 3.4.3 The SES2 changes of relevance to this assessment have the potential to result in new or different construction effects only. Therefore, there is no operational assessment for health.

SES2 changes relevant to the assessment

- 3.4.4 The implications of changes to the sound, noise and vibration assessment are considered in this assessment. Changes to the sound, noise and vibration assessment have the potential to result in a new construction effect.

Environmental baseline

Existing baseline

- 3.4.5 The baseline community information is as described in Section 8 of the main ES Volume 2, Community Area report Manchester Piccadilly Station (MA08). A summary of the baseline information relevant to the assessment of the SES2 changes is provided below.
- 3.4.6 This area of central Manchester is urban in character and comprises a mix of industrial units, retail units, transport infrastructure and residential flats. The area contains many community and recreational facilities. These include places of worship, community centres, libraries, medical facilities, care homes, public houses, museums, theatres and sporting venues. Rochdale Canal, Ashton Canal, Bridgewater Canal and the River Medlock run through the area. Towpaths and moorings are associated with recreational use of the canals.

Future baseline

- 3.4.7 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 3.4.8 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.
- 3.4.9 The committed developments of relevance to the health assessment in this area, are set out in Table 5.

Table 5: Committed developments of relevance to health during construction

Map Book reference ¹³	Planning reference	Description	How this is considered in the assessment
MA08/424S	130356/FO/2021	Location: Ancoats Dispensary Old Mill Street Manchester M4 6EB Creation of 39 residential apartments (Use Class C3a) within retained and refurbished facades of the former Ancoats Dispensary Building facilitated by partial demolition works and the erection of a ground plus 5 storey extension, re-instatement of the central tower, removal of the entrance steps and lowering of the ground floor together with associated external cycle and bin store, boundary treatment and other associated works	Informing future baseline
MA08/433S	128911/FO/2020	Location: 32 - 34 Laystall Street Manchester M1 2JZ Erection of 9 storey residential building (Use Class C3) comprising 89 residential units (28 x 1 bed and 61 x 2 bed) and conversion of and 3 storey extension to 32-34 Laystall Street for use as offices (Class E) with associated external works following demolition of outrigger and associated structures along with other associated works including access, servicing, landscaping and secure cycle parking	Informing future baseline

3.4.10 The following committed developments have been included as part of the future baseline and considered within this assessment:

- the implementation of committed development MA08/424S will result in a new residential building with 39 apartments located 90m to the north of the land required for the construction of the SES2 revised scheme; and
- the implementation of committed development MA08/433S will result in a new residential building with 89 apartments located 35m to the north-east of the land required for the construction of the AP2 revised scheme.

Effects arising during construction

Avoidance and mitigation measures

3.4.11 No avoidance or mitigation measures additional to those reported in the main ES are proposed.

¹³ Volume 5, Planning Data/Committed Development Map Book: Maps SES2 and AP2 ES Volume 5, Appendix: CT-004-00000, *Planning Data/Committed Development Map Book: Maps CT-13-327 to CT-13-328.*

Assessment of impacts and effects

- 3.4.12 The main ES reported an adverse neighbourhood quality effect in the vicinity of Old Mill Street, New Islington. Construction noise was expected to be noticeable in the area for approximately one year and ten months. Construction was expected to be visible from street level. People in this community were likely to experience these effects as changing the quality of their neighbourhood and to regard that change as adverse, diminishing the amenity of the settlement. Changes to the sound, noise and vibration assessment will result in an increase in duration of the noise effect to three years and eleven months, resulting in a different noise effect. Visual effects reported in the main ES will remain the same. This will result in a different adverse neighbourhood quality effect in the vicinity of Old Mill Street, New Islington.

Other mitigation measures

- 3.4.13 No mitigation measures additional to those reported in the main ES are proposed.

Cumulative effects

- 3.4.14 No new, removed or different cumulative effects have been identified.

3.5 Historic environment

Introduction

- 3.5.1 The environmental baseline relevant to the historic environment assessment is described below. Any new or different likely significant environmental effects as a result of the changes introduced in Section 2 are then identified, compared to those reported in the main ES.

Scope, assumptions and limitations

- 3.5.2 The assessment scope, key assumptions and limitations for the historic environment are as set out in Volume 1 and the SMR of the main ES.
- 3.5.3 The SES2 changes of relevance to this assessment only have the potential to result in new or different significant temporary and permanent effects during construction. Therefore, there is no operational assessment for historic environment.

SES2 changes relevant to the assessment

- 3.5.4 The SES2 changes considered in this assessment are:
- updates to the baseline to include Gateway House as a non-designated asset;
 - relocation of North Block comprising Network Rail facilities at Manchester Piccadilly High Speed station (SES2-008-003);

- relocation of six substations at Manchester Piccadilly High Speed station (SES2-008-004; and
- change to requirement/assumption for the demolition of Gateway House (SES2-008-005).

Environmental baseline

Existing baseline

3.5.5 The baseline historic environment information is as described in Section 9 of Volume 2, Community Area report: Manchester Piccadilly Station (MA08) of the main ES and updated in Section 2. The assets of relevance to the SES2 assessment include:

- the Grade II listed Train shed and undercroft at Manchester Piccadilly Station (MA08_0476), an asset of moderate value, still currently in use as the station building;
- the Goods Shed (site of) (MA08_0686), a non-designated asset of low value; and
- Gateway House (MA08_0999) a non-designated asset of low value.

Future baseline

3.5.6 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.

3.5.7 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.

3.5.8 None of the identified developments affect the assessment of the SES2 scheme's likely impacts on historic environment.

Effects arising during construction

Avoidance and mitigation measures

3.5.9 No mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Assessment of impacts and effects

3.5.10 Changes to impacts on heritage assets resulting in a new or different significant effect are described in the assessment below. The SES2 and AP2 ES Volume 5, Appendix: HE-002-00000 provides a summary of all historic environment effects that have been changed as a result of the SES2 scheme.

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

- 3.5.11 The main ES reported a moderate adverse significant effect to the Grade II listed Train shed and undercroft at Manchester Piccadilly Station (MA08_0476) due to the construction of the new Manchester Piccadilly High Speed station. The undercroft, on the north side of the Manchester Piccadilly Station, includes brick arches and two rows of large red and white painted cast-iron columns. The removal of the columns of the undercroft which support the former goods yard deck would adversely impact the heritage value of the asset due to the loss of important architectural elements. Although the original scheme would create change within the setting of the Grade II listed Manchester Piccadilly Station, this would not alter how the train shed is understood or diminish its heritage value as an important railway terminus building.
- 3.5.12 As a result of the SES2 design change (Relocation of North Block comprising Network Rail facilities at Manchester Piccadilly Speed station SES2-008-003) the setting of the Train shed and undercroft at Manchester Piccadilly Station (MA08_0476) will be altered. The relocated North Block will move closer to the north-eastern corner of the train shed and will be higher and more visible from the approach to Manchester Piccadilly Station along the rail track from the south-east. This will change how the historic design of the train shed will be appreciated and will adversely impact its heritage value. In addition, the SES2 design change (SES2-008-003) will have a direct physical impact on the brick structure of the undercroft. New foundations will be required to support the North Block and access will be provided to the catering facilities located within the undercroft below. The SES2 design change (Relocation of six substations at Manchester Piccadilly High Speed Station SES2-008-004) will also result in a further direct physical impact on the brick structure of the undercroft. This is due to the relocation of the Network Rail Switch Room and substations, and additional cabling between them. Together, the SES2 design changes will give rise to a different medium adverse impact on the Train shed and undercroft at Manchester Piccadilly Station (MA08_0476), a medium value asset. However, this will not change the level of the permanent moderate adverse significant effect reported in the main ES.
- 3.5.13 The main ES reported a moderate adverse significant effect on the Goods Shed (site of) (MA08_0686) as the asset would be removed. In addition to the effects reported in the main ES, the change to requirement/assumption for the demolition of Gateway House (SES2-008-005) will also remove archaeological remains of the former Goods Shed (site of) identified in the basement of Gateway House, resulting in a different high adverse impact on the low value asset. However, this will not change the level of the permanent moderate adverse significant effect reported in the main ES.
- 3.5.14 Gateway House (MA08_0999) is located within the land required for the SES2 scheme. The main ES did not report an impact on the asset. The change to requirement/assumption for the demolition of Gateway House (SES2-008-005) will constitute a new high adverse impact on a low value asset, resulting in a new permanent moderate adverse significant effect.

Other mitigation measures

- 3.5.15 No mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Summary of likely residual significant effects

- 3.5.16 The relocation of the North Block (SES2-008-003) and substation changes around Manchester Piccadilly High Speed station (SES2-008-004) will give rise to a different medium adverse impact on the Train shed and undercroft at Manchester Piccadilly Station (MA08_0476). However, this will not change the level of the permanent moderate adverse residual significant effect reported in the main ES.
- 3.5.17 The change in assessment assumption for the demolition of Gateway House at Manchester Piccadilly Station (SES2-008-005), will give rise to a different high adverse impact on the Goods Shed (site of) (MA08_0686). However, this will not change the level of the permanent moderate adverse residual significant effect reported in the main ES.
- 3.5.18 The change in assessment assumption for demolition of Gateway House at Manchester Piccadilly Station (SES2-008-005) will give rise to a new permanent moderate adverse residual significant effect on Gateway House (MA08_0999).

Cumulative effects

- 3.5.19 No new removed or different significant cumulative effects have been identified.

3.6 Landscape and visual

Introduction

- 3.6.1 The environmental baseline relevant to the landscape and visual assessment is described below. Any new or different likely significant environmental effects as a result of the changes introduced in Section 2 of this report are then identified, compared to those reported in the main ES.

Scope, assumptions and limitations

- 3.6.2 The assessment scope, key assumptions and limitations for landscape and visual are as set out in Volume 1 and the SMR of the main ES.
- 3.6.3 The SES2 design changes of relevance to this assessment have the potential to result in new or different significant construction and operational visual effects only. Therefore, there is no construction or operational landscape assessment.
- 3.6.4 All visual effects arising from the SES2 design changes are reported in SES2 and AP2 ES Volume 5, Appendix: LV-001-0MA08. The locations of significantly affected viewpoints during

construction and operation are shown in the SES2 and AP2 ES Volume 2, MA08 Map Book: Map Series LV-03 and LV-04, respectively.

SES2 changes relevant to the assessment

3.6.5 The SES2 design changes considered in this assessment are:

- Relocation of North Block comprising Network Rail facilities at Manchester Piccadilly High Speed station (SES2-008-003); and
- Change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005).

3.6.6 Relocation of North Block comprising Network Rail facilities at Manchester Piccadilly High Speed station (SES-008-003) has the potential to result in new or different construction and operational visual effects at three viewpoints. Of these three viewpoints, one does not result in significant effects and is reported in Volume 5 only.

3.6.7 The change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005) has the potential to result in new or different construction and operational visual effects at four viewpoints. Of these four viewpoints, one does not result in significant effects and is reported in Volume 5 only.

Environmental baseline

Existing baseline

3.6.8 The baseline landscape and visual information is as described in the SES2 and AP2 ES Volume 5, Appendix: LV-001-0MA08. A summary of the visual baseline information relevant to the assessment of the SES2 design changes is provided below.

Visual baseline

View south-west from Baird Street and Portugal Street East (medium-high sensitivity receptors) (342-02-008)

3.6.9 This viewpoint is representative of views experienced by residents living in properties off Baird Street and Portugal Street East and views experienced by people travelling towards Manchester Piccadilly Station on the tram. In the near distance, hoarding fronts the residential Crusader development to the north. Metrolink tram line and surface level car parking are present and the view extends above the parked cars towards the railway arches and other rail infrastructure. Overhead line equipment and lighting are prominent vertical features in the middle distance to the south-east. The red brick facades and curved roofline of Manchester Piccadilly Station are visible in the far distance. Taller structures and buildings, most notably Piccadilly Point student accommodation building and Square One, can be seen against the skyline. The views for residents from upper storeys will be focused

more upon Manchester Piccadilly Station, its associated railway infrastructure and the far distance features beyond.

View south-west from Chapeltown Street (medium-high sensitivity receptors) (342-02-009)

- 3.6.10 This viewpoint is representative of views experienced by residents living in properties off Chapeltown Street. In the near distance the junction between Chapeltown Street and Congou Street is visible; the junction includes footways and several immature street trees. To the south-west, beyond the junction, is a construction compound enclosed by white site hoardings. At the end of Chapeltown Street the geometric weathered steel façade of Manchester Piccadilly Station car park is visible, above which is the curved roofline of Manchester Piccadilly Station, although this is largely obscured by intervening buildings. To the south, railway infrastructure is a noticeable feature along the skyline. The views of residents from upper storeys are likely to be focused on Manchester Piccadilly Station and built elements in the view beyond.

View east from Piccadilly Place pedestrian bridge (medium sensitivity receptors) (342-03-014)

- 3.6.11 This viewpoint is representative of views experienced by people travelling to and from Manchester Piccadilly Station and for workers in buildings at Piccadilly Place. In the near distance is the metal arched suspension Piccadilly Place footbridge which crosses over the A6 London Road and Metrolink towards Station Approach. The 14-storey, No. 3 Piccadilly Place encloses views to the south-west with the nine-storey, distinctively curved, Gateway House to the east. To the south-east, is the multifaceted (red brick, glass and cladding) Grade II listed Manchester Piccadilly Station which features on the skyline, with the listed frontage of Former Goods Offices to Manchester Piccadilly Station visible at a lower level along the A6 London Road. To the south, the Edwardian baroque towers of Grade II* listed London Road Police and Fire Station are visible along the skyline. The view along the A6 London Road is narrowly framed at a lower level where the glass frontage of the Macdonald Hotel is visible.

View south-east from Ducie Street (medium sensitivity receptors) (342-03-015)

- 3.6.12 This viewpoint is representative of views experienced by recreational users travelling on the cycling route along Ducie Street (to connect to the Medlock Valley Way and National Cycling Network Route 66) and hotel guests staying in properties off Ducie Street and Dale Street. In the near distance is the junction between Ducie Street and the entrance to Manchester Piccadilly Station car park, with extensive areas of hard surfacing and lighting columns. The middle distance is enclosed by the tall buildings which surround the car park. To the south-east, the eight-storey London Warehouse Grade II listed red brick former warehouse fronts on to the car park and Ducie Street, with the crowns of the mature trees located along Store Street apparent in the view. The view is framed by the curved façade of the nine-storey Gateway House. The lower level within the middle distance gradually rises across the car

park towards Manchester Piccadilly Station with its metal and glass entryway and the roof of its listed train shed in the far distance. To the south-east, is the blue, grey and yellow glass façade of the 10-storey Piccadilly Gate.

View south from Dale Street, Lena Street and Piccadilly Basin (medium-high sensitivity receptors) (342-02-016)

- 3.6.13 This viewpoint is representative of views experienced by residents living in properties off Dale Street, Lena Street and Piccadilly Basin. In the near distance the brick wall enclosing Dale Street car park is visible, with parked cars and traffic dominating the street environment. The landform is relatively flat in the near and middle distance but slopes gently down Dale Street towards its junction with Ducie Street. To the south-west, in the middle distance the view is partially enclosed by the 12-storey hotel faced with dark blue engineering brick. The south facing framed view is towards the eight-storey Grade II listed red brick former warehouse visible at the end of Dale Street. The gap between the hotel and the former warehouse on Ducie Street frames a narrow background view consisting of the curved glass façade of Gateway House and the side entrance to Manchester Piccadilly Station.

Future baseline

- 3.6.14 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000 of the main ES) provides details of committed developments assumed to have been implemented by 2025 and 2038.
- 3.6.15 This information has been supplemented by the committed developments listed in the equivalent Volume 5 Planning data report of the SES2 and AP2 ES (see SES2 and AP2 Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant.
- 3.6.16 None of the identified committed developments affect the assessment of the SES2 scheme's likely impacts for landscape and visual.

Effects arising during construction

Avoidance and mitigation measures

- 3.6.17 No avoidance or mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Assessment of impacts and effects

Visual assessment

View south-west from Baird Street and Portugal Street East (medium-high sensitivity receptors) (342-02-008)

- 3.6.18 The main ES reported a **moderate** adverse (significant) effect for residents living in properties off Baird Street and Portugal Street East of **high** susceptibility, and people travelling towards Manchester Piccadilly station on the tram of lower susceptibility, all with **medium** value views. This would be due to the construction activity and demolitions associated with Manchester Piccadilly High Speed station immediately to the south and south-west, resulting in a substantial change to the composition of near-distance views.
- 3.6.19 The SES2 design change, Relocation of North Block comprising Network Rail facilities at Manchester Piccadilly High Speed station (SES-008-003), will change the visual effect at this viewpoint as construction activity will be perceptible in the middle distance of the view including demolitions during the enabling works. However, the change will be viewed in the context of other large-scale construction activity associated with the HS2 route in the same area.
- 3.6.20 This will therefore give rise to a different significant effect; however, the level of significance of the effect will remain as reported in the main ES.

View south-west from Chapeltown Street (medium-high sensitivity receptors) (342-02-009)

- 3.6.21 The main ES reported a **moderate** adverse (significant) effect for residents living in properties off Chapeltown Street of **high** susceptibility, with **medium** value views. This would be due to the presence of construction activity and demolition associated with Manchester Piccadilly High Speed station immediately south and south-west, resulting in a substantial change to the composition of near-distance views.
- 3.6.22 The SES2 design change, Relocation of North Block comprising Network Rail facilities at Manchester Piccadilly High Speed station (SES2-008-003), will change the visual effect at this viewpoint. Additional construction activity will be perceptible in the middle distance of the view including demolitions during the enabling works. However, the amendment will be viewed in the context of other large-scale construction activity associated with the HS2 route in the same area.
- 3.6.23 This will therefore give rise to a different significant effect; however, the level of significance of the effect will remain as reported in the main ES.

View east from Piccadilly Place pedestrian bridge (medium sensitivity receptors) (342-03-014)

- 3.6.24 The main ES reported a **medium** magnitude of change and a **minor** adverse (non-significant) effect for people travelling to and from Manchester Piccadilly Station of **medium** susceptibility and workers in buildings at Piccadilly Place of lower susceptibility, all with **medium** value views. This would be due to the presence of construction activity associated with the relocated Piccadilly Place pedestrian bridge, the removal of some existing mature trees on the A6 London Road, realignment of Metrolink and utilities works in the near distance of the view, resulting in a noticeable change to the composition of near-distance views. The main construction activities associated with the Manchester Piccadilly High Speed station would, however, be largely obscured by buildings along Station Approach including Gateway House and the existing Manchester Piccadilly Station.
- 3.6.25 The SES2 design change, change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005), will increase the visual effect at this viewpoint. The demolition of Gateway House will increase the prominence of construction activity within the view and will open up middle-distance views towards construction activity associated with the Manchester Piccadilly High Speed station.
- 3.6.26 There will be a **high** magnitude of change and a **moderate** adverse (significant) effect. This will therefore give rise to a new significant effect.

View south-east from Ducie Street (medium sensitivity receptors) (342-03-015)

- 3.6.27 The main ES reported a **moderate** adverse (significant) effect for recreational users of the cycle route along Ducie Street (to connect to the Medlock Valley Way and National Cycling Network Route 66) and hotel guests staying in properties off Ducie Street and Dale Street of **medium** susceptibility, all with **medium** value views. This would be due to the presence of construction traffic, visibility of utilities works and construction activity in association with Ducie Street realignment in the near distance of the view. Construction activity associated with Manchester Piccadilly High Speed station and the demolition of Piccadilly Gate would be seen in the far distance, framed by Gateway House and other buildings.
- 3.6.28 The SES2 design change, change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005), will change the visual effect at this viewpoint. The demolition of Gateway House will allow longer distance views and increase visibility of construction activity beyond.
- 3.6.29 This will therefore give rise to a different significant effect; however, the level of significance of the effect will remain as reported in the main ES.

View south from Dale Street, Lena Street and Piccadilly Basin (medium-high sensitivity receptors) (342-02-016)

- 3.6.30 The main ES reported a **low** magnitude of change and a **minor** adverse (non-significant) effect for residents living in properties off Dale Street, Lena Street and Piccadilly Basin of **high** susceptibility, with **medium** value views. This would be due to the visibility of the construction activity to the front of Gateway House, beyond Ducie Street, which would be framed by the former warehouse and the hotel.
- 3.6.31 The SES2 design change, change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005), will increase the visual effect at this viewpoint. This will be as a result of the demolition of Gateway House which will remove a notable feature of the view and allow longer distance views beyond. There will be an increase in the visual prominence of construction activity at this viewpoint.
- 3.6.32 There will be a **medium** magnitude of change and a **moderate** adverse (significant) effect. This will therefore give rise to a new significant effect.

Other mitigation measures

- 3.6.33 No mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Summary of likely residual significant effects

- 3.6.34 The SES2 design change, relocation of North Block comprising Network Rail facilities at Manchester Piccadilly High Speed station (SES2-008-003), will give rise to different likely residual significant construction effects after implementation of construction phase mitigation at the following viewpoints. The level of effect for each will be unchanged from that reported in the main ES:
- view south-west from Baird Street and Portugal Street East (342-02-008). The effect will remain **moderate** adverse (significant); and
 - view south-west from Chapeltown Street (342-02-009). The effect will remain **moderate** adverse (significant).
- 3.6.35 The SES2 design change, change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005), will give rise to a different likely residual significant construction effect after implementation of construction phase mitigation at view south-east from Ducie Street (342-03-015). The effect will remain **moderate** adverse (significant), as reported in the main ES.
- 3.6.36 The SES2 design change, change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005), will give rise to new likely residual significant construction effects after implementation of construction phase mitigation, at the following viewpoints:

- view south-east from Piccadilly Place pedestrian bridge (342-03-014). The effect will increase from **minor** adverse (non-significant) reported in the main ES to **moderate** adverse (significant); and
- view south from Dale Street, Lena Street and Piccadilly (342-02-016). The effect will increase from **minor** adverse (non-significant) reported in the main ES to **moderate** adverse (significant).

Cumulative effects

- 3.6.37 No new, removed or different significant cumulative effects have been identified.

Effects arising from operation

Avoidance and mitigation measures

- 3.6.38 No mitigation measures additional to those reported in the main ES are proposed.

Assessment of impacts and effects

Visual effects

View east from Piccadilly Place pedestrian bridge (medium sensitivity receptors) (342-03-014)

- 3.6.39 At year 1, the main ES reported a **medium** magnitude of change and a **minor** adverse (non-significant) effect for people travelling to and from Manchester Piccadilly Station of **medium** susceptibility and workers in buildings at Piccadilly Place with lower susceptibility, all with **medium** value views. This would be a result of the Manchester Piccadilly High Speed station being largely obscured from view by existing built form including the Manchester Piccadilly Station and Gateway House which was assumed in the main ES to be retained. Changes in the near distance would include the relocated pedestrian bridge and some mature tree loss, removed during construction, that would open up views of Gateway House.
- 3.6.40 At year 1, the change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005) will result in the loss of a prominent building that contains views to the north and east. This will allow open views towards existing retained buildings as well as the western end of Manchester Piccadilly High Speed station and associated public realm areas. The footprint area of Gateway House will be surrounded by hoarding, to demarcate the return to suitable development plot. There will be a **high** magnitude of change and a **moderate** adverse (significant) effect. This will therefore give rise to a new significant effect.
- 3.6.41 At year 15, the main ES reported a **medium** magnitude of change and a **minor** adverse (non-significant) effect. This would be due to the realigned pedestrian bridge being the prominent element in near-distance views and the Manchester Piccadilly High Speed station remaining obscured by existing built form.

- 3.6.42 At year 15, due to the demolition of Gateway House, the open views of existing retained buildings and the western end of Manchester Piccadilly High Speed station and associated public realm areas will remain as reported in year 1. It is assumed that the footprint area of Gateway House will remain surrounded by hoarding to demarcate the return to suitable development plot. It is expected that by year 15 that maturing planting associated with the public realm areas will provide integration into the townscape context. There will be a **medium** magnitude of change and a **moderate** adverse (significant) effect. This will therefore give rise to a new significant effect.
- 3.6.43 At year 30, the main ES reported a **medium** magnitude of change and a **minor** adverse (non-significant) effect. This would be due to the realigned pedestrian bridge being the prominent element in near-distance views and the Manchester Piccadilly High Speed station remaining obscured by existing built form.
- 3.6.44 At year 30, due to the demolition of Gateway House, the open views of existing retained buildings and the northern end of Manchester Piccadilly High Speed station and associated public realm areas will remain. It is assumed that the footprint area of Gateway House will remain surrounded by hoarding to demarcate the return to suitable development plot. It is expected that by year 30 that further maturing of the planting associated with the public realm areas will provide greater integration into the townscape context. There will be a **medium** magnitude of change and a **moderate** adverse (significant) effect. This will therefore give rise to a new significant effect.

View south-east from Ducie Street (medium sensitivity receptors) (342-03-015)

- 3.6.45 At year 1, the main ES reported a **moderate** beneficial (significant) effect for recreational users travelling on the cycling route along Ducie Street (to connect to the Medlock Valley Way and National Cycling Network Route 66) and hotel guests staying in properties off Ducie Street and Dale Street of **medium** susceptibility, with **medium** value views. This would be a result of the substantial changes to near and middle-distance views including the realigned Ducie Street and clear views of Manchester Piccadilly High Speed station. The new station building would replace a number of buildings of disparate appearance, quality and scale and together with the proposed public realm along New Sheffield Street, would bring a more harmonious and unified appearance to the view.
- 3.6.46 At year 1, the change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005), will change the visual effect at this viewpoint. The demolition of Gateway House will open up views towards existing buildings beyond. However, it is assumed that the footprint of the Gateway House area will be surrounded by hoarding to demarcate the return to suitable development plot. Visibility of the Manchester Piccadilly High Speed station and associated public realm will remain as reported in the main ES with the addition of hoardings which will detract from the visual quality of the public realm area. This will give rise to a different significant effect; however, the level of significance of the effect will remain as reported in the main ES.

- 3.6.47 At year 15, the main ES reported a **moderate** beneficial (significant) effect. This would be due to the receptors experiencing substantially improved changes to the view as a result of the original scheme.
- 3.6.48 At year 15, the removal of Gateway House, will open up views towards existing buildings beyond, including visibility of the Manchester Piccadilly High Speed station and associated public realm. It is expected that by year 15 maturing planting associated with the public realm areas will allow for integration into the townscape context and filter views of the hoardings associated with the return to suitable development plot where Gateway House will have been removed during construction. This will give rise to a different significant effect; however, the level of significance of the effect will remain as reported in the main ES.
- 3.6.49 At year 30, the main ES reported a **moderate** beneficial (significant) effect. This would be due to the receptors experiencing substantially improved changes to the view as a result of the original scheme.
- 3.6.50 At year 30, the removal of Gateway House will open up views towards existing buildings beyond including visibility of the Manchester Piccadilly High Speed station and associated public realm. It is expected that by year 30 further maturing of planting associated with the public realm areas will allow for integration into the townscape context and filter views of the hoarding associated with the return to suitable development plot where Gateway House will have been removed during construction. This will give rise to a different significant effect; however, the level of significance of the effect will remain as reported in the main ES.

Other mitigation measures

- 3.6.51 No mitigation measures additional to those reported in the main ES are proposed.

Summary of likely residual significant effects

- 3.6.52 In many cases, significant effects will reduce over time as the proposed mitigation planting matures and reaches its designed intention.
- 3.6.53 However, the change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005) will give rise to a new likely residual significant operational effect at view south-east from Piccadilly Place pedestrian bridge (342-03-014). The effect will increase from **minor** adverse (non-significant) as reported in the main ES to **moderate** adverse (significant). The same SES2 design change will give rise to a different likely residual significant operational effect at view south-east from Ducie Street (342-03-015). The effect will remain **moderate** beneficial (significant), as reported in the main ES.

Cumulative effects

- 3.6.54 No new, removed or different significant cumulative effects have been identified.

3.7 Socio-economics

Introduction

- 3.7.1 The environmental baseline relevant to the socio-economic assessment is described below. Any new or different likely significant environmental effects as a result of the changes introduced in Section 2 are then identified, compared to those reported in the main ES.

Scope, assumptions and limitations

- 3.7.2 The assessment scope, key assumptions and limitations for socio-economics are as set out in Volume 1 and the SMR of the main ES.
- 3.7.3 The SES2 change of relevance to this assessment has the potential to result in new or different construction effects only. Therefore, there is no operational assessment for socio-economics.

SES2 changes relevant to the assessment

- 3.7.4 The SES2 design change considered in this assessment is the change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005). New baseline information in the Manchester Piccadilly Station area is also relevant to the assessment.
- 3.7.5 The implications of changes to the sound, noise and vibration assessment are considered in this assessment. Changes to the sound, noise and vibration assessment have the potential to result in new and different significant construction effects.
- 3.7.6 The implications of changes to the landscape and visual assessment are considered in this assessment. Changes to the landscape and visual assessment have the potential to result in new and different significant construction effects.

Environmental baseline

Existing baseline

- 3.7.7 The baseline socio-economics information is as described in the SES2 and AP2 ES Volume 5, Appendix: SE-001-00000, Updated socio-economic baseline information.

Future baseline

- 3.7.8 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 3.7.9 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5,

Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.

- 3.7.10 The committed development of relevance to the socio-economic assessment during construction of the SES2 scheme is set out in Table 6.

Table 6: Committed developments of relevance to socio-economics during construction

Map Book reference ¹⁴	Planning reference	Description	How is this considered in the assessment
MA08/414S	128769/FO/2020	Location: Unit 1 Bridge House, 26 Ducie Street, Manchester, M1 2DQ. Change of use from indoor golf centre to hotel with bar and associated internal and external alterations.	Informing future baseline.

- 3.7.11 Implementation of committed development MA08/414S could result in an increase of approximately 20 jobs and is included as part of the future baseline.

Effects arising during construction

Avoidance and mitigation measures

- 3.7.12 No mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Assessment of impacts and effects

- 3.7.13 The main ES reported that the construction of the original scheme was expected to result in a major adverse significant direct effect on a group of 11 resources on the A665 Chancellor Lane and Midland Street. New information obtained from the recent baseline update shows that nine of these premises have been demolished and therefore employment at this group of businesses has been reduced. The impact is therefore reduced to a medium magnitude, rather than the high magnitude reported in the main ES. The major adverse significant effect reported in the main ES will be reduced to a moderate adverse significant effect. Therefore, there is a different significant effect to that reported in the main ES.
- 3.7.14 The main ES reported that the construction of the original scheme was expected to result in a direct impact to a group of nine resources at Aldow Enterprise Park on Blckett Street. The recent baseline update reveals that employment at this group of businesses has increased to a level which will result in a high magnitude impact, rather than the low magnitude impact reported in the main ES. The sensitivity of the group of resources is low. Therefore, there is a

¹⁴ Planning Data/Committed Development Map Book: Maps SES2 and AP2 ES Volume 5, Appendix: CT-004-00000, *Planning Data/Committed Development Map Book: Maps CT-13-327 to CT-13-328.*

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

new moderate adverse significant effect on a group of nine resources at Aldow Enterprise Park on Blakett Street.

- 3.7.15 The change to requirement/assumption for the demolition of Gateway House (SES2-008-005) assumes the demolition of Gateway House, which is occupied by Staycity Aparthotels and a group of 13 retail outlets.
- 3.7.16 The main ES reported that the construction of the original scheme was expected to result in a temporary adverse in-combination effect on Staycity Aparthotels at Gateway House, located in Manchester city centre. This was as a result of significant noise effects for seven years and nine months and significant visual effects. As a result of the change to requirement/assumption for the demolition of Gateway House (SES2-008-005), Gateway House is assumed to be demolished and the Staycity Aparthotels would no longer exist to experience noise and visual effects and therefore the temporary significant in-combination effect is removed.
- 3.7.17 The sensitivity of Staycity Aparthotels and the group of retail outlets at Gateway House is assessed as medium as the businesses may struggle to find suitable alternative prominent premises with high customer footfall in an area so close to Manchester Piccadilly Station.
- 3.7.18 The magnitude for Staycity Aparthotels at Gateway House, assuming demolition, is medium, based on the number of jobs located at the site. The effect is assessed to be moderate adverse and therefore Staycity Aparthotels at Gateway House is subject to a new significant permanent direct effect.
- 3.7.19 The magnitude of impact on the group of retail outlets at Gateway House, assuming demolition, will be high based on the number of jobs located at the site. The effect is assessed to be major adverse and therefore the group of retail outlets at Gateway House is subject to a new significant permanent direct effect.
- 3.7.20 It is estimated that, as a result of the change to requirement/assumption for the demolition of Gateway House (SES2-008-005) and the recent baseline update, 120 jobs are assumed to be displaced or lost within the Manchester Piccadilly Station area, in addition to those reported for the construction of the original scheme. The socio-economic effects on jobs displaced or lost are assessed at a route-wide level in Volume 3, Route-wide effects (Section 12).
- 3.7.21 Committed development MA08/414S, a hotel that will be located in Bridge House on Ducie Street will now replace a public house and associated vacated indoor golf centre. The inclusion of committed development MA08/414S will result in a new adverse significant in-combination effect. This will be as a result of a new significant noise effect for eight years and three months and existing significant effects from HGV construction traffic related severance for non-motorised users reported in the main ES. The sensitivity of committed development MA08/414S is assessed to be medium as customers may be sensitive to impacts on the local environment and setting. The construction works may discourage them from using this facility. Given the duration of effects and the medium level of sensitivity, the

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

SES2 scheme will result in a new adverse temporary in-combination effect on committed development MA08/414S, which is significant.

- 3.7.22 The main ES reported that the construction of the original scheme was expected to result in a moderate adverse significant isolation effect on a group of seven resources on Ducie Street. Business activities included hotels (La Reserve Aparthotel, Native and Dakota Manchester), a public house, a bakery, a supermarket and a barber shop.
- 3.7.23 Committed development MA08/414S, a hotel that will be located in Bridge House on Ducie Street will now replace the former public house and associated vacated indoor golf centre. Furthermore, new information obtained from the recent baseline update identifies that La Reserve Aparthotel has been replaced by a hotel, The Reach at Piccadilly. Therefore, the makeup of the businesses in the group affected by the moderate adverse significant isolation effect on Ducie Street has changed since the main ES, although the effect reported in the main ES will remain.
- 3.7.24 The change to requirement/assumption for the demolition of Gateway House (SES2-008-005) will result in a new adverse significant in-combination effect on DoubleTree by Hilton located on Auburn Street in central Manchester. New significant visual effects will combine with different significant noise effects (for six years rather than 11 months reported in the main ES). The sensitivity of DoubleTree by Hilton is assessed to be medium as customers may be sensitive to impacts on the local environment and setting. The construction works may discourage them from using this business. Given the duration of effects and the medium level of sensitivity, the design change will result in a new adverse temporary in-combination effect on DoubleTree by Hilton, which is significant.
- 3.7.25 The change to requirement/assumption for the demolition of Gateway House (SES2-008-005) will result in a new adverse significant in-combination effect on The Reach at Piccadilly (formerly La Reserve Aparthotel) located on Ducie Street in central Manchester, as a result of different significant noise effects (for two years and five months rather than four months reported in the main ES) and significant effects from HGV construction traffic (traffic-related severance for non-motorised users) as reported in the main ES. The sensitivity of The Reach at Piccadilly is assessed to be medium as customers may be sensitive to impacts on the local environment and setting. The construction works may discourage them from using this business. Given the duration of effects and the medium level of sensitivity, the design change will result in a new adverse temporary in-combination effect on The Reach at Piccadilly, which is significant.
- 3.7.26 The main ES reported that the construction of the original scheme was expected to result in a temporary adverse significant in-combination effect on Premier Inn, located on Dale Street in central Manchester. This was as a result of significant visual effects and effects from heavy goods vehicle construction traffic (traffic related severance for non-motorised users). The SES2 scheme will result in an increase in the duration of the significant noise effects from four months, as reported in the main ES, to four years which will result in a different temporary adverse in-combination effect on Premier Inn, which is significant.

- 3.7.27 The main ES reported that the closure of a section of Hoyle Street was expected to result in a permanent moderate adverse significant isolation effect on Sunshine Studios Dance School. The recent baseline update identified that the dance school is no longer operational and the unit is now vacant. The receptor is now assessed based on the potential for the unit to be operated by a new occupier. The future business function is assumed to be similar to the majority of the other businesses on Temperance Street which are warehouses and have a low sensitivity, in comparison to the medium sensitivity for Sunshine Studios Dance School.
- 3.7.28 The magnitude of the impact of the closure of Hoyle Street on the receptor remains as medium, but the sensitivity is assessed as low. This results in the removal of the permanent moderate adverse significant isolation effect on the receptor.
- 3.7.29 New information obtained from the recent baseline update has identified that a gym, Urban Reform, located on Temperance Street, has commenced operating. This resource is expected to experience disruption as a result of the temporary closure of a section of Hoyle Street as the business is accessed via Hoyle Street. The magnitude of the impact of this effect is assessed as medium. The sensitivity of the gym is assessed as medium since users are expected to be sensitive to changes in ease of accessibility and therefore may be discouraged from using the facility. The disruption is considered to represent a temporary moderate adverse significant isolation effect on this receptor.
- 3.7.30 The locations of significantly affected resources are shown in the SES2 and AP2 ES Volume 5, Socio-economics Map Book: Map Series SE-01.

Other mitigation measures

- 3.7.31 No mitigation measures additional to those reported in the main ES are proposed.

Summary of likely residual significant effects

- 3.7.32 The SES2 scheme will result in the following residual significant effects:
- a different adverse significant permanent direct effect on a group of 11 resources reported in the main ES on the A665 Chancellor Lane and Midland Street;
 - a new adverse significant permanent direct effect on a group of nine resources at Aldow Enterprise Park on Blakett Street;
 - a new adverse significant residual permanent direct effect on Staycity Aparthotels at Gateway House;
 - a new adverse significant residual permanent direct effect on a group of 13 retail outlets at Gateway House;
 - a new adverse significant residual temporary in-combination effect on committed development MA08/414S;
 - a different adverse significant temporary isolation effect on a group of six businesses on Ducie Street including committed development MA08/414S;

- a new adverse significant residual temporary in-combination effect on DoubleTree by Hilton;
- a new adverse significant residual temporary in-combination effect on The Reach at Piccadilly;
- a different adverse significant residual temporary in-combination effect on Premier Inn; and
- a new adverse significant residual temporary isolation effect on Urban Reform.

3.7.33 The SES2 scheme will result in the removal of the following residual significant effects:

- an adverse significant residual temporary in-combination effect on Staycity Aparthotels at Gateway House; and
- changes to the baseline will result in the removal of an adverse significant permanent isolation effect on Sunshine Studios Dance School.

Cumulative effects

3.7.34 No new, removed or different significant cumulative effects have been identified.

3.8 Sound, noise and vibration

Introduction

3.8.1 The environmental baseline relevant to the sound, noise and vibration assessment is described below.

3.8.2 Sound, noise and vibration effects that result from the assessment of the changes to traffic flows as a result of all AP2 amendments in combination with all SES2 changes are reported in Section 7.

Scope, assumptions and limitations

3.8.3 The assessment scope, key assumptions and limitations for sound, noise and vibration are as set out in Volume 1 and the SMR of the main ES.

3.8.4 The SES2 changes of relevance to this assessment have the potential to result in new or different significant construction effects only. Therefore, there is no operational assessment for sound, noise and vibration.

SES2 changes relevant to the assessment

3.8.5 The following SES2 changes are considered in the assessment:

- additional environmental baseline information;
- changes to the construction design programme; and

- change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005).

Environmental baseline

Existing baseline

3.8.6 In the Manchester Piccadilly Station area, the updated sound modelling described in Section 2 has resulted in updates to the existing baseline sound levels at receptors in the community of Piccadilly and New Islington. Further information on the updated baseline sound levels relevant to the assessment is provided in the SES2 and AP2 ES Volume 5, Appendix: SV-002-00000. Where no updates to baseline sound levels are required, the baseline sound, noise and vibration information is as described in Section 13 of Volume 2, Community Area report: Manchester Piccadilly Station (MA08) of the main ES.

Future baseline

- 3.8.7 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 3.8.8 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.
- 3.8.9 The committed developments of relevance to the assessment of sound, noise and vibration from the SES2 scheme are summarised in Table 7.

Table 7: Committed developments relevant to sound, noise and vibration

Map Book reference ¹⁵ (SNV Assessment location ref.)	Planning reference	Description	How this is considered in the assessment
MA08/089 (reported in the main ES)	121014/FO/2018	Location: 12 - 16 Piccadilly, Manchester, M1 3AN. Erection of 23 storey building (land at no. 14-16 Piccadilly) plus plant level and conversion of adjacent building (no. 12 Piccadilly) (basement to fourth floor) to create 356 bedroom hotel above ground floor breakfast room and lobby.	Informing future baseline (construction).
MA08/414S (615332)	128769/FO/2020	Location: Bridge House, 26 Ducie Street, Manchester, M1 2DQ.	Informing future baseline (construction).

¹⁵ Planning Data/Committed Development Map Book: Maps SES2 and AP2 ES Volume 5, Appendix: CT-004-00000, *Planning Data/Committed Development Map Book: Maps CT-13-327 to CT-13-328.*

Map Book reference ¹⁵ (SNV Assessment location ref.)	Planning reference	Description	How this is considered in the assessment
		Change of use from indoor golf centre to hotel with bar and associated internal and external alterations.	
MA08/4335 (616911)	128911/FO/2020	Location: 32 - 34 Laystall Street, Manchester, M1 2JZ. Creation of nine storey residential dwelling.	Informing future baseline (construction).

3.8.10 The following committed developments have been included as part of the future baseline and considered within this assessment:

- the implementation of committed development ref.: MA08/414S will result in a new hotel development located approximately 30m to the north-west of the land required for the construction of the SES2 scheme; and
- the implementation of committed development ref.: MA08/433S will result in a new nine storey residential development located approximately 35m to the north-east of the land required for the construction of the SES2 scheme.

Effects arising during construction

Avoidance and mitigation measures

3.8.11 No avoidance or mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Assessment of impacts and effects

Residential receptors: direct effects – individual dwellings

3.8.12 The main ES identified dwellings forecast to experience noise levels above the eligibility criteria for noise insulation during the daytime, as defined in the draft CoCP. Daytime noise levels are now forecast to be lower, compared to the main ES predictions, at the following dwellings due to SES2 changes, and therefore it is anticipated that these buildings will no longer qualify or be offered noise insulation as described previously in the main ES. These dwellings are indicated on Map Series SV-03 (SES2 and AP2 ES Volume 5, Sound, noise and vibration Map Book):

- approximately six flats on the west façade at 1 Wharf Close, Manchester (assessment location ref.: 615324);
- approximately 10 flats on the southern façade at 20 Ducie Street, Manchester (assessment location ref.: 615329);
- approximately 10 flats on the southern façade at 26 Ducie Street, Manchester (assessment location ref.: 615332); and

- approximately 10 flats on the southern façade at 16 Jutland Street, Manchester (assessment location ref.: 615333).

Residential receptors: direct effects – communities

- 3.8.13 The SES2 scheme has the potential to give rise to different temporary adverse noise effects which may be considered to be significant on a community basis. The potential different likely significant effects are summarised in Table 8 and discussed in the following paragraphs. In the table, the duration of impact is the period where the relevant assessment category is exceeded. The predicted monthly construction noise level will vary throughout this period and as a guide the typical and highest monthly noise levels at the closest properties in the community identified are presented in the ‘cause’ column of this table.
- 3.8.14 The main ES identified, on the basis of a precautionary assessment, a significant adverse construction noise effect in the vicinity of approximately 15 dwellings at Hulme in the vicinity of Wadeson Road for a duration of up to four months. This was denoted as MA08-C-C1 in Table 31 of the Volume 2, Community Area report MA08, in Volume 5, Appendix: SV-002-0MA08 and Volume 5, Sound, noise and vibration Map Book: Map Series SV-03 in the main ES. The SES2 changes to the construction programme will increase the number of dwellings to approximately 35 and will increase the duration of impact at this community to ten months. This will give rise to a different likely significant effect on the residential community.
- 3.8.15 The main ES identified, on the basis of a precautionary assessment, a significant adverse construction noise effect in the vicinity of approximately 110 dwellings at Piccadilly Point in the vicinity of Berry Street for a duration of up to five years and nine months. This was denoted as MA08-C-C2 in Table 31 of the Volume 2, Community Area report MA08, in Volume 5, Appendix: SV-002-0MA08 and Volume 5, Sound, noise and vibration Map Book: Map Series SV-03 in the main ES. The SES2 changes to the construction programme will decrease the duration of impact at this community to two years and 11 months. This will give rise to a different likely significant effect on the residential community.
- 3.8.16 The main ES identified, on the basis of a precautionary assessment, a significant adverse construction noise effect in the vicinity of approximately 120 dwellings at Piccadilly in the vicinity of Brewer Street for a duration of up to two months. This was denoted as MA08-C-C3 in Table 31 of the Volume 2, Community Area report MA08, in Volume 5, Appendix: SV-002-0MA08 and Volume 5, Sound, noise and vibration Map Book: Map Series SV-03 in the main ES. The SES2 changes to the construction programme will increase the duration of impact at this community to six months. This will give rise to a different likely significant effect on the residential community.
- 3.8.17 The main ES identified, on the basis of a precautionary assessment, a significant adverse construction noise effect in the vicinity of approximately 800 dwellings at New Islington in the vicinity of Old Mill Street for a duration of up to one years and 10 months. This was denoted as MA08-C-C9 in Table 31 of the Volume 2, Community Area report MA08, in Volume 5, Appendix: SV-002-0MA08 and Volume 5, Sound, noise and vibration Map Book: Map Series SV-03 in the main ES. Changes in the baseline noise level will increase the

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

duration of the construction noise impact at this community to three years and 11 months. This will give rise to a different likely significant effect on the residential community.

- 3.8.18 The assessment has identified the residential committed development at Laystall Street, Manchester and committed development MA08/433S (assessment location ref.: 616911) where, should the development proceed, the predicted airborne sound levels would exceed the criteria defined in the SMR. The implementation of the committed development will result in the erection of a nine storey residential dwelling. The committed development has the potential to introduce a new adverse noise effect at approximately 90 dwellings at Piccadilly (MA08-C-C13) for a duration of six months during the daytime. This may be considered by the local community as an effect on the acoustic character of the area and hence be perceived as a change in the quality of life for that community. This will give rise to a new likely significant effect on the residential community.

Table 8: Direct adverse construction effects on residential communities and shared open areas that are considered to be significant on a community basis and are new or different to those reported in the main ES

Significant effect number (and map reference) ¹⁶	Type of significant effect	Time of day	Location	Cause (construction activities) ¹⁷	Assumed approximate duration of impact
MA08-C-C1 (SV-03-326b)	Construction noise (Different)	Daytime	Hulme, Wadeson Road: Approximately 35 dwellings in the vicinity of Wadeson Road.	Pipe jack works. The typical and highest monthly noise levels are approximately 70dB and 75dB ¹⁸ .	Up to 10 months.
MA08-C-C2 (SV-03-326b)	Construction noise (Different)	Daytime	Piccadilly Point, Berry Street: Approximately 110 dwellings in the vicinity of Berry Street.	Station construction. The typical and highest monthly noise levels are approximately 65dB and 70dB ¹⁷	Up to two years and 11 months.
MA08-C-C3 (SV-03-326b)	Construction noise (Different)	Daytime	Piccadilly, Brewer Street: Approximately 120 dwellings in the vicinity of Brewer Street.	Pipe jack works. The typical and highest monthly noise levels are approximately 65dB and 70dB ¹⁷ .	Up to six months.
MA08-C-C9 (SV-03-326b)	Construction noise (Different)	Daytime	New Islington, Old Mill Street: Noise, approximately 800 dwellings in the	Construction activities associated with the Metrolink works. The typical and highest predicted monthly noise	Up to three years and 11 months.

¹⁶ See SES2 and AP2 ES Volume 5, Appendix: SV-002-00000 and SES2 and AP2 ES Volume 5, Sound, noise and vibration Map Book, Map Series SV-03.

¹⁷ The construction activity giving rise to the highest predicted noise or vibration level is reported. Multiple construction activities may contribute to the typical noise levels and the approximate duration of impact.

¹⁸ Equivalent continuous sound level at the facade, $L_{pAeq,0700-1900}$.

Significant effect number (and map reference) ¹⁶	Type of significant effect	Time of day	Location	Cause (construction activities) ¹⁷	Assumed approximate duration of impact
			vicinity of Old Mill Street.	levels are approximately 60dB to 70dB and 65dB to 75dB ¹⁷ .	

Non-residential receptors: direct effects

3.8.19 The assessment has identified the following non-residential receptors, where the predicted airborne sound levels would exceed both the relevant screening criteria and the noise change criterion (typically a change of greater than 3dB¹⁹ compared with the existing baseline sound level):

- The DoubleTree by Hilton Hotel, Piccadilly Place, Manchester (assessment location ref.: 616804);
- The Malmaison Hotel, Gore Street, Manchester (assessment location ref.: 615300);
- Your Smile Clinic, Dale Street, Manchester (assessment location ref.: 615345);
- Premier Inn, Dale Street, Manchester (assessment location ref.: 615330);
- The Reach at Piccadilly Hotel (formerly La Reserve Aparthotel), Ducie Street, Manchester (assessment location ref.: 615326);
- Bridge House (Hotel), Ducie Street, Manchester and committed development (Map Book ref.: MA08/414S) (assessment location ref.: 615332); and
- Piccadilly (Hotel), Manchester and committed development (Map Book ref.:MA08/089) (assessment location ref.: 615366).

3.8.20 These locations are identified in the Manchester Piccadilly Station area, as shown in SES2 and AP2 ES Volume 5, Sound, noise and vibration Map Book: Map Series SV-03. At each of the non-residential receptors identified above an assessment has been undertaken to determine if this impact would result in a significant effect, using the significance criteria set out in Annex A of Volume 5, Appendix: SV-001-00000 of the main ES.

3.8.21 The main ES identified, on the basis of a precautionary assessment, a significant adverse construction noise effect at The DoubleTree by Hilton Hotel located off Piccadilly Place, for a duration of up to 11 months. This was denoted as MA08-C-N14 in Table 6 of the Volume 5, Appendix: SV-002-0MA08 and in Volume 5, Sound, noise and vibration Map Book: Map Series SV-03 in the main ES. The change to requirement/assumption for the demolition of Gateway House (SES2-008-005) will increase the duration of impact to six years. This will give rise to a different likely significant effect on the non-residential receptor.

¹⁹ The exception is where the use and sensitivity of the receptor or land use is very sensitive to noise and have been included in the detailed assessment where there is a change less than 3dB. Further information can be found in the SES2 and AP2 ES, Volume 5, Appendix: SV-002-00000.

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

- 3.8.22 The main ES identified, on the basis of a precautionary assessment, a significant adverse construction noise effect at Malmaison Hotel located off Gore Street, for a duration of up to nine months. This was denoted as MA08-C-N17 in Table 6 of the Volume 5, Appendix: SV-002-0MA08 and in Volume 5, Sound, noise and vibration Map Book: Map Series SV-03 in the main ES. The change to requirement/assumption for the demolition of Gateway House (SES2-008-005) will increase the duration of impact to three years and six months. This will give rise to a different likely significant effect on the non-residential receptor.
- 3.8.23 The main ES identified, on the basis of a precautionary assessment, a significant adverse construction noise effect at Your Smile Clinic located off Dale Street, for a duration of up to three months. This was denoted as MA08-C-N18 in Table 6 of the Volume 5, Appendix: SV-002-0MA08 and in Volume 5, Sound, noise and vibration Map Book: Map Series SV-03 in the main ES. The change to requirement/assumption for the demolition of Gateway House (SES2-008-005) will increase the duration of impact to one year and 11 months. This will give rise to a different likely significant effect on the non-residential receptor.
- 3.8.24 The main ES identified a likely significant adverse direct construction noise and vibration effect, on the basis of a precautionary assessment, at Staycity Aparthotels at Gateway House, located in Manchester city centre. This was denoted as MA08-C-N30 in Table 6 of the Volume 5, Appendix: SV-002-0MA08 and in the Volume 5, Sound, noise and vibration Map Book: Map Series SV-03 of the main ES. As a result of the change to requirement/assumption for the demolition of Gateway House (SES2-008-005), the likely significant adverse significant effect at Staycity Aparthotels, Gateway House, will be removed.
- 3.8.25 The main ES identified, on the basis of a precautionary assessment, a significant adverse construction noise effect at Premier Inn located off Dale Street, for a duration of up to four months. This was denoted as MA08-C-N31 in Table 6 of the Volume 5, Appendix: SV-002-0MA08 and in Volume 5, Sound, noise and vibration Map Book: Map Series SV-03 in the main ES. The change to requirement/assumption for the demolition of Gateway House (SES2-008-005) will increase the duration of impact to four years. This will give rise to a different likely significant effect on the non-residential receptor.
- 3.8.26 The main ES identified, on the basis of a precautionary assessment, a significant adverse construction noise effect at La Reserve Aparthotel located off Ducie Street, for a duration of up to four months. This was denoted as MA08-C-N32 in Table 6 of the Volume 5, Appendix: SV-002-0MA08 and in Volume 5, Sound, noise and vibration Map Book: Map Series SV-03 in the main ES. It is understood that La Reserve Aparthotel has closed and that the property is scheduled to re-open as The Reach at Piccadilly Hotel in 2023. The change to requirement/assumption for the demolition of Gateway House (SES2-008-005) will increase the duration of impact to two years and five months. This will give rise to a different likely significant effect on the non-residential receptor.
- 3.8.27 The implementation of the committed development MA08/414S will result in the conversion of the existing ground floor area of the building of the Bridge House hotel. The receptor is located around 30m to the north-west of the land required for the construction of the SES2 scheme. The committed development has been assessed against the hotel criteria. The

predicted daytime monthly construction noise level is above the screening criterion defined in the SMR for hotel use²⁰ for a period of eight years and three months. The typical and highest predicted daytime monthly construction noise levels are 11dB and 16dB above the screening criterion defined in the SMR. The daytime monthly construction vibration levels at this building are above the criteria defined in the SMR for this use²¹ for a period of five months. The source of vibration impact is the pass-by of a vibratory roller, which is likely to be transient in nature. Bridge House (Hotel), Ducie Street, Manchester and committed development MA08/414S is identified, on the basis of a precautionary assessment, as being subject to a new likely significant adverse effect (denoted by MA08-C-N36 SES2 and AP2 ES Volume 5, Appendix: SV-002-00000). This temporary adverse effect may take the form of activity disturbance to guests at the hotel.

- 3.8.28 The implementation of the committed development MA08/089 will result in the erection of a 23 storey hotel in Piccadilly, Manchester. The receptor is located approximately 95m north-west of land required for the construction of the amendment. The building has been assessed against the criteria for hotel use. The typical and highest predicted daytime monthly construction noise levels are 10dB and 12dB respectively above the screening criteria defined in the SMR for this use²² for a period of up to one year and eight months. In the main ES the committed development on Piccadilly, Manchester, MA08/089 was not identified as a significant effect. As a result of the change to requirement/assumption for the demolition of Gateway House (SES2-008-005), there is a new likely significant adverse effect (denoted by MA08-C-N37 in SES2 and AP2 ES Volume 5, Appendix: SV-002-00000). This temporary adverse effect from construction site noise may take the form of activity disturbance to guests of the hotel.
- 3.8.29 For further information see SES2 and AP2 ES Volume 5, Appendix: SV-002-00000 and SES2 and AP2 ES Volume 5, Sound, noise and vibration Map Book: Map Series SV-03.

Other mitigation measures

- 3.8.30 No mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Summary of likely residual significant effects

- 3.8.31 The SES2 changes will give rise to a different likely temporary residual adverse significant construction noise effect on the following residential communities:
- Hulme in the vicinity of Wadeson Road;
 - Piccadilly Point in the vicinity of Berry Street;
 - Piccadilly in the vicinity of Brewer Street, and
 - New Islington in the vicinity of Old Mill Street.

²⁰ 50dB L_{pAeq,0700-2300} (free-field) during the day, which is equivalent to 53dB L_{pAeq,0700-2300} (façade).

²¹ A vibration dose value of 0.2m/s^{1.75} VDV.

²² 50 dB L_{pAeq,2300-0700} (free-field) during the day, which is equivalent to 53 dB L_{pAeq,2300-0700} (façade).

- 3.8.32 The SES2 changes will give rise to a new likely temporary residual adverse significant construction noise effect on the residential community of Piccadilly in the vicinity of Laystall Street and committed development MA08/433S.
- 3.8.33 The SES2 changes will give rise to a different likely temporary residual adverse significant construction noise effect on the following non-residential receptors, due to an increased impact duration:
- DoubleTree by Hilton Hotel, Piccadilly Place, Manchester;
 - Malmaison Hotel, Gore Street, Manchester;
 - Your Smile Clinic, Dale Street, Manchester;
 - Premier Inn, Dale Street, Manchester;
 - The Reach at Piccadilly Hotel (formerly La Reserve Aparthotel), Ducie Street;
 - Bridge House (Hotel), Ducie Street and committed development MA08/414S; and
 - Piccadilly (Hotel), Manchester and committed development MA08/089.
- 3.8.34 As a result of the change to requirement/assumption for the demolition of Gateway House (SES2-008-005), the likely significant adverse significant effect at Staycity Aparthotels, Gateway House will be removed.

Cumulative effects

- 3.8.35 No new, removed, or different significant cumulative effects have been identified.

3.9 Summary of new or different likely residual significant effects as a result of the SES2 changes

Construction

Community

- 3.9.1 The SES2 changes will result in a different major significant residual in-combination effect on approximately 800 residential properties in the vicinity of Old Mill Street, New Islington, due to different noise and existing visual effects.

Historic environment

- 3.9.2 The SES2 scheme will result in the following different residual effects:
- a different medium adverse impact on the Train shed and undercroft at Manchester Piccadilly Station (MA08_0476). However, this will not change the level of the permanent moderate adverse residual significant effect reported in the main ES; and

- a different high adverse impact on the Goods Shed (site of) (MA08_0686). However, this will not change the level of the permanent moderate adverse residual significant effect reported in the main ES.

3.9.3 The SES2 scheme will give rise to a new permanent moderate adverse residual significant effect on Gateway House (MA08_0999).

Landscape and visual

3.9.4 The SES2 scheme will result in different residual effects at the following viewpoints; however this will not change the level of effects reported in the main ES:

- view south-west from Baird Street and Portugal Street East (342-02-008). The effect will remain **moderate** adverse (significant);
- view south-west from Chapeltown Street (342-02-009). The effect will remain **moderate** adverse (significant); and
- view south-east from Ducie Street (342-03-015). The effect will remain **moderate** adverse (significant).

3.9.5 The SES2 scheme will give rise to new likely residual significant construction effects after implementation of construction phase mitigation, at the following viewpoints:

- view south-east from Piccadilly Place pedestrian bridge (342-03-014). The effect will increase from **minor** adverse (non-significant) to **moderate** adverse (significant); and
- view south from Dale Street, Lena Street and Piccadilly (342-02-016) The effect will increase from **minor** adverse (non-significant) to **moderate** adverse (significant).

Socio-economics

3.9.6 The SES2 scheme will result in the following residual significant effects:

- a different adverse significant permanent direct effect on a group of 11 resources reported in the main ES on the A665 Chancellor Lane and Midland Street;
- a new adverse significant permanent direct effect on a group of nine resources at Aldow Enterprise Park on Blakett Street;
- a new adverse significant residual permanent direct effect on Staycity Aparthotels at Gateway House;
- a new adverse significant residual permanent direct effect on a group of 13 retail outlets at Gateway House;
- a new adverse significant residual temporary in-combination effect on committed development MA08/414S;
- a different adverse significant temporary isolation effect on a group of six businesses on Ducie Street including committed development MA08/414S;
- a new adverse significant residual temporary in-combination effect on DoubleTree by Hilton;

- a new adverse significant residual temporary in-combination effect on The Reach at Piccadilly;
- a different adverse significant residual temporary in-combination effect on Premier Inn; and
- a new adverse significant residual temporary isolation effect on Urban Reform.

Sound, noise and vibration

- 3.9.7 The SES2 scheme will give rise to a different likely temporary residual adverse significant construction noise effect on the following residential communities:
- Hulme in the vicinity of Wadeson Road;
 - Piccadilly Point in the vicinity of Berry Street;
 - Piccadilly in the vicinity of Brewer Street; and
 - New Islington in the vicinity of Old Mill Street.
- 3.9.8 The SES2 scheme will give rise to a new likely temporary residual adverse significant construction noise effect on the residential community of Piccadilly in the vicinity of Laystall Street and committed development MA08/433S.
- 3.9.9 The SES2 scheme will give rise to a different likely temporary residual adverse significant construction noise effect on the following non-residential receptors, due to an increased impact duration:
- DoubleTree by Hilton Hotel, Piccadilly Place, Manchester;
 - Malmaison Hotel, Gore Street, Manchester;
 - Your Smile Clinic, Dale Street, Manchester;
 - Premier Inn, Dale Street, Manchester;
 - The Reach at Piccadilly Hotel (formerly La Reserve Aparthotel); Ducie Street
 - Bridge House (Hotel), Ducie Street and committed development MA08/414S; and
 - Piccadilly (Hotel), Manchester and committed development MA08/089.

Operation

Landscape and visual

- 3.9.10 In many cases, significant effects will reduce over time as the proposed mitigation planting matures and reaches its designed intention. However, the change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005), will give rise to the following effects:
- a new likely residual significant operation effect at view south-east from Piccadilly Place pedestrian bridge (342-03-014). The effect will increase from **minor** adverse (non-significant) to moderate adverse (significant); and

- a different likely residual significant effect at view south-east from Ducie Street (342-03-015) but where the level of effect will be unchanged to that reported in the main ES. The effect will remain **moderate** beneficial (significant).

3.10 Summary of likely residual significant effects that will be removed as a result of the SES2 changes

Construction

Socio-economics

- 3.10.1 The SES2 scheme will result in the removal of an adverse significant residual temporary in-combination effect on Staycity Aparthotels at Gateway House.

Sound, noise and vibration

- 3.10.2 As a result of the change to requirement/assumption for the demolition of Gateway House (SES2-008-005), the likely significant adverse significant effect at Staycity Aparthotels, Gateway House, will be removed.

Part 2: Additional Provision 2 Environmental Statement

4 Summary of AP2 amendments in the Manchester Piccadilly Station area

4.1 Engineering amendments

4.1.1 Amendments in the Manchester Piccadilly Station area will result in changes to the land or Bill powers required for the SES2 scheme. Table 9 provides a summary of the engineering amendments. Figure 3 shows the locations of the engineering amendments.

4.1.2 Please note that all the dimensions in the following sections are approximate.

Table 9: Summary of AP2 amendments in the Manchester Piccadilly Station area

Name of AP2 amendment	Description of the original scheme	Description of the AP2 revised scheme
<p>Additional land permanently required for modifications to the A635/A665 Pin Mill Brow gyratory AP2-008-001</p> <p>Map CT-05-365b, D6 to E4 and map CT-06-365b, D6 to E4, in the SES2 and AP2 ES Volume 2, MA08 Map Book</p>	<p>Provision of the A635/A665 Pin Mill Brow gyratory between the A635 Mancunian Way, the A635 Fairfield Street, the A665 Pin Mill Brow and the A665 Chancellor Lane.</p>	<p>Additional land will be permanently required to enable the extension of the existing cycle lane along the A635 Ashton Old Road and the A635/A665 Pin Mill Brow gyratory area and for the extension to a footway, providing an opportunity for an additional crossing between the A635 Ashton Old Road and the A635/A665 Pin Mill Brow gyratory.</p> <p>Additional land to the east and west of the A635 Mancunian Way will be required temporarily during construction for working space for plant and movement of operatives, storage of plant and materials and provision of health and welfare facilities.</p>
<p>Additional land permanently required for provision of an access ramp from the realigned B6469 Fairfield Street to the Network Rail upper viaduct deck at Manchester Piccadilly Station AP2-008-002</p> <p>Map CT-05-365b, E4 to F5 and map CT-06-365b, E4 to F5, in the SES2 and AP2 ES Volume 2, MA08 Map Book</p>	<p>A new Network Rail access ramp to the existing Manchester Piccadilly Station which would be accessed from Hoyle Street and Chapelfield Street. The access ramp would be required as the existing vehicular access to the Network Rail Viaduct would be severed by the proposed Manchester Piccadilly High Speed station.</p>	<p>Hoyle Street and Chapelfield Street are to be pedestrianised as part of the Mayfield Partnership's plan to develop the area. The ramp will be accessed via a dedicated right-turn lane at junction of the A635 Mancunian Way and realigned B6469 Fairfield Street, with egress via Temperance Street and a retained section of Hoyle Street before connecting to the realigned B6469 Fairfield Street.</p>

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Name of AP2 amendment	Description of the original scheme	Description of the AP2 revised scheme
<p>Change to Bill powers for modifications to the multi-modal transport hub AP2-008-003</p> <p>Map CT-05-365b, F5 to J6 and map CT-06-365b, E4 to J6, in the SES2 and AP2 ES Volume 2, MA08 Map Book</p>	<p>Two multi-storey car parks will be provided on New Sheffield Street. Car park 1 located west of Adair Street and car park 2 located east of Adair Street; and taxi drop off/pick up facilities between Manchester Piccadilly High Speed station and the Network Rail Viaduct.</p>	<p>Car park 2 will be relocated from the north side of New Sheffield Street to between the Manchester Piccadilly High Speed station and the Network Rail Viaduct and to reconfigure the multi-modal transport hub.</p> <p>The layout of the realigned New Sheffield Street will also be reconfigured.</p>
<p>Additional land permanently required for a new loading/unloading bay to provide access to the catering areas within the Network Rail facilities building at Manchester Piccadilly High Speed station AP2-008-004</p> <p>Map CT-05-365b, G5 to H5 and map CT-06-365b, G5 to H5, in the SES2 and AP2 ES Volume 2, MA08 Map Book</p>	<p>Retention of the Network Rail train catering facility in its existing location that would be incorporated into the new North Block building. Access to the building would be via a ramp accessed via the Network Rail maintenance depot to the rear of Gateway House, off Ducie Street.</p>	<p>Additional land will be required for a temporary catering storage and loading facility whilst the new catering facilities are constructed within the relocated North Block (SES2-008-003). New loading facilities will be located in the existing arches at ground level beneath the Network Rail Viaduct.</p>
<p>Additional land permanently required for the re-provision of Blue Badge parking off the B6469 Fairfield Street AP2-008-005</p> <p>Map CT-05-365b, H4 to I5 and map CT-06-365b, H4 to I5, in the SES2 and AP2 ES Volume 2, MA08 Map Book</p>	<p>Conversion of the existing car parking spaces located at the southern entrance to the Manchester Piccadilly station to 37 Blue Badge bays, including the three existing Blue Badge spaces at this location.</p>	<p>Additional land will be required to widen and realign the car park bell-mouth entrance²³ to accommodate the car park junction.</p> <p>The existing short stay car park, off Fairfield Street, will be converted into two ranks of Blue Badge parking spaces, comprising 49 spaces.</p>
<p>Change to Bill powers for the diversion of Travis Street sewer via Ducie Street with a new compound within Ducie Street and the A665 Great Ancoats Street junction AP2-008-006</p> <p>Map CT-05-365b, H9 to I4 and map CT-06-365b, H9 to I4, in the SES2 and AP2 ES Volume 2, MA08 Map Book</p>	<p>Underground diversion of a combined sewer for 1.3km. The diversion would start at the Ducie Street and A665 Great Ancoats Street junction and would continue south-west along Ducie Street and partially beneath Piccadilly Station approach. The diversion would continue along the A6 London Road and Downing Street before terminating 40m east of the Grosvenor Street and Downing Street junction.</p>	<p>The sewer diversion will be moved to the centre of Ducie Street and the work area will be moved from the customer car park of a furniture store to the junction of Ducie Street and the A665 Great Ancoats Street.</p>

²³ Bell-mouth refers to the shape of the car park entrance, the entrance is wide to allow safe access for vehicles turning into or out of the car park.

5 Assessment of engineering amendments in the Manchester Piccadilly Station area

5.1 Additional land permanently required for modifications to the A635/A665 Pin Mill Brow gyratory (AP2-008-001)

- 5.1.1 The Bill provides for the introduction of the A635/A665 Pin Mill Brow gyratory between the A635 Mancunian Way, the A635 Fairfield Street, the A665 Pin Mill Brow and the A665 Chancellor Lane (see Volume 2, MA08 Map Book: map CT-06-365b, D4 to E6 in the main ES).
- 5.1.2 Since the main ES, further work has determined the need for additional land permanently required to enable the extension of the existing cycle lane along the A635 Ashton Old Road and the A635/A665 Pin Mill Brow gyratory area. Additional land is required in four areas: land 5m north of the River Medlock and east of the A665 Pin Mill Brow; land bounded by the River Medlock, the A665 Pin Mill Brow and the A635 Ashton Old Road; and the eastern and western sides of the A635 Mancunian Way beneath the existing Network Rail Viaduct.
- 5.1.3 The amendment consists of the following (with references to the SES2 and AP2 ES Volume 2, MA08 Map Book):
- enabling the extension of the existing cycle lane along the A635 Ashton Old Road and the A635/A665 Pin Mill Brow gyratory area and for the extension to a footway, providing an opportunity for an additional crossing between the A635 Ashton Old Road and the A635/A665 Pin Mill Brow gyratory (see map CT-06-365b, D6);
 - the additional land required north of the River Medlock and the area bounded by the River Medlock, the A665 Pin Mill Brow and the A635 Ashton Old Road will be required for an extension of the footway to the north of the Environment Agency access point by up to 10m. This will enable the future opportunity for an additional crossing at the junction between the A635 Ashton Old Road and the A635/A665 Pin Mill Brow gyratory (see map CT-06-365b, D6 to D7);
 - the additional land on the eastern and western sides of the A635 Mancunian Way beneath the existing Network Rail Viaduct is required temporarily during construction for working space for plant and movement of operatives, storage of plant and materials and provision of health and welfare facilities. The land required will take the full width of the highway in order to facilitate construction of the highway works for A635/A665 Pin Mill Brow gyratory (see map CT-06-365b, E4); and
 - an area of existing woodland (680m²) will be lost to accommodate the additional land required for construction (see map CT-06-365b, D6 to E5).

- 5.1.4 Construction of the amendment will be managed from the Manchester approach viaduct satellite compounds and will be completed within the indicative construction programme for this compound provided in Section 6.
- 5.1.5 The land required for this amendment is outside the limits of the Bill. The amendment will result in the permanent requirement for 0.13ha of additional land and the temporary requirement for a further 550m² of additional land (see SES2 and AP2 ES Volume 2, MA08 Map Book: maps CT-06-365b D7 to E4).

Topics included in the AP2 assessment

- 5.1.6 The assessment of this amendment has identified new, different or removed likely significant effects for the following topics: ecology and biodiversity; and landscape and visual.
- 5.1.7 The assessment of changes to traffic flows and traffic related effects as a result of all changes and amendments to the original scheme is reported in Section 7. Topics where a significant effect has been identified due to changes to traffic flows are reported in Section 7 and include: air quality; community; ecology and biodiversity; health; socio-economics; sound, noise and vibration; and traffic and transport.

Ecology and biodiversity

Scope, assumptions and limitations

- 5.1.8 The assessment scope, key assumptions and limitations for ecology and biodiversity are as set out in Volume 1 and the EIA Scope and Methodology Report (SMR)²⁴ of the main ES.
- 5.1.9 This amendment has the potential to result in new or different significant construction effects only. Therefore, there is no operational assessment for ecology and biodiversity.
- 5.1.10 Where there are limitations in data, a precautionary baseline has been taken following the approach set out in the SMR which constitutes a 'reasonable worst-case' basis for the subsequent assessment.
- 5.1.11 Ecology and biodiversity effects that result from the assessment of the changes to traffic flows as a result of all AP2 amendments in combination with all SES2 design changes are reported in Section 7.

²⁴ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement, Environmental Impact Assessment Scope and Methodology Report*, Volume 5, Appendix: CT-001-00001. Available online at: <https://www.gov.uk/government/collections/cross-topic-technical-appendices-for-high-speed-rail-crewe-manchester-environmental-statement#environmental-impact-assessment-scope-and-methodology-report>.

Environmental baseline

Existing baseline

- 5.1.12 The baseline ecology and biodiversity information is as described in Section 7 of Volume 2, Community Area report: Manchester Piccadilly Station of the main ES and SES2. A summary of the baseline information relevant to the assessment of the amendment is provided below.

Habitats

- 5.1.13 Habitats within the land required for construction of the amendment include semi-improved grassland, broadleaved woodland, amenity grassland and hard standing.
- 5.1.14 The land required for the amendment contains semi-improved grassland which is of up to local/parish value.
- 5.1.15 The main ES reported broadleaved woodland covering an area of over 7ha located adjacent to the land required for the construction of the original scheme north and west of the A665 Pin Mill Brow and adjacent to the River Medlock. This woodland habitat is of up to local/parish value.

Species

- 5.1.16 The SES2 baseline reports a bat assemblage of at least three species in the Manchester Piccadilly Station area that is considered to be of up to regional value on the basis of a possible *Myotis* roost, which is considered to be a 'rarer' species in England.
- 5.1.17 The land required for the amendment contains trees which, in the absence of survey information and on a precautionary basis, are assumed to support roosts of common and widespread species of bats. It is considered that roosts present would be associated with the Manchester Piccadilly Station bat assemblage and these assumed roosts present are of county/metropolitan value.

Future baseline

- 5.1.18 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 5.1.19 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.
- 5.1.20 None of the identified developments affect the assessment of the AP2 revised scheme's likely impacts on ecology and biodiversity.

Effects arising during construction

Avoidance and mitigation measures

- 5.1.21 No avoidance or mitigation measures additional to those reported in the main ES and draft Code of Construction Practice (CoCP)²⁵ are proposed.

Assessment of impacts and effects

- 5.1.22 On a precautionary basis, in the absence of survey data, it is assumed that the trees present provide roosting opportunities for common and widespread species and that the amendment will result in the loss of at least one bat roost of a common and widespread species. This will result in a different significant effect to that reported in the main ES; however, this will not change the level of significance of the effect reported in the main ES which is at the county/metropolitan level.
- 5.1.23 Effects on ecological features of significance at the local/parish level are listed in SES2 and AP2 ES Volume 5, Appendix: EC-015-00000).

Other mitigation measures

- 5.1.24 To replace roosts that will be lost to construction, artificial roosts will be provided in accordance with the Ecological Principles of Mitigation within the SMR. The mitigation measures will take account of the different significant effects identified above and this will address the potential for loss or disturbance of roosts that could be present within the land required for the amendment and the potential significant effect on the bat assemblage. Following the implementation of these measures, the effects on the bat assemblage will be reduced to a level that is not significant.

Summary of likely residual significant effects

- 5.1.25 There are no changes to the likely residual significant construction ecology and biodiversity effects identified in the main ES as a result of the amendment.

Cumulative effects

- 5.1.26 No new, removed or different significant cumulative effects have been identified.

²⁵ High Speed Two Ltd (2022), High Speed Rail (Crewe - Manchester), *Environmental Statement, draft Code of Construction Practice*, Volume 5, Appendix: CT-002-00000. Available online at: <https://www.gov.uk/government/collections/cross-topic-technical-appendices-for-high-speed-rail-crewe-manchester-environmental-statement#draft-code-of-construction-practice>.

Landscape and visual

Scope, assumptions and limitations

- 5.1.27 The assessment scope, key assumptions and limitations for landscape and visual are as set out in Volume 1 and the SMR of the main ES.
- 5.1.28 This amendment has the potential to result in new or different significant construction effects for the visual assessment only. Therefore, there is no operational assessment for visual and no construction or operational assessment for landscape.
- 5.1.29 All landscape and visual effects arising from this amendment are reported in SES2 and AP2 ES Volume 5, Appendix: LV-001-0MA08. The locations of significantly affected viewpoints during the construction phase are shown in the SES2 and AP2 ES Volume 2, MA08 Map Book: Map Series LV-03.

Environmental baseline

Existing baseline

- 5.1.30 The baseline landscape and visual information is as described in Volume 5, Appendix: LV-001-0MA08 of the main ES. A summary of the visual baseline information relevant to the assessment of the amendment is provided below.

Visual baseline

- 5.1.31 The amendment has the potential to affect one viewpoint. This viewpoint is described in the SES2 and AP2 ES Volume 5, Appendix: LV-001-0MA08 and summarised below.

View south-west from Ancoats Bridge on the A665 Pin Mill Brow (medium sensitivity receptors) (341-03-005)

- 5.1.32 This viewpoint is representative of views experienced by cyclists using Regional Cycle Route 86, Medlock Valley Way and road users travelling along the A665 Pin Mill Brow at the entrance/exit of Medlock Valley Park. The view comprises the carriageway of the A665 Pin Mill Brow, with its central median and traffic controlled pedestrian crossing, leading to an entrance to Medlock Valley Park to the south east which is marked by mature tree planting. The traffic lights and pedestrian barriers are detracting, but typical, elements within the view. Large-scale retail units front onto the A665 Pin Mill Brow in the middle distance including, to the south-west, the four-storey metal panelled large retail unit that blocks visibility beyond. To the north-west the blue sheet metal clad, two-storey building also obscures visibility. Mature tree cover is present along the River Medlock and Helmet Street. Rail infrastructure features and some buildings in Manchester city centre can be seen against the skyline.

Future baseline

- 5.1.33 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 5.1.34 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.
- 5.1.35 None of the identified developments affect the assessment of the AP2 revised scheme's likely impacts for landscape and visual.

Effects arising during construction

Avoidance and mitigation measures

- 5.1.36 No avoidance or mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Assessment of impacts and effects

Visual effects

View south-west from Ancoats Bridge on the A665 Pin Mill Brow (medium sensitivity receptors) (341-03-005)

- 5.1.37 The main ES reported a **moderate** adverse (significant) effect for cyclists using Regional Cycle Route 86, Medlock Valley Way and road users travelling along the A665 Pin Mill Brow at the entrance/exit of Medlock Valley Park of **medium** susceptibility with **medium-low** value views, experiencing noticeable change to views. This would be as a result of the realignment of the A665 Pin Mill Brow, the presence of construction traffic and the demolition of the large retail buildings. The removal of some vegetation from the River Medlock corridor would open up views of construction of Ardwick embankment and Piccadilly approach viaduct. Whilst construction activity associated with the original scheme would be visible across the majority of the view it would be largely perceived in relation to the existing industrial and commercial land use context.
- 5.1.38 The amendment will change the visual effect at this viewpoint as a result of the removal of additional vegetation to the south-east of the view on the edge of the Medlock Valley Park to accommodate the cycle path. This will increase the presence of construction activity as well as opening up views of wider construction activities along the A635 Great Ancoats Street.
- 5.1.39 The amendment will therefore give rise to a different significant effect; however, the level of significance of the effect will remain as reported in the main ES.

Other mitigation measures

- 5.1.40 No mitigation measures additional to those reported in the main ES are proposed.

Summary of likely residual significant effects

- 5.1.41 The amendment will give rise to a different likely residual significant construction effect, after implementation of construction phase mitigation, at viewpoint: View south-west from Ancoats Bridge on the A665 Pin Mill Brow (341-03-005). The level of effect will be unchanged to that reported in the main ES and remain moderate adverse (significant).

Cumulative effects

- 5.1.42 No new or different significant cumulative effects have been identified.

Summary of new or different likely residual significant effects as a result of the amendment

Construction

Landscape and visual

- 5.1.43 The amendment will give rise to a different likely residual significant construction effect, at View south-west from Ancoats Bridge on the A665 Pin Mill Brow (341-03-005). The level of significance of the effect will remain moderate adverse (significant) as reported in the main ES.

5.2 Additional land permanently required for provision of an access ramp from the realigned B6469 Fairfield Street to the Network Rail viaduct deck at Manchester Piccadilly Station (AP2-008-002)

- 5.2.1 The Bill provides for a new Network Rail access ramp to the existing Manchester Piccadilly Station. This access ramp would be required as the existing vehicular access to the Network Rail Viaduct deck located to the north-east of the existing Manchester Piccadilly Station and accessed from Ducie Street via the Gateway House ramp would be severed by the Manchester Piccadilly High Speed station. The access ramp, 93m in length, would enable vehicles to access the existing Manchester Piccadilly Station at platform level via Hoyle Street and Chapelfield Road (see Volume 2, MA08 Map Book: map CT-06-365b, E4 to F5 in the main ES).

- 5.2.2 Since the main ES, further engagement with stakeholders has identified that the highways to be used to gain access to the ramp, namely Hoyle Street and Chapelfield Road, are to be pedestrianised as part of The Mayfield Partnership's plans to develop the area.
- 5.2.3 To accommodate this amendment, a one-way clockwise circulatory route will be introduced as follows (with references to the SES2 and AP2 ES Volume 2, MA08 Map Book):
- for access to the ramp, vehicle drivers will navigate a dedicated right-turn lane at the A635 Mancunian Way signalised junction from the realigned B6469 Fairfield Street (see map CT-06-365b, E4 to F5); and
 - for egress from the ramp, vehicle drivers will be routed via a section of Chapelfield Road, Temperance Street and Hoyle Street before connecting to the realigned B6469 Fairfield Street (see map CT-06-365b, E4 to F5).
- 5.2.4 The length of the access ramp will be increased by 17m to incorporate additional car parking spaces at the top of the new ramp structure. A security control point and sliding gates will be required at the bottom of the access ramp as the access ramp will pass through a secure section of the Network Rail Viaduct. In addition, the existing Fairfield Street bridge will be widened by 3.5m to accommodate the realigned B6469 Fairfield Street. Gas and water utilities will be routed into smaller diameter pipes to enable the installation into the structural beam of the Fairfield Street bridge (see SES2 and AP2 ES Volume 2, MA08 Map Book: map CT-06-365b, E4 to H5).
- 5.2.5 Construction of the amendment will be managed from the Manchester Piccadilly High Speed station main compound and will be completed within the indicative construction programme for this compound provided in Section 6.
- 5.2.6 The land required for the amendment is outside the limits of the Bill. The amendment will result in the permanent requirement for 0.13ha of additional land. See SES2 and AP2 ES Volume 2, MA08 Map Book: map CT-06-365b, E4 to H5.

Topics included in the AP2 assessment

- 5.2.7 The amendment is not considered to require a reassessment of the environmental effects or mitigation as set out in the main ES with respect to any environmental topics.
- 5.2.8 The assessment of changes to traffic flows and traffic related effects as a result of all changes and amendments to the original scheme is reported in Section 7. Topics where a significant effect has been identified due to changes to traffic flows are reported in Section 7 and include: air quality; community; ecology and biodiversity; health; socio-economics; sound, noise and vibration; and traffic and transport.

5.3 Change to Bill powers for modifications to the multi-modal transport hub (AP2-008-003)

- 5.3.1 The Bill provides for two multi-storey car parks on New Sheffield Street. Car park 1 is located west of Adair Street and car park 2 is located east of Adair Street. The Bill also provides for a taxi drop off/pick up facility between the proposed Manchester Piccadilly High Speed station and existing Manchester Piccadilly Station. New Sheffield Street is located adjacent to the Manchester Piccadilly High Speed station with taxi lay-bys on its south side and a series of retaining walls would align with the highway and multi-storey car parks (see Volume 2, MA08 Map Book: map CT-06-365b in the main ES Volume).
- 5.3.2 Since the main ES, further engagement has resulted in a change to the design of the car parks and associated highway interfaces to be located away from New Sheffield Street to maximise development opportunities and the quality of the public realm.
- 5.3.3 The amendment consists of the following (with references to the SES2 and AP2 ES Volume 2, MA08 Map Book):
- multi-storey car park 1 will be extended 6m south, with the number of car parking spaces remaining unchanged (see map CT-06-365b);
 - relocation of multi-storey car park 2 from the north side of New Sheffield Street to between the Manchester Piccadilly High Speed station and the Network Rail Viaduct, with the number of car parking spaces remaining unchanged (see map CT-06-365b, F5);
 - reconfiguration of the multi-modal transport hub in an area between the Manchester Piccadilly High Speed station and Network Rail Viaduct, including the relocated multi-storey car park 2 (see map CT-06-365b, F5);
 - redesign of New Sheffield Street, including:
 - the New Sheffield Street and Ducie Street junction will be moved 10m north-east (see map CT-06-365b, J6);
 - relocation of taxi drop-off lay-bys from the south to the north side of New Sheffield Street (see map CT-06-365b, G6 to I6);
 - removal of the highway connection between St. Andrew's Square and New Sheffield Street (see map CT-06-365b, F6); and
 - New Sheffield Street will pass under a single span of the Piccadilly Approach viaduct (see map CT-06-365b, F5 to F6).
 - introduction of a new bus lay-by on the south side of the B6469 Fairfield Street and a new bus stop adjacent to the multi-modal transport hub (see map CT-06-365b, G4 to G5);
 - redesign of retaining walls along the north edge of plots to be used for future development adjacent to New Sheffield Street. The changes allow for pedestrian access from the lower-level New Sheffield Street to the higher-level to the north, as well as an additional construction working area at the east end of New Sheffield Street (see map CT-06-365b, F6 to I6);

- widening of the B6469 Fairfield Street and Fairfield Street offline overbridge by up to 3m, to accommodate access to the Network Rail ramp (see map CT-06-365b, E5 to F5);
- realignment of a 215m section of Travis Street between the Network Rail Viaduct and multi-modal transport hub, rather than the closure described in the main ES (see map CT-06-365b, G5 to H4);
- an access restriction of the section of New Sheffield Street between Ducie Street and Helmet Street, a one-way only permitted section allowing only taxis and service vehicles (see map CT-06-365b, F6 to J6);
- the following changes are required to the drainage design around Manchester Piccadilly High Speed station:
 - two underground attenuation tanks will be provided instead of one due to the provision for the multi-modal transport hub. The first tank located at Travis Street will discharge to an existing combined sewer beneath the B6469 Fairfield Street. The second tank will be located 8m south of the relocated multi-storey car park 1. It will attenuate flows from Manchester Piccadilly High Speed station and discharge to an existing combined sewer beneath the B6469 Fairfield Street (see map CT-06-365b, F4 to G5);
 - an attenuation tank located on Adair Street, 20m north of New Sheffield Street, will be added to attenuate surface water flows from the proposed multi-storey car park adjacent to Travis Street. The tank will discharge to an existing combined surface water sewer located along Travis Street (see map CT-06-365b, G5 to H4); and
 - two attenuation tanks will be provided instead of one to accommodate the revised New Sheffield Street alignment, to the north of the Manchester Piccadilly High Speed station. Both will be located beneath New Sheffield Street. The tanks will have a shared outfall and will discharge to the combined surface water sewer diverted along the section of Store Street that will be retained as part of the original scheme (see map CT-06-365b, H6 to I6).
- the following changes to utilities are required:
 - the utilities around the Ducie Street and New Sheffield Street junction, including telecommunication cables; electricity cables; a sewer; and a culverted watercourse, will be moved 10m north-east to realign with the proposed road layout (see map CT-06-365b, J6); and
 - electricity and telecommunication cables will be moved from the section of St Andrew's Square that will be removed due to the retaining wall redesign. The underground cables will be routed into Adair Street from New Sheffield Street (see map CT-06-365b, G6).

5.3.4 Construction of the amendment will be managed from the Manchester Piccadilly High Speed station main compound. The amendment will be completed within the indicative construction programme for this compound provided in Section 6.

- 5.3.5 Although land required for this amendment is within the limits of the Bill, the amendment will require a change in Bill powers. See SES2 and AP2 ES Volume 2, MA08 Map Book: maps CT-05-365b, E5 to J6.

Local alternatives

- 5.3.6 The SES2 and AP2 ES Alternatives report (see SES2 and AP2 Volume 5, Appendix: CT-003-00000) describes the local alternative considered as part of the design development of this AP2 amendment.

Topics included in the AP2 assessment

- 5.3.7 The assessment of this amendment has identified new, different or removed likely significant effects for the following topics: historic environment; and traffic and transport.
- 5.3.8 The assessment of changes to traffic flows and traffic related effects as a result of all changes and amendments to the original scheme is reported in Section 7. Topics where a significant effect has been identified due to changes to traffic flows are reported in Section 7 and include: air quality; community; ecology and biodiversity; health; socio-economics; sound, noise and vibration; and traffic and transport.

Historic environment

Scope, assumptions and limitations

- 5.3.9 The assessment scope, key assumptions and limitations for the historic environment are as set out in Volume 1 and the SMR of the main ES.
- 5.3.10 This amendment has the potential to result in new or different significant construction effects only. Therefore, there is no operational assessment for historic environment.

Environmental baseline

Existing baseline

- 5.3.11 The baseline historic environment information is as described in Volume 2, Community Area report: Manchester Piccadilly Station of the main ES. A summary of the baseline information relevant to the assessment of the amendment is provided below.
- 5.3.12 There are no designated heritage assets relevant to the assessment of the amendment.
- 5.3.13 There is one non-designated asset relevant to the assessment of the amendment. St Andrew's Church and disused graveyard (site of) (MA08_0677) is of high value and lies within the land required for the construction of the amendment. The heritage value of the asset lies in its archaeological interest due to the human burials and the potential survival of the

church's foundations and vaults. The asset was located wholly within the land required for the construction of the original scheme.

Future baseline

- 5.3.14 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 5.3.15 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.
- 5.3.16 None of the identified developments affect the assessment of the AP2 revised scheme's likely impacts on historic environment.

Effects arising during construction

Avoidance and mitigation measures

- 5.3.17 No mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Assessment of impacts and effects

- 5.3.18 The main ES reported a major adverse significant effect on St Andrew's Church and disused graveyard (site of) (MA08_0677), a non-designated asset of high heritage value. The asset is located within the land required for the construction of the original scheme. The construction of Manchester Piccadilly High Speed station car parks, New Sheffield Street and changes in ground level, would have removed archaeological remains of the church and human burials.
- 5.3.19 The amendment will remove the impact from the construction of Manchester Piccadilly High Speed station car parks. The impacts from the construction of New Sheffield Street and changes in ground level remain. A new impact will be introduced from the construction of retaining walls, and associated reduction in ground level. This will still remove below ground archaeological remains of the church and human burials. This will result in a different high adverse impact on a high value asset. However, this will not change the level of the permanent major adverse significant effect reported in the main ES.

Other mitigation measures

- 5.3.20 No mitigation measures additional to those reported in the main ES are proposed.

Summary of likely residual significant effects

- 5.3.21 The amendment will result in a different, permanent major adverse residual significant effect on St Andrew's Church and disused graveyard (site of) (MA08_0677).

Cumulative effects

- 5.3.22 No new, removed or different significant cumulative effects have been identified.

Traffic and transport

Scope, assumptions and limitations

- 5.3.23 The assessment scope, key assumptions and limitations for traffic and transport are as set out in Volume 1 and the SMR of the main ES.
- 5.3.24 This amendment has the potential to result in new or different significant construction and operational effects for traffic and transport.
- 5.3.25 The assessment of changes to traffic flows during construction and operation as a result of all AP2 amendments in combination with all SES2 design changes is reported in Section 7 of this report.
- 5.3.26 The assessment in this section considers the potential effects on changes in journey lengths for vehicle occupants. No effects on other traffic and transport topics, with the exception of traffic-related effects reported in Section 7, are considered to require reassessment as a result of the amendment.

Environmental baseline

Existing baseline

- 5.3.27 The baseline traffic and transport information is described in Section 14 of Volume 2, Community Area report: Manchester Piccadilly Station (MA08) of the main ES and in Section 2 of this report. A summary of the baseline information relevant to the assessment of the amendment is provided below.
- 5.3.28 The main local roads of relevance to the assessment of this amendment are Travis Street, Store Street and Chapeltown Street, which are unclassified roads in the Manchester Piccadilly Station area. The local road network in this area is generally busy during peak hours and delays can be experienced.

Future baseline

- 5.3.29 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025 and 2038.

- 5.3.30 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.

Effects arising during construction

Avoidance and mitigation measures

- 5.3.31 No avoidance or mitigation measures additional to those reported in the main ES are proposed.

Assessment of impacts and effects

- 5.3.32 As corrected in Section 2, the original scheme would require the partial temporary closure of an 85m section of Chapeltown Street at its south-western end, for a period of nine months, resulting in a moderate adverse effect on journey length for vehicle occupants, which is significant. The amendment removes the partial temporary closure in this location, which is replaced by a permanent closure. As a result, the amendment removes the temporary moderate adverse effect arising from the original scheme. However, this is replaced by the permanent effect reported in the operational assessment for this amendment.

Other mitigation measures

- 5.3.33 No mitigation measures additional to those reported in the main ES are proposed.

Summary of likely residual significant effects

- 5.3.34 No new or different temporary likely residual significant effects have been identified.
- 5.3.35 The amendment removes the temporary moderate adverse effect to journey lengths for vehicle occupants on Chapeltown Street arising from the original scheme, which is replaced by the permanent effect reported in the operation assessment.

Cumulative effects

- 5.3.36 No new, removed or different significant cumulative effects have been identified.

Effects arising during operation

Avoidance and mitigation measures

- 5.3.37 No avoidance or mitigation measures additional to those reported in the main ES are proposed.

Assessment of impacts and effect

- 5.3.38 The main ES reported that the original scheme would require the permanent closure of an 85m section of Store Street at the southern end between the A6 London Road and Boad Street. Store Street would be realigned to facilitate connection to New Sheffield Street and would be retained as a one-way exit from New Sheffield Street, providing access to the A665 Great Ancoats Street. This would increase journey length for vehicle occupants by up to 217m, which would not result in a significant effect. The amendment will restrict access onto New Sheffield Street to service vehicles and taxis only. As a result, northbound private vehicles will be diverted via the A6 London Road, B6469 Fairfield Street, A635 Mancunian Way and the A665 Great Ancoats Street. Southbound private vehicles will be diverted via the A665 Great Ancoats Street, Newton Street and the A6 London Road. This will extend the increase in journey length for vehicle occupants from 217m, as reported in the main ES, to 1.9km, which will give rise to a new moderate adverse effect on journey length for vehicle occupants, which is significant.
- 5.3.39 The main ES reported that the original scheme would require the permanent realignment of an 85m section of Chapeltown Street at its south-western end and junction improvements with New Sheffield Street to enable access between the two streets. Chapeltown Street would become one-way southbound at its southern end and traffic would be diverted via New Sheffield Street and the diverted Store Street, increasing journey length for vehicle occupants by 101m, which would not result in a significant effect. The amendment will result in the permanent closure of a 50m section of the southern end of Chapeltown Street. Vehicles travelling from Store Street to Chapeltown Street will be diverted via Old Mill Street, Carruthers Street, the A662 Pollard Street and the A665 Great Ancoats Street. Vehicles travelling from Chapeltown Street to Store Street will be diverted via the A665 Great Ancoats Street. This will extend the increase in journey length for vehicle occupants from 101m, as reported in the main ES, to 1.7km, which will give rise to a new minor adverse effect on journey length for vehicle occupants, which is significant.
- 5.3.40 The main ES reported that the original scheme would require the permanent closure of a 215m section of Travis Street between the junction with the diverted B6469 Fairfield Street and New Sheffield Street, increasing journey length for vehicle occupants by up to 457m, which would not result in a significant effect. The amendment will restrict access onto New Sheffield Street to service vehicles and taxis only. As a result, private vehicles will be diverted via the B6469 Fairfield Street, the A635 Mancunian Way and the A665 Great Ancoats Street. This will extend the increase in journey length for vehicle occupants from 457m, as reported in the main ES, to 1.2km, which will give rise to a new moderate adverse effect on journey length for vehicle occupants, which is significant.

Other mitigation measures

- 5.3.41 No mitigation measures additional to those reported in the main ES are proposed.

Summary of likely residual significant effects

5.3.42 The amendment will give rise to the following new likely residual permanent significant effects:

- moderate adverse effect on journey length for vehicle occupants on Store Street due to an increase in journey length of up to 1.9km;
- moderate adverse effect on journey length for vehicle occupants on Travis Street due to an increase in journey length of up to 1.2km; and
- minor adverse effect journey length for vehicle occupants on Chapeltown Street due to an increase in journey length of up to 1.7km.

Cumulative effects

5.3.43 No new, removed or different significant cumulative effects have been identified.

Summary of new or different likely residual significant effects as a result of the amendment

Construction

Historic environment

5.3.44 The amendment will result in a different permanent major adverse residual significant effect on St Andrew's Church and disused graveyard (site of) (MA08_0677).

Operation

Traffic and transport

5.3.45 The amendment will give rise to the following new likely residual permanent significant effects:

- moderate adverse effect on journey length for vehicle occupants on Store Street due to an increase in journey length of up to 1.9km;
- moderate adverse effect on journey length for vehicle occupants on Travis Street due to an increase in journey length of up to 1.2km; and
- minor adverse effect journey length for vehicle occupants on Chapeltown Street due to an increase in journey length of up to 1.7km.

Summary of likely residual significant effects that will be removed

Construction

Traffic and transport

- 5.3.46 The amendment removes the temporary moderate adverse effect to journey lengths for vehicle occupants on Chapeltown Street arising from the original scheme, which is replaced by the permanent effect reported in the operation assessment.

5.4 Additional land permanently required for a new loading/unloading bay to provide access to the catering areas within the Network Rail facilities building at Manchester Piccadilly High Speed station (AP2-008-004)

- 5.4.1 The Bill provides for the retention of the Network Rail train catering facility in its existing location which would be incorporated into the new North Block building. The existing train catering facility is operated by Avanti Catering. Access to the building would be via a ramp accessed via the Network Rail maintenance depot to the rear of Gateway House, off Ducie Street. Within the building there would be a storage location for food and drink prior to transfer and loading onto the appropriate train service (see Volume 2, MA08 Map Book: map CT-06-365b in the main ES).
- 5.4.2 Since the main ES, engagement with Network Rail has identified a route to avoid Network Rail's secure maintenance depot. As a result, a new catering storage area with appropriate access and loading facilities will be required.
- 5.4.3 A temporary catering storage and loading facility will be required before the demolition of the existing catering facilities can be undertaken to provide a continuation of catering services whilst the new catering facilities are constructed (see Relocation of North Block comprising Network Rail facilities at Manchester Piccadilly High Speed station (SES2-008-003) for further details).
- 5.4.4 The amendment consists of the following (with references to the SES2 and AP2 ES Volume 2, MA08 Map Book):
- new catering storage facilities, to be re-provided in the new North Block, which will be located above the existing relay room on the Network Rail Viaduct (see map CT-06-365b, G5 to H5);

- new loading facilities will be located in the existing arches at ground level beneath the Network Rail Viaduct and will include access from the realigned Travis Street (see map CT-06-365b, G5 to H5);
- installation of new service lifts and emergency staircases that connect the catering storage facilities loading bay to the Network Rail Viaduct deck level (see map CT-06-365b, G5 to H5);
- construction of a new structure, 7m wide, 4m in length and 3.5m high, on the Network Rail Viaduct deck which will house two new service lifts on the existing viaduct level (see map CT-06-365b, G5 to H5);
- internal fit-out of the loading bay area and storage location (see map CT-06-365b, G5 to H5); and
- installation of drainage and final surfacing to the catering storage facilities loading bay (see map CT-06- CT-06-365b, G5 to H5).

5.4.5 Construction of the amendment will be managed from the Manchester Piccadilly High Speed station main compound and will be completed within the indicative construction programme for this compound provided in Section 6.

5.4.6 The land required for the amendment is outside the limits of the Bill. The amendment will result in the permanent requirement for 650m² of additional land. See SES2 and AP2 ES Volume 2, MA08 Map Book: map CT-06-365b, G5 to H5.

Topics included in the AP2 assessment

5.4.7 The amendment is not considered to require a reassessment of the environmental effects or mitigation as set out in the main ES with respect to any environmental topics.

5.4.8 The assessment of changes to traffic flows and traffic related effects as a result of all changes and amendments to the original scheme is reported in Section 7. Topics where a significant effect has been identified due to changes to traffic flows are reported in Section 7 and include: air quality; community; ecology and biodiversity; health; socio-economics; sound, noise and vibration; and traffic and transport.

5.5 Additional land permanently required for the reprovision of Blue Badge parking off the B6469 Fairfield Street (AP2-008-005)

5.5.1 The Bill provides for alternative blue badge parking within the proposed parking facilities accessed from Adair Street (see Volume 2, MA08 Map Book: map CT-06-365b, H4 to I4 in the main ES), as corrected in Section 2.3 of this report.

5.5.2 Since the main ES, HS2 Ltd has aimed to find a more suitable location for Blue Badge parking close to the Manchester Piccadilly station. It was assumed for the main ES that all Blue Badge parking would be situated within the proposed parking facilities accessed from Adair

Street. However, the travel distance exceeded that stated in published guidance²⁶ and did not meet the recommended distance for the replacement Blue Badge parking.

- 5.5.3 The amendment consists of redesignating a portion of an existing Network Rail owned/operated short stay car park, accessed via the B6469 Fairfield Street, to provide 37 Blue Badge parking spaces.
- 5.5.4 The amendment consists of the following (with references to the SES2 and AP2 ES Volume 2, MA08 Map Book):
- the conversion of the existing Network Rail short stay car park to two ranks of Blue Badge parking spaces, which will result in the reprovision of blue badge parking comprising 37 bays, including the three existing spaces at this location. The conversion will require the removal of existing kerbs, relocation of signage and installation of new road surface markings (see map CT-06-365b, H4 to I5);
 - road reconfiguration to allow vehicles to recirculate and access parking without using the taxi drop-off lane, with associated footways also being reconfigured (see map CT-06-365b, H4 to I5); and
 - widening and realignment of the bell-mouth to accommodate the car park junction (see map CT-06-365b, H4 to I5).
- 5.5.5 Construction of the amendment will be managed from the Manchester Piccadilly High Speed station main compound and will be completed within the indicative construction programme for this compound provided in Section 6.
- 5.5.6 The land required for the amendment is outside the limits of the Bill. The amendment will result in the permanent requirement for 10m² of additional land. See map CT-06-365b, H4 to I5 in the SES2 and AP2 ES Volume 2, MA08 Map Book.

Topics included in the AP2 assessment

- 5.5.7 The assessment of this amendment has identified new, different or removed likely significant effects for traffic and transport.
- 5.5.8 The assessment of changes to traffic flows and traffic related effects as a result of all changes and amendments to the original scheme is reported in Section 7. Topics where a significant effect has been identified due to changes to traffic flows are reported in Section 7 and include: air quality; community; ecology and biodiversity; health; socio-economics; sound, noise and vibration; and traffic and transport.

²⁶ Department for Transport (2005), *Inclusive mobility*. Available online at: <https://www.gov.uk/government/publications/inclusive-mobility/inclusive-mobility#transport-buildings-facilities>, which has since been superseded by Department for Transport (2022), *Inclusive mobility: making transport accessible for passenger and pedestrians*. Available online at: <https://www.gov.uk/government/publications/inclusive-mobility-making-transport-accessible-for-passengers-and-pedestrians>.

Traffic and transport

Scope, assumptions and limitations

- 5.5.9 The assessment scope, key assumptions and limitations for traffic and transport are as set out in Volume 1 and the SMR of the main ES.
- 5.5.10 This amendment has the potential to result in new or different significant operational effects only. Permanent loss of parking is reported under the operational assessment. Therefore, there is no construction assessment for traffic and transport.
- 5.5.11 The assessment of the changes to traffic flows during construction and operation as a result of all AP2 amendments in combination with all SES2 design changes are reported in Section 7 of this report.
- 5.5.12 The assessment in this section considers the potential effects on parking and loading. No effects on other traffic and transport topics, with the exception of traffic-related effects reported in Section 7, are considered to require reassessment as a result of the amendment.

Environmental baseline

Existing baseline

- 5.5.13 The baseline traffic and transport information is described in Section 14 of Volume 2, Community Area report: Manchester Piccadilly Station (MA08) of the main ES, as amended in Section 2 of this report. A summary of the baseline information relevant to the assessment of the amendment is provided below.
- 5.5.14 There is off-street parking within the Manchester Piccadilly Station (MA08) community area. The off-street parking areas of relevance to the assessment of this amendment are located at:
- Network Rail short stay car park located off the B6469 Fairfield Street. The existing facility comprises 45 parking spaces and three blue badge spaces; and
 - Network Rail blue badge parking located on the Network Rail Ramp adjacent to the Manchester Piccadilly Station concourse. The existing facility comprises 42 blue badge spaces.

Future baseline

- 5.5.15 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2038.
- 5.5.16 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future

baseline where relevant, and their potential to give rise to cumulative effects has been assessed.

Effects arising during operation

Avoidance and mitigation measures

- 5.5.17 No avoidance or mitigation measures additional to those reported in the main ES are proposed.

Assessment of impacts and effects

- 5.5.18 The main ES reported that the original scheme would result in a major adverse effect on parking, which is significant, due to the permanent relocation of 42 blue badge parking spaces from the Network Rail Ramp to the new multi-storey car parks on Adair Street. This would result in an increase in journey length for pedestrians of up to 650m between the new car parks and the existing Manchester Piccadilly Station. The amendment will introduce 37 blue badge parking spaces in the existing short-stay parking area off Fairfield Street, which currently provides 45 standard parking spaces and three blue badge spaces, in order to replace the blue badge parking spaces removed from the Network Rail Ramp. This will reduce the increase in journey length for blue badge car park users from 650m, as reported in the main ES, to a negligible change in journey length. However, the amendment will result in a net reduction of eight designated blue badge parking spaces, which will continue to be relocated to the multi-storey car park on Adair Street. As a result this will give rise to a different (decreased) significant effect; however, this will not change the level of significance of the effect reported in the main ES, which remains a major adverse effect. It is understood that the current parking spaces are not particularly well used. To accommodate the blue badge spaces, the existing standard parking bays in the short-stay parking area off Fairfield Street will be removed and alternative provision will be available in the multi-storey car park on Adair Street. This will give rise to a new major adverse effect on parking, which is significant, due to an increase in journey length for pedestrians travelling to Manchester Piccadilly Station of up to 764m.

Other mitigation measures

- 5.5.19 No mitigation measures additional to those reported in the main ES are proposed.

Summary of likely residual significant effects

- 5.5.20 The amendment will give rise to a new likely residual permanent major adverse effect on parking at the short-stay parking area off Fairfield Street due to the removal of standard parking spaces.
- 5.5.21 The amendment will give rise to a different (decreased) likely residual permanent major adverse effect on parking at the Network Rail Ramp due to the relocation of blue badge parking to the short-stay parking area off Fairfield Street.

Cumulative effects

5.5.22 No new, removed or different significant cumulative effects have been identified.

5.6 Change to Bill powers for the diversion of Travis Street sewer via Ducie Street with a new compound within Ducie Street and the A665 Great Ancoats Street junction (AP2-008-006)

- 5.6.1 The Bill provides for the underground diversion of a United Utilities 3650mm combined sewer for 1.3km. The diversion would start at Ducie Street and the A665 Great Ancoats Street junction and would continue south-west along the entire length of Ducie Street and partially beneath Piccadilly Station approach. The diversion would continue along the A6 London Road and onto Downing Street before terminating 40m east of the Grosvenor Street and Downing Street junction. This diversion would require the customer car park of a furniture store off the A664 Great Ancoats Street for two years (see Volume 2, MA08 Map Book: map CT-06-365b in the main ES).
- 5.6.2 Since the main ES, the location of the diverted Ducie Street sewer beneath the furniture store and car park has been reviewed as part of design development. As a consequence, the sewer will now be diverted along the centre of Ducie Street with a new connection point located in the public highway at the junction of Ducie Street and the A665 Great Ancoats Street.
- 5.6.3 The amendment consists of the following (with references to the SES2 and AP2 ES Volume 2, MA08 Map Book):
- the sewer diversion will be moved 12m west to the centre of Ducie Street to avoid the furniture store (see map CT-06-365b, H9 to J6);
 - the work area for construction of the diversion will be moved from the customer car park of the furniture store off the A665 Great Ancoats Street to the junction of Ducie Street and the A665 Great Ancoats Street (see map CT-06-365b, H8 to H9);
 - pedestrians will be temporarily diverted to Ducie Street and Lomax Street from the A665 Great Ancoats Street via existing or temporary 2m wide footways located adjacent to the work area at the junction of Ducie Street and the A665 Great Ancoats Street (see map CT-06-365b, H9);
 - the westbound traffic carriageway of the A665 Great Ancoats Street will be reduced to a single lane and a separate cycle lane to allow for the relocated work area (see map CT-06-365b, H9);
 - a new work area will be required at the Ducie Street and Peak Street junction to support construction works (see map CT-06-365b, I8); and

- the section of Ducie Street between Peak Street and the A665 Great Ancoats Street will be temporarily closed, with alternate access via Pigeon Street provided. Temporary traffic management including temporary traffic signals will be introduced to allow for larger vehicles (see map CT-05-365b, H8).
- 5.6.4 Construction of the amendment will be managed from the Manchester Piccadilly High Speed station main compound and will be completed within the indicative construction programme for the compound provided in Section 6.
- 5.6.5 Although the land required for this amendment is within the limits of the Bill a change to Bill powers will be required to accommodate a change to the realignment of the sewer (see SES2 and AP2 ES Volume 2, MA08 Map Book: maps CT-05-365b, H9 to I4).

Topics included in the AP2 assessment

- 5.6.6 The assessment of this amendment has identified new, different or removed likely significant effects for the following topics: socio-economics; sound, noise and vibration; and traffic and transport.
- 5.6.7 The assessment of changes to traffic flows and traffic related effects as a result of all changes and amendments to the original scheme is reported in Section 7. Topics where a significant effect has been identified due to changes to traffic flows are reported in Section 7 and include: air quality; community; ecology and biodiversity; health; socio-economics; sound, noise and vibration; and traffic and transport.

Socio-economics

Scope, assumptions and limitations

- 5.6.8 The assessment scope, key assumptions and limitations for socio-economics are as set out in Volume 1 and the SMR of the main ES. This amendment has the potential to result in new or different significant construction effects only. Therefore, there is no operational assessment for socio-economics.

Environmental baseline

Existing baseline

- 5.6.9 The baseline socio-economics information is as described in the SES2 and AP2 ES Volume 5, Appendix: SE-001-00000, Updated socio-economic baseline information.

Future baseline

- 5.6.10 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.

- 5.6.11 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.
- 5.6.12 None of the identified developments affect the assessment of the AP2 revised scheme's likely impacts for socio-economics.

Effects arising from construction

Avoidance and mitigation measures

- 5.6.13 No mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Assessment of impacts and effects

- 5.6.14 The main ES reported that the diversion of a 3650mm combined sewer along the A6 London Road and Ducie Street would require the temporary acquisition of a customer car park for a furniture store on the A665 Great Ancoats Street. The operations of the business might be affected by the loss of all the 38 customer parking spaces. This would result in a temporary moderate adverse effect on the receptor which was estimated in the main ES to provide 30 jobs.
- 5.6.15 The amendment alters the alignment of the combined sewer to the centre of Ducie Street with the new connection point now located in the public highway, rather than in the customer car park. Therefore, the temporary significant effect on this receptor reported in the main ES will be removed.
- 5.6.16 The locations of significantly affected resources are shown in the SES2 and AP2 ES Volume 5, Socio-economics Map Book: Map Series SE-01.

Other mitigation measures

- 5.6.17 No mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Summary of likely significant effects

- 5.6.18 No new or different likely significant effects have been identified.
- 5.6.19 The amendment will remove the moderate temporary adverse residual significant effect on a furniture store on the A665 Great Ancoats Street reported in the main ES.

Cumulative effects

- 5.6.20 No new, removed or different significant cumulative effects have been identified.

Sound, noise and vibration

Scope, assumptions and limitations

- 5.6.21 The assessment scope, key assumptions and limitations for sound, noise and vibration are as set out in Volume 1 and the SMR of the main ES. This amendment has the potential to result in new or different significant construction effects only. Therefore, there is no assessment of operational effects for sound, noise and vibration.

Environmental baseline

Existing baseline

- 5.6.22 In the Manchester Piccadilly Station area, the updated sound modelling described in Section 2 has resulted in updates to the existing baseline sound levels at receptors adjacent to Manchester Piccadilly Station. Further information on the updated baseline sound levels relevant to the assessment is provided in the SES2 and AP2 ES Volume 5, Appendix: SV-002-00000. Where no updates to the baseline sound levels are required, the baseline sound, noise and vibration information is as described in Section 13 of Volume 2, Community Area report: Manchester Piccadilly Station area (MA08) of the main ES.
- 5.6.23 The works associated with the amendment are closer to receptors on the junction of Ducie Street and Great Ancoats Street than works associated with the original scheme. The baseline sound levels are presented in SES2 and AP2 ES Volume 5, Appendix: SV-002-00000.

Future baseline

- 5.6.24 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 5.6.25 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.
- 5.6.26 None of the identified developments affect the assessment of the AP2 revised scheme's likely impacts for sound, noise and vibration.

Effects arising during construction

Avoidance and mitigation measures

- 5.6.27 No avoidance or mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Assessment of impacts and effects

Residential receptors: direct effects – individual dwellings

- 5.6.28 The main ES identified dwellings forecast to experience noise levels above the eligibility criteria for noise insulation during the daytime, as defined in the draft CoCP. Due to the amendment, daytime noise levels are now forecast to be lower, compared to the main ES predictions, at 64 flats on the northern façade at Store Street, Manchester (assessment location ref.: 616805) and therefore it is anticipated that this building will no longer qualify or be offered noise insulation as described previously in the main ES. These dwellings are indicated on Map Series SV-03 (SES2 and AP2 ES Volume 5, Sound, noise and vibration Map Book: Map Series SV-03).

Residential receptors: direct effects – communities

- 5.6.29 The amendment will remove the following temporary direct adverse noise effects which were considered to be significant on a community basis.
- 5.6.30 The main ES identified, on the basis of a precautionary assessment, a significant adverse construction noise effect in the vicinity of approximately 15 dwellings at Millbank Street, Manchester for a duration of up to three months. This was denoted as MA08-C-C7 in Table 31 of the Volume 2, Community Area report MA08, in Volume 5, Appendix: SV-002-0MA08 and Volume 5, Sound, noise and vibration Map Book: Map Series SV-03 in the main ES. The amendment will remove the likely direct construction noise effect reported in the main ES for this community.
- 5.6.31 The main ES identified, on the basis of a precautionary assessment, a significant adverse construction noise effect in the vicinity of approximately 190 dwellings at Store Street, Manchester for a duration of up to three months. This was denoted as MA08-C-C8 in Table 31 of the Volume 2, Community Area report MA08, in Volume 5, Appendix: SV-002-0MA08 and Volume 5, Sound, noise and vibration Map Book: Map Series SV-03 in the main ES. The amendment will remove the likely direct construction noise effect reported in the main ES for this community.

Non-residential receptors: direct effects

- 5.6.32 The amendment will give rise to predicted airborne construction noise levels which exceed both the relevant screening criteria and the noise change criterion (typically a change of greater than 3dB²⁷ compared with the existing baseline sound level) at the following non-residential receptors:
- The Northern Quarters Serviced Apartments, Laystall Street, Manchester (assessment location ref.: 616820); and

²⁷ The exception is where the use and sensitivity of the receptor or land use is very sensitive to noise and have been included in the detailed assessment where there is a change less than 3dB.

- Eternal Life Sanctuary, Great Ancoats Street, Manchester (assessment location ref.: 616797).

- 5.6.33 These locations are shown in the SES2 and AP2 ES Volume 5, Sound, noise and vibration Map Book: Map Series SV-03. At each of the non-residential receptors identified above an assessment has been undertaken to determine if this impact would result in a significant effect, using the significance criteria set out in Annex A of Volume 5, Appendix: SV-001-00000 of the main ES.
- 5.6.34 The main ES identified, on the basis of a precautionary assessment, a significant effect as a result of construction noise at The Northern Quarters Serviced Apartments, located on Laystall Street. This was denoted as MA08-C-N23 in the Volume 2, Community Area report: Manchester Piccadilly Station (MA08), in Volume 5, Appendix: SV-002-0MA08 and the Volume 5, Sound, noise and vibration Map Book: Map Series SV-03 of the main ES. The amendment will result in a reduction in duration of construction noise effects from five years to two years and eight months and is now also impacted on the north-eastern façade. This will give rise to a different likely significant effect on the non-residential receptor.
- 5.6.35 Eternal Life Sanctuary is a church in Manchester located on Great Ancoats Street. The receptor is located approximately 10m north-west of the land required for construction of the amendment. Eternal Life Sanctuary has been assessed against the places of meeting for religious worship criteria. The predicted daytime monthly construction noise level is above the screening criterion defined in the SMR for religious worship use²⁸ for a period of five months. The typical and highest predicted daytime monthly construction noise level is 8dB and 11dB above the screening criterion defined in the SMR. Eternal Life Sanctuary is identified, on the basis of a precautionary assessment, as being subject to a new likely adverse significant effect (denoted by MA08-C-N35 in SES2 and AP2 ES Volume 5, Appendix: SV-002-00000). This temporary adverse effect may take the form of activity disturbance to users of the church.

Other mitigation measures

- 5.6.36 No mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Summary of likely residual significant effects

- 5.6.37 The amendment will give rise to a different likely temporary residual adverse significant construction noise effect on the non-residential building at the Northern Quarters Serviced Apartments, due to a reduction in duration and being impacted in a different direction.
- 5.6.38 The amendment will give rise to a new likely temporary residual adverse significant construction noise effect on the Eternal Life Sanctuary Church, Great Ancoats Street, Manchester.

²⁸ 50dB L_{pAeq,0700-2300} (free-field) during the day which is equivalent to 53dB L_{pAeq,0700-2300} (façade).

5.6.39 The amendment will remove the likely significant adverse construction noise effects at the residential communities of Piccadilly in the vicinity of Millbank Street and Store Street.

Cumulative effects

5.6.40 No new, removed or different significant cumulative effects have been identified.

Traffic and transport

Scope, assumptions and limitations

- 5.6.41 The assessment scope, key assumptions and limitations for traffic and transport are as set out in Volume 1 and the SMR of the main ES.
- 5.6.42 This amendment has the potential to result in new or different significant construction effects only. Therefore, there is no operational assessment for traffic and transport.
- 5.6.43 The assessment of changes to traffic flows during construction and operation as a result of all AP2 amendments in combination with all SES2 design changes is reported in Section 7 of this report.
- 5.6.44 The assessment in this section considers the potential effects on parking and loading and changes in journey lengths for vehicle occupants. No effects on other traffic and transport topics, with the exception of traffic-related effects reported in Section 7, are considered to require reassessment as a result of the amendment.

Environmental baseline

Existing baseline

- 5.6.45 The baseline traffic and transport information is described in Section 14 of Volume 2, Community Area report: Manchester Piccadilly Station (MA08) of the main ES, as amended in Section 2 of this report. A summary of the baseline information relevant to the assessment of the amendment is provided below.
- 5.6.46 The main local roads of relevance to the assessment of this amendment are Ducie Street and Jutland Street. Ducie Street and Jutland Street are unclassified roads in the Manchester Piccadilly Station area. The local road network in this area is generally busy during peak hours and delays can be experienced.
- 5.6.47 There is on and off-street parking within the Manchester Piccadilly Station area. The off-street parking of relevance to the assessment of this amendment is a customer car park for a furniture store on the A665 Great Ancoats Street. The on-street parking of relevance to the assessment of this amendment are located at:
- Ducie Street; and
 - Peak Street.

Future baseline

- 5.6.48 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 5.6.49 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.

Effects arising during construction

Avoidance and mitigation measures

- 5.6.50 No avoidance or mitigation measures additional to those reported in the main ES are proposed.

Assessment of impacts and effects

- 5.6.51 The main ES reported that the original scheme would require the temporary closure of Jutland Street. As a result, vehicle occupants on Jutland Street would be diverted via Peak Street, increasing journey length by up to 829m. This diversion was less than 1km in journey length and did not give rise to a significant effect for vehicle occupants. The amendment will require the temporary closure of Peak Street. As a result, vehicle occupants travelling northbound on Jutland Street will be diverted via Store Street, the A665 Great Ancoats Street, Newton Street, the A6 Piccadilly and the A6 London Road for a duration of one year and seven months. Vehicle occupants travelling southbound on Jutland Street will be diverted via the A6 London Road, A6 Piccadilly, Lena Street, Dale Street, Port Street, A665 Great Ancoats Street and Store Street. This will give rise to a new temporary moderate adverse effect on journey length for vehicle occupants, which is significant, due to an increase in journey length of up to 1.1km.
- 5.6.52 The main ES reported that the original scheme would result in a major adverse effect on parking, which is significant, due to the temporary loss of 38 off-street customer parking spaces including two blue badge bays at a furniture store on the A665 Great Ancoats Street. The revised sewer alignment avoids encroaching on the furniture store, which will remove the major adverse significant effect on parking reported in the main ES.
- 5.6.53 The main ES reported no significant effects on parking and loading on Ducie Street as a result of the original scheme. The amendment will result in the temporary loss of all 13 on-street parking spaces on Ducie Street, for a period of one year and seven months. This will give rise to a new temporary major adverse effect on parking and loading, which is significant.
- 5.6.54 The main ES reported no significant effects on parking and loading on Peak Street as a result of the original scheme. The amendment will result in the temporary loss of all four on-street

parking spaces on Peak Street, for a period of one year and seven months. This will give rise to a new temporary major adverse effect on parking and loading, which is significant.

Other mitigation measures

5.6.55 No mitigation measures additional to those reported in the main ES are proposed.

Summary of likely residual significant effects

5.6.56 The amendment will give rise to the following new likely residual temporary significant effects:

- major adverse significant effect on parking and loading, due to the loss of 13 on-street parking spaces on Ducie Street;
- major adverse significant effect on parking and loading, due to the loss of four on-street parking spaces on Peak Street; and
- moderate adverse significant effect on journey length for vehicle occupants on Jutland Street, due to an increase in journey length of up to 1.1km.

5.6.57 The amendment will remove the likely residual temporary major adverse significant effect on parking and loading at the furniture store on the A665 Great Ancoats Street.

Cumulative effects

5.6.58 No new, removed or different significant cumulative effects have been identified.

Summary of new or different likely residual significant effects as a result of the amendment

Construction

Sound, noise and vibration

5.6.59 The amendment will give rise to a different likely temporary residual adverse significant construction noise effect on the non-residential building at the Northern Quarters Serviced Apartments, due to a reduction in duration and being impacted in a different direction.

5.6.60 The amendment will give rise to a new likely temporary residual adverse significant construction noise effect on the Eternal Life Sanctuary Church, Great Ancoats Street, Manchester.

Traffic and transport

5.6.61 The amendment will give rise to the following new likely residual temporary significant effects:

- major adverse significant effect on parking and loading, due to the loss of 13 on-street parking spaces on Ducie Street;
- major adverse significant effect on parking and loading, due to the loss of four on-street parking spaces on Peak Street; and
- moderate adverse significant effect on journey length for vehicle occupants on Jutland Street, due to an increase in journey length of up to 1.1 km.

Summary of likely residual significant effects that will be removed

Construction

Sound, noise and vibration

5.6.62 The amendment will remove the likely significant adverse significant construction noise effects at the residential communities of Piccadilly in the vicinity of Millbank Street and Store Street.

Socio-economics

5.6.63 The amendment will remove the temporary adverse residual effect on a furniture store on the A665 Great Ancoats Street reported in the main ES.

Traffic and transport

5.6.64 The amendment will remove the likely residual temporary major adverse significant effect on parking at the furniture store on the A665 Great Ancoats Street.

6 Construction programme

6.1 Introduction

- 6.1.1 The AP2 revised scheme has resulted in the need to alter the indicative construction programme set out in the main ES.
- 6.1.2 The revised indicative programme compared to the programme included in the main ES is shown in Figure 4.

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Figure 4: Indicative construction programme for the SES2 and AP2 ES compared to the main ES

Key	
	Compound duration showing start and end of mobilisation. Activities below will be managed from the above compound. Second phase site reinstatement can occur post the compound demobilisation.
	Activity duration (indicates where there is no change from the main ES taking into consideration SES2 changes and AP2 amendments).
	Increase in duration or activity moved as a result of a SES change or AP amendment. (A purple box indicates that works are now taking place in the quarter indicated.)
	Decrease in duration or activity moved as a result of a SES change or AP amendment. (An orange box indicates that works are no longer taking place in the quarter indicated.)
	Removed as a result of SES2 change or AP2 amendment.
	New elements of the programme (compound or associated) works as a result of a SES2 change or an AP2 amendment.

Piccadilly	2025 Quarters				2026 Quarters				2027 Quarters				2028 Quarters				2029 Quarters				2030 Quarters				2031 Quarters				2032 Quarters				2033 Quarters				2034 Quarters				2035 Quarters				2036 Quarters			
Construction Activity	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Area Advance Works (MA08)																																																
Manchester Piccadilly High Speed Station main compound (original scheme)																																																
Manchester Piccadilly High Speed Station main compound (AP2)																																																
Site preparation and setup																																																
Adair Street retaining wall																																																

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Piccadilly	2025 Quarters	2026 Quarters	2027 Quarters	2028 Quarters	2029 Quarters	2030 Quarters	2031 Quarters	2032 Quarters	2033 Quarters	2034 Quarters	2035 Quarters	2036 Quarters
Chapelton Street retaining wall		Orange	Purple									
Network Rail (NR) catering facility			Green	Green								
Piccadilly Offline access ramp			Green	Green	Green							
Fairfield Street offline overbridge			Purple	Purple	Purple	Blue	Orange	Orange				
Station car park 1			Green	Green	Green	Green						
A665 Great Ancoats Street realignment				Orange	Purple							
Adair Street highway realignment				Green	Green							
Store Street retaining wall					Purple	Orange						
Store Street diversion					Purple	Blue	Orange	Orange			Purple	
Boad Street diversion					Red	Red	Red				Red	
A635 Fairfield Street Diversion					Purple	Purple	Blue	Orange	Orange			
Sparkle Street retaining wall					Orange		Purple					
Station Boulevard						Green	Green	Green	Green	Green		
Manchester Piccadilly High Speed Station						Orange	Orange	Orange	Blue	Blue	Blue	Purple
Piccadilly Approach viaduct							Orange	Blue	Blue	Purple		
Piccadilly Station viaduct							Orange	Orange	Blue	Purple	Purple	

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Piccadilly	2025 Quarters	2026 Quarters	2027 Quarters	2028 Quarters	2029 Quarters	2030 Quarters	2031 Quarters	2032 Quarters	2033 Quarters	2034 Quarters	2035 Quarters	2036 Quarters
Station Car Park 2												
Kiss and Ride structure												
Manchester Piccadilly Station global system for mobile communications												
Manchester Piccadilly High Speed Station - highways/public realm												
Rail systems - track works												
Rail systems - switch and crossings												
Site reinstatement												
Manchester Approach Viaduct satellite compound B (original scheme)												
Manchester Approach Viaduct satellite compound B (AP2)												
Site preparation and setup												
A665 Great Ancoats Street realignment												
A665 Chancellor Lane diversion												
A635 Mancunian Way northbound and southbound realignments												

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Piccadilly	2025 Quarters	2026 Quarters	2027 Quarters	2028 Quarters	2029 Quarters	2030 Quarters	2031 Quarters	2032 Quarters	2033 Quarters	2034 Quarters	2035 Quarters	2036 Quarters
A635 Mancunian Way southbound retaining wall												
Piccadilly Approach viaduct												
A665 Pin Mill Brow realignment												
A635 Ashton Old Road realignment												
Site reinstatement												
Manchester Approach Viaduct satellite compound C (original scheme)												
Manchester Approach Viaduct satellite compound C (AP2)												
Utilities (major)												
Site preparation and setup												
A665 Great Ancoats Street realignment												
A665 Chancellor Lane diversion												
A635 Mancunian Way northbound and southbound realignments												

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Piccadilly	2025 Quarters	2026 Quarters	2027 Quarters	2028 Quarters	2029 Quarters	2030 Quarters	2031 Quarters	2032 Quarters	2033 Quarters	2034 Quarters	2035 Quarters	2036 Quarters
A635 Mancunian Way southbound retaining wall												
Piccadilly Approach viaduct												
A665 Pin Mill Brow realignment												
A635 Ashton Old Road realignment												
Site reinstatement												
Manchester Approach Viaduct satellite compound D (original scheme)												
Manchester Approach Viaduct satellite compound D (AP2)												
Site preparation and setup												
A665 Great Ancoats Street realignment												
A665 Chancellor Lane diversion												
A635 Mancunian Way northbound and southbound realignments												
A635 Mancunian Way southbound retaining wall												

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Piccadilly	2025 Quarters	2026 Quarters	2027 Quarters	2028 Quarters	2029 Quarters	2030 Quarters	2031 Quarters	2032 Quarters	2033 Quarters	2034 Quarters	2035 Quarters	2036 Quarters
Fairfield Street offline overbridge												
A635 Fairfield Street diversion												
Piccadilly Approach viaduct												
A665 Pin Mill Brow realignment												
A635 Ashton Old Road realignment												
Site reinstatement												
New Islington Turnback Satellite compound (original scheme)												
New Islington Turnback Satellite compound (AP2)												
Site preparation and setup												
Metrolink turnback facility												
Site reinstatement												
Track laying and testing & commissioning (original scheme)												
Track laying and testing & commissioning (AP2)												
Area track laying												
Testing and commissioning												

7 Combined effects of changes and amendments in the Manchester Piccadilly Station area due to changes in traffic flows

7.1 Introduction

- 7.1.1 This section reports the combined assessment of new or different significant traffic and traffic related effects, as a result of changes in traffic flows. These relate to changes associated with SES2 changes and AP2 amendments, where the change in traffic flows cannot be directly attributed to a specific SES2 change or an AP2 amendment.
- 7.1.2 The assessment has also considered any impacts in the Manchester Piccadilly Station area associated with SES2 changes and AP2 amendments in other community areas.
- 7.1.3 Traffic and transport effects are reported first, since the effects arise from changes in traffic flows. Other topics where a significant effect has been identified, are then reported in the following sequence:
- air quality;
 - community;
 - ecology and biodiversity;
 - health;
 - socio-economics; and
 - sound, noise and vibration.

7.2 SES2 changes and AP2 amendments of relevance to this assessment

- 7.2.1 The assessment includes all changes to traffic. The primary contributors to the changes in construction traffic are the changes to the movement of excavated material, construction programme and construction assumptions. The assessment takes into account measures to reduce the need to move material by the road network and use of site haul routes to limit construction traffic on the road network.
- 7.2.2 In addition to the changes in construction traffic, the following SES2 changes and AP2 amendments, the following make a particular contribution to the changes in traffic flows in the Manchester Piccadilly Station area:
- Relocation of North Block comprising Network Rail facilities at Manchester Piccadilly High Speed station (SES2-008-003);

- Change to requirement/assessment assumption for the demolition of Gateway House (SES2-008-005);
- Additional land permanently required for provision of an access ramp from the realigned B6469 Fairfield Street to the Network Rail viaduct deck at Manchester Piccadilly Station (AP2-008-002);
- Change to Bill powers for modifications to the multi modal transport hub (AP2-008-003);
- Additional land permanently required for a new loading/unloading bay to provide access to the catering areas within the Network Rail facilities building at Manchester Piccadilly High Speed station (AP2-008-004);
- Additional land permanently required for the reprovision of Blue Badge parking off the B6469 Fairfield Street (AP2-008-005); and
- Change to Bill powers for the diversion of Travis Street sewer via Ducie Street with a new compound within Ducie Street and the A665 Great Ancoats Street junction (AP2-008-006).

7.2.3 In addition, updates to the transport highway model and Planet Framework Model (PFM) existing and future baselines described in Section 2 will lead to changes to the future baseline traffic forecasts reported in the main ES. For the assessment of the AP2 revised scheme, the PFM10a forecasts for the with HS2 scenarios also reflect the removal of the HS2 West Coast Main Line (WCML) connection (SES1-004-001), which was reported in SES1. These model changes could give rise to new or different significant effects compared to those reported in the main ES as a result of, for example, different underlying levels of traffic and congestion against which the impacts of HS2 are assessed. The combined assessment of changes to traffic flows presented in this section of the report takes into account the revised future baseline traffic forecasts alongside the changes in traffic flows associated with the AP2 revised scheme.

7.3 Traffic and transport

Scope, assumptions and limitations

- 7.3.1 The assessment scope, key assumptions and limitations for the traffic and transport assessment are as set out in Volume 1 and the EIA Scope and Methodology Report (SMR)²⁹ of the main ES.
- 7.3.2 In the main ES, the future baseline traffic volumes were calculated for 2030, 2038 and 2046. For the SES2 and AP2 ES the future baselines have been updated to 2031 and 2039 to reflect the revised programme presented in Section 6 and to 2051 in order to give the assessment greater resilience to long term growth in travel demand. Consequently, the construction assessment of the AP2 revised scheme has been undertaken for 2031 and the operational

²⁹ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement, Environmental Impact Assessment Scope and Methodology Report*, Volume 5, Appendix: CT-001-00001. Available online at: <https://www.gov.uk/government/collections/cross-topic-technical-appendices-for-high-speed-rail-crewe-manchester-environmental-statement#environmental-impact-assessment-scope-and-methodology-report>.

assessment has been undertaken for the anticipated opening year of 2039 and a further assessment year of 2051.

- 7.3.3 As a result, effects reported in 2031 due to construction of the AP2 revised scheme are compared against effects reported for 2030 in the main ES. Similarly, effects reported in 2039 and 2051 due to operation of the AP2 revised scheme are compared against effects reported for 2038 and 2046 respectively in the main ES.
- 7.3.4 The extent and nature of changes to travel behaviour following the changes seen during COVID-19 are not yet clear and consequently are not reflected in the assessment. However, the impact of COVID-19 on economic growth is reflected in the HS2 travel forecasts. The February 2023 release of the Department for Transport's (DfT's) national travel forecasts (NTEM8) indicates that local travel forecasts used in the assessment generally reflect the impact of COVID-19 on economic growth, although longer term traffic forecasts for the Greater Manchester area show a reduction compared to those assessed. The impact of COVID-19 on travel behaviour is not yet known, although it is considered likely to result in lower travel demand in the medium term than the forecasts used in the assessment. Consequently, the assessment is considered to overstate travel demand for both the construction and operation scenarios and therefore to present a robust case for traffic and transport.
- 7.3.5 Changes to traffic and transport impacts within the Manchester Piccadilly Station area as a result of the AP2 revised scheme are described in SES2 and AP2 ES Volume 5, Appendix: TR-003-00008 Transport Assessment Part 3 Addendum.
- 7.3.6 There were no SES1 changes and AP1 amendments in the Manchester Piccadilly area. As a result, the assessment of combined effects due to changes in traffic flows reports the new or different likely significant effects arising from all SES2 changes and AP2 amendments compared to the original scheme reported in the main ES.
- 7.3.7 Maps relating to these new or different likely significant effects are set out in the Volume 5, Traffic and transport Map Book:
- Map Series TR-01 – Station Impacts (Operational);
 - Map Series TR-03 – Significant Residual Transport Effects Arising during Construction and Construction Traffic Routes; and
 - Map Series TR-04 – Significant Residual Transport Effects Arising from Operation.
- 7.3.8 In addition, construction traffic routes are set out in Map Series TR-08 – Construction Routes to the Strategic Network.

Environmental baseline

Existing baseline

- 7.3.9 The baseline traffic and transport information in the Manchester Piccadilly Station area is described in Section 14 of Volume 2, Community Area Report Manchester Piccadilly Station (MA08) of the main ES, as amended in Section 2 of this report and below.
- 7.3.10 Since the main ES, additional traffic information has been used in the development of updated baseline and future baseline models for the AP2 revised scheme in the Manchester Piccadilly Station area. This includes traffic data from National Highways and TfGM and Trafficmaster journey time data from the DfT, as set out in the BID³⁰ report BID TR-004-00001 SES2 and AP2 ES. This data has been combined with the information collected for local junction modelling set out in the BID report BID TR-004-00001³¹ which accompanied the main ES.

Future baseline

Construction (2031) and operation (2039 and 2051)

- 7.3.11 The future baseline traffic and transport information is described in Section 14 of Volume 2, Community Area Report Manchester Piccadilly Station (MA08) of the main ES, and is updated for the AP2 revised scheme below.
- 7.3.12 The assumptions regarding underlying committed developments and transport schemes for each assessment year have been reviewed and updated taking into account information from National Highways, Manchester City Council (MCC), TfGM and Greater Manchester Combined Authority (GMCA) and are considered to be appropriately reflected in the traffic forecasts.
- 7.3.13 Since the main ES there have been 12 committed or recently completed substantial highway schemes in the Manchester Piccadilly Station area that have been taken into account in the future baseline for the AP2 revised scheme. These schemes have now been incorporated into the Greater Manchester Saturn Model (GMSM) and M6 junction 19 traffic models for the AP2 revised scheme in the 2031, 2039 and 2051 future baseline scenarios. These are:
- junction improvements at the A5103 Mancunian Way/Princess Road roundabout;

³⁰ High Speed Two Ltd (2023), High Speed Rail (Crewe – Manchester), *Background Information and Data accompanying Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement, Transport Assessment policy and data*, BID TR-004-00001 SES2 and AP2 ES. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-2-and-additional-provision-2-environmental-statement>.

³¹ High Speed Two Ltd (2022), High Speed Rail (Crewe - Manchester), *Background Information and Data, Transport Assessment policy and data report*, BID TR-004-00001. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

- Manchester to Chorlton Cycle Way;
- Deansgate bus gates and traffic changes;
- changes to Chapel Street and New Bailey Street;
- Chapel Street bus-gate east of Victoria Bridge Street;
- New Bailey Street/Bridge Street bus gate;
- A34 Corridor Scheme Manchester City Centre (Corridor 1: A34 New Bailey Street/Bridge Street/Princess Street/Upper Brook Street);
- Blackfriars Street lane closure between Chapel Street and Deansgate;
- Irwell Street/Trinity Way CYCLOPS junction;
- permanent closure of Ducie Street at the junction with Manchester Piccadilly station approach;
- The Northern Quarter walking and cycling improvement scheme; and
- Trafford Road Schemes (Ordsall Lane/The Quays/Elmira Way and Archie Street/Phoebe Street/Broadway).

7.3.14 Places for Everyone³² (PfE) is the long-term joint development plan for jobs, new homes and sustainable growth in nine Greater Manchester districts (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan). PfE sets out the policy framework to help meet local housing and employment needs by identifying strategic site allocations and infrastructure requirements to support growth. However, PfE is not yet adopted and growth in the traffic modelling is based on the draft 2016 Greater Manchester Strategic Framework (core scenario).

7.3.15 In any case, PfE does not give detail of the likely changes to transport infrastructure that would accompany these developments, nor does it provide detail about the development proposals, such as the levels of car parking and phasing of development. There is also uncertainty in delivery of the growth suggested, so actual growth in the time period covered may be lower than included in PfE. Given these uncertainties, the AP2 strategic traffic modelling is based on the forecast matrices supplied to HS2 Ltd by TfGM, which include travel demand based on the core scenario from the draft 2016 Greater Manchester Strategic Framework. These are considered to be the best available representation of forecast travel demand across Greater Manchester.

³² Greater Manchester Combined Authority (2021), Places for Everyone, *Joint Development Plan Document - Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford, Wigan*. Available online at: <https://www.greatermanchester-ca.gov.uk/what-we-do/planning-and-housing/places-for-everyone/>.

Effects arising during construction

Avoidance and mitigation measures

7.3.16 No avoidance or mitigation measures additional to those reported in the main ES and draft Code of Construction Practice (CoCP)³³ are proposed.

Assessment of impacts and effects

Temporary effects

Key construction transport issues

7.3.17 Table 35 of Volume 2, Community Area report Manchester Piccadilly Station (MA08) of the main ES provides details of construction compounds in the Manchester Piccadilly Station area. This information has been updated to reflect changes resulting from the AP2 revised scheme and is provided in Table 10.

Table 10: Typical vehicle trip generation for construction compounds in the Manchester Piccadilly Station area

Compound type	Compound name	Indicative start/set up date (years/quarter)	Estimated duration of active use (years/months)	Average daily combined two-way car/LGV trips during busy period and within peak month of activity	Average daily combined two-way HGV trips during busy period and within peak month of activity	Estimated duration of busy period (months)
Main	Manchester Piccadilly High Speed station main compound	2026 Q2	8 years and 3 months	106-214	454-640	25
Satellite	Manchester approach viaduct satellite compound B	2028 Q2	4 years	18-26	58-86	10
Satellite	Manchester Approach viaduct satellite compound C	2028 Q2	4 years	20-26	64-86	6
Satellite	Manchester Approach viaduct satellite compound D	2028 Q2	4 years	20-30	60-86	8

³³ High Speed Two Ltd (2022), High Speed Rail (Crewe - Manchester), *Environmental Statement, draft Code of Construction Practice*, Volume 5, Appendix: CT-002-00000. Available online at: <https://www.gov.uk/government/collections/cross-topic-technical-appendices-for-high-speed-rail-crewe-manchester-environmental-statement#draft-code-of-construction-practice>.

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Compound type	Compound name	Indicative start/set up date (years/quarter)	Estimated duration of active use (years/months)	Average daily combined two-way car/LGV trips during busy period and within peak month of activity	Average daily combined two-way HGV trips during busy period and within peak month of activity	Estimated duration of busy period (months)
Satellite	Metrolink New Islington Turnback satellite compound	2026 Q2	9 months	6-6	14-16	2

7.3.18 Details of the construction traffic routes for construction compounds in the Manchester Piccadilly Station area are reported in Table 50 of Volume 2, Community Area report Manchester Piccadilly Station (MA08) of the main ES. This information has been updated to reflect changes resulting from the AP2 revised scheme and is provided in Table 11.

Table 11: Construction traffic routes for construction compounds in the Manchester Piccadilly Station area

Compound name(s)	Compound access	Access route(s) to/from compound to main road network
Manchester approach viaduct satellite compound B	A635/A665 Pin Mill Brow gyratory	Route to/from the west: A635/A665 Pin Mill Brow gyratory, A635 Mancunian Way and A57(M) Mancunian Way Route to/from the east: A635/A665 Pin Mill Brow gyratory and A635 Ashton Old Road
Manchester approach viaduct satellite compound C	A635/A665 Pin Mill Brow gyratory	Route to/from the west: A635/A665 Pin Mill Brow gyratory, A635 Mancunian Way and A57(M) Mancunian Way Route to/from the east: A635/A665 Pin Mill Brow gyratory and A635 Ashton Old Road
Manchester approach viaduct satellite compound D	B6469 Fairfield Street	Route to/from the west: B6469 Fairfield Street, A635/A665 Pin Mill Brow gyratory, A635 Mancunian Way and A57(M) Mancunian Way Route to/from the east: B6469 Fairfield Street, A635/A665 Pin Mill Brow gyratory and A635 Ashton Old Road
Manchester Piccadilly High Speed station main compound	Store Street	Route to/from the west: Store Street, A665 Great Ancoats Street, A635/A665 Pin Mill Brow gyratory, A635 Mancunian Way and A57(M) Mancunian Way Store Street, A6 London Road, B6469 Fairfield Street, A635/A665 Pin Mill Brow gyratory, A635 Mancunian Way and A57(M) Mancunian Way (outgoing only) A57(M) Mancunian Way, A6 London Road, A6 Whitworth Street, A6 Aytoun Street, A6 London Road and Store Street (incoming only) Route to/from the east: Store Street, A665 Great Ancoats Street, A635/A665 Pin Mill Brow gyratory and A635 Ashton Old Road

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Compound name(s)	Compound access	Access route(s) to/from compound to main road network
Manchester Piccadilly High Speed station main compound	Adair Street	Route to/from the west: Adair Street, A665 Great Ancoats Street, A635/A665 Pin Mill Brow gyratory, A635 Mancunian Way and A57(M) Mancunian Way Route to/from the east: Adair Street, A665 Great Ancoats Street, A635/A665 Pin Mill Brow gyratory and A635 Ashton Old Road
Manchester Piccadilly High Speed station main compound	St Andrew's Street	Route to/from the west: St. Andrew's Street, B6469 Fairfield Street, A635/A665 Pin Mill Brow gyratory, A635 Mancunian Way and A57(M) Mancunian Way Route to/from the east: St. Andrew's Street, B6469 Fairfield Street, A635/A665 Pin Mill Brow gyratory and A635 Ashton Old Road
Manchester Piccadilly High Speed station main compound	Helmet Street	Route from the west: A57(M) Mancunian Way, A635 Mancunian Way, A635/A665 Pin Mill Brow gyratory, A665 Great Ancoats Street and Helmet Street (incoming only) Route to the east: Helmet Street, St. Andrew's Street, B6469 Fairfield Street, A635/A665 Pin Mill Brow gyratory and A635 Ashton Old Road (outgoing only)
Manchester Piccadilly High Speed station main compound	Travis Street	Route to/from the west: Travis Street, B6469 Fairfield Street, A635/A665 Pin Mill Brow gyratory, A635 Mancunian Way and A57(M) Mancunian Way Route to/from the east: Travis Street, B6469 Fairfield Street, A635/A665 Pin Mill Brow gyratory and A635 Ashton Old Road
Manchester Piccadilly High Speed station main compound	Ducie Street	Route to/from the west: B6181 Ducie Street, Dale Street, Paton Street, A6 London Road and A57(M) Mancunian Way (outgoing only) A57(M) Mancunian Way, A6 London Road, A6 Whitworth Street, A6 Aytoun Street, Auburn Street, London Road, Lena Street, Dale Street and B6181 Ducie Street (incoming only) Ducie Street, Peak Street, Laystall Street, A665 Great Ancoats Street, A635/A665 Pin Mill Brow gyratory, A635 Mancunian Way and A57(M) Mancunian Way (outgoing only) A57(M) Mancunian Way, A635 Mancunian Way, A635/A665 Pin Mill Brow gyratory, A665 Great Ancoats Street and Ducie Street (incoming only) Route to/from the east: Ducie Street, Peak Street, Laystall Street, A665 Great Ancoats Street, A635/A665 Pin Mill Brow gyratory and A635 Ashton Old Road (outgoing only) A635 Ashton Old Road, A635/A665 Pin Mill Brow gyratory, A665 Great Ancoats Street and Ducie Street (incoming only)
Metrolink New Islington turnback satellite compound	A662 Pollard Street	Route to/from the west: A662 Pollard Street, A665 Great Ancoats Street, A635/A665 Pin Mill Brow gyratory, A635 Mancunian Way and A57(M) Mancunian Way Route to/from the east: A662 Pollard Street, A665 Great Ancoats Street, A635/A665 Pin Mill Brow gyratory and A635 Ashton Old Road

- 7.3.19 Information on the indicative construction programme is provided in Section 6 of this report, and the construction methodology is summarised in Volume 1 (Section 6) of the main ES. These illustrate how the phasing of activities at different compounds will generally be staggered and that construction activities at individual compounds may not occur over the whole duration presented in Table 10.
- 7.3.20 Utility works have been included in the assessment where they are major and where the traffic or transport impacts from the works separately, or in combination with other works, will be greater than other construction activities arising within the area. Most utility works are expected to result in only localised traffic and pedestrian diversions, which will be of short-term duration and are not expected to result in significant effects.
- 7.3.21 The effects of construction of the AP2 revised scheme on the highway network in the Manchester Piccadilly Station area have been assessed by undertaking strategic model runs for a number of 'with AP2 revised scheme' construction scenarios and comparing the traffic flows and delays against the 2031 future baseline scenario. The assessment is based on the highest volume of construction traffic on each construction route in each construction scenario. Where construction routes will serve more than one construction compound, the assessment is based on the highest combined volume of construction traffic on each section of each route in each construction scenario.
- 7.3.22 In using the strategic model, the impacts and effects have been considered in five scenarios covering the main construction phases. These scenarios ensure that the assessment addresses the different combinations and interactions of advance works, utility works, temporary highway closures and diversions and construction HGV movements through the construction period. It should be noted that, due to changes in the construction programme of the AP2 revised scheme, these scenarios differ slightly from those reported in the main ES:
- scenario 1, 2026 Q1 – 2028 Q1. This corresponds with the utility works in the area including any works to low voltage overhead or underground lines, gas pipes, sewers and telecommunication cables. This scenario equates to 44% of the overall peak in construction traffic across the whole construction period;
 - scenario 2, 2028 Q2 – 2029 Q3. This corresponds with the peak in construction traffic movements following the closure of roads on the north side of the existing Manchester Piccadilly Station. This scenario equates to 83% of the overall peak in construction traffic across the whole construction period;
 - scenario 3, 2029 Q4 - 2030 Q4. This corresponds with the peak in construction traffic movements following construction works at the A635/A665 Pin Mill Brow gyratory. In this scenario, a temporary road layout is in place for the partially constructed A635/A665 Pin Mill Brow gyratory. The permanent A635 Fairfield Street diversion will be open. The A635 Mancunian Way northbound realignment, the A665 Chancellor Lane diversion and the existing A665 Chancellor Lane (north of the A665 Chancellor Lane diversion) will each operate one-way. This scenario equates to 100% of the overall peak in construction traffic across the whole construction period;

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

- scenario 4, 2031 Q1 - 2031 Q4. This corresponds with the peak in construction traffic movements following the opening of the new A635/A665 Pin Mill Brow gyratory. The A635 Mancunian Way southbound realignment will be open, the A665 Chancellor Lane diversion will operate two-way and the existing A665 Chancellor Lane will be closed north of Midland Street. This scenario equates to 89% of the overall peak in construction traffic across the whole construction period; and
- scenario 5, 2032 Q1 – 2036 Q4. This corresponds with the peak in construction traffic movements following the decommissioning of construction compounds and the completion of all construction works. This scenario equates to 85% of the overall peak in construction traffic across the whole construction period.

7.3.23 The HS2 construction works and the associated construction traffic movements differ for each of these scenarios. The assessment considers the impacts in all temporal phases and reports the highest magnitude of significant effects, regardless of which scenario they arise in.

7.3.24 Table 37 of Volume 2, Community Area report Manchester Piccadilly Station (MA08) of the main ES gives details of the most relevant highway interventions and works for each scenario in the Manchester Piccadilly Station area. This information has been updated to reflect changes resulting from the AP2 revised scheme and is provided in Table 12.

Table 12: Construction highway interventions by scenario

Type	Intervention	Scenario 1 2026 Q1 - 2028 Q1	Scenario 2 2028 Q2 - 2029 Q3	Scenario 3 2029 Q4 - 2030 Q4	Scenario 4 2031 Q1 - 2031 Q4	Scenario 5 2032 Q1 - 2036 Q4
Utility works	Temporary closure of Ducie Street and the A6 London Road (southbound)	Included	Included	Not Included	Not Included	Not Included
Utility works	A665 Great Ancoats Street lane closure (northbound) between Pin Mill Brow and Every Street	Included	Not Included	Not Included	Not Included	Not Included
Utility works	A665 Great Ancoats Street lane closure (northbound) at Ducie Street junction	Not Included	Included	Not Included	Not Included	Not Included
Utilities/ Main works	Closure of Store Street, western exit onto A6	Included	Included	Included	Included	Included
Utilities/ Main works	Closure of Travis Street	Not included	Included	Included	Included	Included
Main works	Closure of the A665 Midland Street in the Davenport Green to Ardwick area (MA07)	Not Included	Included	Included	Included	Included
Main works	Diversion of the A665 Chancellor Lane	Not included	Not included	Included	Included	Included

Type	Intervention	Scenario 1 2026 Q1 – 2028 Q1	Scenario 2 2028 Q2 – 2029 Q3	Scenario 3 2029 Q4 – 2030 Q4	Scenario 4 2031 Q1 – 2031 Q4	Scenario 5 2032 Q1 – 2036 Q4
Main works	Temporary road layout around the A635/A665 Pin Mill Brow gyratory	Not Included	Not Included	Included	Not Included	Not Included
Main works	New A635/A665 Pin Mill Brow gyratory	Not Included	Not Included	Not Included	Included	Included
	Construction HGV traffic as percentage of peak construction HGV traffic	44%	83%	100%	89%	85%

7.3.25 The strategic models have been used to assess these construction scenarios taking account of the HS2 construction traffic movements and any road closures, diversions and realignments, traffic management or changes to junction operations in each scenario. The strategic model outputs for each of these scenarios are only relevant to the assessment of the effects on traffic delays to vehicle occupants and traffic related severance and public transport delay.

Highway network

7.3.26 The AP2 revised scheme includes a number of changes to the highway network compared to the original scheme. This includes the temporary closure of Ducie Street and Peak Street for a period of one year and seven months (AP2-008-006). This amendment is temporary and will be in place during construction of the AP2 revised scheme only. The AP2 revised scheme also includes the temporary closure of Hoyle Street and Chapelfield Road for a duration of one year and five months and one year and nine months respectively (AP2-008-002). This amendment is temporary and will be in place during construction of the AP2 revised scheme only.

7.3.27 The indicative construction programme in Section 6 of this report illustrates how the phasing of activities will generally be staggered and that construction activities associated with the AP2 revised scheme may not occur at the same time.

7.3.28 The combined impact of all SES2 changes and AP2 amendments will lead to flow changes on the highway network in all construction scenarios. This will result in changes to the traffic congestion and delay effects for vehicle occupants reported in the main ES. The significant traffic congestion and delay effects for vehicle occupants with the highest magnitude at each junction are set out in Table 13. Locations not listed in Table 13 remain unchanged to those reported in the main ES. The significance of the effect reported in the main ES is indicated in brackets.

Table 13: Junctions with changes resulting in new or different significant effects on delays to vehicle occupants and congestion, 2031

Junction Name	Significant Effect	AP2 Construction Scenario
A57 (M) Mancunian Way/A5103 Princess Road/A5103 Medlock Street	Moderate beneficial (Previously moderate adverse)	Scenario 2, 3, 4 and 5

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Junction Name	Significant Effect	AP2 Construction Scenario
A57 (M) Mancunian Way/A56 Chester Road/A5067 Chorlton Road (Deansgate Interchange)	Major adverse (Previously moderate adverse)	Scenarios 1, 2, 4 and 5
A6 Downing Street/Grosvenor Street	Minor adverse (Previously major adverse)	Scenarios 3, 4 and 5
A5103 Albion Street/A5103 Medlock Street/City Road East	No effect (Previously minor adverse)	-
A34 Princess Street/Charles Street	Minor adverse (Previously no effect)	Scenario 1
A665 Chancellor Lane diversion/A635 Mancunian Way southbound realignment/A635 Fairfield Street diversion	No effect (Previously major adverse)	-
A56 Bridgewater Viaduct/B6469 Whitworth Street West/Castle Street	Minor beneficial (Previously no effect)	Scenarios 2, 4 and 5
A635 Mancunian Way/B6469 Fairfield Street diversion/A635 Mancunian Way northbound realignment	Moderate adverse (Previously major adverse)	Scenario 3
A34 Oxford Street/B6469 Whitworth Street West/B6469 Whitworth Street	No effect (Previously moderate adverse)	-
A5103 Albion Street/A5103 Lower Mosley Street/Great Bridgewater Street	No effect (Previously minor adverse)	-
A635 Mancunian Way/A635 Fairfield Street/B6469 Fairfield Street	Major adverse (increased) (Previously major adverse)	Scenarios 1 and 2
A57 Regent Road/A57 Dawson Street/A6042 Trinity Way/Water Street	Minor adverse (Previously minor beneficial)	Scenario 3
A56 Deansgate/A6143 Liverpool Road/Great Bridgewater Street	Minor beneficial (Previously minor adverse)	Scenario 3
B6469 Fairfield Street/Travis Street	Major adverse (Previously no effect)	Scenarios 1, 2, 4 and 5
A665 Pin Mill Brow/A635 Mancunian Way	Minor adverse (Previously major adverse)	Scenario 2
A665 Pin Mill Brow realignment/A635 Mancunian Way northbound realignment	Major adverse (increased) (Previously major adverse)	Scenarios 3, 4 and 5
A34 Oxford Street/A5103 Portland Street/A5103 Chepstow Street	No effect (Previously moderate adverse)	-
A6042 Trinity Way/A6143 Water Street	Minor beneficial (Previously no effect)	Scenarios 3 and 5
A6 London Road/B6469 Fairfield Street	Major adverse (increased) (Previously major adverse)	Scenarios 1 and 2
A5066 Oldfield Road/A57 Regent Road	No effect (Previously moderate adverse)	-
A5103 Portland Street/Dickinson Street	Minor beneficial (Previously moderate beneficial)	Scenarios 2, 4 and 5
New Sheffield Street/St Andrew's Square	No effect (Previously major adverse)	-
A6143 Water Street/A6143 Liverpool Road	Minor adverse (Previously no effect)	Scenarios 1 and 2

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Junction Name	Significant Effect	AP2 Construction Scenario
A34 Oxford Street/A34 Peter Street/Lower Mosley Street	Minor adverse (Previously no effect)	Scenarios 1 and 3
A6 Aytoun Street/Minshull Street	No effect (Previously moderate adverse)	-
A34 Peter Street/A6042 Mount Street/Mount Street	Major adverse (Previously moderate adverse)	Scenarios 2, 4 and 5
A34 Peter Street/Southmill Street	Major adverse (Previously no effect)	Scenarios 2, 4 and 5
A34 Peter Street/Watson Street	Major adverse (Previously no effect)	Scenarios 2, 4 and 5
A5103 Portland Street/Sackville Street/Nicholas Street	No effect (Previously minor beneficial)	-
A56 Deansgate/A34 Peter Street/A34 Quay Street	Major adverse (Previously no effect)	Scenarios 2, 3, 4 and 5
A6042 Trinity Way/Hampson Street	Minor adverse (Previously no effect)	Scenarios 4 and 5
A34 New Quay Street/A34 Quay Street/B5225 Quay Street/Gartside Street	Major adverse (Previously no effect)	Scenarios 2 and 5
B6181 Dale Street/B6181 Ducie Street	Major adverse (decreased) (Previously major adverse)	Scenarios 4 and 5
A56 Deansgate/Lloyd Street/Hardman Street	Major adverse (Previously no effect)	Scenarios 2, 3, 4 and 5
A5103 Portland Street/Minshull Street	Minor beneficial (Previously no effect)	Scenarios 1, 2, 4 and 5
M602 junction 3/A57 Regent Road/A57 Eccles New Road/A5063 Albion Way/A5063 Trafford Road	No effect (Previously minor adverse)	-
A5066 Oldfield Road/Liverpool Street/Middlewood Street	No effect (Previously minor adverse)	-
A6 Piccadilly/Paton Street	Major adverse (increased) (Previously major adverse)	Scenarios 3, 4 and 5
A34 John Dalton Street/A34 Princess Street/A5042 Cross Street/A6042 Lloyd Street	Minor adverse (Previously no effect)	Scenario 1
B6181 Dale Street/Paton Street	Major adverse (Previously no effect)	Scenario 3
A665 Great Ancoats Street/Old Mill Street/Store Street	No effect (Previously major adverse)	-
A6 Portland Street/A62 Newton Street	Major adverse (Previously no effect)	Scenarios 3, 4 and 5
Fountain Street/York Street	Major adverse (Previously no effect)	Scenarios 1, 2, 3, 4 and 5
Spring Gardens/King Street	Major adverse (Previously no effect)	Scenarios 2, 3, 4 and 5
A34 Bridge Street/A56 Deansgate/A34 John Dalton Street	Major adverse (Previously no effect)	Scenarios 2, 3, 4 and 5

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Junction Name	Significant Effect	AP2 Construction Scenario
Every Street/Carruthers Street	No effect (Previously major adverse)	-
King Street/Essex Street	Major adverse (Previously no effect)	Scenarios 4 and 5
A6042 Cross Street/King Street	Major adverse (Previously no effect)	Scenarios 2, 3, 4 and 5
A34 Bridge Street/St Mary's Parsonage	Minor adverse (Previously no effect)	Scenarios 2, 3 and 5
A56 Deansgate/King Street West/King Street	Major adverse (Previously no effect)	Scenarios 2, 3 and 5
A6 Dale Street/A62 Newton Street/B6181 Dale Street	Major adverse (Previously no effect)	Scenario 3
A34 Bridge Street West/Gartside Street	Moderate adverse (Previously no effect)	Scenarios 2 and 5
A5063 Albion Way/Liverpool Street	Moderate adverse (Previously no effect)	Scenario 3
A6 Dale Street/A62 Lever Street	No effect (Previously minor adverse)	-
A62 Newton Street/Hilton Street	Major adverse (Previously no effect)	Scenario 3
A6 Crescent/A6 Chapel Street/A5066 Adelphi Street/A5066 Oldfield Road	Minor adverse (Previously major adverse)	Scenarios 3 and 4
A6042 Trinity Way/A6 Chapel Street/A34 Trinity Way	Moderate adverse (Previously major adverse)	Scenarios 1, 2, 3 and 4
A62 Great Ancoats Street/A665 Great Ancoats Street/A62 Newton Street	Minor adverse (Previously no effect)	Scenarios 1 and 2
A6 Blackfriars Street/Parsonage	No effect (Previously major adverse)	-
A6 Crescent/Irwell Place	No effect (Previously minor adverse)	-
A5186 Langworthy Road/Liverpool Street	No effect (Previously minor adverse)	-
A665 Great Ancoats Street/Lever Street/George Leigh Street	No effect (Previously major adverse)	-
A5185 Stott Lane/A57 Eccles New Road	No effect (Previously minor adverse)	-
A6 Crescent/A5063 Albion Way	Minor adverse (Previously no effect)	Scenario 3
A665 Miller Street/A664 Corporation Street/Corporation Street	No effect (Previously minor adverse)	-
A56 Great Ducie Street/A6042 Trinity Way	Minor adverse (Previously no effect)	Scenarios 3 and 5
A665 Cheetham Hill Road/A6042 Trinity Way	Major adverse (Previously no effect)	Scenario 3

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Junction Name	Significant Effect	AP2 Construction Scenario
A6041 Blackfriars Road/A5066 Silk Street/St Simon Street	Moderate adverse (Previously minor adverse)	Scenarios 3 and 5
A5186 Langworthy Road/Seedley Road	No effect (Previously minor adverse)	-
A576 Eccles Old Road/A5186 Langworthy Road	No effect (Previously minor adverse)	-
A56 Bury New Road/Sherborne Street	Minor beneficial (Previously major adverse)	Scenarios 1, 2 and 4
B6186 Frederick Road/Seaford Road/Broughton Road East	Major adverse (Previously minor adverse)	Scenarios 3, 4 and 5
A576 Broughton Road/A576 Cromwell Road/Lissadel Street	No effect (Previously minor adverse)	-
A56 Bury New Road/Waterloo Road/Broughton Lane	No effect (Previously major adverse)	-
B6186 Camp Street/B6186 Fredrick Road/Lower Broughton Road	No effect (Previously major adverse)	-
A5066 Great Clowes Street/Broughton Lane	Moderate adverse (Previously no effect)	Scenario 3
A576 Cromwell Road/Gerald Road/Littleton Road	Minor beneficial (Previously no effect)	Scenarios 1, 2 and 4
A5066 Great Clowes Street/B6186 Camp Street/B6187 Great Clowes Street/B6186 Upper Camp Street	Major adverse (Previously no effect)	Scenarios 3 and 5
A576 Great Cheetham Street West/Lower Broughton Road	Major adverse (Previously no effect)	Scenarios 1, 2, 3, 4 and 5
A5066 Great Clowes Street/Fenney Street	No effect (Previously moderate adverse)	-
A576 Great Cheetham Street West/A5066 Great Clowes Street/B6187 Great Clowes Street	Moderate adverse (Previously major adverse)	Scenarios 1, 2, 3, 4 and 5
B6180 Waterloo Road/A6010 Elizabeth Street	Minor adverse (Previously no effect)	Scenario 1
A6010 Queens Road/Smedley Road	Minor adverse (Previously no effect)	Scenarios 2, 3 and 5
A664 Rochdale Road/Prescot Road/Harpurhey Road	Minor beneficial (Previously no effect)	Scenario 3
A6 Chorley Road/A6 Manchester Road/A572 Worsley Road	Moderate adverse (Previously no effect)	Scenarios 1 and 5
A665 Cheetham Hill Road/B6180 Waterloo Road/Greenhill Road	No effect (Previously major adverse)	-
A6 Chorley Road/B5321 Station Road/B5321 Partington Lane	Moderate adverse (Previously no effect)	Scenarios 3, 4 and 5
Moor Lane/Littleton Road/Kersal Vale Road	No effect (Previously minor adverse)	-
A56 Bury New Road/Singleton Road/Moor Lane	No effect (Previously minor adverse)	-

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Junction Name	Significant Effect	AP2 Construction Scenario
A6044 Hilton Lane/A6044 Rainsough Brow/Kersal Road	No effect (Previously minor adverse)	-
M60 junction 19/A576 Middleton Road (Rhodes Interchange)	Moderate adverse (Previously no effect)	Scenario 3
M62 junction 18/M66 junction 4/M60 junction 18/Simister Island	Minor adverse (Previously major adverse)	Scenarios 3 and 5

7.3.29 Construction of the AP2 revised scheme will result in substantial changes in traffic flows (i.e. more than 30% for HGVs or for all vehicles) in some locations, which can lead to changes in traffic-related severance for non-motorised users, which are significant. The effects with the highest magnitude in each location are set out in Table 14 for all-traffic effects and Table 15 for HGV traffic effects. The significance of the effect reported in the main ES is indicated in brackets.

Table 14: Roads with changes in daily all vehicle movements (more than 30%) resulting in new or different significant effects on traffic-related severance for non-motorised users, 2031

Road Name	Significant Effect	AP2 Construction Scenario
Grafton Street (between A5184 Plymouth Grove and A34 Upper Brook Street)	No effect (Previously moderate adverse)	-
Brunswick Street (between A34 Upper Brook Street and A6 Stockport Road)	Moderate beneficial (Previously no effect)	Scenario 3
A6 Ardwick Green South (between Grosvenor Street and Higher Ardwick)	Moderate adverse (Previously no effect)	Scenario 3
Grosvenor Street (between A6 Downing Street and A34 Brook Street)	No effect (Previously moderate beneficial)	-
Union Street (between Dark Lane and Higher Ardwick)	Moderate beneficial (Previously minor beneficial)	Scenarios 1, 2, 3, 4 and 5
Chester Street (between Cambridge Street and A34 Oxford Road)	Moderate adverse (Previously no effect)	Scenario 3
A6 Downing Street (between A635 Mancunian Way and Grosvenor Street)	Moderate adverse (Previously no effect)	Scenario 3
A635 Mancunian Way (between A6 London Road and A635 Fairfield Street diversion)	Moderate beneficial (Previously no effect)	Scenario 3
A635 Ashton Old Road (between A665 Chancellor Lane and A665 Midland Street)	No effect (Previously moderate adverse)	-
A635 Fairfield Street diversion (between A635 Ashton Old Road realignment and A665 Chancellor Lane diversion)	Major adverse (Previously moderate adverse)	Scenarios 4 and 5
Travis Street (between B6469 Fairfield Street and A6 London Road)	Major adverse (Previously minor beneficial)	Scenario 1
B6469 Fairfield Street (between St Andrew's Street and A635 Mancunian Way)	Major adverse (Previously no effect)	Scenario 2
A665 Pin Mill Brow realignment (between A635 Ashton Old Road realignment and A635 Mancunian Way northbound realignment)	Moderate adverse (Previously major adverse)	Scenarios 4 and 5

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Road Name	Significant Effect	AP2 Construction Scenario
A635 Mancunian Way northbound realignment (between A635 Fairfield Street diversion and A665 Pin Mill Brow realignment)	Moderate adverse (Previously major adverse)	Scenarios 3, 4 and 5
B6469 Whitworth Street (between A34 Princess Street and Sackville Street)	Moderate beneficial (Previously no effect)	Scenarios 2, 3 and 5
B6469 Fairfield Street (between Travis Street and St Andrew's Street diversion)	Major adverse (decreased) (Previously major adverse)	Scenarios 1, 2, 4 and 5
St. Andrew's Street diversion (between B6469 Fairfield Street diversion and Helmet Street)	No effect (Previously major adverse)	-
A6 Aytoun Street (between Chorlton Street and Cobourg Street)	No effect (Previously moderate beneficial)	-
Adair Street (between New Sheffield Street and Station Car Park Access)	Moderate beneficial (Previously moderate adverse)	Scenario 1
Helmet Street (between St. Andrew's Street diversion and A665 Great Ancoats Street)	No effect (Previously moderate adverse)	-
A6 London Road (between A6 Whitworth Street and B6469 Fairfield Street)	Moderate beneficial (Previously no effect)	Scenarios 1 and 2
A6 Aytoun Street (between Cobourg Street and A6 Whitworth Street)	No effect (Previously moderate beneficial)	-
A6 Whitworth Street (between B6469 Fairfield Street and A6 Aytoun Street)	No effect (Previously moderate beneficial)	-
Adair Street (between Station Car Park Access and St. Andrew's Square)	Moderate beneficial (Previously major adverse)	Scenarios 1, 2, 3, 4 and 5
Chorlton Street (between B6469 Whitworth Street and Bloom Street)	No effect (Previously moderate adverse)	-
New Sheffield Street (between Adair Street and Chapeltown Street)	Major adverse (Previously no effect)	Scenario 1
St. James Street (between Dickinson Street and A34 Princess Street)	No effect (Previously minor adverse)	-
Sheffield Street (between Travis Street and Baird Street)	Major adverse (Previously no effect)	Scenario 1
A6 London Road (between Auburn Street and A6 Whitworth Street)	Moderate adverse (Previously moderate beneficial)	Scenarios 4 and 5
Adair Street (between St. Andrew's Square and A665 Great Ancoats Street)	No effect (Previously moderate beneficial)	-
A6 Aytoun Street (between Minshull Street and Auburn Street)	Moderate beneficial (Previously major beneficial)	Scenarios 1, 3, 4 and 5
A34 Princess Street (between George Street and A5103 Portland Street)	Moderate beneficial (Previously no effect)	Scenario 4
Minshull Street (between Bloom Street and A6 Aytoun Street)	No effect (Previously moderate beneficial)	-
Store Street (between New Sheffield Street and Boad Street)	Moderate beneficial (Previously major adverse)	Scenarios 1, 2, 3, 4 and 5
Bloom Street (between Minshull Street and Chorlton Street)	No effect (Previously minor beneficial)	-

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road Name	Significant Effect	AP2 Construction Scenario
Boad Street (between Sheffield Street and Store Street)	Major adverse (Previously no effect)	Scenario 1
George Street (between Nicholas Street and A34 Princess Street)	Moderate beneficial (Previously no effect)	Scenarios 2, 4 and 5
Sparkle Street (between Chapeltown Street and Store Street)	Moderate adverse (Previously no effect)	Scenario 1
Auburn Street (between A6 Aytoun Street and A6 Piccadilly)	Moderate beneficial (Previously major beneficial)	Scenarios 1, 3, 4 and 5
Palmerston Street (between A665 Great Ancoats Street and Gurney Street)	Moderate adverse (Previously moderate beneficial)	Scenario 3
Store Street (between Boad Street and Sparkle Street)	Moderate beneficial (Previously no effect)	Scenarios 2, 3, 4 and 5
Chapeltown Street (between Sparkle Street and A665 Great Ancoats Street)	No effect (Previously major adverse)	-
Store Street (between Boad Street and A665 Great Ancoats Street)	Moderate beneficial (Previously no effect)	Scenarios 2, 3, 4 and 5
A665 Great Ancoats Street (between Adair Street and A662 Pollard Street)	Moderate beneficial (Previously no effect)	Scenario 3
Faulkner Street (between New York Street and Charlotte Street)	Minor beneficial (Previously no effect)	Scenarios 2, 3, 4 and 5
A665 Great Ancoats Street (between Pollard Street and Chapeltown Street)	Moderate beneficial (Previously no effect)	Scenario 3
New York Street (between Faulkner Street and George Street)	Moderate beneficial (Previously no effect)	Scenarios 3, 4 and 5
Ducie Street (between B6181 Dale Street and Peak Street)	Moderate adverse (Previously major adverse)	Scenarios 3, 4 and 5
Fountain Street (between Booth Street and Spring Gardens)	Moderate adverse (Previously minor adverse)	Scenarios 2, 3, 4 and 5
A6 Piccadilly (between Paton Street and Chatham Street)	Major adverse (Previously moderate adverse)	Scenarios 3, 4 and 5
B6181 Dale Street (between B6181 Ducie Street and Paton Street)	Moderate adverse (Previously moderate beneficial)	Scenarios 4 and 5
A665 Great Ancoats Street (between Chapeltown Street and Store Street)	Moderate beneficial (Previously no effect)	Scenario 3
New York Street (between George Street and Mosley Street)	Moderate beneficial (Previously no effect)	Scenarios 3, 4 and 5
A6 Piccadilly (between Chatham Street and A62 Newton Street)	Major adverse (increased) (Previously major adverse)	Scenarios 3, 4 and 5
B6181 Dale Street (between Paton Street and Port Street)	Major adverse (Previously moderate beneficial)	Scenarios 1 and 2
Fountain Street (between Spring Gardens and York Street)	Major adverse (Previously moderate adverse)	Scenarios 2, 3, 4 and 5
York Street (between Fountain Street and West Mosley Street)	Moderate beneficial (Previously no effect)	Scenarios 3, 4 and 5

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Road Name	Significant Effect	AP2 Construction Scenario
Ducie Street (between A665 Great Ancoats Street and Peak Street)	No effect (Previously major adverse)	-
Spring Gardens (between King Street and York Street)	Moderate beneficial (Previously no effect)	Scenarios 3, 4 and 5
York Street (between Spring Gardens and Fountain Street)	Moderate beneficial (Previously no effect)	Scenarios 3, 4 and 5
A62 Newton Street (between A6 Piccadilly and B6181 Dale Street)	Major adverse (Previously moderate adverse)	Scenarios 3, 4 and 5
Laystall Street (between Tariff Street and A665 Great Ancoats Street)	Minor beneficial (Previously minor adverse)	Scenario 3
Every Street (between Carruthers Street and Gurney Street)	No effect (Previously moderate beneficial)	-
A665 Great Ancoats Street (between Ducie Street and Laystall Street)	Moderate beneficial (Previously no effect)	Scenario 3
B6181 Dale Street (between A62 Newton Street and Port Street)	Major adverse (Previously minor beneficial)	Scenario 2
Tariff Street (between Brewer Street and Laystall Street)	Minor beneficial (Previously moderate adverse)	Scenarios 1, 4 and 5
A6 Dale Street (between A62 Lever Street and Newton Street)	No effect (Previously minor beneficial)	-
A62 Newton Street (between A6 Dale Street and Hilton Street)	Major adverse (Previously no effect)	Scenarios 1, 2, 3, 4 and 5
A665 Great Ancoats Street (between Laystall Street and Port Street)	Moderate beneficial (Previously no effect)	Scenario 3
Southgate (between King Street West and Back South Parade)	No effect (Previously minor adverse)	-
Hilton Street (between A62 Newton Street and Port Street)	No effect (Previously minor beneficial)	-
Old Mill Street (between A665 Great Ancoats Street and Carruthers Street)	No effect (Previously moderate beneficial)	-
Back South Parade (between St. Mary's Parsonage and Southgate)	No effect (Previously moderate adverse)	-
Port Street (between Hilton Street and A665 Great Ancoats Street)	No effect (Previously moderate adverse)	-
A62 Newton Street (between Hilton Street and A665 Great Ancoats Street)	Major adverse (Previously no effect)	Scenarios 1, 2, 3, 4 and 5
Carruthers Street (between Old Mill Street and A662 Pollard Street)	No effect (Previously moderate beneficial)	-
Thomas Street (between Tib Street and John Street)	Moderate beneficial (Previously no effect)	Scenario 3
Tib Street (between A665 Swan Street and Thomas Street)	Major adverse (Previously moderate adverse)	Scenarios 1 and 2
A6041 Chapel Street (between A6041 Blackfriars Road and A56 Victoria Bridge Street)	Moderate adverse (Previously no effect)	Scenario 3

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road Name	Significant Effect	AP2 Construction Scenario
A56 Chapel Street (between A6 Blackfriars Street and A56 Victoria Bridge Street)	Moderate adverse (Previously no effect)	Scenario 3
A56 Chapel Street/Victoria Street (between A56 Victoria Bridge Steer and Hunts Bank Approach)	Moderate adverse (Previously no effect)	Scenario 3
Thompson Street (between A62 Oldham Road and A664 Rochdale Road)	Minor adverse (Previously no effect)	Scenarios 2 and 3
Butler Street (between A62 Oldham Road and Old Mill Street)	Moderate beneficial (Previously no effect)	Scenarios 3, 4 and 5
Lower Broughton Road (between Sussex Street and A5066 Great Clowes Street)	Moderate adverse (Previously no effect)	Scenario 4
Langley Road South (between Douglas Green and A576 Cromwell Road)	Minor adverse (Previously no effect)	Scenario 3
Langley Road South (between Indigo Street and Douglas Green)	Minor adverse (Previously no effect)	Scenario 3
B5231 Station Road (between Boundary Road and Lees Street)	Major adverse (Previously no effect)	Scenarios 1, 2, 3, 4 and 5

Table 15: Roads with changes in daily HGV movements (more than 30%) resulting in new or different significant effects on traffic-related severance for non-motorised users, 2031

Road Name	Significant Effect	AP2 Construction Scenario
A34 Upper Brook Street (between Grafton Street and A5184 Plymouth Grove)	No effect (Previously moderate adverse)	-
A5184 Plymouth Grove (between A34 Upper Brook Street and Grafton Street)	Moderate adverse (Previously no effect)	Scenario 3
A34 Upper Brook Street (between A5184 Plymouth Grove and Brunswick Street)	No effect (Previously moderate adverse)	-
A34 Upper Brook Street (between Brunswick Street and Booth Street East)	No effect (Previously moderate adverse)	-
A34 Upper Brook Street (between Booth Street East and Grosvenor Street)	No effect (Previously moderate adverse)	-
Grosvenor Street (between A6 Downing Street and A34 Brook Street)	No effect (Previously moderate beneficial)	-
Mancunian Way (between A34 Brook Street and Sackville Street)	Moderate adverse (Previously major adverse)	Scenarios 3 and 5
A635 Fairfield Street diversion (between A635 Ashton Old Road realignment and A665 Chancellor Lane diversion)	Major adverse (Previously no effect)	Scenarios 4 and 5
A635 Ashton Old Road (between A665 Chancellor Lane and A665 Midland Street)	No effect (Previously moderate adverse)	-
Travis Street (between B6469 Fairfield Street and A6 London Road)	No effect (Previously minor beneficial)	-
B6469 Fairfield Street (between St Andrew's Street and A635 Mancunian Way)	Major adverse (Previously no effect)	Scenario 1

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road Name	Significant Effect	AP2 Construction Scenario
B6469 Fairfield Street (between Travis Street and St Andrew's Street diversion)	Major adverse (Previously no effect)	Scenario 1
St. Andrew's Street diversion (between B6469 Fairfield Street diversion and Helmet Street)	No effect (Previously major adverse)	-
B5461 Ordsall Lane (between Willburn Street and A57 Regent Road)	Moderate adverse (Previously no effect)	Scenario 3
Travis Street (between B6469 Fairfield Street and Sheffield Street)	Major adverse (Previously no effect)	Scenario 1
Helmet Street (between St. Andrew's Street diversion and A665 Great Ancoats Street)	No effect (Previously moderate adverse)	-
Adair Street (between Station Car Park Access and St. Andrew's Square)	Moderate adverse (Previously major adverse)	Scenario 3
New Sheffield Street (between Adair Street and Chapeltown Street)	Major adverse (Previously no effect)	Scenario 1
Sheffield Street (between Travis Street and Baird Street)	Moderate adverse (Previously no effect)	Scenario 1
B5461 Ordsall Lane (between between A57 Regent Road and B5225 Hampson Street)	Moderate adverse (Previously no effect)	Scenario 3
Store Street (between New Sheffield Street and Boad Street)	No effect (Previously major adverse)	-
Boad Street (between Sheffield Street and Store Street)	Major adverse (Previously no effect)	Scenario 1
Auburn Street (between A6 Aytoun Street and A6 Piccadilly)	Moderate beneficial (Previously no effect)	Scenario 2
Chapeltown Street (between Sparkle Street and A665 Great Ancoats Street)	No effect (Previously major adverse)	-
B6181 Ducie Street (between A6 London Road and New Sheffield Street)	No effect (Previously moderate adverse)	-
B6181 Ducie Street (between New Sheffield Street and B6181 Dale Street)	No effect (Previously major adverse)	-
Ducie Street (between B6181 Dale Street and Peak Street)	Moderate adverse (Previously major adverse)	Scenarios 3, 4 and 5
B6181 Dale Street (between B6181 Ducie Street and Paton Street)	No effect (Previously moderate adverse)	-
Ducie Street (between A665 Great Ancoats Street and Peak Street)	No effect (Previously major adverse)	-
B6181 Dale Street (between Paton Street and Port Street)	Major adverse (Previously no effect)	Scenarios 1 and 2
A62 Newton Street (between A6 Piccadilly and B6181 Dale Street)	Major adverse (Previously no effect)	Scenarios 3, 4 and 5
B6181 Dale Street (between A62 Newton Street and Port Street)	Moderate adverse (Previously no effect)	Scenarios 1 and 2
Carruthers Street (between A662 Pollard Street and Every Street)	Moderate adverse (Previously no effect)	Scenario 2

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement
Volume 2: Community Area report
MA08 Manchester Piccadilly Station

Road Name	Significant Effect	AP2 Construction Scenario
A662 Pollard Street (between A665 Great Ancoats Street and Carruthers Street)	Minor beneficial (Previously major adverse)	Scenario 1
A62 Newton Street (between A6 Dale Street and Hilton Street)	Major adverse (Previously no effect)	Scenarios 1, 2 and 3
A662 Merrill Street (between Carruthers Street and Every Street)	No effect (Previously moderate adverse)	-
A62 Newton Street (between Hilton Street and A665 Great Ancoats Street)	Major adverse (Previously no effect)	Scenario 2
B5231 Station Road (between Boundary Road and Lees Street)	Moderate adverse (Previously no effect)	Scenarios 1, 2, 3, 4 and 5

- 7.3.30 The construction of the AP2 revised scheme in the Manchester Piccadilly Station area will require temporary bus route diversions and traffic management, with consequential changes in journey times and the need to relocate bus stops. The impact of these bus route changes and diversions, as well as changes in the traffic flows on the highway network, will result in changes to public transport delay. However, the impact of these bus route changes and diversions will not result in significant effects in the Manchester Piccadilly Station area.
- 7.3.31 There will, however, be impacts for bus passengers on routes into Manchester City Centre operating on the A6010 Alan Turing Way, the A635 Ashton Old Road, the A6 Stockport Road and the A57 Hyde Road in the adjacent Davenport Green to Ardwick area (MA07). Effects for bus passengers on these routes are discussed in the SES2 and AP2 ES Volume 2, Davenport Green to Ardwick area (MA07).

Other mitigation measures

- 7.3.32 No further appropriate traffic and transport mitigation measures have been identified. HS2 Ltd will, however, continue to work with the relevant highway authorities to consider whether any further mitigation measures would be required.

Summary of likely residual significant effects

- 7.3.33 The temporary residual significant effects during construction remain as described above. These effects will be temporary and reversible in nature lasting only for the duration of the construction works.
- 7.3.34 The AP2 revised scheme will result in the following changes to the congestion and delay effects for vehicle occupants reported in the main ES:
- change (decrease) from major adverse effect to moderate adverse effect at three junctions;
 - change (increase) from moderate adverse effect to major adverse effect at two junctions;
 - change (increase) from minor adverse effect to major adverse effect at one junction;
 - change (increase) from minor adverse effect to moderate adverse effect at one junction;

- change (decrease) from major adverse effect to minor adverse effect at four junctions;
- change (decrease) from moderate adverse effect to moderate beneficial effect at one junction;
- change (decrease) from major adverse effect to minor beneficial effect at one junction;
- change (decrease) from minor adverse effect to minor beneficial effect at one junction;
- change (decrease) from moderate beneficial effect to minor beneficial effect at one junction;
- change (increase) from minor beneficial effect to minor adverse effect at one junction;
- new major adverse effect at 19 junctions;
- new moderate adverse effect at six junctions;
- new minor adverse effect at 11 junctions;
- new minor beneficial effect at five junctions;
- different (increased) major adverse significant effects at four junctions; and
- different (decreased) major adverse significant effects at one junction.

7.3.35 The AP2 revised scheme will result in the following changes to the traffic-related severance effects for non-motorised users reported in the main ES:

- change (decrease) from major adverse effect to moderate adverse effect on three roads;
- change (increase) from moderate adverse effect to major adverse effect on five roads;
- change (increase) from minor adverse effect to moderate adverse effect on one road;
- change (decrease) from major adverse effect to moderate beneficial effect on one road;
- change (decrease) from major adverse effect to minor beneficial effect on one road;
- change (decrease) from moderate adverse effect to minor beneficial effect on two roads;
- change (decrease) from minor adverse effect to minor beneficial effect on one road;
- change (decrease) from major beneficial effect to moderate beneficial effect on two roads;
- change (increase) from minor beneficial effect to moderate beneficial effect on one road;
- change (increase) from moderate beneficial effect to major adverse effect on one road;
- change (increase) from minor beneficial effect to major adverse effect on two roads;
- change (increase) from moderate beneficial effect to moderate adverse effect on two roads;
- new major adverse effect on eight roads;
- new moderate adverse effect on 11 roads;
- new minor adverse effect on three roads;
- new moderate beneficial effect on 20 roads;
- new minor beneficial effect on one road;
- different (increased) major adverse significant effects on one road; and
- different (decreased) major adverse significant effects on one road.

- 7.3.36 The AP2 revised scheme will remove the following effects on congestion and delay for vehicle occupants reported in the main ES:
- significant adverse effects removed at 29 junctions (nine major, five moderate, 15 minor); and
 - significant beneficial effects removed at one junction (one minor).
- 7.3.37 The AP2 revised scheme will remove the following effects on traffic-related severance for non-motorised users reported in the main ES:
- significant adverse effects removed on 17 roads (four major, 11 moderate and two minor); and
 - significant beneficial effects removed on 11 roads (three minor, eight moderate).

Cumulative effects

- 7.3.38 This combined assessment has taken into account cumulative effects from background traffic growth, committed developments and traffic and transport impacts of the construction works arising from the SES2 changes and AP2 amendments in this area and other community areas.

Effects arising during operation

Avoidance and mitigation measures

- 7.3.39 No avoidance or mitigation measures additional to those reported in the main ES are proposed.

Assessment of impacts and effects

- 7.3.40 The assessment of impacts and effects arising duration operation is described in Section 14 of Volume 2, Community Area report Manchester Piccadilly Station (MA08) of the main ES.
- 7.3.41 The AP2 revised scheme includes a change to the permanent realignment of the A635 Mancunian Way (SES2-008-002).
- 7.3.42 The AP2 revised scheme also includes a number of changes to the highway network in the vicinity of Manchester Piccadilly Station, including an access restriction of the section of New Sheffield Street between Ducie Street and Helmet Street to become one-way only allowing only taxis and service vehicles, the permanent closure of St. Andrew's Square, the permanent closure of the southern end of Chapeltown Street and the relocation of multi-storey car park 2 from the north side of New Sheffield Street to between the Manchester Piccadilly High Speed station and the Network Rail viaduct (AP2-008-003).
- 7.3.43 The combined impact of all SES2 changes and AP2 amendments will lead to flow changes on the highway network. This will result in changes to the traffic congestion and delay effects, as reported in the main ES. Changes to traffic-congestion and delay effects in 2039 and 2051

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

are set out in Table 16 and Table 17 respectively. Where changes to effects are reported, these changes are compared to the original scheme, as reported in the main ES. Locations not listed in Table 16 and remain unchanged to those reported in the main ES. The significance of the effect reported in the main ES is indicated in brackets.

Table 16: Junctions with changes resulting in new or different significant effects on delays and congestion to vehicle occupants, 2039

Junction Name	Significant Effect
A5103 Princess Road/B5219 Moss Lane East	Minor beneficial (Previously no effect)
A57 (M) Mancunian Way/A5103 Princess Road/A5103 Medlock Street	Minor beneficial (Previously moderate adverse)
Cambridge Street/Hulme Street	Moderate beneficial (Previously no effect)
A57 (M) Mancunian Way/A56 Chester Road/A5067 Chorlton Road (Deansgate Interchange)	Moderate beneficial (Previously moderate adverse)
A34 Oxford Road/Charles Street/Hulme Street	Minor adverse (Previously no effect)
A5103 Albion Street/B6469 Whitworth Street West	Minor beneficial (Previously no effect)
A56 Bridgewater Viaduct/B6469 Whitworth Street West/Castle Street	Minor adverse (Previously no effect)
A34 Oxford Street/B6469 Whitworth Street West/B6469 Whitworth Street	No effect (Previously moderate adverse)
A6 London Road/Travis Street	Major adverse (Previously no effect)
A665 Pin Mill Brow realignment/A635 Ashton Old Road realignment/A635 Mancunian Way southbound realignment	Minor adverse (Previously major adverse)
A665 Pin Mill Brow realignment/A635 Mancunian Way northbound realignment	Minor adverse (Previously moderate adverse*)
A6042 Trinity Way/A6143 Water Street	Minor beneficial (Previously no effect)
A6 London Road/B6469 Fairfield Street	Minor beneficial (Previously moderate adverse)
A5103 Portland Street/Dickinson Street	Minor beneficial (Previously no effect)
New Sheffield Street/Adair Street realignment	No effect (Previously major adverse)
A6 London Road/A6 Whitworth Street/Store Street/Tram Crossing	No effect (Previously major adverse)
A6143 Water Street/A6143 Liverpool Road	Minor beneficial (Previously no effect)
A34 Peter Street/A6042 Mount Street/Mount Street	Major adverse (Previously no effect)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Junction Name	Significant Effect
A665 Great Ancoats Street/Every Street	Major adverse (increased) (Previously major adverse)
A56 Deansgate/A34 Peter Street/A34 Quay Street	Moderate adverse (Previously no effect)
A6042 Trinity Way/Hampson Street	Minor adverse (Previously no effect)
A665 Great Ancoats Street/Adair Street	No effect (Previously major adverse)
A34 Quay Street/Lower Byrom Street/Gartside Street	No effect (Previously minor adverse)
A34 New Quay Street/A34 Quay Street/B5225 Quay Street/Gartside Street	No effect (Previously moderate adverse)
A665 Great Ancoats Street/A662 Pollard Street/Chapelton Street	No effect (Previously major adverse)
A5066 Oldfield Road/Liverpool Street/Middlewood Street	Moderate beneficial (Previously no effect)
A6 Piccadilly/Paton Street	Major adverse (Previously no effect)
A34 John Dalton Street/A34 Princess Street/A5042 Cross Street/A6042 Lloyd Street	Moderate adverse (Previously no effect)
A6 Portland Street/A62 Newton Street	Minor adverse (Previously no effect)
Fountain Street/York Street	Major adverse (Previously no effect)
Spring Gardens/King Street	Major adverse (Previously no effect)
A34 Bridge Street/A56 Deansgate/A34 John Dalton Street	Major adverse (Previously no effect)
King Street/Essex Street	Major adverse (Previously no effect)
A6042 Cross Street/King Street	Major adverse (Previously no effect)
A34 Bridge Street/St Mary's Parsonage	No effect (Previously minor adverse)
A56 Deansgate/King Street West/King Street	Major adverse (Previously no effect)
A5063 Albion Way/Liverpool Street	Minor adverse (Previously no effect)
A576 Centenary Way/Coronet Way	Minor adverse (Previously no effect)
Market Street/Cross Street	Major adverse (Previously no effect)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Junction Name	Significant Effect
A664 High Street/A6 Church Street	Major adverse (Previously no effect)
A6 Crescent/A6 Chapel Street/A5066 Adelphi Street/A5066 Oldfield Road	No effect (Previously moderate adverse*)
A6042 Trinity Way/A6 Chapel Street/A34 Trinity Way	Moderate adverse (Previously major adverse)
A6 Chapel Street/St Stephen Street	No effect (Previously major adverse)
A6 Blackfriars Street/Parsonage	No effect (Previously major adverse)
A6041 Chapel Street/A6 Blackfriars Street/A6 Chapel Street/A6041 Blackfriars Road	Major adverse (Previously no effect)
A56 Chapel Street/A56 Victoria Bridge Street	No effect (Previously moderate adverse)
A665 Miller Street/A664 Corporation Street/Corporation Street	No effect (Previously minor adverse)
A6041 Blackfriars Road/A5066 Silk Street/St Simon Street	Moderate adverse (Previously no effect)
A576 Eccles Old Road/A5186 Langworthy Road	No effect (Previously major adverse)
B6186 Frederick Road/Seaford Road/Broughton Road East	Moderate adverse (Previously minor adverse)
A56 Bury New Road/B6180 Waterloo Road	No effect (Previously minor adverse)
A576 Cromwell Road/Langley Road South	Minor adverse (Previously no effect)
B6186 Camp Street/B6186 Fredrick Road/Lower Broughton Road	No effect (Previously minor adverse)
A5066 Great Clowes Street/Broughton Lane	Minor adverse (Previously no effect)
A5066 Great Clowes Street/B6186 Camp Street/B6187 Great Clowes Street/B6186 Upper Camp Street	No effect (Previously moderate adverse)
A576 Great Cheetham Street West/Lower Broughton Road	Major adverse (Previously no effect)
B6180 Waterloo Road/A6010 Elizabeth Street	Minor beneficial (Previously no effect)
A6010 Queens Road/Smedley Road	Minor adverse (Previously no effect)
A572 Worsley Road/B5231 Folly Lane	No effect (Previously minor adverse)

* As corrected in Section 2 of this report

Table 17: Junctions with changes resulting in new or different significant effects on delays and congestion to vehicle occupants, 2051

Junction Name	Significant Effect
A34 Upper Brook Street/Booth Street East	Minor beneficial (Previously no effect)
A57 (M) Mancunian Way/A5103 Princess Road/A5103 Medlock Street	Moderate beneficial (Previously no effect)
Cambridge Street/Hulme Street	Moderate beneficial (Previously no effect)
A57 (M) Mancunian Way/A56 Chester Road/A5067 Chorlton Road (Deansgate Interchange)	Moderate beneficial (Previously minor beneficial)
A665 Chancellor Lane diversion/A665 Midland Street	Moderate adverse (Previously major adverse)
A5103 Albion Street/A5103 Medlock Street/City Road East	No effect (Previously minor adverse)
A56 Chester Road/Great Jackson Street	Minor beneficial (Previously no effect)
A34 Oxford Road/Charles Street/Hulme Street	Moderate adverse (Previously no effect)
A34 Princess Street/Charles Street	Moderate beneficial (Previously no effect)
A5103 Albion Street/B6469 Whitworth Street West	Moderate beneficial (Previously no effect)
A34 Oxford Street/B6469 Whitworth Street West/B6469 Whitworth Street	Minor beneficial (Previously moderate beneficial)
A5103 Albion Street/A5103 Lower Mosley Street/Great Bridgewater Street	No effect (Previously minor beneficial)
A6 London Road/Travis Street	Major adverse (Previously no effect)
A665 Pin Mill Brow/A635 Ashton Old Road/A665 Chancellor Lane/A635 Fairfield Street	Major adverse (Previously no effect)
A34 Princess Street/B6469 Whitworth Street	Moderate beneficial (Previously no effect)
A665 Pin Mill Brow realignment/A635 Mancunian Way northbound realignment	No effect (Previously minor adverse)
A34 Oxford Street/A5103 Portland Street/A5103 Chepstow Street	No effect (Previously minor adverse)
B6469 Whitworth Street/Sackville Street	Moderate beneficial (Previously no effect)
A6042 Trinity Way/A6143 Water Street	Major adverse (Previously no effect)
A6 London Road/B6469 Fairfield Street	Minor beneficial (Previously moderate adverse)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Junction Name	Significant Effect
A34 Princess Street/Bloom Street	Moderate beneficial (Previously major adverse)
A5103 Portland Street/Dickinson Street	Minor beneficial (Previously no effect)
New Sheffield Street/Adair Street realignment	No effect (Previously major adverse)
A6 London Road/A6 Whitworth Street/Store Street/Tram Crossing	No effect (Previously major adverse)
A6143 Water Street/A6143 Liverpool Road	Minor beneficial (Previously no effect)
A34 Oxford Street/A34 Peter Street/Lower Mosley Street	Minor adverse (Previously no effect)
A34 Peter Street/A6042 Mount Street/Mount Street	Major adverse (Previously no effect)
Chorlton Street/Bloom Street	Minor adverse (Previously no effect)
A665 Great Ancoats Street/Every Street	Major adverse (increased) (Previously major adverse)
A56 Deansgate/A34 Peter Street/A34 Quay Street	Minor beneficial (Previously no effect)
A6042 Trinity Way/Hampson Street	Moderate adverse (Previously no effect)
A665 Great Ancoats Street/Adair Street	No effect (Previously major adverse)
A34 Quay Street/Lower Byrom Street/Gartside Street	Moderate adverse (Previously minor adverse)
A34 New Quay Street/A34 Quay Street/B5225 Quay Street/Gartside Street	Major adverse (Previously no effect)
A665 Great Ancoats Street/A662 Pollard Street/Chapelton Street	No effect (Previously major adverse)
M602 junction 3/A57 Regent Road/A57 Eccles New Road/A5063 Albion Way/A5063 Trafford Road	No effect (Previously major adverse)
A5066 Oldfield Road/Liverpool Street/Middlewood Street	Moderate beneficial (Previously minor adverse)
A6 Piccadilly/Paton Street	Major adverse (Previously no effect)
A34 New Quay Street/B5225 Water Street/Water Street	Minor beneficial (Previously no effect)
A6 Portland Street/A62 Newton Street	Major adverse (Previously no effect)
Fountain Street/York Street	Major adverse (Previously no effect)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Junction Name	Significant Effect
Spring Gardens/King Street	Moderate adverse (Previously no effect)
A34 Bridge Street/A56 Deansgate/A34 John Dalton Street	Moderate adverse (Previously no effect)
King Street/Essex Street	Major adverse (Previously no effect)
A6042 Cross Street/King Street	Major adverse (Previously no effect)
A34 Bridge Street/St Mary's Parsonage	No effect (Previously minor adverse)
A56 Deansgate/King Street West/King Street	Moderate adverse (Previously no effect)
A5063 Albion Way/Liverpool Street	Minor adverse (Previously no effect)
A6 Dale Street/A62 Lever Street	Moderate adverse (Previously minor adverse)
A662 Merrill Street/A662 Pollard Street/Carruthers Street	Minor beneficial (Previously no effect)
A664 High Street/A6 Church Street	Moderate adverse (Previously no effect)
A6 Crescent/A6 Chapel Street/A5066 Adelphi Street/A5066 Oldfield Road	No effect (Previously moderate adverse)
A6042 Trinity Way/A6 Chapel Street/A34 Trinity Way	Moderate adverse (Previously major adverse)
A6 Chapel Street/St Stephen Street	No effect (Previously major adverse)
A6 Blackfriars Street/Parsonage	No effect (Previously moderate adverse)
A6 Crescent/Irwell Place	Moderate adverse (Previously no effect)
A6041 Chapel Street/A6 Blackfriars Street/A6 Chapel Street/A6041 Blackfriars Road	Major adverse (Previously moderate adverse*)
A6042 Trinity Way/A6041 Blackfriars Road	Major adverse (Previously minor adverse)
A665 Miller Street/A664 Corporation Street/Corporation Street	No effect (Previously minor adverse)
A6041 Blackfriars Road/A5066 Silk Street/St Simon Street	Moderate adverse (Previously no effect)
A576 Broughton Road/A6 Broad Street/Pendleton Way	Minor beneficial (Previously no effect)
A664 Rochdale Road/Osborne Street/Dalton Street	Minor beneficial (Previously no effect)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Junction Name	Significant Effect
B6186 Frederick Road/Seaford Road/Broughton Road East	Moderate adverse (Previously no effect)
A56 Bury New Road/B6180 Waterloo Road	Moderate adverse (Previously minor adverse)
B6186 Camp Street/B6186 Fredrick Road/Lower Broughton Road	Moderate beneficial (Previously no effect)
A5066 Great Clowes Street/Broughton Lane	Minor adverse (Previously no effect)
A576 Cromwell Road/Gerald Road/Littleton Road	Minor beneficial (Previously no effect)
A576 Cromwell Road/A576 Great Cheetham Street West/Seaford Road	Minor beneficial (Previously no effect)
A576 Great Cheetham Street West/Lower Broughton Road	Major adverse (Previously no effect)
A5066 Great Clowes Street/Fenney Street	Moderate beneficial (Previously no effect)
A56 Bury Road/Fenney Street/Appian Way	No effect (Previously minor adverse)
A576 Great Cheetham Street West/A5066 Great Clowes Street/B6187 Great Clowes Street	Minor adverse (Previously major beneficial)
B6180 Waterloo Road/A6010 Elizabeth Street	Minor adverse (Previously no effect)
A6010 Queens Road/Smedley Road	Minor adverse (Previously no effect)
A6010 St James Street/Great Cheetham Street East	Minor beneficial (Previously no effect)
A664 Rochdale Road/Prescot Road/Harpurhey Road	No effect (Previously minor beneficial)
Moor Lane/Littleton Road/Kersal Vale Road	Moderate adverse (Previously minor adverse)
Delaunays Road/Central Drive	Minor adverse (Previously no effect)
A56 Bury New Road/Butterstile Road	Minor adverse (Previously no effect)
M62 junction 18/M66 junction 4/M60 junction 18/Simister Island	Minor adverse (Previously no effect)

* As corrected in Section 2 of this report

7.3.44 A change in traffic levels can result in changes to traffic-related severance for non-motorised road users, particularly pedestrians using or seeking to cross a road. Changes to traffic-related severance for non-motorised users in 2039 and 2051 are set out in Table 18. Where changes to effects are reported, these changes are compared to the original scheme, as reported in the main ES. Locations not listed in Table 18 remain unchanged to those

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

reported in the main ES. The significance of the effect reported in the main ES is indicated in brackets.

Table 18: Roads with changes in traffic flow resulting in significant effects on traffic-related severance for non-motorised users, 2039 and 2051

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
Grafton Street (between A5184 Plymouth Grove and A34 Upper Brook Street)	No change (Previously minor adverse)	No effect (No change)	Moderate adverse (Previously minor adverse)	Moderate beneficial (Previously no effect)
Dover Street (between B5117 Oxford Road and A34 Upper Brook Street)	No effect (No change)	No effect (Previously major beneficial)	No effect (No change)	No effect (Previously major beneficial)
Royce Road (between A5067 Chorlton Road and City Road)	No effect (No change)	No effect (No change)	No effect (Previously moderate adverse)	No effect (No change)
Brunswick Street (between A34 Upper Brook Street and A6 Stockport Road)	Major beneficial (Previously no effect)	Major beneficial (Previously no effect)	Major beneficial (Previously no effect)	Moderate beneficial (Previously no effect)
A5067 Cavendish Street (between Boundary Lane and Higher Cambridge Street)	No effect (No change)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
B5177 Oxford Road (between Booth Street East and Grosvenor Street)	No effect (No change)	No effect (No change)	No effect (Previously moderate adverse)	No effect (No change)
A34 Upper Brook Street (between Booth Street East and Grosvenor Street)	No effect (No change)	No effect (No change)	Major adverse (Previously no effect)	No effect (No change)
Higher Ardwick (between A57 Hyde Road and Ardwick Green North)	No change (Previously moderate beneficial)	Moderate beneficial (Previously no effect)	Major beneficial (Previously moderate beneficial)	No effect (No change)
A34 Grosvenor Street (between A34 Brook Street and A34 Oxford Road)	Moderate beneficial (Previously no effect)	No effect (Previously moderate beneficial)	Moderate beneficial (Previously no effect)	No effect (Previously major beneficial)
A6 Ardwick Green South (between Grosvenor Street and Higher Ardwick)	Major adverse (Previously no effect)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)
A34 Oxford Road (between A34 Grosvenor Street and Chester Street)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
Cambridge Street (between A5103 Mancunian Way and Chester Street)	No change (Previously moderate adverse)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
Higher Ardwick (between Ardwick Green North and Union Street)	No change (Previously moderate beneficial)	Major beneficial (Previously moderate beneficial)	Major beneficial (Previously moderate beneficial)	Moderate adverse (Previously moderate beneficial)
Cambridge Street (between Chester Street and Hulme Street)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
Grosvenor Street (between A6 Downing Street and A34 Brook Street)	No effect (No change)	No effect (Previously major beneficial)	No effect (No change)	No change (Previously moderate beneficial)
Union Street (between Dark Lane and Higher Ardwick)	Major beneficial (Previously moderate beneficial)	Moderate adverse (Previously moderate beneficial)	No change (Previously major beneficial)	Major adverse (Previously moderate adverse)
Hulme Street (between Lower Chatham Street and Cambridge Street)	No change (Previously major adverse)	Moderate adverse (Previously no effect)	No change (Previously moderate adverse)	Moderate adverse (Previously no effect)
Chester Street (between Cambridge Street and A34 Oxford Road)	No effect (Previously moderate beneficial)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
Hulme Street (between Great Marlborough Street and A34 Oxford Road)	No effect (No change)	No effect (No change)	No effect (No change)	Major adverse (Previously no effect)
Mancunian Way (between A34 Brook Street and Sackville Street)	No effect (No change)	Major adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)
A56 Chester Road (between Great Jackson Street and Deansgate)	No effect (No change)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
A34 Oxford Street (between Chester Street and B6469 Whitworth Street)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)
A635 Mancunian Way (between A6 London Road and A635 Fairfield Street diversion)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Major beneficial (Previously no effect)	Moderate beneficial (Previously no effect)
A6 Downing Street (between A635 Mancunian Way and Grosvenor Street)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
A665 Chancellor Lane diversion (between A665 Midland Street and A635 Fairfield Street diversion)	No change (Previously moderate adverse)	No effect (No change)	Moderate beneficial (Previously moderate adverse)	No effect (No change)
Little Peter Street (between A56 Bridgewater Viaduct and A5103 Albion Street)	No effect (No change)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
Sackville Street (between A57(M) Mancunian Way and Charles Street)	No effect (No change)	Major adverse (Previously moderate beneficial)	No effect (No change)	Major adverse (Previously moderate beneficial)
Charles Street (between A34 Princess Street and Sackville Street)	No effect (Previously moderate adverse)	Major beneficial (Previously no effect)	No effect (Previously moderate adverse)	Major beneficial (Previously no effect)
Great Bridgewater Street/Chepstow Street (between A5103 Lower Mosley Street and A34 Oxford Street)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)
B6469 Whitworth Street West (between Gloucester Street and A34 Princess Street)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)
Travis Street (between B6469 Fairfield Street and A6 London Road)	No change (Previously major adverse)	Major adverse (Previously no effect)	Moderate adverse (Previously major adverse)	Major adverse (Previously no effect)
B6469 Whitworth Street (between A34 Oxford Street and A34 Princess Street)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)
A665 Pin Mill Brow realignment (between A635 Ashton Old Road realignment and A635 Mancunian Way northbound realignment)	No effect (Previously major adverse)	No effect (Previously major adverse)	No effect (Previously major adverse)	Moderate beneficial (Previously major adverse)
A635 Mancunian Way northbound realignment (between A635 Fairfield Street diversion and A665 Pin Mill Brow realignment)	No change (Previously major adverse)	No change (Previously major adverse)	No change (Previously major adverse)	No change (Previously major adverse)
A34 Oxford Street (between B6469 Whitworth Street and A5103 Portland Street)	No effect (No change)	No effect (No change)	No effect (Previously moderate adverse)	No effect (No change)
B6469 Whitworth Street (between A34 Princess Street and Sackville Street)	Major beneficial (Previously)	No change (Previously)	Moderate beneficial	Major beneficial (Previously)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
	moderate beneficial)	moderate beneficial)	(Previously no effect)	moderate beneficial)
Helmet Street (between St Andrew's Street and A665 Great Ancoats Street)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Major beneficial (Previously no effect)	Moderate adverse (Previously no effect)
A6 London Road (between Travis Street and B6469 Fairfield Street)	No change (Previously moderate beneficial)	No change (Previously moderate beneficial)	No effect (Previously moderate beneficial)	No effect (Previously moderate beneficial)
Sackville Street (between B6469 Whitworth Street and Charles Street)	No effect (No change)	Moderate beneficial (Previously no effect)	Major beneficial (Previously no effect)	Moderate beneficial (Previously no effect)
B6469 Fairfield Street (between A6 London Road and Travis Street)	Moderate beneficial (Previously major beneficial)	Major beneficial (Previously major adverse)	Moderate beneficial (Previously major beneficial)	Major beneficial (Previously major adverse)
B6469 Whitworth Street (between Sackville Street and Chorlton Street)	No effect (Previously moderate beneficial)	No change (Previously moderate beneficial)	No change (Previously moderate beneficial)	No change (Previously moderate beneficial)
St. Andrew's Street diversion (between B6469 Fairfield Street diversion and Helmet Street)	No effect (Previously major adverse)	No effect (Previously major adverse)	Moderate beneficial (Previously major adverse)	No change (Previously major adverse)
B6469 Fairfield Street (between A6 Whitworth Street and A6 London Road)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)
Bloom Street (between Sackville Street and A34 Princess Street)	No effect (No change)	No change (Previously moderate adverse)	No effect (No change)	No effect (Previously moderate adverse)
A5103 Portland Street (between A34 Oxford Street and Dickinson Street)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)
A6 Aytoun Street (between Chorlton Street and Cobourg Street)	Moderate beneficial (Previously minor beneficial)	No effect (No change)	Moderate beneficial (Previously minor beneficial)	Minor adverse (Previously no effect)
Adair Street (between New Sheffield Street and Station Car Park Access)	No effect (Previously moderate adverse)	No effect (Previously major beneficial)	No effect (Previously major adverse)	No effect (Previously major beneficial)
George Street (between A34 Oxford Street and Dickinson Street)	No effect (No change)	Major adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
A34 Oxford Street (between A5103 Portland Street and George Street)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)
Helmet Street (between St. Andrew's Street diversion and A665 Great Ancoats Street)	No change (Previously moderate adverse)	No effect (Previously moderate adverse)	No change (Previously moderate adverse)	No change (Previously moderate adverse)
A6 London Road (between A6 Whitworth Street and B6469 Fairfield Street)	No effect (Previously major beneficial)	Moderate beneficial (Previously no effect)	No effect (Previously major beneficial)	Moderate beneficial (Previously no effect)
New Sheffield Street (between Adair Street and Chapeltown Street)	Moderate beneficial (Previously major beneficial)	Moderate beneficial (Previously major adverse)	Moderate beneficial (Previously major beneficial)	Moderate beneficial (Previously major adverse)
A6 Aytoun Street (between Cobourg Street and A6 Whitworth Street)	Moderate beneficial (Previously minor beneficial)	No effect (No change)	Moderate beneficial (Previously minor beneficial)	Minor adverse (Previously no effect)
Dickinson Street (between A5103 Portland Street and St James Street)	No effect (No change)	No effect (No change)	No effect (No change)	Moderate adverse (Previously no effect)
Adair Street (between Station Car Park Access and St. Andrew's Square)	Moderate beneficial (Previously major beneficial)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously major beneficial)	Moderate beneficial (Previously no effect)
Chorlton Street (between B6469 Whitworth Street and Bloom Street)	Major adverse (Previously no effect)	Major beneficial (Previously no effect)	No change (Previously major adverse)	Major beneficial (Previously no effect)
Dickinson Street (between St James Street and A5103 Portland Street)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)
A665 Great Ancoats Street (between Helmet Street and Every Street)	No effect (Previously moderate beneficial)	No effect (Previously moderate beneficial)	No effect (No change)	No effect (Previously moderate beneficial)
A6 Aytoun Street (between A6 Whitworth Street and Minshull Street)	Major beneficial (Previously no effect)	No effect (Previously moderate beneficial)	Major beneficial (Previously no effect)	No effect (Previously moderate beneficial)
St. James Street (between Dickinson Street and A34 Princess Street)	No effect (Previously minor adverse)	No effect (No change)	Moderate adverse (Previously minor adverse)	No effect (No change)
A34 Princess Street (between Bloom Street and A5103 Portland Street)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
Dickinson Street (between George Street and St James Street)	No effect (No change)	Major adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)
Bloom Street (between Sackville Street and Chorlton Street)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Major beneficial (Previously no effect)
A6 London Road (between Auburn Street and A6 Whitworth Street)	Major adverse (Previously no effect)	No effect (Previously moderate adverse)	Major adverse (Previously no effect)	No effect (Previously moderate adverse)
A34 Princess Street (between George Street and A5103 Portland Street)	No effect (No change)	Major beneficial (Previously no effect)	No effect (No change)	Major beneficial (Previously no effect)
Adair Street (between St. Andrew's Square and A665 Great Ancoats Street)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously major adverse)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously major adverse)
A6 Aytoun Street (between Minshull Street and Auburn Street)	Major beneficial (Previously moderate beneficial)	Moderate adverse (Previously no effect)	Major beneficial (Previously moderate beneficial)	Major adverse (Previously no effect)
Chapelton Street (between Sparkle Street and A665 Great Ancoats Street)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	Moderate adverse (Previously no effect)
Nicholas Street (between St James Street and A5103 Portland Street)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	Major adverse (Previously no effect)
Minshull Street (between Bloom Street and A6 Aytoun Street)	No change (Previously moderate beneficial)	No effect (No change)	Major beneficial (Previously no effect)	Moderate adverse (Previously no effect)
Store Street (between New Sheffield Street and Boad Street)	Moderate beneficial (Previously minor adverse)	No change (Previously moderate beneficial)	Moderate beneficial (Previously minor adverse)	No change (Previously moderate beneficial)
Bloom Street (between Minshull Street and Chorlton Street)	No effect (Previously moderate beneficial)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)
Chorlton Street (between Bloom Street and Major Street)	No effect (No change)	Major beneficial (Previously no effect)	No effect (No change)	Major beneficial (Previously no effect)
Major Street (between Chorlton Street and Minshull Street)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
Southmill Street (between Central Street and A34 Parker Street)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)
A665 Great Ancoats Street (between Every Street and Adair Street)	No effect (No change)	No effect (No change)	No effect (No change)	No effect (Previously moderate beneficial)
George Street (between Nicholas Street and A34 Princess Street)	No effect (Previously moderate adverse)	Major beneficial (Previously no effect)	No effect (No change)	Major beneficial (Previously no effect)
Charlotte Street (between Faulkner Street and A5103 Portland Street)	No effect (No change)	Major adverse (Previously no effect)	No effect (No change)	No effect (No change)
Chorlton Street (between Major Street and A5103 Portland Street)	No effect (Previously moderate adverse)	Minor beneficial (Previously no effect)	No change (Previously moderate adverse)	Minor beneficial (Previously moderate adverse)
Store Street (between Boad Street and Sparkle Street)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)
Nicholas Street (between St James Street and George Street)	No change (Previously major adverse)	No effect (No change)	Major adverse (Previously moderate adverse)	Major adverse (Previously no effect)
Auburn Street (between A6 Aytoun Street and A6 Piccadilly)	Major beneficial (Previously moderate beneficial)	Moderate adverse (Previously no effect)	Major beneficial (Previously moderate beneficial)	Major adverse (Previously no effect)
Palmerston Street (between A665 Great Ancoats Street and Gurney Street)	No effect (Previously major adverse)	No effect (Previously major beneficial)	No effect (Previously major adverse)	No effect (Previously major beneficial)
Store Street (between Boad Street and A665 Great Ancoats Street)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Minor beneficial (Previously no effect)
Nicholas Street (between George Street and Mosley Street)	Major adverse (Previously moderate adverse)	Moderate adverse (Previously no effect)	Major adverse (Previously no effect)	Moderate adverse (Previously no effect)
Minshull Street (between A5103 Portland Street and Bloom Street)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)
Store Street (between Boad Street and AA65 Great Ancoats Street)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Minor beneficial (Previously no effect)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
B6181 Ducie Street (between A6 London Road and New Sheffield Street)	No effect (Previously major adverse)	No effect (Previously moderate adverse)	No effect (No change)	No effect (Previously moderate adverse)
A665 Great Ancoats Street (between Adair Street and A662 Pollard Street)	Major beneficial (Previously no effect)	Major beneficial (Previously moderate beneficial)	Major beneficial (Previously no effect)	Major beneficial (Previously moderate beneficial)
Faulkner Street (between New York Street and Charlotte Street)	No effect (Previously moderate adverse)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)
B5225 Quay Street (between B5225 Water Street and A34 New Quay Street)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)	No effect (No change)
George Street (between Nicholas Street and Charlotte Street)	No effect (No change)	Major beneficial (Previously no effect)	No effect (No change)	Major beneficial (Previously no effect)
B6181 Ducie Street (between New Sheffield Street and B6181 Dale Street)	No effect (Previously major adverse)	No effect (Previously major adverse)	No effect (Previously moderate adverse)	No effect (Previously major adverse)
Kennedy Street (between Clarence Street and Cooper Street)	Minor adverse (Previously no effect)	No effect (No change)	Minor adverse (Previously no effect)	No effect (No change)
Nicholas Street (between Mosley Street and Cooper Street)	Major adverse (Previously moderate adverse)	Moderate adverse (Previously no effect)	Major adverse (Previously no effect)	Moderate adverse (Previously no effect)
A5103 Portland Street (between Dickinson Street and Minshull Street)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)
A665 Great Ancoats Street (between Pollard Street and Chapeltown Street)	Moderate beneficial (Previously no effect)	No change (Previously moderate beneficial)	Moderate beneficial (Previously no effect)	Major beneficial (Previously moderate beneficial)
Cooper Street (between Kennedy Street and Booth Street)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
New York Street (between A5103 Portland Street and Faulkner Street)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)
Ducie Street (between B6181 Dale Street and Peak Street)	Moderate beneficial (Previously major adverse)	Moderate beneficial (Previously major beneficial)	Moderate beneficial (Previously major adverse)	Major beneficial (Previously major adverse)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
Liverpool Street (between A5063 Albion Way and A5066 Oldfield Road)	Major adverse (Previously no effect)	No effect (No change)	Major adverse (Previously no effect)	No effect (No change)
New York Street (between Faulkner Street and George Street)	No effect (Previously moderate adverse)	Major beneficial (Previously no effect)	No effect (No change)	Major beneficial (Previously no effect)
Fountain Street (between Booth Street and Spring Gardens)	Major adverse (Previously moderate adverse)	Major adverse (Previously no effect)	Major adverse (Previously minor adverse)	Major adverse (Previously no effect)
A34 Princess Street (between A6042 Cross Street and Clarence Street)	No effect (No change)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
Every Street (between A665 Great Ancoats Street and Carruthers Street)	No change (Previously moderate beneficial)	No effect (Previously moderate beneficial)	No change (Previously moderate beneficial)	No effect (Previously moderate beneficial)
B6181 Dale Street (between B6181 Ducie Street and Paton Street)	Major adverse (Previously major beneficial)	Moderate adverse (Previously moderate beneficial)	Major adverse (Previously major beneficial)	Moderate adverse (Previously moderate beneficial)
Paton Street (between B6181 Dale Street and A6 Piccadilly)	No change (Previously major adverse)	No effect (Previously major adverse)	No change (Previously major adverse)	No effect (Previously major adverse)
A56 Deansgate (between Lloyd Street and A34 Bridge Street)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)
A665 Great Ancoats Street (between Chapeltown Street and Store Street)	Moderate beneficial (Previously no effect)	Major beneficial (Previously moderate beneficial)	Moderate beneficial (Previously no effect)	Major beneficial (Previously moderate beneficial)
New York Street (between George Street and Mosley Street)	No effect (Previously moderate adverse)	Major beneficial (Previously no effect)	No effect (No change)	Major beneficial (Previously no effect)
Clarence Street (between A34 Princess Street and Kennedy Street)	Minor adverse (Previously no effect)	No effect (No change)	Minor adverse (Previously no effect)	No effect (No change)
A6 Piccadilly (between Chatham Street and B6181 Ducie Street)	No change (Previously major adverse)	No effect (Previously major adverse)	No change (Previously major adverse)	No effect (Previously major adverse)
B6181 Dale Street (between Paton Street and Port Street)	No effect (Previously moderate beneficial)	No change (Previously major adverse)	Major beneficial (Previously moderate beneficial)	Moderate adverse (Previously major adverse)
York Street (between Fountain Street and West Mosley Street)	No effect (Previously moderate adverse)	Major beneficial (Previously no effect)	No effect (No change)	Major beneficial (Previously no effect)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
Ducie Street (between A665 Great Ancoats Street and Peak Street)	No change (Previously major adverse)	No effect (No change)	No change (Previously major adverse)	No effect (Previously major beneficial)
Spring Gardens (between King Street and York Street)	No effect (No change)	Major beneficial (Previously no effect)	No effect (No change)	Major beneficial (Previously no effect)
King Street (between Essex Street and Spring Gardens)	No effect (No change)	Major beneficial (Previously no effect)	No effect (No change)	Major beneficial (Previously no effect)
A665 Great Ancoats Street (between Store Street and Ducie Street)	Major beneficial (Previously moderate beneficial)	Major beneficial (Previously moderate beneficial)	Major beneficial (Previously moderate beneficial)	Major beneficial (Previously moderate beneficial)
King Street (between A6042 Cross Street and Essex Street)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)
Gurney Street (between Palmerston Street and Every Street)	Major adverse (Previously moderate adverse)	Major adverse (Previously moderate adverse)	No change (Previously moderate adverse)	Moderate adverse (Previously no effect)
York Street (between Spring Gardens and Fountain Street)	No effect (No change)	Major beneficial (Previously no effect)	No effect (No change)	Major beneficial (Previously no effect)
A6042 Cross Street (between King Street and St Ann Street)	No effect (No change)	Moderate adverse (Previously no effect)	Minor adverse (Previously no effect)	No effect (No change)
A6042 Cross Street (between A34 John Dalton Street and King Street)	No effect (No change)	Major beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)
Laystall Street (between Tariff Street and A665 Great Ancoats Street)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously moderate adverse)	Moderate beneficial (Previously no effect)
A34 Bridge Street (between St Mary's Parsonage and A56 Deansgate)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)
Every Street (between Carruthers Street and Gurney Street)	No change (Previously moderate beneficial)	Major adverse (Previously moderate adverse)	Major beneficial (Previously moderate beneficial)	No effect (No change)
A665 Great Ancoats Street (between Ducie Street and Laystall Street)	Major beneficial (Previously no effect)	Major beneficial (Previously moderate beneficial)	Major beneficial (Previously moderate beneficial)	Major beneficial (Previously moderate beneficial)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
B6181 Dale Street (between A62 Newton Street and Port Street)	No change (Previously major beneficial)	Major adverse (Previously no effect)	No change (Previously major beneficial)	No change (Previously moderate adverse)
A62 Newton Street (between A6 Piccadilly and B6181 Dale Street)	Major adverse (Previously no effect)	No effect (No change)	Major adverse (Previously no effect)	No effect (No change)
Fountain Street (between York Street and Market Street)	Major adverse (Previously moderate adverse)	No effect (No change)	Major adverse (Previously moderate adverse)	No effect (No change)
Tariff Street (between Brewer Street and Laystall Street)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously major adverse)	Major beneficial (Previously major adverse)	Major beneficial (Previously major adverse)
Carruthers Street (between A662 Pollard Street and Every Street)	No change (Previously major adverse)	Major adverse (Previously moderate adverse)	No change (Previously major adverse)	Major adverse (Previously no effect)
Port Street (between B6181 Dale Street and Hilton Street)	Moderate beneficial (Previously moderate adverse)	Moderate adverse (Previously major adverse)	Moderate beneficial (Previously moderate adverse)	Moderate adverse (Previously major adverse)
A6042 Trinity Way (between B5225 Hampson Street and A34 Irwell Street)	Moderate adverse (Previously no effect)	Moderate adverse (Previously no effect)	Moderate adverse (Previously no effect)	Major adverse (Previously no effect)
King Street West (between St Mary's Parsonage and Southgate)	No effect (Previously moderate adverse)	No effect (No change)	No effect (No change)	No effect (No change)
A662 Pollard Street (between A665 Great Ancoats Street and Carruthers Street)	No change (Previously major beneficial)	Major beneficial (Previously no effect)	No change (Previously major beneficial)	Major beneficial (Previously no effect)
A6 Dale Street (between A62 Lever Street and Newton Street)	Major adverse (Previously no effect)	Major beneficial (Previously no effect)	Major adverse (Previously moderate beneficial)	Major beneficial (Previously no effect)
A62 Newton Street (between A6 Dale Street and Hilton Street)	Major adverse (Previously no effect)	Major adverse (Previously moderate adverse)	Major adverse (Previously no effect)	Major adverse (Previously moderate adverse)
A665 Great Ancoats Street (between Laystall Street and Port Street)	Major beneficial (Previously moderate beneficial)	Major beneficial (Previously moderate beneficial)	Major beneficial (Previously moderate beneficial)	Major beneficial (Previously moderate beneficial)
Southgate (between King Street West and Back South Parade)	No effect (Previously moderate adverse)	No effect (No change)	No effect (Previously minor adverse)	No effect (No change)
Hilton Street (between A62 Newton Street and Port Street)	No effect (No change)	No change (Previously)	Moderate beneficial	Major beneficial (Previously)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
		moderate beneficial)	(Previously no effect)	moderate beneficial)
Old Mill Street (between A665 Great Ancoats Street and Carruthers Street)	Major beneficial (Previously no effect)	No change (Previously moderate beneficial)	Major beneficial (Previously no effect)	No change (Previously moderate beneficial)
Every Street (between Gurney Street and A662 Merrill Street)	No change (Previously major beneficial)	Major adverse (Previously no effect)	No change (Previously major beneficial)	No effect (No change)
Back South Parade (between St. Mary's Parsonage and Southgate)	No effect (No change)	No effect (No change)	No effect (Previously moderate adverse)	No effect (No change)
A62 Lever Street (between Dale Street and Stevenson Square)	No effect (No change)	Major adverse (Previously no effect)	No effect (Previously major adverse)	Major adverse (Previously no effect)
Hilton Street/Stevenson Square (between A62 Lever Street and A62 Newton Street)	No effect (No change)	Major beneficial (Previously moderate beneficial)	No effect (No change)	Major beneficial (Previously no effect)
Cross Street (between St Ann Street and St Mary's Gate)	No effect (No change)	Moderate adverse (Previously no effect)	Minor adverse (Previously no effect)	No effect (No change)
A662 Merrill Street (between Carruthers Street and Every Street)	Major beneficial (Previously moderate beneficial)	No effect (Previously moderate beneficial)	Major beneficial (Previously moderate beneficial)	No effect (Previously moderate beneficial)
A34 Trinity Way (between A6042 Trinity Way and A6 Chapel Street)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)
A6 Dale Street (between Oldham Street and A62 Lever Street)	Major adverse (Previously no effect)	No effect (No change)	Major adverse (Previously no effect)	No effect (No change)
A62 Lever Street (between Stevenson Square and A665 Great Ancoats Street)	Moderate adverse (Previously no effect)	Moderate adverse (Previously no effect)	Moderate adverse (Previously major adverse)	Moderate adverse (Previously no effect)
Hilton Street (between Oldham Street and A62 Lever Street)	No effect (No change)	Major beneficial (Previously moderate beneficial)	Moderate adverse (Previously moderate beneficial)	Major beneficial (Previously no effect)
Port Street (between Hilton Street and A665 Great Ancoats Street)	No effect (No change)	No effect (Previously major adverse)	No effect (No change)	No effect (Previously major adverse)
High Street (between Market Street and A6 Church Street)	Major adverse (Previously moderate adverse)	No effect (No change)	Major adverse (Previously moderate adverse)	No effect (No change)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
A62 Newton Street (between Hilton Street and A665 Great Ancoats Street)	Major adverse (Previously no effect)	Major adverse (Previously minor adverse)	Major adverse (Previously no effect)	Major adverse (Previously no effect)
Carruthers Street (between Old Mill Street and A662 Pollard Street)	No effect (No change)	Major adverse (Previously no effect)	No effect (Previously moderate beneficial)	No effect (No change)
A6 Dale Street (between Tib Street and Oldham Street)	Major adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
A6 Church Street (between A664 High Street and Red Lion Street)	Major adverse (Previously no effect)	Moderate adverse (Previously no effect)	Moderate adverse (Previously no effect)	Moderate adverse (Previously no effect)
A6 Church Street (between Red Lion Street and Tib Street)	Major adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
Oldham Street (between A6 Dale Street and Hilton Street)	No effect (No change)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
A665 Great Ancoats Street (between Port Street and A62 Newton Street)	No effect (Previously moderate beneficial)	Major beneficial (Previously no effect)	No effect (Previously moderate beneficial)	Major beneficial (Previously no effect)
Hilton Street (between Tib Street and Oldham Street)	No effect (No change)	Major beneficial (Previously moderate beneficial)	Major adverse (Previously moderate beneficial)	Major beneficial (Previously no effect)
St Mary's Gate/Market Street (between A56 Deansgate and Cross Street)	No effect (No change)	Minor adverse (Previously no effect)	Minor adverse (Previously no effect)	No effect (No change)
Beswick Street (between Old Mill Street and A662 Merrill Street)	Moderate beneficial (Previously major beneficial)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)
A6 Blackfriars Street (between A6 Chapel Street and A56 Deansgate)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)
Turner Street (between Red Lion Street and John Street)	Moderate adverse (Previously minor adverse)	Moderate adverse (Previously minor adverse)	No change (Previously minor adverse)	Moderate adverse (Previously minor adverse)
Red Lion Street (between A6 Church Street and Turner Street)	Moderate adverse (Previously minor adverse)	Moderate adverse (Previously minor adverse)	No change (Previously minor adverse)	Moderate adverse (Previously minor adverse)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
Thomas Street (between Tib Street and John Street)	Major beneficial (Previously no effect)	Major beneficial (Previously no effect)	No effect (Previously moderate beneficial)	Moderate beneficial (Previously no effect)
John Street (between Turner Street and Thomas Street)	Moderate adverse (Previously minor adverse)	Moderate adverse (Previously minor adverse)	No change (Previously minor adverse)	Moderate adverse (Previously minor adverse)
A665 Great Ancoats Street (between A62 Newton Street and A62 Lever Street)	No change (Previously moderate beneficial)	Moderate beneficial (Previously no effect)	No effect (Previously moderate beneficial)	Moderate beneficial (Previously no effect)
Old Mill Street (between Carruthers Street and Butler Street)	Major beneficial (Previously no effect)	Major beneficial (Previously moderate beneficial)	Major beneficial (Previously no effect)	No change (Previously major beneficial)
High Street (between A6 Church Street and Back Turner Street)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)	No effect (No change)
Thomas Street (between John Street and High Street)	No effect (No change)	No effect (Previously moderate adverse)	No effect (No change)	No effect (Previously moderate adverse)
Tib Street (between A665 Swan Street and Thomas Street)	Moderate adverse (Previously no effect)	Minor adverse (Previously no effect)	Moderate adverse (Previously no effect)	Moderate adverse (Previously no effect)
A6 Blackfriars Street (between A6041 Chapel Street and Parsonage)	No effect (Previously moderate adverse)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)
Cambrian Street (between Phillips Park Road and Bradford Road)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	Major adverse (Previously no effect)
A665 Great Ancoats Street (between A62 Lever Street and A62 Oldham Road)	No change (Previously moderate beneficial)	Moderate beneficial (Previously no effect)	No change (Previously moderate beneficial)	Moderate beneficial (Previously no effect)
A664 Nicholas Croft (between A6 Church Street and Shudehill)	No effect (Previously moderate adverse)	Major beneficial (Previously no effect)	No effect (No change)	Major beneficial (Previously no effect)
A6 Chapel Street (between A34 New Bailey Street and A6041 Blackfriars Road)	No effect (No change)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
Shudehill (between Dantzig Street and A664 Nicholas Croft)	No effect (No change)	Moderate beneficial (Previously major adverse)	No effect (No change)	Moderate beneficial (Previously major adverse)
Thomas Street (between Shudehill and High Street)	Major adverse (Previously no effect)	No effect (Previously major beneficial)	No effect (No change)	No change (Previously moderate beneficial)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
Withy Grove (between A6042 Corporation Street and Dantzic Street)	No effect (No change)	Moderate beneficial (Previously major adverse)	No effect (No change)	Moderate beneficial (Previously major adverse)
A664 Shudehill (between A664 Nicholas Croft and Thomas Street)	No effect (No change)	No effect (Previously major adverse)	No effect (No change)	No effect (Previously major adverse)
A62 Oldham Road (between A665 Addington Street and A665 Great Ancoats Street)	No effect (Previously moderate beneficial)	Moderate beneficial (Previously no effect)	No effect (Previously moderate beneficial)	Moderate beneficial (Previously no effect)
A664 Shudehill (between Thomas Street and Bus Station Entry)	No effect (No change)	No effect (Previously major beneficial)	No effect (Previously moderate beneficial)	Moderate beneficial (Previously major beneficial)
Bradford Road (between Cambrian Street and Butler Street)	Major beneficial (Previously no effect)	Major beneficial (Previously moderate beneficial)	Major beneficial (Previously no effect)	Major beneficial (Previously moderate beneficial)
A56 Chapel Street (between A6 Blackfriars Street and A56 Victoria Bridge Street)	No effect (No change)	Moderate adverse (Previously no effect)	Major beneficial (Previously no effect)	Major adverse (Previously no effect)
A6041 Chapel Street (between A6041 Blackfriars Road and A56 Victoria Bridge Street)	No effect (No change)	Moderate adverse (Previously no effect)	Major beneficial (Previously no effect)	Major adverse (Previously no effect)
A6042 Corporation Street (between Withy Grove and Todd Street)	No effect (No change)	Moderate beneficial (Previously major adverse)	No effect (No change)	Moderate beneficial (Previously major adverse)
A664 Shudehill (between Bus Station Entry and Hanover Street)	No effect (No change)	No effect (Previously major beneficial)	No effect (Previously moderate beneficial)	Moderate beneficial (Previously major beneficial)
A665 Swan Street (between Tib Street and A664 Rochdale Road)	No effect (No change)	No change (Previously moderate beneficial)	Moderate beneficial (Previously no effect)	No change (Previously moderate beneficial)
A6042 Corporation Street (between Todd Street and Hanover Street)	No change (Previously moderate adverse)	Moderate beneficial (Previously major adverse)	Minor adverse (Previously no effect)	Moderate beneficial (Previously major adverse)
Thompson Street (between A62 Oldham Road and A664 Rochdale Road)	Moderate adverse (Previously no effect)	Moderate adverse (Previously no effect)	Moderate adverse (Previously no effect)	Moderate adverse (Previously no effect)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
Gravel Lane (between A6041 Blackfriars Road and Queen Street)	No effect (Previously moderate adverse)	No effect (No change)	No effect (Previously major adverse)	Major adverse (Previously no effect)
A664 Shudehill (between Hanover Street and A665 Swan Street)	No effect (No change)	No effect (Previously major beneficial)	No effect (No change)	No effect (Previously major beneficial)
A665 Addington Street (between A664 Rochdale Road and A62 Oldham Road)	No change (Previously moderate beneficial)	No effect (No change)	No effect (Previously moderate beneficial)	No effect (No change)
Bradford Road (between Cambrian Street and Varley Street)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)
A56 Chapel Street/Victoria Street (between A56 Victoria Bridge Steer and Hunts Bank Approach)	No effect (No change)	Major adverse (Previously no effect)	Moderate beneficial (Previously no effect)	Major adverse (Previously no effect)
Butler Street (between Bradford Road and A62 Oldham Road)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	No effect (No change)
A6041 Blackfriars Road (between A6042 Trinity Way and Queen Street)	No effect (No change)	No effect (No change)	No effect (No change)	Major adverse (Previously no effect)
Gravel Lane (between Queen Street and Greengate)	No effect (Previously moderate adverse)	No effect (No change)	No effect (Previously major adverse)	No effect (No change)
A6042 Trinity Way (between A6 Chapel Street and A6041 Blackfriars Road)	No effect (No change)	No effect (No change)	No effect (No change)	Moderate adverse (Previously no effect)
A664 Rochdale Road (between A665 Swan Street and A665 Addington Street)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
A56 Great Ducie Street (between Hunts Bank Approach and A6042 New Bridge Street)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)
A6042 Corporation Street (between Hanover Street and Long Millgate)	No change (Previously moderate adverse)	Moderate beneficial (Previously moderate adverse)	No effect (No change)	Moderate beneficial (Previously major adverse)
Greengate (between B6182 New Bridge Street and Gravel Lane)	No effect (Previously moderate adverse)	No effect (No change)	No effect (Previously major adverse)	No effect (No change)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
A62 Oldham Road (between Thompson Street and Livesey Street)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
Butler Street (between A62 Oldham Road and Old Mill Street)	Major beneficial (Previously moderate beneficial)	No change (Previously major beneficial)	Moderate beneficial (Previously no effect)	No effect (Previously moderate beneficial)
A6042 Trinity Way (between A6041 Blackfriars Road and B6182 New Bridge Street)	No effect (Previously moderate adverse)	No effect (No change)	No effect (No change)	No effect (No change)
A6041 Blackfriars Road (between Mount Street and A6042 Trinity Way)	No effect (Previously moderate adverse)	No effect (No change)	No effect (No change)	No effect (No change)
A6042 Corporation Street (between Long Millgate and A665 Cheetham Hill Road)	No change (Previously moderate adverse)	Moderate beneficial (Previously moderate adverse)	No effect (No change)	Moderate beneficial (Previously major adverse)
B6182 New Bridge Street (between A6042 Trinity Way and B6182 Greengate)	No effect (Previously moderate adverse)	No effect (No change)	No effect (Previously major adverse)	No effect (No change)
A664 Rochdale Road (between A665 Addington Street and Thompson Street)	Moderate adverse (Previously no effect)	No effect (No change)	Major adverse (Previously no effect)	No effect (No change)
A664 Rochdale Road (between Thompson Street and Livesey Street)	No effect (No change)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
A56 Great Ducie Street (between A6042 New Bridge Street and Sherborne Street West)	No effect (No change)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	No effect (No change)
Varley Street (between Bradford Road and A62 Oldham Road)	Moderate adverse (Previously no effect)	Major adverse (Previously no effect)	No effect (No change)	Major adverse (Previously no effect)
Lower Broughton Road (between Sussex Street and A5066 Great Clowes Street)	Major adverse (Previously no effect)	Major adverse (Previously no effect)	Major adverse (Previously no effect)	Major adverse (Previously no effect)
Sussex Street (between Lower Broughton Road and A5066 Great Clowes Street)	Moderate beneficial (Previously no effect)	Major adverse (Previously no effect)	Moderate beneficial (Previously no effect)	Moderate adverse (Previously no effect)
Elton Street (between Alexandra Street and Cottenham Lane)	No effect (No change)	Major adverse (Previously moderate adverse)	No effect (Previously minor adverse)	Major adverse (Previously no effect)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
Cottenham Lane/Sherbourne Street West (between Edward Street and A56 Bury New Road)	No effect (No change)	Major adverse (Previously moderate adverse)	No effect (Previously minor adverse)	Major adverse (Previously no effect)
Collyhurst Road (between Dalton Street and Smedley Road)	No effect (No change)	No effect (Previously moderate beneficial)	No effect (No change)	Moderate adverse (Previously no effect)
Lower Broughton Road (between Sussex Street and Heath Avenue)	No effect (No change)	Major adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)
Lower Broughton Road (between Heath Avenue and B6186 Frederick Road)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)
B6180 Waterloo Road (between A56 Bury New Road and Waterloo Road)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	Major adverse (Previously no effect)
Broughton Lane (between A5066 Great Clowes Street and A56 Bury New Road)	Major adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	Major adverse (Previously no effect)
A6010 Hulme Hall Lane (between A62 Oldham Road and Drewett Street)	No change (Previously moderate beneficial)	No effect (Previously moderate beneficial)	Moderate beneficial (Previously no effect)	No effect (No change)
B6180 Waterloo Road (between A56 Bury New Road and A6010 Elizabeth Street)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
Collyhurst Street (between A664 Rochdale Road and A62 Oldham Road)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)	No effect (No change)
Gerald Road (between A576 Cromwell Road and Seaford Road)	No effect (No change)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
Langley Road South (between Douglas Green and A576 Cromwell Road)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
B6186 Camp Street (between Lower Broughton Road and A5066 Great Clowes Street)	No effect (No change)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)	Moderate beneficial (Previously no effect)
Langley Road South (between Indigo Street and Douglas Green)	Major adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report

MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
Langley Road South (between Whit Lane and Indigo Street)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
Duchy Road/Brindleheath Road (between Bank Lane and Maurice Drive)	No effect (No change)	No effect (No change)	No effect (No change)	Minor adverse (Previously no effect)
A576 Great Cheetham Street West (between Lower Broughton Road and B6187 Great Clowes Street)	No effect (No change)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
Fenney Street (between A5066 Great Clowes Street and A56 Bury New Road)	Major adverse (Previously no effect)	No effect (No change)	Major adverse (Previously no effect)	No effect (No change)
A6010 Queens Road (between A6010 Elizabeth Street and A665 Cheetham Hill Road)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)	No effect (No change)
A5066 Great Clowes Street (between Fenney Street and A576 Great Cheetham Street West)	No effect (No change)	Moderate beneficial (Previously no effect)	Moderate adverse (Previously no effect)	No effect (No change)
A576 Great Cheetham Street West (between A5066 Great Clowes Street and A56 Bury New Road)	No effect (No change)	Major beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)
A6010 Elizabeth Street (between B6180 Waterloo Road and A6010 Queens Road)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)	No effect (No change)
A56 Bury New Road (between Fenney Street and A576 Great Cheetham Street West)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)
Langley Road (between Whit Lane and A6044 Agecroft Road)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
B6180 Waterloo Road (between A6010 Elizabeth Street and Dudley Street)	No effect (Previously moderate adverse)	No effect (No change)	No change (Previously moderate adverse)	No effect (No change)
B6187 Great Clowes Street (between A576 Great Cheetham Street West and A56 Bury New Road)	No effect (No change)	Moderate beneficial (Previously no effect)	No effect (No change)	Moderate beneficial (Previously no effect)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 2: Community Area report MA08 Manchester Piccadilly Station

Road name	2039 AM peak hour	2039 PM peak hour	2051 AM peak hour	2051 PM peak hour
Dorchester Road (between Eccles Road and A6 Manchester Road)	No effect (No change)	No effect (No change)	No effect (No change)	Minor adverse (Previously no effect)
B6180 Waterloo Road (between Dudley Street and A665 Cheetham Hill Road)	No effect (Previously moderate adverse)	No effect (No change)	No change (Previously moderate adverse)	No effect (No change)
Littleton Road (between Oaklands Road and Moor Lane)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)
Heath Street (between Great Cheetham Street East and Squire Road)	No effect (No change)	No effect (No change)	No effect (No change)	Moderate adverse (Previously no effect)
Oaklands Road (between Littleton Road and Nevile Road)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)
Moor Lane (between Littleton Road and Kersal Road)	Moderate adverse (Previously no effect)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)
Kersal Vale Road (between Moor Lane and A6044 Rainsough Brow)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)
Central Drive (between Crumpsall Way and Delaunays Road)	No effect (No change)	No effect (No change)	No effect (No change)	Moderate adverse (Previously no effect)
Butterstile Lane (between A6044 Hilton Lane and Venwood Road)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)	No effect (No change)
Bank House Road (between Tweedle Hill Road and Plant Hill Road)	Moderate adverse (Previously no effect)	No effect (No change)	Moderate adverse (Previously no effect)	No effect (No change)
Rectory Lane (between St Marys Road and Fairfax Road)	No effect (No change)	No effect (No change)	No effect (No change)	Minor adverse (Previously no effect)
Hardfield Road/Kirkway (between Evesham Road and Mainway)	No effect (No change)	No effect (No change)	Minor adverse (Previously no effect)	No effect (No change)

7.3.45 The operation of the AP2 revised scheme in the Manchester Piccadilly Station area will result in the permanent re-routing of several bus routes due in particular to road closures, diversions. The impact of these bus route changes and diversions, as well as changes in the traffic flows on the highway network, will result in changes to public transport delay. However, the impact of these bus route changes and diversions will not result in significant effects in the Manchester Piccadilly Station area.

7.3.46 There will, however, be impacts for bus passengers on routes into Manchester City Centre operating on the A635 Ashton Old Road, A6 Stockport Road and the A57 Hyde Road in the

adjacent Davenport Green to Ardwick area (MA07). Effects for bus passengers on these routes are discussed in the SES2 and AP2 ES Volume 2, Davenport Green to Ardwick area (MA07).

Other mitigation measures

- 7.3.47 No further appropriate traffic and transport mitigation measures have been identified. HS2 Ltd will, however, continue to work with the relevant highway authorities to consider whether further mitigation measures would be required.

Summary of likely residual significant effects

- 7.3.48 The AP2 revised scheme will result in the following changes to the congestion and delay effects for vehicle occupants in 2039 reported in main ES:
- change (decrease) from major adverse effect to moderate adverse effect at one junction;
 - change (increase) from minor adverse effect to moderate adverse effect at one junction;
 - change (decrease) from major adverse effect to minor adverse effect at one junction;
 - change (decrease) from moderate adverse effect to minor adverse effect at one junction;
 - change (decrease) from moderate adverse effect to moderate beneficial effect at one junction;
 - change (decrease) from moderate adverse effect to minor beneficial effect at two junctions;
 - new major adverse effect at 13 junctions;
 - new moderate adverse effect at three junctions;
 - new minor adverse effect at nine junctions;
 - new moderate beneficial effect at two junctions;
 - new minor beneficial effect at six junctions; and
 - different (increased) major adverse significant effects at one junction.
- 7.3.49 The AP2 revised scheme will result in the following changes to the congestion and delay effects for vehicle occupants in 2051 reported in the main ES:
- change (decrease) from major adverse effect to moderate adverse effect at two junctions;
 - change (increase) from moderate adverse effect to major adverse effect at one junction;
 - change (increase) from minor adverse effect to major adverse effect at one junction;
 - change (increase) from minor adverse effect to moderate adverse effect at four junctions;
 - change (decrease) from major adverse effect to moderate beneficial effect at one junction;
 - change (decrease) from minor adverse effect to moderate beneficial effect at one junction;

- change (decrease) from moderate adverse effect to minor beneficial effect at one junction;
- change (increase) from minor beneficial effect to moderate beneficial effect at one junction;
- change (decrease) from moderate beneficial effect to minor beneficial effect at one junction;
- change (increase) from major beneficial effect to minor adverse effect at one junction;
- new major adverse effect at 11 junctions;
- new moderate adverse effect at nine junctions;
- new minor adverse effect at nine junctions;
- new moderate beneficial effect at eight junctions;
- new minor beneficial effect at 12 junctions; and
- different (increased) major adverse significant effects at one junction.

7.3.50 The AP2 revised scheme will result in the following changes to the traffic-related severance effects for non-motorised users in 2039 reported in the main ES for 2038:

- change (decrease) from major adverse effect to moderate adverse effect on two roads;
- change (increase) from moderate adverse effect to major adverse effect on 11 roads;
- change (increase) from minor adverse effect to major adverse effect on one road;
- change (increase) from minor adverse effect to moderate adverse effect on three roads;
- change (decrease) from major adverse effect to major beneficial effect on one road;
- change (decrease) from moderate adverse effect to major beneficial effect on six roads;
- change (decrease) from major adverse effect to moderate beneficial effect on seven roads;
- change (decrease) from moderate adverse effect to moderate beneficial effect on one road;
- change (decrease) from minor adverse effect to moderate beneficial effect on one road;
- change (decrease) from moderate adverse effect to minor beneficial effect on one road;
- change (decrease) from major beneficial effect to moderate beneficial effect on three roads;
- change (increase) from minor beneficial effect to moderate beneficial effect on two roads;
- change (increase) from moderate beneficial effect to major beneficial effect on 16 roads;
- change (increase) from major beneficial effect to major adverse effect on four roads;
- change (increase) from moderate beneficial effect to major adverse effect on one road;
- change (increase) from moderate beneficial effect to moderate adverse effect on four roads;
- new major adverse effect on 23 roads;
- new moderate adverse effect on 41 roads;

- new minor adverse effect on three roads;
- new major beneficial effect on 10 roads;
- new moderate beneficial effect on 29 roads; and
- different (increased) major adverse significant effects on one road.

7.3.51 The AP2 revised scheme will result in the following changes to the traffic-related severance effects for non-motorised users in 2051 reported in the main ES:

- change (decrease) from major adverse effect to moderate adverse effect on three roads;
- change (increase) from moderate adverse effect to major adverse effect on six roads;
- change (increase) from minor adverse effect to major adverse effect on three roads;
- change (increase) from minor adverse effect to moderate adverse effect on five roads;
- change (decrease) from major adverse effect to minor adverse effect on one road;
- change (decrease) from major adverse effect to major beneficial effect on three roads;
- change (decrease) from moderate adverse effect to major beneficial effect on one road;
- change (decrease) from major adverse effect to moderate beneficial effect on eight roads;
- change (decrease) from moderate adverse effect to moderate beneficial effect on two roads;
- change (decrease) from minor adverse effect to moderate beneficial effect on one road;
- change (decrease) from major beneficial effect to moderate beneficial effect on five roads;
- change (increase) from moderate beneficial effect to major beneficial effect on 15 roads;
- change (increase) from major beneficial effect to major adverse effect on one road;
- change (increase) from moderate beneficial effect to major adverse effect on five roads;
- change (increase) from moderate beneficial effect to moderate adverse effect on two roads;
- change (increase) from minor beneficial effect to minor adverse effect on two roads;
- new major adverse effect on 21 roads;
- new moderate adverse effect on 46 roads;
- new minor adverse effect on nine roads;
- new major beneficial effect on 16 roads; and
- new moderate beneficial effect on 28 roads.

7.3.52 The AP2 revised scheme will remove significant adverse effects on congestion and delay for vehicle occupants in 2039 reported in the main ES at 18 junctions (seven major, five moderate and six minor).

7.3.53 The AP2 revised scheme will remove the following effects on congestion and delay for vehicle occupants in 2051 reported in the main ES:

- significant adverse effects removed at 14 junctions (six major, two moderate, six minor); and
- significant beneficial effects removed at two junctions (two minor);

7.3.54 The AP2 revised scheme will remove the following effects on traffic-related severance for non-motorised users in 2039 reported in the main ES for 2038:

- significant adverse effects removed on 20 roads (seven major, 12 moderate, one minor); and
- significant beneficial effects removed on eight roads (three moderate, five major).

7.3.55 The AP2 revised scheme will remove the following effects on traffic-related severance for non-motorised users in 2051 reported in the main ES:

- significant adverse effects removed on 16 roads (eight major, seven moderate, one minor); and
- significant beneficial effects removed on seven roads (five moderate, two major).

Cumulative effects

7.3.56 This combined assessment has taken into account cumulative effects from background traffic growth, committed developments and traffic and transport impacts arising from the SES2 changes and AP2 amendments in this area and other community areas.

7.4 Air quality

Scope, assumptions and limitations

7.4.1 The assessment scope, key assumptions and limitations for air quality are as set out in Volume 1 and the SMR of the main ES. Since the main ES there have been changes to the methodology, including the consideration of ammonia (NH₃) at sensitive ecological sites. The scope and methodology for the updated air quality assessment is set out in SES2 and AP2 ES Volume 5, Appendix: CT-001-00005.

Environmental baseline

Existing baseline

7.4.2 The baseline air quality information is as described in Section 4 of Volume 2, Community Area report: Manchester Piccadilly Station (MA08) of the main ES. A summary of the baseline information relevant to the assessment of the AP2 revised scheme is provided below. An update of the model verification has been undertaken and is presented within Volume 5, Appendix: AQ-001-0MA02.

Future baseline

- 7.4.3 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 7.4.4 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.
- 7.4.5 None of the identified developments affect the assessment of the AP2 revised scheme's likely impacts on air quality.

Effects arising during construction

Avoidance and mitigation measures

- 7.4.6 No further avoidance or mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Assessment of impacts and effects

- 7.4.7 Construction activity could affect local air quality through the additional traffic generated on the highway network and site haul routes as a result of construction vehicles and through changes to traffic patterns arising from temporary road diversions and realignments.
- 7.4.8 The assessment of construction traffic emissions has been undertaken for a 'without the AP2 revised scheme' scenario and a 'with the AP2 revised scheme' scenario. The traffic data for each scenario includes the additional traffic from future committed developments.
- 7.4.9 Construction traffic data in the study area have been screened to identify roads that required further assessment and to confirm the likely effect of the change in emissions from vehicles using those roads during construction of the AP2 revised scheme. There were two construction traffic scenarios assessed for air quality in the Manchester Piccadilly Station area.
- 7.4.10 Receptors expected to experience the greatest change in concentrations have been included in the air quality model. Significant adverse effects are anticipated at one modelled human receptor (8-C-H028, Downing Street, Manchester) in relation to annual mean NO₂ concentrations. No significant effects are anticipated at any receptors in relation to annual mean PM₁₀ or PM_{2.5} concentrations.
- 7.4.11 Compared to the main ES, a significant adverse effect on annual mean NO₂ concentrations at one modelled human receptor (8-C-H028) is introduced due to the AP2 revised scheme. Two significant adverse effects (8-C-H050, Chapel Town Street, Manchester and 8-C-H149, Farm Lane, Worsley) and one significant beneficial effect (8-C-H011, Chester Street,

Manchester) for annual mean NO₂ concentrations as reported in the main ES have now been removed due to the AP2 revised scheme.

- 7.4.12 There is the potential for new significant effects nitrogen deposition from the construction of the AP2 revised scheme compared to the main ES as amended by SES1 and AP1 ES at Rochdale Canal SSSI and SAC. This is discussed further in Section 8 Ecology and biodiversity.

Other mitigation measures

- 7.4.13 No mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Summary of likely residual significant effects

- 7.4.14 There will be a residual significant adverse effect in relation to NO₂ concentrations at one modelled residential receptor (8-C-H028, Downing Street, Manchester).
- 7.4.15 Two significant adverse effects (8-C-H050, Chapel Town Street, Manchester and 8-C-H149, Farm Lane, Worsley) and one significant beneficial effect (8-C-H011, Chester Street, Manchester) for annual mean NO₂ concentrations as reported in the main ES have now been removed due to the AP2 revised scheme.

Cumulative effects

- 7.4.16 This combined assessment has taken into account cumulative effects from background traffic growth, committed developments and impacts related to traffic emissions arising from the SES2 changes and AP2 amendments in this area and other community areas.

7.5 Community

Scope, assumptions and limitations

- 7.5.1 The assessment scope, key assumptions and limitations for the community assessment are as set out in Volume 1 and the SMR of the main ES.
- 7.5.2 The changes of relevance to this assessment have the potential to result in new or different significant construction effects. Therefore, there is no operational assessment for community.

Environmental baseline

Existing baseline

- 7.5.3 The baseline community information is as described in Section 6 of the main ES Volume 2, Community Area report Manchester Piccadilly Station (MA08). A summary of the baseline information relevant to the assessment of the AP2 revised scheme is provided below.

7.5.4 This area of central Manchester is urban in character and comprises a mix of industrial units, retail units, transport infrastructure and residential flats. The area contains many community and recreational facilities. These include places of worship, community centres, libraries, medical facilities, care homes, public houses, museums, theatres and sporting venues. Rochdale Canal, Ashton Canal, Bridgewater Canal and the River Medlock run through the area. Towpaths and moorings are associated with recreational use of the canals.

Future baseline

- 7.5.5 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 7.5.6 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.
- 7.5.7 The committed development of relevance to the community assessment in this area is set out in Table 19.

Table 19: Committed developments of relevance to community during construction

Map Book reference ³⁴	Planning reference	Description	How this is considered in the assessment
MA08/433S	128911/FO/2020	Location: 32 - 34 Laystall Street Manchester M1 2JZ Erection of 9 storey residential building (Use Class C3) comprising 89 residential units (28 x 1 bed and 61 x 2 bed) and conversion of and 3 storey extension to 32-34 Laystall Street for use as offices (Class E) with associated external works following demolition of outrigger and associated structures along with other associated works including access, servicing, landscaping and secure cycle parking	Informing future baseline

7.5.8 The implementation of committed development MA08/433S will result in a new residential building with 89 apartments located 35m to the north-east of the land required for the construction of the AP2 revised scheme.

Effects arising during construction

Avoidance and mitigation measures

7.5.9 No further avoidance or mitigation measures additional to those reported in the main ES are proposed.

³⁴ Planning Data/Committed Development Map Book: Maps SES2 and AP2 ES Volume 5, Appendix: CT-004-00000, *Planning Data/Committed Development Map Book: Maps CT-13-327 to CT-13-328.*

Assessment of impacts and effects

- 7.5.10 The main ES reported a major adverse in-combination effect on approximately 390 residential properties in the vicinity of Chapeltown Street, Manchester. Significant noise effects were expected to combine with significant visual and significant HGV traffic effects for approximately seven years and nine months.
- 7.5.11 Changes to construction traffic flows will remove the significant HGV traffic effect. The noise and visual effects reported in the main ES will remain significant. This will result in a different in-combination effect on amenity for residents of these properties, which is significant. However, this will not change the level of significance of the effect reported in the main ES.
- 7.5.12 The main ES reported a major adverse in-combination effect on approximately 215 residential properties in the vicinity of Ducie Street, Manchester. Significant noise effects were expected to combine with significant visual and significant HGV traffic effects for approximately eleven months.
- 7.5.13 Changes to construction traffic flows will remove the significant HGV traffic effect. The noise and visual effects reported in the main ES will remain the same. This will result in a different in-combination effect on amenity for residents of these properties, which is significant. However, this will not change the level of significance of the effect reported in the main ES.
- 7.5.14 Changes to construction traffic flows will result in a new major adverse significant effect on approximately 160 residential properties on Newton Street, Manchester. Newton Street will experience a significant increase in HGV traffic. This significant HGV traffic effect will combine with new traffic noise effects for approximately five years and nine months. Together, these noise effects and HGV traffic effects will result in a new major adverse in-combination effect on amenity for residents at these properties, which is significant.
- 7.5.15 Changes to construction traffic flows will result in a new moderate adverse significant effect on St Anne's Roman Catholic Primary School on Carruthers Street, Manchester. Carruthers Street will experience a significant increase in HGV traffic. This significant HGV traffic effect will combine with construction noise effects reported in the main ES for approximately five months. Together, these noise effects and HGV traffic effects will result in a new moderate adverse in-combination effect for staff and pupils at St Anne's Roman Catholic Primary School, which is significant.
- 7.5.16 The locations of significantly affected resources are shown in the SES2 and AP2 ES Volume 5, Community Map Book: Map Series CM-01.

Other mitigation measures

- 7.5.17 No other mitigation measures additional to those reported in the main ES are proposed.

Summary of likely residual significant effects

- 7.5.18 Changes to traffic flows and to the sound, noise and vibration assessment will result in new residual significant effects on:
- approximately 160 residential properties on Newton Street due to new noise and new HGV traffic effects; and
 - St Anne's Roman Catholic Primary School due to new HGV traffic effects and existing noise effects.
- 7.5.19 Changes to traffic flows will result in different residual significant effects on:
- approximately 390 residential properties in the vicinity of Chapeltown Street due to removed HGV traffic effects; and
 - approximately 215 residential properties in the vicinity of Ducie Street due to removed HGV traffic effects.

Cumulative effects

- 7.5.20 No new, removed or different significant cumulative effects have been identified.

7.6 Ecology and biodiversity

Scope, assumptions and limitations

- 7.6.1 The assessment scope, key assumptions and limitations for the ecology and biodiversity assessment are as set out in Volume 1 and the SMR of the main ES.
- 7.6.2 The changes of relevance to this assessment have the potential to result in new or different significant permanent construction and operational effects.
- 7.6.3 The assessment of combined traffic effects on designated sites in this section draws its conclusions from the designated site assessment for Rochdale Canal Special Area of Conservation (see SES2 and AP2 ES Volume 5, Appendix: EC-016-00004).
- 7.6.4 The assessment in this section identifies effects on designated sites that would be significant at the international level, as well as any significant effects on nationally designated sites and on any protected and/or notable species that are not covered by the national and international designations. These effects are compared to those reported in the main ES to identify any new, different or removed significant effects.
- 7.6.5 As described in Section 7.4 (Air Quality) there have been changes to the methodology for air quality assessment that reflect Natural England's consultation response to the main ES. The assessment of the original scheme considered nitrogen deposition only; oxides of nitrogen (NO_x) and acidification were also assessed for the SES1 and AP1 ES. The assessment of the AP2 revised scheme also considers the impacts of ammonia (NH₃). Additionally, the AP2 revised scheme includes updated information on traffic flows that has also prompted a new

assessment of the associated changes in air quality. Changes in air quality are the only new or different impact of the AP2 revised scheme that requires consideration for the sites described below.

Environmental baseline

Existing baseline

Designated sites

- 7.6.6 The baseline ecology and biodiversity information is as described in Section 7 of Volume 2, Community Area report: Manchester Piccadilly Station (MA08) of the main ES. A summary of the baseline information relevant to the AP2 revised scheme is provided below.
- 7.6.7 There is one statutory site of international importance of relevance to the assessment of the AP2 revised scheme, which is Rochdale Canal Special Area of Conservation (SAC) that is designated for a population of the aquatic plant floating water-plantain (*Luronium natans*).
- 7.6.8 There are two nationally important Site of Special Scientific Interest (SSSI) that are of potential relevance to the assessment in the Manchester Piccadilly Station area. They are:
- Rochdale Canal SSSI is designated for assemblages of aquatic plants and generally common invertebrates, and the presence of waterside bird species. It is approximately 2.7km and 4.2km north-east of the land required for the construction of the AP2 revised scheme in the Davenport Green to Ardwick (MA07) and Manchester Piccadilly Station areas, respectively. It is also close to roads on which traffic flows will be affected by the construction and operation of the AP2 revised scheme, notably the M60, M62 and A663 Broadway, which at their closest points lie immediately adjacent to the SAC; and
 - Hollinwood Branch Canal SSSI is designated for its aquatic and wetland habitats and diverse open water plant communities that contain several regionally and nationally rare species. It is located 3.8km and 5.5km from the land required for the construction of the AP2 revised scheme in the Davenport Green to Ardwick (MA07), and the Manchester Piccadilly Station areas respectively. The SSSI is situated 26m to the west of M60 on which traffic flows will be affected by the AP2 revised scheme.

Future baseline

- 7.6.9 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 7.6.10 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.

- 7.6.11 None of the identified developments affect the assessment of the AP2 revised scheme's likely impacts on ecology and biodiversity.

Effects arising during construction

Avoidance and mitigation measures

- 7.6.12 No further avoidance or mitigation measures, additional to those reported in the main ES and draft CoCP, have been identified at this stage.

Assessment of impacts and effects

Rochdale Canal SAC

- 7.6.13 On the information available and on a precautionary basis, the main ES reported that there was the potential for changes in air quality associated with the construction of the original scheme to have an adverse effect on Rochdale Canal SAC that was significant at the international level. An updated assessment of changes in air quality at Rochdale Canal SAC associated with the AP2 revised scheme has been carried out. The assessment of effects demonstrates that the relevant thresholds for NO_x and NH₃ will not be exceeded and there are no thresholds for acid deposition as the SAC is not considered to be vulnerable to this pollutant due to its mesotrophic status. However, the relevant threshold for nitrogen deposition will be exceeded. Therefore, on a precautionary basis and as reported in the main ES, there is an adverse effect on the SAC site that is significant at the international level. Information on the findings of the assessment of effects for the SAC is provided in Section 3 of the designated site assessment reports for Rochdale Canal SAC (SES2 and AP2 ES Volume 5, Appendix: EC-016-00004).

Rochdale Canal SSSI

- 7.6.14 The main ES reported that, on a precautionary basis, there may be an adverse effect on aquatic plant community that forms the reason for the designation of the SSSI that would be significant at the national level. The exceedance described in relation to Rochdale SAC will, on precautionary basis, also result in an adverse effect on the structure and function of Rochdale Canal SSSI. The exceedance indicates a precautionary significant adverse effect at the national level at the SSSI.

Hollinwood Branch Canal SSSI

- 7.6.15 The main ES reported that there would be no significant effects on the Hollinwood Branch Canal SSSI from changes in air quality. The SSSI is not part of an internationally designated site and therefore a detailed designated site assessment report has not been produced. Details of the air quality assessment, are, therefore, provided below. The updated assessment of changes in air quality for the AP2 revised scheme (based on a single 200m transect and on daily peak derived traffic data) shows that in 2026 NO_x is predicted to fall

within the air quality standard with or without the AP2 revised scheme. NH₃ is predicted to marginally exceed the air quality standard, though only in an area within 50m of the M60 with or without the AP2 revised scheme. The dominant communities are not considered to be sensitive to nitrogen or acid deposition. None of the modelled receptors for any of the pollutants display an increase of 1% or greater than 1% of the relevant critical load or level (where these apply) as a result of the AP2 revised scheme. In terms of the relevant critical loads or levels, the maximum increases in each pollutant in each affected habitat along the single transect are summarised below:

- NO_x: there is an increase of less than 1% of the critical level for NO_x at all modelled receptor points on the single transect. The maximum increase within the unimproved neutral grassland is 0.7%, occurring on the northern side of the canal, up to 40m from the M60. Within the open water habitats of the canal, the maximum increase is 0.3% 75-100m from the road;
- nitrogen deposition: the dominant habitats at Hollinwood Branch Canal are not considered sensitive to nitrogen deposition;
- NH₃: there is an increase of less than 1% of the critical level for NH₃ at all modelled receptors on the single transect. The maximum increase within the unimproved neutral grassland is 0.5%, occurring on the northern side of the canal 34m from the M60. Within the open water habitats of the canal, the maximum increase is 0.3% 75m from the road (where background levels fall below the air quality standard); and
- acid deposition: the dominant habitats at Hollinwood Branch Canal are not considered sensitive to acid deposition.

7.6.16 As the dominant habitats at Hollinwood Branch Canal are not considered sensitive to nitrogen or acid deposition and there will not be an exceedance of the 1% threshold of either NO_x or NH₃ as a result of the AP2 revised scheme, no significant adverse effects are anticipated at the national level.

Other mitigation measures

7.6.17 No mitigation measures, additional to those reported in the main ES and draft CoCP, have been identified at this stage.

7.6.18 HS2 Ltd is continuing to seek to identify suitable measures to mitigate or compensate for potential significant effects identified on designated sites. In doing so HS2 Ltd will continue to engage with stakeholders to fully understand the receptors and the suitability of the measures.

Summary of likely residual significant effects

7.6.19 In the absence of mitigation, at this stage, the significant adverse effects from the construction of the AP2 revised scheme reported above at Rochdale Canal SAC and Rochdale Canal SSSI remain.

Cumulative effects

- 7.6.20 No new, removed or different significant cumulative effects have been identified.

Effects arising during operation

Avoidance and mitigation measures

- 7.6.21 No further avoidance or mitigation measures, additional to those reported in the main ES have been identified.

Assessment of impacts and effects

- 7.6.22 The main ES reported, on precautionary basis, that there would be an adverse effect from ongoing changes traffic flows, leading to permanent changes in air quality, that would have an adverse effect on the Rochdale SAC that was significant at the international level and an adverse effect on Rochdale Canal SSSI at the national level. The updated assessment for the operation of the AP2 revised scheme demonstrates that the changes in traffic will not exceed the thresholds required for air quality assessment. As such, there will be no adverse effects on the SAC and SSSI, the adverse effects reported in the main ES on a precautionary basis will not occur.

Other mitigation measures

- 7.6.23 No mitigation measures, additional to those reported in the main ES, are proposed.

Summary of likely residual significant effects

- 7.6.24 At this stage, no residual significant effects arising from operation of the AP2 revised scheme are anticipated.

Cumulative effects

- 7.6.25 No new, removed or different significant cumulative effects have been identified.

Ongoing work

- 7.6.26 Section 4 of SES2 and AP2 ES Volume 5, Appendix: EC-016-00004 includes the emerging results of an assessment of air quality impacts during construction and operation of the AP2 revised scheme in-combination with other schemes at the Rochdale Canal SAC. It demonstrates that the thresholds for NO_x and NH₃ and nitrogen deposition are exceeded during construction and operation. Therefore, at this stage and on a precautionary basis, an adverse effect on the SAC that is significant at the international level has been identified. Further assessment of these potential effects will continue in accordance with the

requirements of Regulation 63 of the Conservation of Habitats and Species Regulations 2017.

7.7 Health

Scope, assumptions and limitations

- 7.7.1 The assessment scope, key assumptions and limitations for the health assessment are as set out in Volume 1 and the SMR of the main ES.
- 7.7.2 The changes of relevance to this assessment have the potential to result in new or different significant construction effects. Therefore, there is no operational assessment for health.

Environmental baseline

Existing baseline

- 7.7.3 The baseline community information is as described in Section 8 of the main ES Volume 2, Community Area report Manchester Piccadilly Station (MA08). A summary of the baseline information relevant to the assessment of the SES change is provided below.
- 7.7.4 This area of central Manchester is urban in character and comprises a mix of industrial units, retail units, transport infrastructure and residential flats. The area contains many community and recreational facilities. These include places of worship, community centres, libraries, medical facilities, care homes, public houses, museums, theatres and sporting venues. Rochdale Canal, Ashton Canal, Bridgewater Canal and the River Medlock run through the area. Towpaths and moorings are associated with recreational use of the canals.

Future baseline

- 7.7.5 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 7.7.6 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.
- 7.7.7 The committed development of relevance to the health assessment in this area is set out in Table 20.

Table 20: Committed developments of relevance to health during construction

Map Book reference ³⁵	Planning reference	Description	How this is considered in the assessment
MA08/433S CT-06-365b	128911/FO/2020	Location: 32 - 34 Laystall Street Manchester M1 2JZ Erection of 9 storey residential building (Use Class C3) comprising 89 residential units (28 x 1 bed and 61 x 2 bed) and conversion of and 3 storey extension to 32-34 Laystall Street for use as offices (Class E) with associated external works following demolition of outrigger and associated structures along with other associated works including access, servicing, landscaping and secure cycle parking	Informing future baseline

7.7.8 The implementation of committed development MA08/433S will result in a new residential building with 89 apartments located 35m to the north-east of the land required for the construction of the AP2 revised scheme.

Effects arising during construction

Avoidance and mitigation measures

7.7.9 No further avoidance or mitigation measures additional to those reported in the main ES are proposed.

Assessment of impacts and effects

7.7.10 The main ES reported an adverse neighbourhood quality effect in the vicinity of Chapeltown Street, Manchester. Construction noise was expected to be noticeable in the area for approximately seven years and nine months. Chapeltown Street was expected to experience a significant increase in HGV traffic, and construction was expected to be visible from street level. People in this community were likely to experience these effects as changing the quality of their neighbourhood and to regard that change as adverse, diminishing the amenity of the settlement. Changes to construction traffic flows will remove the significant HGV traffic effect. Noise and visual effects reported in the main ES will remain the same. This will result in a different adverse neighbourhood quality effect in the vicinity of Chapeltown Street, Manchester.

7.7.11 The main ES reported an adverse neighbourhood quality effect in the vicinity of Ducie Street, Manchester. Construction noise was expected to be noticeable in the area for approximately eleven months. Ducie Street was expected to experience a significant increase in HGV traffic, and construction was expected to be visible from street level. People in this community were likely to experience these effects as changing the quality of their neighbourhood and to

³⁵ Planning Data/Committed Development Map Book: Maps SES2 and AP2 ES Volume 5, Appendix: CT-004-00000, *Planning Data/Committed Development Map Book: Maps CT-13-327 to CT-13-328.*

regard that change as adverse, diminishing the amenity of the settlement. Changes to construction traffic flows will remove the significant HGV traffic effect. Noise and visual effects reported in the main ES will remain the same. This will result in a different adverse neighbourhood quality effect in the vicinity of Ducie Street, Manchester.

- 7.7.12 Changes to construction traffic flows will result in a new adverse neighbourhood quality effect for residents on Newton Street, Manchester. Newton Street will experience a significant increase in HGV traffic. New traffic noise effects are expected to be noticeable along Newton Street for approximately five years and nine months. People in this community are likely to experience these effects as changing the quality of their neighbourhood and to regard that change as adverse, diminishing the amenity of the settlement.
- 7.7.13 Changes to construction traffic flows will result in a new adverse health effect at St Anne's Roman Catholic Primary School on Carruthers Street, Manchester. Carruthers Street will experience a significant increase in HGV traffic, resulting in a new HGV traffic effect. As reported in the main ES construction noise will be noticeable at the school for approximately five months. These activities affecting the school may combine to reduce the beneficial wellbeing effects associated with educational attainment.

Other mitigation measures

- 7.7.14 No mitigation measures additional to those reported in the main ES are proposed.

Cumulative effects

- 7.7.15 No new, removed or different significant cumulative effects have been identified.

7.8 Socio-economics

Scope, assumptions and limitations

- 7.8.1 The assessment scope, key assumptions and limitations for socio-economics are as set out in Volume 1 and the SMR of the main ES. The changes in traffic flows have the potential to result in new, removed or different significant construction effects only. Therefore, there is no operational assessment for socio-economics.

Environmental baseline

Existing baseline

- 7.8.2 The baseline socio-economics information is as described in the SES2 and AP2 ES Volume 5, Appendix: SE-001-00000, Updated socio-economic baseline information.

Future baseline

- 7.8.3 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025.
- 7.8.4 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.
- 7.8.5 None of the identified developments affect the assessment of the AP2 revised scheme's likely impacts for socio-economics.

Effects arising during construction

Avoidance and mitigation measures

- 7.8.6 No mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Assessment of impacts and effects

- 7.8.7 As a result of changes in traffic flows, The Cow Hollow Hotel and Hatters Manchester (a hostel), located on Newton Street and easyHotel located on Dale Street, all located in central Manchester, will experience new significant noise effects for five years and nine months and new significant effects from HGV construction traffic (traffic-related severance for non-motorised users). The sensitivity of The Cow Hollow Hotel, Hatters Manchester and easyHotel are all assessed to be medium as users may be sensitive to impacts on the local environment and setting. The construction works may discourage them from using these businesses. Given the duration of effects and the medium level of sensitivity, the changes in traffic flows will result in three new temporary adverse in-combination effects on The Cow Hollow Hotel, Hatters Manchester and easyHotel, which are significant.
- 7.8.8 SES2 reported that the construction of the scheme was expected to result in a temporary adverse significant in-combination effect on Premier Inn, located on Dale Street in central Manchester. This was as a result of significant noise effects (for four years), significant visual effects and significant effects from HGV construction traffic (traffic related severance for non-motorised users). As a result of changes in traffic flows, the significant HGV construction traffic effects (traffic-related severance for non-motorised users) will be removed. This will result in a different temporary adverse significant in-combination effect on Premier Inn.
- 7.8.9 SES2 reported that the construction of the scheme was expected to result in a temporary adverse significant in-combination effect on The Reach at Piccadilly (formerly La Reserve Aparthotel), located on Dale Street in central Manchester. This was as a result of significant noise effects (for two years and five months) and major adverse significant effects from HGV

construction traffic (traffic related severance for non-motorised users). As a result of changes in traffic flows, the significant HGV construction traffic effects (traffic-related severance for non-motorised users) are different (moderate adverse rather than major adverse). This will result in a different temporary adverse significant in-combination effect on The Reach at Piccadilly.

- 7.8.10 During construction, Travis Street will be subject to multiple new major adverse traffic and transport effects due to changes in traffic flows (traffic-related severance effects for non-motorised users and traffic congestion effects on vehicle occupants), most notably a new major adverse traffic congestion effect at the junction of the B6469 Fairfield Street and Travis Street. This is expected to disrupt the operation of a car park, managed by National Car Parks (NCP), on Travis Street since the one-way access along Travis Street is the only route by which the car park can be reached. Therefore, the magnitude of the impact is assessed as medium.
- 7.8.11 The sensitivity of the car park is assessed as medium since users are expected to be sensitive to changes in accessibility.
- 7.8.12 For the reasons stated above, the disruption in access to the car park is considered to represent a moderate adverse significant isolation effect on this receptor, which commences part way through the construction phase but continues into operation and is therefore permanent.
- 7.8.13 The locations of significantly affected resources are shown in the SES2 and AP2 ES Volume 5, Socio-economics Map Book: Map Series SE-01.

Other mitigation measures

- 7.8.14 No mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Summary of likely residual significant effects

- 7.8.15 The changes in traffic flows will result in three new temporary adverse significant in-combination effects on The Cow Hollow Hotel, Hatters Manchester and easyHotel.
- 7.8.16 The changes in traffic flows will result in a different temporary adverse significant in-combination effect on Premier Inn and The Reach at Piccadilly.
- 7.8.17 The changes in traffic flows will result in a new permanent adverse significant isolation effect on a car park managed by NCP.

Cumulative effects

- 7.8.18 No new, removed or different significant cumulative effects have been identified.

7.9 Sound, noise and vibration

Scope, assumptions and limitations

- 7.9.1 The assessment scope, key assumptions and limitations for sound, noise and vibration are as set out in Volume 1 and the SMR of the main ES.

Environmental baseline

Existing baseline

- 7.9.2 In the Manchester Piccadilly Station (MA08) community area, the updated sound modelling described in Section 2 has resulted in updates to the existing baseline sound levels at receptors adjacent to roads. Further information on the updated baseline sound levels relevant to the assessment is provided in the SES2 and AP2 ES Volume 5, Appendix: SV-002-00000. Where no updates to baseline sound levels are required, the baseline sound, noise and vibration information is as described in Section 13 of Volume 2, Community Area report: Manchester Piccadilly Station (MA08) of the main ES.

Future baseline

- 7.9.3 The Planning data report of the main ES (see Volume 5, Appendix: CT-004-00000) provides details of committed developments assumed to have been implemented by 2025 and 2038.
- 7.9.4 This information has been supplemented by the committed developments listed in the equivalent Volume 5 planning report of the SES2 and AP2 ES (see SES2 and AP2 ES Volume 5, Appendix: CT-004-00000). These committed developments have been considered as a future baseline where relevant, and their potential to give rise to cumulative effects has been assessed.
- 7.9.5 None of the identified developments affect the assessment of the AP2 revised scheme's likely impacts for sound, noise and vibration.
- 7.9.6 Updates have been made to future baseline sound levels at the locations identified in the existing baseline section above where updates to the existing baseline sound levels have been made for the SES2 and AP2 ES.

Effects arising during construction

Assessment of impacts and effects

Residential receptors: indirect effects

- 7.9.7 As a result of the AP2 revised scheme, construction traffic is likely to cause adverse noise effects on residential receptors along Gurney Street. Approximately 15 dwellings located

along this road are forecast to experience a change in road traffic noise levels of approximately 6dB $L_{pAeq,0700-2300}$ during peak months, due to additional traffic diverting away from nearby construction routes. This is considered to be a new likely significant indirect effect on a community basis at the dwellings on these roads, denoted as MA08-C-C14 in SES2 and AP2 ES Volume 5, Appendix: SV-002-00000. This temporary adverse effect from construction traffic noise represents a change in the acoustic character of the area, which may be perceived as a change in the quality of life for that community.

- 7.9.8 As a result of the AP2 revised scheme, construction traffic is likely to cause adverse noise effects on residential receptors along Newton Street. Approximately 160 dwellings located along this road are forecast to experience a change in road traffic noise levels of approximately 4dB $L_{pAeq,0700-2300}$ during peak months, due to additional traffic diverting away from nearby construction routes. This is considered to be a new likely significant indirect effect on a community basis at the dwellings on these roads, denoted as MA08-C-C15 in SES2 and AP2 ES Volume 5, Appendix: SV-002-00000. This temporary adverse effect from construction traffic noise represents a change in the acoustic character of the area, which may be perceived as a change in the quality of life for that community.

Non-residential receptors: indirect effects

- 7.9.9 The main ES identified a likely significant indirect construction effect at Aeroworks (offices) on Adair Street from construction traffic (along with a direct effect from construction noise and vibration). This was denoted as MA08-C-N34 in Table 8 in Volume 5, Appendix: SV-002-0MA08 of the main ES. The AP2 revised scheme reduces both the average and peak monthly construction road traffic movements on this road, and thus reduces the associated construction traffic noise levels. For further information see SES2 and AP2 ES Volume 5, Appendix: SV-002-00000. The reduction in construction traffic noise levels will remove the likely indirect residual significant effect reported in the main ES on this receptor. The residual effect at Aeroworks (offices) will therefore be caused by direct construction site noise and vibration only.
- 7.9.10 As a result of the AP2 revised scheme, construction traffic is likely to cause an adverse noise effect on easyHotel, Dale Street, Manchester. Road traffic noise levels due to additional traffic diverting away from nearby construction routes are predicted to be above the daytime screening criteria defined in the SMR for hotel use during the peak months, with an increase of approximately 6dB $L_{pAeq,0700-2300}$. The main ES did not identify an indirect noise effect at this location; therefore, a new likely significant effect has been identified at easyHotel, Dale Street, Manchester denoted as MA08-C-N38 in SES2 and AP2 ES Volume 5, Appendix: SV-002-00000. This temporary adverse effect may take the form of activity disturbance to guests at the hotel.
- 7.9.11 As a result of the AP2 revised scheme, construction traffic is likely to cause an adverse noise effect on Hatters Manchester (a hostel), Newton Street, Manchester. Road traffic noise levels due to additional traffic diverting away from nearby construction routes are predicted to be above the daytime screening criteria defined in the SMR for hostel use during the peak months, with an increase of approximately 6dB $L_{pAeq,0700-2300}$. The main ES did not identify an

indirect noise effect at this location; therefore, a new likely significant effect has been identified at Hatters Hostel, Newton Street, Manchester denoted as MA08-C-N39 in SES2 and AP2 ES Volume 5, Appendix: SV-002-00000. This temporary adverse effect may take the form of activity disturbance to users of the hostel.

- 7.9.12 As a result of the AP2 revised scheme, construction traffic is likely to cause an adverse noise effect on The Cow Hollow Hotel, Newton Street, Manchester. Road traffic noise levels due to additional traffic diverting away from nearby construction routes are predicted to be above the daytime screening criteria defined in the SMR for hotel use during the peak months, with an increase of approximately 4dB $L_{pAeq,0700-2300}$. The main ES did not identify an indirect noise effect at this location; therefore, a new likely significant effect has been identified at The Cow Hollow Hotel, Newton Street, Manchester denoted as MA08-C-N40 in SES2 and AP2 ES Volume 5, Appendix: SV-002-00000. This temporary adverse effect may take the form of activity disturbance to users of the hotel.
- 7.9.13 As a result of the AP2 revised scheme, construction traffic is likely to cause an adverse noise effect on The Greater Manchester Police Museum and Archives, Newton Street, Manchester. Road traffic noise levels due to additional traffic diverting away from nearby construction routes are predicted to be above the daytime screening criteria defined in the SMR for museum use during the peak months, with an increase of approximately 4dB $L_{pAeq,0700-2300}$. The main ES did not identify an indirect noise effect at this location; therefore, a new likely significant effect has been identified at The Greater Manchester Police Museum and Archives, Newton Street, Manchester denoted as MA08-C-N41 in SES2 and AP2 ES Volume 5, Appendix: SV-002-00000. This temporary adverse effect may take the form of activity disturbance to users of the museum.
- 7.9.14 As a result of the AP2 revised scheme, construction traffic is likely to cause an adverse noise effect on Grayscanlanhill (offices), Newton Street, Manchester. Road traffic noise levels due to additional traffic diverting away from nearby construction routes are predicted to be above the daytime screening criteria defined in the SMR for office use during the peak months, with an increase of approximately 4dB $L_{pAeq,0700-2300}$. The main ES did not identify an indirect noise effect at this location; therefore, a new likely significant effect has been identified at Grayscanlanhill (offices), Newton Street, Manchester denoted as MA08-C-N42 in SES2 and AP2 ES Volume 5, Appendix: SV-002-00000. This temporary adverse effect may take the form of activity disturbance to users of the offices.

Other mitigation measures

- 7.9.15 No mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Summary of likely residual significant effects

- 7.9.16 As a result of the AP2 revised scheme, construction traffic in this area will give rise to a new likely temporary residual adverse significant noise effect on adjacent residential properties in the vicinity of Gurney Street and Newton Street.

- 7.9.17 As a result of the AP2 revised scheme, construction traffic in this area will give rise to new likely temporary residual adverse significant noise effects at the following non-residential properties:
- easyHotel, Dale Street, Manchester;
 - Hatters Hostel, Newton Street, Manchester;
 - The Cow Hollow Hotel, Newton Street, Manchester;
 - The Greater Manchester Police Museum and Archives, Newton Street Manchester; and
 - Grayscanlanhill (offices), Newton Street, Manchester.
- 7.9.18 As a result of the AP2 revised scheme, changes in traffic in this area are likely to result in the removal of likely temporary residual adverse significant noise effects at the non-residential property of Aeroworks (offices).

Cumulative effects

- 7.9.19 This combined assessment has taken into account cumulative effects from background traffic growth, committed developments and impacts related to traffic arising from the SES2 changes and AP2 amendments in this area and other community areas.

Effects arising during operation

Avoidance and mitigation measures

- 7.9.20 No further avoidance or mitigation measures additional to those reported in the main ES and draft CoCP are proposed.

Assessment of impacts and effects

- 7.9.21 The AP2 revised scheme will give rise to different adverse airborne noise effects and different beneficial airborne noise effects, which are considered to be significant on a community basis and are presented in Table 21 and Table 22 respectively.
- 7.9.22 The main ES identified a likely significant adverse operational airborne noise effect on a community basis at approximately 30 dwellings in the vicinity of Chapeltown Street. This was denoted as MA08-O-C1 in the Volume 2, Community Area report: Manchester Piccadilly Station (MA08), in Volume 5, Appendix: SV-003-0MA08 and in the Volume 2, MA08 Map Book: Map Series SV-05 of the main ES. Changes in road traffic flows will reduce road traffic noise levels at dwellings in the vicinity of Chapeltown Street compared to the main ES. The noise level change at these dwellings will reduce from moderate adverse to negligible which is not considered to be significant on a community basis. As a result, the likely significant adverse effect identified in the vicinity of Chapeltown Street in the main ES is removed.

Table 21: Direct adverse operational effects on residential communities and shared open areas that are considered significant on a community basis and removed compared to those reported in the main ES

Significant effect number and map reference ³⁶	Source of significant effect (Type)	Time of day	Location and details
MA08-O-C1 (SV-05-326b)	Airborne noise increase from new highway layout (Removed)	Daytime and night-time	Chapelton Street Approximately 30 dwellings in the vicinity of Chapelton Street. Forecast increases in sound from road traffic are likely to cause negligible noise increases at the properties which is not considered to be significant on a community basis. There are no shared open spaces identified as being affected in this community.

7.9.23 The main ES identified a likely significant beneficial effect related to airborne noise during operation due to decreases in sound from road traffic in the vicinity of approximately 250 dwellings in the vicinity of Store Street (MA08-O-C2). Changes in road traffic flows will result in different noise level changes at dwellings in the vicinity of Store Street and Jutland Street compared to the main ES. As a result, the number of dwellings subject to the significant beneficial operational noise effect will decrease to approximately 95 dwellings in the vicinity of Store Street and Jutland Street. This will give rise to a different likely significant beneficial operational noise effect on the residential community.

Table 22: Direct beneficial operational effects on residential communities and shared open areas that are considered significant on a community basis and are different compared to those reported in the main ES

Significant effect number and map reference ³⁷	Source of significant effect (Type)	Time of day	Location and details
MA08-O-C2 (SV-05-326b)	Airborne noise decrease due to reduced traffic flows (Different)	Daytime and night-time	Store Street and Jutland Street Approximately 95 dwellings adjacent to Store Street and Jutland Street including committed development MA08/361. Forecast decreases in sound from road traffic are likely to cause a minor to moderate noise decrease affecting the acoustic character of the area around the properties. There are no shared open spaces identified as being affected in this community.

7.9.24 For further information see SES2 and AP2 Volume 5, Appendix: SV-003-00000 and SES2 and AP2 Volume 5, Sound, noise and vibration Map Book.

Other mitigation measures

7.9.25 No mitigation measures additional to those reported in the main ES are proposed.

³⁶ See SES2 and AP2 ES Volume 2, Sound, noise and vibration MA08 Map Book: Map Series SV-05.

³⁷ See SES2 and AP2 ES Volume 2, Sound, noise and vibration MA08 Map Book: Map Series SV-05.

Summary of likely residual significant effects

- 7.9.26 Changes in road traffic flows will give rise to different likely significant residual beneficial airborne noise effects from operation of the AP2 revised scheme on residential communities in Store Street and Jutland Street due to a decrease in the number of dwellings beneficially affected.
- 7.9.27 The likely significant adverse effect identified in the vicinity of Chapeltown Street in the main ES is removed.

Cumulative effects

- 7.9.28 No new, removed or different significant cumulative effects have been identified.

7.10 Summary of new or different likely residual significant effects as a result of combined effects due to changes in traffic flows

Construction

Traffic and transport

- 7.10.1 The temporary residual significant effects during construction remain as described above. These effects will be temporary and reversible in nature lasting only for the duration of the construction works.
- 7.10.2 The AP2 revised scheme will result in the following changes to the congestion and delay effects for vehicle occupants reported in the main ES:
- change (decrease) from major adverse effect to moderate adverse effect at three junctions;
 - change (increase) from moderate adverse effect to major adverse effect at two junctions;
 - change (increase) from minor adverse effect to major adverse effect at one junction;
 - change (increase) from minor adverse effect to moderate adverse effect at one junction;
 - change (decrease) from major adverse effect to minor adverse effect at four junctions;
 - change (decrease) from moderate adverse effect to moderate beneficial effect at one junction;
 - change (decrease) from major adverse effect to minor beneficial effect at one junction;
 - change (decrease) from minor adverse effect to minor beneficial effect at one junction;
 - change (decrease) from moderate beneficial effect to minor beneficial effect at one junction;
 - change (increase) from minor beneficial effect to minor adverse effect at one junction;

- new major adverse effect at 19 junctions;
- new moderate adverse effect at six junctions;
- new minor adverse effect at 11 junctions;
- new minor beneficial effect at five junctions;
- different (increased) major adverse significant effects at four junctions; and
- different (decreased) major adverse significant effects at one junction.

7.10.3 The AP2 revised scheme will result in the following changes to the traffic-related severance effects for non-motorised users reported in the main ES:

- change (decrease) from major adverse effect to moderate adverse effect on three roads;
- change (increase) from moderate adverse effect to major adverse effect on five roads;
- change (increase) from minor adverse effect to moderate adverse effect on one road;
- change (decrease) from major adverse effect to moderate beneficial effect on one road;
- change (decrease) from major adverse effect to minor beneficial effect on one road;
- change (decrease) from moderate adverse effect to minor beneficial effect on two roads;
- change (decrease) from minor adverse effect to minor beneficial effect on one road;
- change (decrease) from major beneficial effect to moderate beneficial effect on two roads;
- change (increase) from minor beneficial effect to moderate beneficial effect on one road;
- change (increase) from moderate beneficial effect to major adverse effect on one road;
- change (increase) from minor beneficial effect to major adverse effect on two roads;
- change (increase) from moderate beneficial effect to moderate adverse effect on two roads;
- new major adverse effect on eight roads;
- new moderate adverse effect on 11 roads;
- new minor adverse effect on three roads;
- new moderate beneficial effect on 20 roads;
- new minor beneficial effect on one road;
- different (increased) major adverse significant effects on one road; and
- different (decreased) major adverse significant effects on one road.

Community

7.10.4 Changes to traffic flows and to the sound, noise and vibration assessment will result in new residual significant effects on:

- approximately 160 residential properties on Newton Street due to new noise and new HGV traffic effects; and
- St Anne's Roman Catholic Primary School due to new HGV traffic effects and existing noise effects.

- 7.10.5 Changes to traffic flows and to the sound, noise and vibration assessment will result in different residual significant effects on:
- approximately 390 residential properties in the vicinity of Chapeltown Street due to removed HGV traffic effects; and
 - approximately 215 residential properties in the vicinity of Ducie Street due to removed HGV traffic effects.

Ecology and biodiversity

- 7.10.6 At this stage, without any mitigation taken into account, the construction of the AP2 revised scheme will result in significant adverse effects on the Rochdale Canal SAC. On a precautionary basis, this will result in an adverse effect on the Rochdale Canal SAC that is significant at the international level. It will also result in an adverse effect on the Rochdale Canal SSSI that is significant at the national level. These are new significant effects compared to those reported in the main ES.
- 7.10.7 HS2 Ltd is continuing to seek to identify suitable measures to mitigate or compensate for potential significant effects identified on designated sites. In doing so HS2 Ltd will continue to engage with stakeholders to fully understand the receptors and the suitability of the measures.

Socio-economics

- 7.10.8 The changes in traffic flows will result in three new temporary adverse significant in-combination effects on The Cow Hollow Hotel, Hatters Manchester and easyHotel.
- 7.10.9 The changes in traffic flows will result in different temporary adverse significant in-combination effects on Premier Inn and The Reach at Piccadilly.
- 7.10.10 The changes in traffic flows will result in a new permanent adverse significant isolation effect on the NCP car park.

Sound, noise and vibration

- 7.10.11 As a result of the AP2 revised scheme, construction traffic in this area will give rise to a new likely temporary residual adverse significant noise effect on adjacent residential properties in the vicinity of Gurney Street and Newton Street.
- 7.10.12 As a result of the AP2 revised scheme, construction traffic in this area will give rise to new likely temporary residual adverse significant noise effects at the following non-residential properties:
- easyHotel, Dale Street, Manchester;
 - Hatters Manchester (a Hostel), Newton Street, Manchester;
 - The Cow Hollow Hotel, Newton Street, Manchester;
 - The Greater Manchester Police Museum and Archives, Newton Street Manchester; and
 - Grayscanlanhill (offices), Newton Street, Manchester.

- 7.10.13 As a result of the AP2 revised scheme, changes in traffic in this area are likely to result in the removal of likely temporary residual adverse significant noise effects at the non-residential property of Aeroworks (offices).

Operation

Traffic and transport

- 7.10.14 The AP2 revised scheme will result in the following changes to the congestion and delay effects for vehicle occupants 2039 reported in main ES:
- change (decrease) from major adverse effect to moderate adverse effect at one junction;
 - change (increase) from minor adverse effect to moderate adverse effect at one junction;
 - change (decrease) from major adverse effect to minor adverse effect at one junction;
 - change (decrease) from moderate adverse effect to minor adverse effect at one junction;
 - change (decrease) from moderate adverse effect to moderate beneficial effect at one junction;
 - change (decrease) from moderate adverse effect to minor beneficial effect at two junctions;
 - new major adverse effect at 13 junctions;
 - new moderate adverse effect at three junctions;
 - new minor adverse effect at nine junctions;
 - new moderate beneficial effect at two junctions;
 - new minor beneficial effect at six junctions; and
 - different (increased) major adverse significant effects at one junction.
- 7.10.15 The AP2 revised scheme will result in the following changes to the congestion and delay effects for vehicle occupants in 2051 reported in the main ES:
- change (decrease) from major adverse effect to moderate adverse effect at two junctions;
 - change (increase) from moderate adverse effect to major adverse effect at one junction;
 - change (increase) from minor adverse effect to major adverse effect at one junction;
 - change (increase) from minor adverse effect to moderate adverse effect at four junctions;
 - change (decrease) from major adverse effect to moderate beneficial effect at one junction;
 - change (decrease) from minor adverse effect to moderate beneficial effect at one junction;
 - change (decrease) from moderate adverse effect to minor beneficial effect at one junction;

- change (increase) from minor beneficial effect to moderate beneficial effect at one junction;
- change (decrease) from moderate beneficial effect to minor beneficial effect at one junction;
- change (increase) from major beneficial effect to minor adverse effect at one junction;
- new major adverse effect at 11 junctions;
- new moderate adverse effect at nine junctions;
- new minor adverse effect at nine junctions;
- new moderate beneficial effect at eight junctions;
- new minor beneficial effect at 12 junctions; and
- different (increased) major adverse significant effects at one junction.

7.10.16 The AP2 revised scheme will result in the following changes to the traffic-related severance effects for non-motorised users in 2039 reported in the main ES for 2038:

- change (decrease) from major adverse effect to moderate adverse effect on two roads;
- change (increase) from moderate adverse effect to major adverse effect on 11 roads;
- change (increase) from minor adverse effect to major adverse effect on one road;
- change (increase) from minor adverse effect to moderate adverse effect on three roads;
- change (decrease) from major adverse effect to major beneficial effect on one road;
- change (decrease) from moderate adverse effect to major beneficial effect on six roads;
- change (decrease) from major adverse effect to moderate beneficial effect on seven roads;
- change (decrease) from moderate adverse effect to moderate beneficial effect on one road;
- change (decrease) from minor adverse effect to moderate beneficial effect on one road;
- change (decrease) from moderate adverse effect to minor beneficial effect on one road;
- change (decrease) from major beneficial effect to moderate beneficial effect on three roads;
- change (increase) from minor beneficial effect to moderate beneficial effect on two roads;
- change (increase) from moderate beneficial effect to major beneficial effect on 16 roads;
- change (increase) from major beneficial effect to major adverse effect on four roads;
- change (increase) from moderate beneficial effect to major adverse effect on one road;
- change (increase) from moderate beneficial effect to moderate adverse effect on four roads;
- new major adverse effect on 23 roads;
- new moderate adverse effect on 41 roads;
- new minor adverse effect on three roads;

- new major beneficial effect on 10 roads;
- new moderate beneficial effect on 29 roads; and
- different (increased) major adverse significant effects on one road.

7.10.17 The AP2 revised scheme will result in the following changes to the traffic-related severance effects for non-motorised users in 2051 reported in the main ES:

- change (decrease) from major adverse effect to moderate adverse effect on three roads;
- change (increase) from moderate adverse effect to major adverse effect on six roads;
- change (increase) from minor adverse effect to major adverse effect on three roads;
- change (increase) from minor adverse effect to moderate adverse effect on five roads;
- change (decrease) from major adverse effect to minor adverse effect on one road;
- change (decrease) from major adverse effect to major beneficial effect on three roads;
- change (decrease) from moderate adverse effect to major beneficial effect on one road;
- change (decrease) from major adverse effect to moderate beneficial effect on eight roads;
- change (decrease) from moderate adverse effect to moderate beneficial effect on two roads;
- change (decrease) from minor adverse effect to moderate beneficial effect on one road;
- change (decrease) from major beneficial effect to moderate beneficial effect on five roads;
- change (increase) from moderate beneficial effect to major beneficial effect on 15 roads;
- change (increase) from major beneficial effect to major adverse effect on one road;
- change (increase) from moderate beneficial effect to major adverse effect on five roads;
- change (increase) from moderate beneficial effect to moderate adverse effect on two roads;
- change (increase) from minor beneficial effect to minor adverse effect on two roads;
- new major adverse effect on 21 roads;
- new moderate adverse effect on 46 roads;
- new minor adverse effect on nine roads;
- new major beneficial effect on 16 roads; and
- new moderate beneficial effect on 28 roads.

Sound, noise and vibration

7.10.18 Changes in road traffic flows will give rise to different likely significant residual beneficial airborne noise effects from operation of the AP2 revised scheme on residential communities in Store Street and Jutland Street due to a decrease in the number of dwellings beneficially affected.

7.11 Summary of likely residual significant effects that will be removed

Construction

Traffic and transport

- 7.11.1 The AP2 revised scheme will result in the following changes to the congestion and delay effects for vehicle occupants reported in the main ES:
- significant adverse effects removed at 29 junctions (nine major, five moderate, 15 minor); and
 - significant beneficial effects removed at one junction (one minor).
- 7.11.2 The AP2 revised scheme will result in the following changes to the traffic-related severance effects for non-motorised users reported in the main ES:
- significant adverse effects removed on 17 roads (four major, 11 moderate and two minor); and
 - significant beneficial effects removed on 11 roads (three minor, eight moderate).

Sound, noise and vibration

- 7.11.3 As a result of the AP2 revised scheme, changes in traffic in this area are likely to result in the removal of likely temporary residual adverse significant noise effects at the non-residential property of Aeroworks (offices).

Operation

Traffic and transport

- 7.11.4 The AP2 revised scheme will remove significant adverse effects on congestion and delay for vehicle occupants in 2039 reported in the main ES at 18 junctions (seven major, five moderate and six minor).
- 7.11.5 The AP2 revised scheme will result in the following changes to the congestion and delay effects for vehicle occupants in 2051 reported in the main ES:
- significant adverse effects removed at 14 junctions (six major, two moderate, six minor); and
 - significant beneficial effects removed at two junctions (two minor).
- 7.11.6 The AP2 revised scheme will result in the following changes to the traffic-related severance effects for non-motorised users in 2039 reported in the main ES for 2038:

- significant adverse effects removed on 20 roads (seven major, 12 moderate, one minor); and
- significant beneficial effects removed on eight roads (three moderate, five major).

7.11.7 The AP2 revised scheme will result in the following changes to the traffic-related severance effects for non-motorised users in 2051 reported in the main ES:

- significant adverse effects removed on 16 roads (eight major, seven moderate, one minor); and
- significant beneficial effects removed on seven roads (five moderate, two major).

Sound, noise and vibration

7.11.8 The likely significant adverse effect identified in the vicinity of Chapeltown Street in the main ES is removed.

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