

# HIGH SPEED RAIL (LONDON - WEST MIDLANDS)

Supplementary Environmental Statement 3 and  
Additional Provision 4 Environmental Statement

Volume 2 | Community forum area reports

CFA26 Washwood Heath to Curzon Street

October 2015

SES3 and AP4 ES 3.2.1.26



# HIGH SPEED RAIL (LONDON - WEST MIDLANDS)

Supplementary Environmental Statement 3 and  
Additional Provision 4 Environmental Statement

Volume 2 | Community forum area reports

CFA26 Washwood Heath to Curzon Street

October 2015

SES3 and AP4 ES 3.2.1.26



## 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.

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

**AECOM**

**ARUP**

**ATKINS**

**CAPITA**



**ineco**



**PARSONS  
BRINCKERHOFF**



High Speed Two (HS2) Limited,  
One Canada Square,  
London  
E14 5AB

Details of how to obtain further copies are available from HS2 Ltd.

Telephone: 020 7944 4908

General email enquiries: [HS2enquiries@hs2.org.uk](mailto:HS2enquiries@hs2.org.uk)

Website: [www.gov.uk/hs2](http://www.gov.uk/hs2)

Copyright © High Speed Two (HS2) Limited, 2015, except where otherwise stated.

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 via 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.



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

# Contents

<b>Structure of the HS2 Supplementary Environmental Statement 3 and Additional Provision 4 Environmental Statement</b>	<b>1</b>
<b>Structure of this report</b>	<b>3</b>
1 Introduction	4
<b>Part 1: Supplementary Environmental Statement 3</b>	<b>6</b>
2 Summary of changes	6
2.1 Changes to the design or to construction assumptions not requiring a change to the Bill	6
2.2 Topics included in the SES <sub>3</sub> assessment	8
3 Assessment of changes	9
3.1 Community	9
3.2 Sound, noise and vibration	11
<b>Part 2: Additional Provision 4 Environmental Statement</b>	<b>14</b>
4 Summary of amendments	14
5 Assessment of amendments	16
5.1 Additional land required for a utility diversion at Network Park industrial estate (AP <sub>4</sub> -026-001)	16
5.2 Topics included in the assessment	16
5.3 Provision for the relocation of Curzon Street auto-transformer station at A4540 Lawley Middleway (AP <sub>4</sub> -026-002)	30
6 Combined effects of amendments in this CFA due to changes in traffic flows	31
<b>List of figures</b>	
Figure 1: Location of construction assumption not requiring a change to the Bill in CFA26	7
Figure 2: Locations of amendments in CFA26	15
<b>List of tables</b>	
Table 1: Scheme definitions	4
Table 2: Summary of changes to the design or to construction assumptions not requiring a change to the Bill in CFA26	6

Table 3: Summary of amendments in CFA26	14
Table 4: Additional Group A sites within the study area	21

# Structure of the HS<sub>2</sub> Supplementary Environmental Statement 3 and Additional Provision 4 Environmental Statement

The Supplementary Environmental Statement 3 (SES<sub>3</sub>) and Additional Provision 4 Environmental Statement (AP<sub>4</sub> ES) comprises:

- non-technical summary (NTS). This provides a summary in non-technical language of the SES<sub>3</sub> (Part 1) and AP<sub>4</sub> ES (Part 2) and of any likely significant environmental effects, both beneficial and adverse, which are new or different to those reported in the High Speed Two (HS<sub>2</sub>) Phase One Environmental Statement (ES) submitted to Parliament in November 2013 in support of the hybrid Bill ('the Bill') for Phase One of HS<sub>2</sub> (hereafter referred to as 'the main ES') as updated by subsequent SES and AP ES documents;
- Volume 1: introduction to the SES<sub>3</sub> and AP<sub>4</sub> ES. This introduces the supplementary environmental information and design changes included within the SES<sub>3</sub> and amendments, which have resulted in the need to amend the Bill, within the AP<sub>4</sub> ES. It also explains any changes to the scope, methodology, assumptions and limitations required for the environmental assessment;
- Volume 2: community forum area (CFA) reports and map books. These describe the supplementary environmental information and design changes included within the SES<sub>3</sub> (Part 1) and amendments within the AP<sub>4</sub> ES (Part 2). Any new or different likely significant environmental effects arising from these changes and amendments in each CFA, compared to those reported in the main ES, as updated by SES and SES<sub>2</sub> documents (and SES<sub>3</sub> for the AP<sub>4</sub> amendments) are reported. The AP<sub>1</sub>, AP<sub>2</sub> and AP<sub>3</sub> amendments are also taken into account where relevant. In addition, the main local alternatives that have been considered are described, where relevant;
- Volume 3: route-wide effects. This reports new or different likely significant route-wide effects arising from the supplementary environmental information and design changes included within the SES<sub>3</sub> (Part 1) and amendments within the AP<sub>4</sub> ES (Part 2) compared to those reported in the main ES as updated by SES and SES<sub>2</sub> (and SES<sub>3</sub> for the AP<sub>4</sub> amendments). The AP<sub>1</sub>, AP<sub>2</sub> and AP<sub>3</sub> amendments are also taken into account where relevant;
- Volume 4: off-route effects. This reports new or different likely significant off-route effects arising from the supplementary environmental information and design changes included within the SES<sub>3</sub> (Part 1) and amendments within the AP<sub>4</sub> ES (Part 2) compared to those reported in the main ES as updated by SES and SES<sub>2</sub> (and SES<sub>3</sub> for the AP<sub>4</sub> amendments). The AP<sub>1</sub>, AP<sub>2</sub> and AP<sub>3</sub>

## SES3 and AP4 ES Volume 2 – CFA26, Washwood Heath to Curzon Street

amendments are also taken into account where relevant;

- Volume 5: appendices and map books. This contains environmental information and associated maps in support of the other volumes of the SES3 and AP4 ES; and
- glossary of terms and list of abbreviations. This contains any new or different terms and abbreviations used throughout the SES and AP ES reports, additional to those included in the main ES.

# Structure of this report

This volume of the SES3 and AP4 ES is divided into CFA reports, which are in turn divided into two parts.

Part 1 of this CFA report provides supplementary environmental information relating to changes to the design or construction assumptions which do not require changes to the Bill.

Part 1 of each CFA report includes, where relevant:

- a description of the changes or updates within the CFA that have triggered the need for reassessment;
- an assessment of the environmental effects of the changes for relevant environmental topics considering the:
  - scope, assumptions and limitations of the SES3 assessment;
  - changes of relevance to the assessment;
  - environmental baseline;
  - effects arising during construction;
  - effects arising from operation; and
  - mitigation and residual effects; and
- a summary of any new or different likely residual significant effects as a result of the changes.

Part 2 of this CFA report provides environmental assessment information relating to proposed amendments to the design, which have resulted in the need to alter the powers conferred by the Bill. The following is included, where relevant:

- a summary of the proposed amendments within each CFA that have triggered the need for reassessment;
- a description of each amendment;
- an assessment of the environmental effects of each amendment for relevant environmental topics considering the:
  - scope, assumptions and limitations of the AP4 ES assessment;
  - environmental baseline;
  - effects arising during construction;
  - effects arising from operation; and
  - mitigation and residual effects; and
- a summary of any new or different likely residual significant effects as a result of each proposed amendment.



# 1 Introduction

- 1.1.1 The Bill for high speed rail between London and the West Midlands was submitted to Parliament together with the main ES in November 2013. The AP1 ES, which was submitted in September 2014, contained generally minor amendments to the design of the original scheme (i.e. the scheme submitted in November 2013) in CFAs 7 – 26. The SES and AP2 ES which was submitted in July 2015, updated the main ES and contained a number of further amendments to the design of the original scheme in CFAs 4 – 26. The SES2 and AP3 ES which was submitted in September 2015, contained further updates to the main ES and reported the assessment of a number of amendments to the design of the original scheme in CFAs 1 – 5.
- 1.1.2 Since the submission of the main ES and subsequent SES and AP documents, updates to environmental baseline information and changes to scheme design or assumptions have occurred, which may lead to new or different significant effects. These effects, depending on the type of change, are reported in the SES3 (Part 1) or AP4 ES (Part 2) of this document, where they occur.
- 1.1.3 The Bill and associated Additional Provisions (APs) to the Bill described above, if enacted by Parliament, will provide the powers to construct, operate and maintain Phase One of HS2.
- 1.1.4 In order to differentiate between the original scheme and the subsequent changes, the terms set out in Table 1 are used:

Table 1: Scheme definitions

Scheme name	Definition	Relevant CFAs
the original scheme	the Bill scheme submitted to Parliament in November 2013, which was assessed in the main ES	1 – 26
the AP1 revised scheme	the original scheme as amended by the AP submitted in September 2014	7 – 26
the SES scheme	the original scheme with the design changes described in the SES submitted in July 2015	4 – 26
the AP2 revised scheme	the SES scheme as amended by the AP2 submitted in July 2015	4 – 26
the SES2 scheme	the original scheme as updated by the SES scheme, with the design changes described in the SES2 submitted in September 2015	1 – 5 (i.e. this applies in the London area only)
the AP3 revised scheme	the SES2 scheme as amended by the AP3 submitted in September 2015	1 – 5 (i.e. this applies in the London area only)
the SES3 scheme	the SES2 scheme with the design changes described in the SES3 submitted in October 2015	4 – 26
the AP4 revised scheme	the SES3 scheme as amended by the AP4 submitted in October 2015	4 – 26

- 1.1.5 SES<sub>3</sub> (Part 1 of this report) describes changes to construction assumptions that have occurred within the current limits and powers of the Bill, and therefore do not require an AP to the Bill. For this CFA this includes an update to the construction methodology near West Midlands Fire Service.
- 1.1.6 The change is described in Part 1 under a series of sub-headings and assessed on a topic by topic basis using the same approach adopted in the main ES.
- 1.1.7 The purpose of SES<sub>3</sub> is to provide an assessment of any new or different likely significant environmental effects arising from the changes described.
- 1.1.8 There were no SES<sub>2</sub> changes in this CFA, so the SES<sub>3</sub> changes are compared to the SES scheme. There were AP<sub>2</sub> amendments, so these are taken into account as appropriate.
- 1.1.9 The AP<sub>4</sub> ES (Part 2 of this report) 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 AP to the Bill. The amendments assessed within the AP<sub>4</sub> ES for this CFA are:
- additional land required for a utility diversion at Network Park industrial estate; and
  - provision for the relocation of Curzon Street auto-transformer station at A4540 Lawley Middleway.
- 1.1.10 The AP<sub>4</sub> ES assesses each amendment separately for all relevant topics. The purpose of the AP<sub>4</sub> ES is to provide an assessment of any new or different likely significant environmental effects arising from the amendments compared to the SES<sub>3</sub> scheme, taking into account AP<sub>2</sub> amendments where relevant.
- 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 the main ES, Volume 1, Section 9 and the draft Code of Construction Practice (CoCP) submitted in support of the Bill. Implementation of these measures has been assumed in this SES<sub>3</sub> and AP<sub>4</sub> ES.

# Part 1: Supplementary Environmental Statement 3

## 2 Summary of changes

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

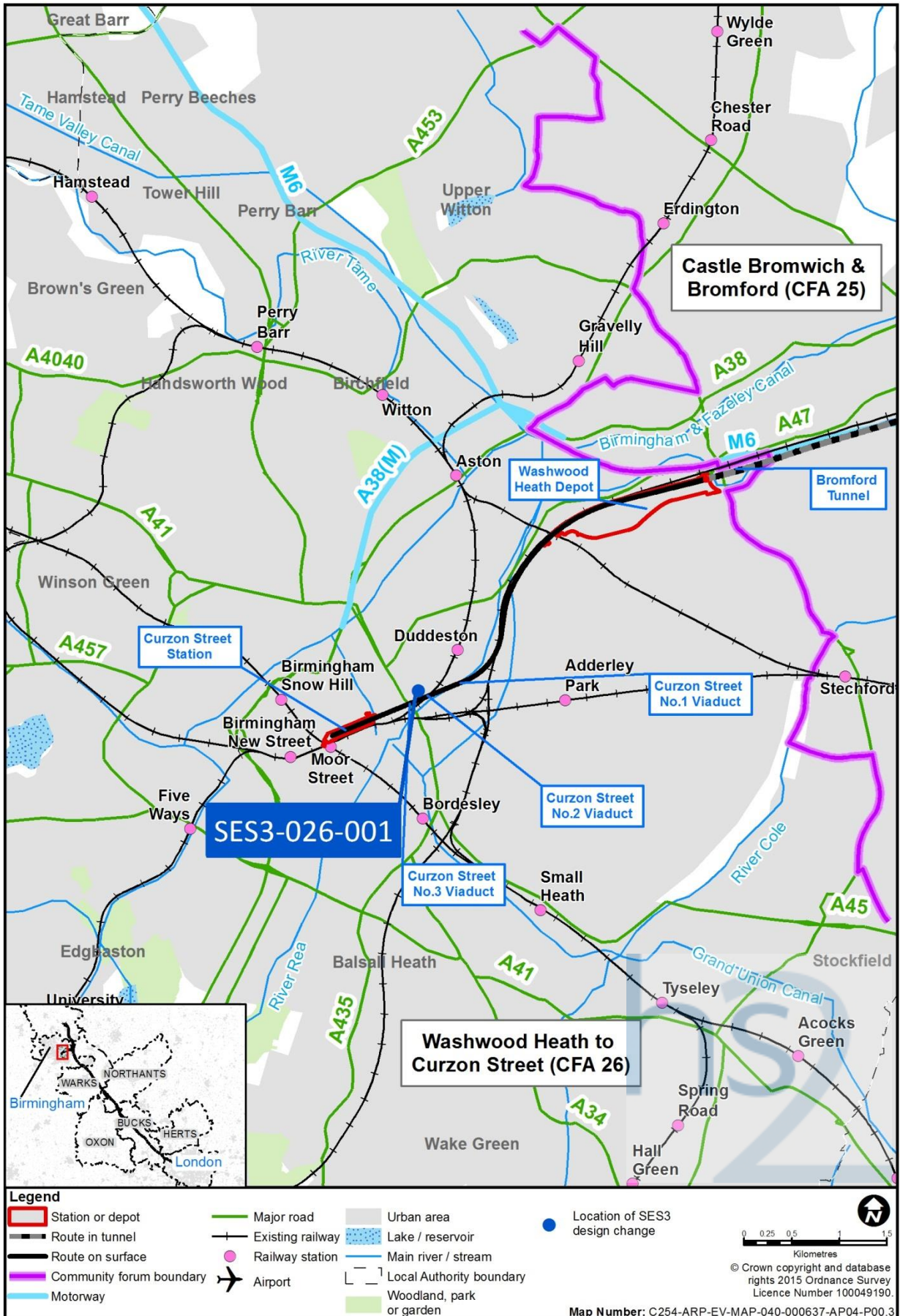
2.1.1 Table 2 provides a summary of the changes to the design or to construction assumptions not requiring a change to the Bill which result in new or different significant effects in the Washwood Heath to Curzon Street CFA (CFA26). Figure 1 shows the locations.

Table 2: Summary of changes to the design or to construction assumptions not requiring a change to the Bill in CFA26

Name of design change or construction assumption	Description of the SES scheme	Description of the SES3 scheme
<p>Update to the construction methodology near West Midlands Fire Service (SES3-026-001)</p>	<p>The construction equipment associated with the various activities required to construct Curzon Street No.2 viaduct was assumed to be concentrated along the line of the viaduct, to the south of the existing Lawley Street viaduct. These construction activities included site clearance, viaduct substructure, viaduct superstructure and structural fill.</p> <p>It was assumed night-time works would occur both to the north and south of the existing Lawley Street Viaduct.</p>	<p>Following further consideration of the construction method, the construction equipment required to complete these works will now extend over a wider area of land to the north of the existing Lawley Street viaduct. All works will be within the limits of the land identified in the Bill.</p> <p>In addition, it is now proposed that night-time works will be located entirely to the south of the Lawley Street viaduct.</p>

# SES3 and AP4 ES Volume 2 – CFA26, Washwood Heath to Curzon Street

Figure 1: Location of construction assumption not requiring a change to the Bill in CFA26



## Description of changes to the design or to construction assumptions

### *Update to the construction methodology near West Midlands Fire Service (SES3-026-001)*

- 2.1.2 In the main ES, the construction equipment associated with the various activities required to construct Curzon Street No.2 viaduct was assumed to be concentrated along the line of the viaduct, to the south of the existing Lawley Street viaduct. These construction activities included site clearance, viaduct substructure, viaduct superstructure and structural fill.
- 2.1.3 Further consideration of the construction assumptions for the Curzon Street No.2 viaduct has been undertaken since the submission of the main ES with regards to construction activities and the location of construction equipment. The construction equipment required to complete these works will now extend over a wider area of land to the north of the existing Lawley Street viaduct. This brings these construction activities closer to the Safeside educational facility (incorporating a 999 call centre), residential properties in Northumberland Street, and the St. Vincent's School. Consequently, less works are concentrated immediately to the south of the West Midlands Fire Service headquarters. All works will be within the limits of the land identified in the Bill.
- 2.1.4 In addition, whereas the original scheme assumed night-time works would occur both to the north and south of the existing Lawley Street viaduct, it is now proposed that night-time works will be located entirely to the south of the viaduct.

## 2.2 Topics included in the SES3 assessment

- 2.2.1 The change described in Section 2.1 above results in new or different significant effects in respect of community and sound, noise and vibration and are reported in Section 3.

## 3 Assessment of changes

### 3.1 Community

#### Introduction

- 3.1.1 This section of the report describes the environmental baseline in relation to community that is relevant to the assessment. It then identifies any new or different likely significant environmental effects as a result of the changes introduced in Section 2, compared to those of the SES scheme, taking into account any AP<sub>2</sub> amendments that are relevant to the assessment.
- 3.1.2 The reconfiguration of Freightliner Terminal Depot and provision of rail sidings amendment (see AP<sub>2</sub>-026-006, SES and AP<sub>2</sub> ES, Volume 2, CFA Report 26) is relevant to this assessment.

#### Scope, assumptions and limitations

- 3.1.3 The assessment scope, key assumptions and limitations for community are as set out in Volume 1, the Scope and Methodology Report (SMR) (Volume 5: Appendix CT-001-000/1) and the SMR Addendum (Volume 5: Appendix CT-001-000/2) of the main ES.

#### SES<sub>3</sub> changes of relevance to this assessment

- 3.1.4 The SES<sub>3</sub> change of relevance to this assessment is the updated construction methodology near to West Midlands Fire Service (SES<sub>3</sub>-026-001).

#### Environmental baseline

##### *Existing baseline*

- 3.1.5 The baseline community information for the area is reported in the main ES (Volume 2, CFA Report 26, Section 5). The area surrounding West Midlands Fire Service headquarters is predominantly residential, including residential properties on Northumberland Street and Vauxhall Grove, with some business uses nearby.

##### *Future baseline*

#### Construction (2017)

- 3.1.6 Volume 5: Appendix CT-004-000 of the SES<sub>3</sub> and AP<sub>4</sub> ES provides details of the developments which are assumed to have been implemented by 2017, additional to those identified in the main ES and SES and AP<sub>2</sub> ES.
- 3.1.7 None of the identified developments affect the assessment of the SES<sub>3</sub> scheme's likely construction impacts on community.

#### Operation (2026)

- 3.1.8 Volume 5: Appendix CT-004-000 of the SES<sub>3</sub> and AP<sub>4</sub> ES provides details of the developments which are assumed to have been implemented by 2026, additional to those identified in the main ES and SES and AP<sub>2</sub> ES.
- 3.1.9 None of the identified developments affect the assessment of the SES<sub>3</sub> scheme's likely operational impacts on community.



## Effects arising in construction

### *Avoidance and mitigation measures*

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

### *Assessment of impacts and effects*

#### **Temporary effects**

- 3.1.11 The main ES reported that a group of approximately 20 residential properties located at the southern end of Northumberland Street and Vauxhall Grove were located in close proximity to the construction of the Curzon Street No. 2 viaduct. The construction of the viaduct would result in a combination of significant noise and visual effects for approximately nine months during the daytime, and five months at night. This was assessed as a major adverse effect on the amenity of residents and therefore considered significant.
- 3.1.12 Further development of the construction method since the submission of the main ES will result in construction equipment being located within a wider area of land to the north of the existing Lawley Street viaduct, bringing construction activities closer to residential properties on Northumberland Street (see map CT-05-141, in the SES3 and AP4 ES Volume 2, CFA26 Map Book). This will not change the daytime or night-time noise levels, or the visual effect reported in the main ES. The SES3 change will not give rise to a different significant effect, and will not change the level of significance of the effects reported in the main ES.

#### **Permanent effects**

- 3.1.13 The SES3 change to the construction methodology near West Midlands Fire Service will not give rise to a new or different permanent significant effect and will not change the level of significance of the effects reported in the main ES.

### *Other mitigation measures*

- 3.1.14 No other mitigation measures are proposed.

### *Cumulative effects*

- 3.1.15 As reported in the SES and AP2 ES, the reconfiguration of the Freightliner Terminal Depot and provision of rail sidings amendment (AP2-026-006) would result in different significant effects on properties at Northumberland Street and Vauxhall Grove to those reported in the main ES. It was reported that the AP2 amendment would result in an increase in the duration of the significant amenity effect from nine months to 13 months.
- 3.1.16 In combination with the AP2 amendment, the SES3 scheme will increase the amenity effect by a further one month, resulting in a significant amenity effect on residents of Northumberland Street and Vauxhall Grove for a total of 14 months. This is a different likely significant cumulative effect for community as a result of the SES3 change interacting with the AP2 amendment.

### *Summary of likely residual significant effects*

- 3.1.17 The SES<sub>3</sub> change will, by itself, not give rise to a new or different likely significant residual effect and will not change the level of significance of the effects reported in the main ES.
- 3.1.18 Cumulatively, the AP<sub>2</sub> amendment and the SES<sub>3</sub> change will increase the major adverse amenity effect on residents of Northumberland Street and Vauxhall Grove by one month, resulting in a different significant residual effect, however this will not change the level of significance of the effects reported in the SES and AP<sub>2</sub> ES.

### **Effects arising from operation**

- 3.1.19 The SES<sub>3</sub> changes do not change the operation of the scheme and so there are no new or different significant operation effects for community as a result of the proposed SES<sub>3</sub> changes, in comparison with those described in the main ES.

## **3.2 Sound, noise and vibration**

### **Introduction**

- 3.2.1 This section of the report describes the environmental baseline in relation to sound, noise and vibration that is relevant to the assessment. It then identifies any new or different likely significant environmental effects as a result of the changes introduced in Section 2, compared to the SES scheme, taking into account any AP<sub>2</sub> amendments that are relevant to the assessment.
- 3.2.2 The reconfiguration of the Freightliner Terminal Depot and provision of rail sidings amendment (AP<sub>2</sub>-026-006) has been considered in this assessment.

### **Scope, assumptions and limitations**

- 3.2.3 The assessment scope, key assumptions and limitations for sound, noise and vibration are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001 -000/1) and the SMR Addendum (Volume 5: Appendix CT-001-000/2) of the main ES.
- 3.2.4 Local assumptions and limitations for sound, noise and vibration are set out in the main ES (Volume 2, CFA Report 26, Section 11).

### **SES<sub>3</sub> changes of relevance to this assessment**

- 3.2.5 The SES<sub>3</sub> change of relevance to this assessment is the updated construction methodology near to West Midlands Fire Service (SES-026-001).

### **Environmental baseline**

#### *Existing baseline*

- 3.2.6 The existing baseline sound, noise and vibration information for the area is reported in the main ES (Volume 2, CFA Report 26, Section 11 and Volume 5: Appendix SV-002-026).
- 3.2.7 In this area, the existing sound environment is characterised by the sounds of road traffic mainly from Vauxhall Road, train movements on the adjacent Birmingham to Lichfield line and commercial/industrial activity to the south.



### *Future baseline*

#### **Construction (2017)**

- 3.2.8 Volume 5: Appendix CT-004-000 of the SES3 and AP4 ES provides details of the developments which are assumed to have been implemented by 2026, additional to those identified in the main ES and SES and AP2 ES.
- 3.2.9 None of the identified developments affect the assessment of the SES3 scheme's likely construction impacts on sound, noise and vibration.

#### **Operation (2026)**

- 3.2.10 Volume 5: Appendix CT-004-000 of the SES3 and AP4 ES provides details of the developments which are assumed to have been implemented by 2026, additional to those identified in the main ES and SES and AP2 ES.
- 3.2.11 None of the identified developments affect the assessment of the SES3 scheme's likely operational impacts on sound, noise and vibration.

### **Effects arising during construction**

#### *Avoidance and mitigation measures*

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

#### *Assessment of impacts and effects*

- 3.2.13 The main ES reported significant construction noise effects at Safeside and residential properties on Northumberland Street (on a community basis). The residential properties on Northumberland Street were forecast to experience night-time construction noise levels higher than the noise insulation trigger levels as defined in the draft CoCP.
- 3.2.14 Further development of the construction method since the submission of the main ES will result in construction equipment being located within a wider area of land to the north of the existing Lawley Street viaduct (see map CT-05-141, in the SES3 and AP4 ES Volume 2, CFA26 Map Book). This brings some construction works closer to the Safeside educational facility (incorporating a 999 call centre) and residential properties on Northumberland Street. Night-time works crossing the existing viaduct are now proposed to be located to the south of the existing viaduct, whereas the original scheme assumed night-time works would occur both to the north and south of the existing viaduct.
- 3.2.15 An assessment has been undertaken to determine whether construction noise from the SES3 scheme will result in any new or different likely significant effects, using the significance criteria detailed in the main ES (Volume 5: Appendix SV-001-000).
- 3.2.16 SES3 and AP4 Volume 5: Appendix SV-003-026 details the relevant changes to the results reported in the main ES (Volume 5: Appendix SV-003-026, Sound, noise and vibration assessment).
- 3.2.17 At Safeside, the update to the construction methodology increases the typical daytime monthly construction noise levels by 5dB to 66dB. No change to the highest

monthly construction noise levels is anticipated. The duration of the impact will increase from four months to 22 months. A combined construction noise and vibration impact is also identified, due to the closer proximity of vibro-compaction of earthworks to Safeside as part of the SES<sub>3</sub> scheme. Therefore, the SES<sub>3</sub> change will result in a different significant effect compared to that reported in the main ES.

- 3.2.18 At the residential properties on Northumberland Street, the typical and highest daytime monthly construction noise levels will be comparable to the original scheme, as reported in the main ES (increase in typical daytime monthly levels of 1dB, no change to highest monthly levels). The typical and highest night-time monthly construction noise levels at Northumberland Street are slightly lower than with the original scheme (reduction of 3dB and 4dB respectively), as all construction plant is now proposed to be located to the south of the existing Lawley Street viaduct. However, the forecast exceedance of the noise insulation trigger level remains. No changes to the daytime or night-time impact durations are anticipated. A combined construction noise and vibration impact is also identified, due to the closer proximity of vibro-compaction of earthworks as part of the SES<sub>3</sub> scheme. Therefore, the SES<sub>3</sub> change will result in a different significant effect compared to that reported in the main ES.

#### *Other mitigation measures*

- 3.2.19 No other mitigation measures are proposed.

#### *Cumulative effects*

- 3.2.20 The SES<sub>3</sub> change has been considered in combination with the AP<sub>2</sub> amendment: reconfiguration of the Freightliner Terminal Depot (AP<sub>2</sub>-026-006).
- 3.2.21 At Safeside, the cumulative effect of the AP<sub>2</sub> amendment with the SES<sub>3</sub> scheme would increase the duration of the noise impact from one year and ten months to two years. At the residential properties on Northumberland Street the cumulative effect is a slight increase (1dB) in the typical and highest daytime monthly construction noise levels, and an increase in the duration of the daytime impact to one year and two months. This is a different significant effect.

#### *Summary of likely residual significant effects*

- 3.2.22 The SES<sub>3</sub> change will give rise to a different likely residual significant effect at Safeside, and residential properties on Northumberland Street compared to those reported in the main ES or SES.
- 3.2.23 In addition, there is a different significant residual cumulative noise and vibration effect on Safeside and residential properties on Northumberland Street, compared to the effects reported in Part 2 of the SES and AP<sub>2</sub> ES.

#### **Effects arising from operation**

- 3.2.24 The SES<sub>3</sub> changes do not change the operation of the scheme and so there are no new or different significant operation effects for sound, noise and vibration as a result of the SES<sub>3</sub> changes, in comparison with those described in the main ES.

# Part 2: Additional Provision 4 Environmental Statement

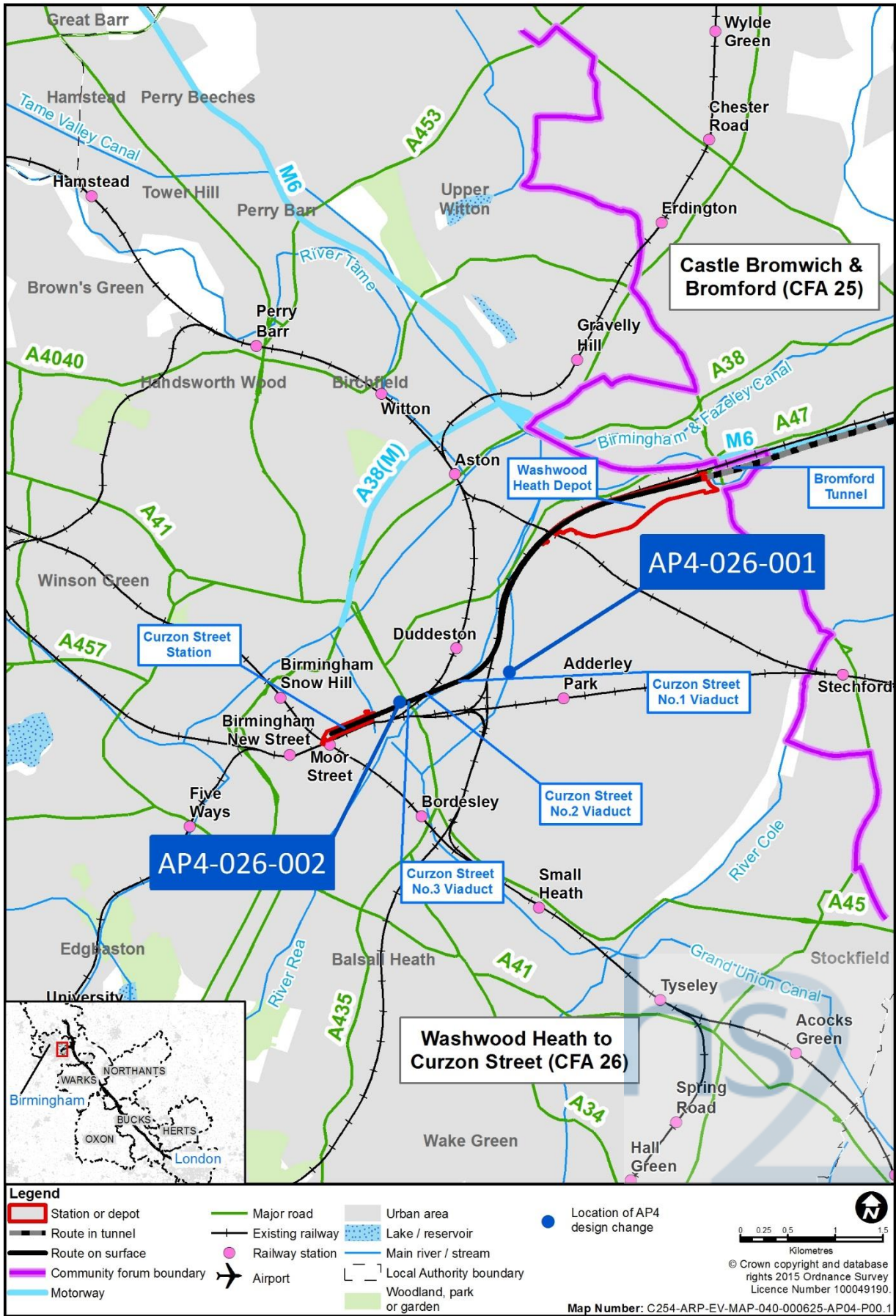
## 4 Summary of amendments

- 4.1.1 Table 3 provides a summary of the amendments in the Washwood Heath to Curzon Street area (CFA26) and Figure 2 shows the locations.
- 4.1.2 An assessment of the likely significant environmental effects associated with the disposal of construction, demolition, excavation, worker accommodation, site and operational waste has been undertaken for the SES3 scheme and AP4 revised scheme as a whole. See Volume 3, Section 19 of the SES3 and AP4 ES for further information.

Table 3: Summary of amendments in CFA26

Name of amendment	Description of the SES3 scheme	Description of the AP4 revised scheme
<p>Additional land required for a utility diversion at Network Park industrial estate.</p> <p>(AP4-026-001)</p>	<p>The HS2 route would pass under the new viaduct (B4114 Saltley viaduct) with an embankment (known as the Saltley retained fill) provided on the east side, and a retaining wall on the west adjacent to the Birmingham and Derby line, before entering through the northern edge of the Network Park industrial estate and continuing towards Duddleston Mill Road. Network Park industrial estate is affected by the permanent acquisition of part of the estate for the construction of the railway and diversion of utilities.</p> <p>The main ES assumed that the overhead power line and pylons in this area would not require diversion.</p> <p>As reported in the SES and AP2 ES, Volume 2, CFA Report 26, amendments AP2-026-003 and AP2-026-004 provide additional land within Network Park for construction traffic routes and additional car parking.</p>	<p>The provision of additional land to facilitate the underground diversion of a high-voltage overhead line which runs through Network Park industrial estate. An existing terminal pylon will be converted to a junction pylon, and the high-voltage cable diverted underground from the B4114 Saltley viaduct, along Adderley Road and Venetia Road. The existing overhead line and pylons will be removed between B4114 Saltley viaduct and the Birmingham Wheels Park.</p>
<p>Provision for the relocation of Curzon Street auto-transformer station at A4540 Lawley Middleway</p> <p>(AP4-026-002)</p>	<p>The Curzon Street auto-transformer station is located to the west of the A4540 Lawley Middleway, south of Curzon Street, north of Curzon Street No. 3 viaduct as it approaches Curzon Street station.</p>	<p>The relocation of the Curzon Street auto-transformer station further east, across the A4550 Lawley Middleway, south of Vauxhall Road, north of Curzon Street No. 3 viaduct.</p>

Figure 2: Locations of amendments in CFA26



## 5 Assessment of amendments

### 5.1 Additional land required for a utility diversion at Network Park industrial estate (AP4-026-001)

- 5.1.1 The Bill provides for land to be acquired on a permanent basis at Network Park industrial estate for the construction of the HS2 route. The route will pass under the new B4114 Saltley viaduct before passing through the Network Park industrial estate at its western edge. The construction of the original scheme will require the demolition of three buildings within Network Park industrial estate and the diversion of a 1.8m diameter sewer for approximately 380m in a north to south direction (see map CT-05-140 in main ES, Volume 2, CFA26 Map Book).
- 5.1.2 As detailed in the SES and AP2 ES, Volume 2, CFA Report 26, amendments have been made to acquire additional land to provide additional access rights for construction traffic routes within Network Park industrial estate (see AP2-026-003, SES and AP2 ES, Volume 2, CFA Report 26) and to provide car parking (AP2-026-004, SES and AP2 ES, Volume 2, CFA Report 26).
- 5.1.3 Since submission of the Bill, further design work has identified that the Western Power overhead line which runs through Network Park industrial estate along the eastern side of the industrial estate, will require a permanent diversion to facilitate construction within the area. The overhead line will be permanently diverted underground eastwards from the B4114 Saltley viaduct, then southwards along Adderley Road and Venetia Road. The existing terminal pylon located adjacent to the Birmingham Wheels Park and the Grand Union Canal, will be converted to a junction pylon. The existing overhead lines and five pylons between B4114 Saltley viaduct and the go kart circuit will be removed. The amendment will require approximately 5.5ha of land on a temporary basis, and approximately 0.2ha of land on a permanent basis which was not included within the original limits of the Bill, hence the need for this amendment. See maps CT-05-141 and 141-L1 and CT-06-141 and 141-L1, in SES3 and AP4 ES, Volume 2, CFA26 Map Book for amendments.
- 5.1.4 The construction of the utility diversion will be supported from Curzon Street No.1 viaduct satellite compound. Works will commence in 2017 and will take up to one year to complete.

### 5.2 Topics included in the assessment

- 5.2.1 The utility diversion is not considered to make changes that require a reassessment of the environmental effects or proposed mitigation as set out in the main ES with respect to: agriculture, forestry and soils, air quality, cultural heritage, ecology, traffic and transport; and water resources and flood risk assessment. However, there are changes where reassessment is considered to be required in respect of: community, land quality, landscape and visual assessment, socio-economics, and sound, noise and vibration.



## Community

### *Introduction*

- 5.2.2 This section of the report describes the environmental baseline in relation to community that is relevant to the assessment. It then identifies any new or different likely significant environmental effects as a result of the amendment, compared to those of the SES3 scheme.

### *Scope, assumptions and limitations*

- 5.2.3 The assessment scope, key assumptions and limitations for community are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001-000/1) and the SMR Addendum (Volume 5: Appendix CT-001-000/2) of the main ES.

### *Existing baseline*

- 5.2.4 Adderley Road forms the boundary between the residential areas of Adderley to the east and more industrial uses to the west. There are a number of residential properties which front directly onto Adderley Road.
- 5.2.5 Birmingham Wheels Park is a recreational facility which provides facilities for a range of wheeled sports, including go-karting, BMX, speed skating, and stock cars. It is also the home of the Alan Pitt Project, a programme for the personal and social development training of disaffected young people.

### *Future baseline*

#### **Construction (2017)**

- 5.2.6 Volume 5: Appendix CT-004-000 of the SES3 and AP4 ES provides details of the developments which are assumed to have been implemented by 2017, additional to those identified in the main ES and SES and AP2 ES.
- 5.2.7 None of the identified developments affect the assessment of the amendment's likely construction impacts on community.

#### **Operation (2026)**

- 5.2.8 Volume 5: Appendix CT-004-000 of the SES3 and AP4 ES provides details of the developments which are assumed to have been implemented by 2026, additional to those identified in the main ES and SES and AP2 ES.
- 5.2.9 None of the identified developments affect the assessment of the amendment's likely operational impacts on community.

### *Effects arising during construction*

- 5.2.10 The main ES did not report any significant effects on community resources in the vicinity of Adderley Road.
- 5.2.11 There will be amenity impacts on residential properties which face onto Adderley Road due to noise and visual effects. However, the combined noise and visual effects will be limited to only one to two months, and therefore will not contribute to a significant amenity effect.

- 5.2.12 The change to the terminal pylon adjacent to the Birmingham Wheels Park will have no effect on the use of the facility by the public.
- 5.2.13 The proposed utility diversion along Adderley Road will not give rise to a new or different significant community effect and will not change the level of significance of the effects reported in the main ES.

#### *Effects arising from operation*

- 5.2.14 The proposed utility diversion along Adderley Road will not give rise to a new or different significant community effect and will not change the level of significance of the effects reported in the main ES.

#### *Mitigation and residual effects*

- 5.2.15 No additional mitigation measures (i.e. in addition to those identified in the main ES and subsequent SES and AP reports) are required.
- 5.2.16 The amendment will not give rise to a new or different significant residual effect, and will not change the level of significance of the effects reported in the main ES.

#### *Cumulative effects*

- 5.2.17 There are no new or different likely significant cumulative effects for community as a result of the AP4 amendments interacting with one another, the AP2 amendments, or any relevant committed development.

### **Land quality**

#### *Introduction*

- 5.2.18 This section of the report provides a description of the environmental baseline in relation to land quality that is relevant to the assessment. In addition, it identifies any new or different likely residual significant environmental effects as a result of the amendment, when compared to the SES3 scheme.

#### *Scope, assumptions and limitations*

- 5.2.19 The assessment scope, key assumptions and limitations for land quality are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001 -000/1) and the SMR Addendum (Volume 5: Appendix CT-001-000/2) of the main ES.
- 5.2.20 The assessment excludes new or diverted utilities that will be located within the boundaries of existing highways. In accordance with the assumptions of the main ES, these are scoped out of the assessment as although there is work below ground, it is predominantly within highway construction, and likely to take place within the remediated layer (the upper 1.5m of the ground profile across Network Park was remediated in the late 1990s). The assessment therefore has scoped out the diverted utility along Adderley Road and Venetia Road.
- 5.2.21 The increased land required to construct the amendment results in an increased study area when compared to the original scheme, due to the land required along Adderley Road for the underground utility diversion. For the purposes of this assessment, only the land required either temporarily or permanently, unless scoped out, has been assessed. The increased study area relates only to the aspect of the amendment

which has been scoped out. Accordingly, no additional assessment has been undertaken on the increased study area.

### *Existing baseline*

- 5.2.22 The baseline land quality information for the area is as described in the main ES Volume 2 CFA Report 26, Section 8. All features described in this section are presented in the main ES Volume 5: Map LQ-01-069.
- 5.2.23 The area of the amendment is within an area that comprises:
- parts of the Network Park industrial estate which historically operated as a gas works (see main ES Volume 5: Map LQ-01-069, Site 26-132);
  - parts of the Duddeston Mill Trading Estate which historically housed a gasometer/tank (see main ES Volume 5: Map LQ-01-069, Site 26-160);
  - part of an area of industrial units associated with a metal recycling facility including waste heaps and that operated as a former metal works with tanks on a former quarry/pit (see main ES Volume 5: Map LQ-01-069, Site 26-162);
  - railway land (see main ES Volume 5: Map LQ-01-069, Site 26-1); and
  - the Birmingham Wheels Park and a depot, both located on the former Adderley Park Brickworks landfill (see main ES Volume 5: map LQ-01-069, grid reference A9 and B9).
- 5.2.24 The bedrock geology underlying the area of the amendment is consistent with the geology underlying much of the surrounding area which is described in the main ES. The geological sequence comprises superficial alluvial deposits overlying the Mercia Mudstone Group. The aquifer designations for these geological units are Secondary A and B respectively, as reported in the main ES. Made ground is also indicated to be present within the area of the amendment.
- 5.2.25 There are no known groundwater or surface water abstractions additional to those described in the main ES (Volume 2, CFA26, Section 13).
- 5.2.26 Records viewed within Birmingham City Council (BCC) archives indicate that the upper 1.5m of the ground profile across Network Park was remediated in the late 1990s. This included the bulk removal of contaminant impacted ground and the placement of a membrane at depth (approximately 0.75m) to manage the influx of surface water into the ground, which could potentially mobilise contaminants.
- 5.2.27 There are no mining or mineral sites identified within the study area, or designations for any future mining activities. There are no geo-conservation resources identified within the study area.

### *Future baseline*

#### **Construction (2017)**

- 5.2.28 The potential for the baseline to change in the lead up to the construction of the amendment is limited to the extent to which new development necessitates remediation or mitigation measures to control potential contamination releases. New development in the study area on potentially contaminated land will need to be



suitable for its intended use as set out in the National Planning Policy Framework. To meet this requirement new development sites may require remediation to be undertaken. This will mean that some areas described as having potentially contaminative current and/or historical land use, may no longer be of significance at the time of construction.

- 5.2.29 Volume 5: Appendix CT-004-000 of the SES3 and AP4 ES provides details of the developments which are assumed to have been implemented by 2017, additional to those identified in the main ES and SES and AP2 ES.
- 5.2.30 None of the identified developments affect the assessment of the amendment's likely construction impacts on land quality.
- 5.2.31 The potential for the baseline to change will also depend on whether land is determined as contaminated land by the local authority under Part IIA of the Environmental Protection Act 1990<sup>1</sup> (hereafter referred to as 'Part IIA'). A number of mechanisms drive these determinations and therefore they are difficult to predict. Where Part IIA determinations are made, the potential baseline change will occur when remediation works are subsequently undertaken.

### **Operation (2026)**

- 5.2.32 Volume 5: Appendix CT-004-000 of the SES3 and AP4 ES provides details of the developments which are assumed to have been implemented by 2017, additional to those identified in the main ES and SES and AP2 ES.
- 5.2.33 None of the identified developments affect the assessment of the amendment's likely operation impacts on land quality.

### *Effects arising during construction*

- 5.2.34 The increased land required to construct the amendment results in some sites (with potentially contaminative land uses) which were scoped out in the main ES (at Stages A and B), now requiring more detailed risk assessment (Stages C and D). In line with the assessment methodology, as set out in the SMR (main ES, Volume 5: Appendix CT-001-000/1), SMR Addendum (main ES, Volume 5: Appendix CT-001-000/2) and its appendices, a review of these sites has been undertaken.
- 5.2.35 In total, seven sites that are crossed by the amendment have been identified for detailed assessment (Stages C and D). Four of these sites were carried through to detailed assessment as part of the original scheme assessment, and the assessment of these sites is as reported in the main ES. These sites are: Site 26–160 (Duddeston Mill Trading Estate), Site 26-162 (an area of industrial units associated with a metal recycling facility), Site 26-1 (Railway Land) and Site 26-132 (Network Park industrial estate).
- 5.2.36 Of the three remaining sites, two sites were originally scoped out at Stages A and B, but now require detailed assessment as part of the assessment of this AP4 amendment. These are Site 26–159 a metal product manufacturing site and historical infilled ground and Site 26–164, the Birmingham Wheels Park and part of the former

---

<sup>1</sup> Environmental Protection Act 1990, Part IIA, Introduced in England on 1 April 2000, London, Her Majesty's Stationery Office.

Adderley Park Brickworks landfill. In accordance with the methodology, both of these sites are identified as Group A<sup>2</sup> sites: 'sites within the land required to construct the amendment, potentially containing soil/groundwater contaminants and ground gas'.

- 5.2.37 The remaining site was outside of the original study area, but now falls within the land required to construct the amendment. This additional site has been assigned Site reference 26–413. Site 26–413 is currently a depot site and located on part of the former Adderley Park Brickworks landfill. At Stages A and B, the site was identified as requiring more detailed assessment at Stages C and D. Under Stage C, the site was assigned to Group A: 'a site within the land required to construct the SES<sub>3</sub> scheme, potentially containing soil/groundwater contaminants and ground gas'.
- 5.2.38 There are no new or different significant construction effects for land quality as a result of the proposed amendment in comparison to the main ES. The assessment presented in the main ES, Volume 5: Appendix LQ-001-026, Section 3, for Group A sites applies to all of the three additional sites as indicated in Table 4.

Table 4: Additional Group A sites within the study area

Site IDs	Site 26-159, Site 26-164 and Site 26-413
Site group	Group A: sites that fall fully/partially within the land required to construct the SES <sub>3</sub> scheme, affected by soil/groundwater contamination and ground gas.
Site title (site ID) and land class	<p>Metal product manufacturing site including tanks/historical infilled ground (26-159), class 3 current and historical land use.</p> <p>Birmingham Wheels Park/part of the former Adderley Park Brickworks landfill (26-164), class 3 historical land use.</p> <p>Current depot/part of former Adderley Park Brickworks landfill (26-413), class 3 historical land use.</p>

### *Effects arising from operation*

- 5.2.39 The amendment to provide land for a utility diversion at Network Park industrial estate will not give rise to a new or different significant effect and will not change the level of significance of the effects reported in the main ES.

### *Mitigation and residual effects*

- 5.2.40 No new or different likely significant residual adverse effects are anticipated, taking into account the application (where needed) of the mitigation measures set out in the main ES Volume 2 CFA Report 26, Section 8. Potentially contaminated sites, which are within the land required permanently to construct the amendment, will be remediated to remove unacceptable risks to human health and the environment during construction and will result in a permanent minor to moderate beneficial effect as indicated in the main ES.

<sup>2</sup> Sites within the largely urbanised area in CFA26 have been grouped and assessed together. Four groups (A, B, C and D) have been used and are described in more detail in the main ES Volume 2, CFA26, Section 8.4.9 and main ES Volume 5: Appendix LQ-001-026.

## Landscape and visual assessment

### *Introduction*

- 5.2.41 This section of the report describes the environmental baseline in relation to landscape and visual assessment that is relevant to the assessment. It then identifies any new or different likely significant environmental effects as a result of the amendment, compared to those of the SES3 scheme.

### *Scope, assumptions and limitations*

- 5.2.42 The assessment scope, key assumptions and limitations for the landscape and visual assessment are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001-000/1) and the SMR Addendum (Volume 5: Appendix CT-001-000/2) of the main ES. An update to the methodology for the landscape and visual assessment is also described in Volume 1 of the AP1 ES.

### *Existing baseline*

- 5.2.43 The area of land required for the amendment is located within the Washwood Heath Rail Corridor Landscape Character Area (LCA), as described in the main ES (Volume 2, CFA26, Section 9). The Washwood Heath Rail Corridor LCA is a predominantly industrial area which follows the Birmingham and Derby line, where the landscape is generally in poor condition, exhibits low tranquillity and is of limited value. The LCA is therefore considered to have a low sensitivity to change.
- 5.2.44 The southern extent of the amendment falls within the Saltley Light Industrial LCA, which is described in the main ES (Volume 5 Appendix: LV-001-026). The Saltley Light Industrial LCA is generally in fair condition, however it exhibits low tranquillity and is of limited value. The LCA is therefore considered to have a low sensitivity to change.
- 5.2.45 The amendment is also located within close proximity of the Saltley and Washwood Heath Residential LCA, which is located immediately to the east of the amendment. The Saltley and Washwood Heath Residential LCA, as described in the main ES (Volume 5 Appendix: LV-001-026), is generally in fair condition, exhibits medium tranquillity and is of local landscape value. The LCA is therefore considered to have a medium sensitivity to change.
- 5.2.46 The amendment is located in close proximity to a number of viewpoints which are described in the main ES (Volume 2, CFA26, Section 9 and Volume 5: Appendix LV-001-026). The relevant viewpoints for this assessment are set out below:
- viewpoint 384.2.005: view west from residences on Alum Rock Road;
  - viewpoint 386.3.008: views west from Adderley Park; and
  - viewpoint 387.6.002: view east from Mainstream Way.
- 5.2.47 The amendment will also affect a new representative viewpoint in the area not previously defined within the main ES, viewpoint 386.2.012: view west from residences on Adderley Road. The view looks west across Adderley Road toward the Network Park industrial estate. A large three storey red brick building dominates the foreground of the view, with lower height industrial buildings visible to the left of the view behind a 2m red brick wall to back of the footpath. A line of pylons and overhead

power lines run across the middle ground of the view. Glimpses of large warehouse buildings within the industrial estate are visible in the background of the view (see SES3 and AP4 ES Volume 5: LV-001-026).

### *Future baseline*

#### **Construction (2017)**

- 5.2.48 Volume 5: Appendix CT-004-000 of the SES3 and AP4 ES provides details of the developments which are assumed to have been implemented by 2017, additional to those identified in the main ES and SES and AP2 ES.
- 5.2.49 None of the identified developments affect the assessment of the amendment's likely construction impacts on landscape character and visual amenity.

#### **Operation (2026)**

- 5.2.50 Volume 5: Appendix CT-004-000 of the SES3 and AP4 ES provides details of the developments which are assumed to have been implemented by 2026, additional to those identified in the main ES and SES and AP2 ES.
- 5.2.51 None of the identified developments affect the assessment of the amendment's likely operational impacts on landscape character and visual amenity.

### *Effects arising during construction*

#### **Landscape assessment**

- 5.2.52 Washwood Heath Rail Corridor LCA was assessed as being affected by the original scheme, and will also be affected by this amendment. The LCA is generally in poor condition and is of limited value, and is therefore considered to be of low sensitivity to change. The main ES reported a moderate adverse significant effect due to construction activities including demolition and construction of bridges and viaducts and introduction of lighting and associated infrastructure.
- 5.2.53 The amendment involves demolition of five existing pylons within Network Park industrial estate, with one to be replaced with a smaller pylon, and the diversion of the utility underground along Adderley Road. This will introduce additional construction activity and effects on the Washwood Heath Rail Corridor LCA beyond those previously identified in the main ES. The amendment will give rise to a different significant effect, however, this will not change the level of significance of the effects reported in the main ES.

#### **Visual assessment**

- 5.2.54 Viewpoint 384.2.005: view west from residences on Alum Rock Road, was assessed as being affected by the original scheme and will also be affected by this amendment. The main ES reported a moderate adverse significant effect due to construction activities in the middle ground including the demolition of the existing B4114 Saltley viaduct, the construction of the new B4114 Saltley viaduct, and the presence of tall construction plant. The amendment will result in views of additional construction activities in relation to the removal of the pylons and overhead power lines from the middle ground of the view. The amendment will therefore give rise to a different significant visual effect, however this change is not large in the wider context of the

scheme and therefore this will not change the level of significance of the effect reported in the main ES.

- 5.2.55 Viewpoint 387.6.002: view east from Mainstream Way, was assessed as being affected by the original scheme and will also be affected by this amendment. The main ES reported a moderate adverse significant effect during construction of the B4114 Saltley viaduct, temporary fencing and vegetation clearance. The amendment will result in the presence of additional construction activities related to the removal of the pylons and overhead power lines through the right of the view. The amendment will therefore give rise to a different significant visual effect, however this change is not large in the wider context of the scheme and therefore this will not change the level of significance of the effect reported in the main ES.
- 5.2.56 Viewpoint 386.3.008: view west from Adderley Park, was assessed as being affected by the original scheme and will also be affected by this amendment. The main ES reported a minor adverse effect, which was not significant due to middle ground visibility of tall construction plant associated with the Curzon Street No. 1, No. 2 and No. 3 viaducts and activities associated with the demolition of the Curzon Gateway student accommodation and the construction of the proposed Curzon Street station. The amendment will introduce additional construction activities in relation to the removal of the pylons and the overhead power lines through the middle ground of the view, with the diversion along Adderley Road introducing traffic management and road works in the foreground of the view. Therefore the amendment will give rise to a new significant effect, changing the level of significance of the effect reported in the main ES from minor to moderate adverse significant (see SES and AP4 ES map LV-07-101, Volume 5 Map Book).
- 5.2.57 Viewpoint 386.2.012: view west from residences on Adderley Road, is identified as a new viewpoint. Residential receptors along Adderley Road will have foreground views of construction activities associated with the underground diversion along Adderley Road, and demolition activities in the middle ground due to the removal of the pylons and overhead power lines. The amendment will give rise to a new significant effect due to a medium magnitude of change, which assessed alongside the high sensitivity of the visual receptor will result in a new moderate adverse significant effect (see SES and AP4 ES map LV-07-101, Volume 5 Map Book).

### *Effects arising during operation*

#### **Landscape assessment**

- 5.2.58 The amendment will result in very small scale change within the LCA in the context of the wider scheme. The amendment will not give rise to a new or different significant effect on landscape character and will not change the significance of the effects reported in the main ES.

#### **Visual assessment**

- 5.2.59 Viewpoint 384.2.005: view west from residences on Alum Rock Road, was assessed as being affected by the original scheme and will also be affected by this amendment. The main ES reported a moderate adverse significant effect in year 1 of operation, remaining at year 15 and year 60 due to views of the B4114 Saltley viaduct and possible views of Duddeston Junction and the Curzon Street No.1 viaduct. The amendment will result in the removal of the pylons and overhead lines from the

middle ground of the view. The amendment will therefore give rise to a different significant visual effect, however this change is not large in the wider context of the scheme and therefore this will not change the level of significance reported in the main ES at year 1 of operation, and beyond to year 15 and year 60.

- 5.2.60 Viewpoint 387.6.002: view east from Mainstream Way, was assessed as being affected by the original scheme and will also be affected by this amendment. The main ES reported a moderate adverse significant effect in year 1 of operation which would remain at year 15 and year 60 due to the presence of the B4114 Saltley viaduct; the HS2 route, and overhead line equipment, and trains in the foreground and middle ground of the view. The amendment will result in the removal of the pylons and overhead power lines in the middle ground of the view. The amendment will therefore give rise to a different significant visual effect, however this change is not large in the wider context of the scheme and therefore this will not change the level of significance reported in the main ES at year 1 of operation, and beyond to year 15 and year 60.
- 5.2.61 Viewpoint 386.3.008: view west from Adderley Park, was assessed as being affected by the original scheme and will also be affected by this amendment. The main ES reported a minor adverse, non-significant effect at winter of year 1 of operation, due to industrial buildings obscuring views of the HS2 route. The effect would be further reduced to negligible during summer of year 1 and beyond to year 15 and year 60 due to vegetation in Adderley Park providing further screening. The amendment will not give rise to a new or different significant effect and will not change the level of significance reported in the main ES at year 1 of operation, year 15 and year 60.
- 5.2.62 Viewpoint 386.2.012: view west from residences on Adderley Road, is identified as a new viewpoint not previously defined within the main ES. The removal of the pylons and overhead lines will result in a change in the middle ground of the view. This will result in a low magnitude of change during operation, which assessed alongside the high sensitivity of the visual receptor will result in a new minor beneficial effect, which is non-significant.

### *Mitigation and residual effects*

- 5.2.63 No additional mitigation measures (i.e. in addition to those identified in the main ES) are required.
- 5.2.64 The amendment will give rise to different significant landscape effects on Washwood Heath Rail Corridor LCA and different significant visual effects during construction at viewpoint 384.2.005: view west from residences on Alum Rock Road, and viewpoint 387.6.002: view east from Mainstream Way, but will not change the level of significance of the effects reported in the main ES.
- 5.2.65 The amendment will result in two new moderate adverse significant effects during construction at viewpoint 386.3.008 (view west from Adderley Park) and viewpoint 386.2.012 (Adderley Road).
- 5.2.66 In operation, the amendment will give rise to different significant visual effects at viewpoint 384.2.005: view west from residences on Alum Rock Road, and viewpoint 387.6.002: view east from Mainstream Way, but will not change the level of significance of the effects reported in the main ES.

### *Cumulative effects*

- 5.2.67 There are no new or different likely significant cumulative effects for landscape and visual assessment as a result of the AP4 amendments interacting with one another, the AP2 amendments, or any relevant committed development.

## **Socio-economics**

### *Introduction*

- 5.2.68 This section of the report describes the environmental baseline in relation to socio-economics that is relevant to the assessment. It then identifies any new or different likely significant environmental effects as a result of the amendment, compared to those of the SES3 scheme.

### *Scope, assumptions and limitations*

- 5.2.69 The assessment scope, key assumptions and limitations for socio-economics are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001-000) and the SMR Addendum (Volume 5: Appendix CT-001-000) of the main ES.

### *Existing baseline*

- 5.2.70 The baseline socio-economics information for the Washwood Heath to Curzon Street area (CFA26) is described in the main ES Volume 2, CFA Report 26, Section 10.

### *Future baseline*

#### **Construction (2017)**

- 5.2.71 Volume 5: Appendix CT-004-000 provides details of the developments which are assumed to have been implemented by 2017, additional to those identified in the main ES and SES and AP2 ES (Volume 5: Appendix CT-004-000).
- 5.2.72 None of the identified developments affect the assessment of the amendment's likely construction impacts on socio-economics.

#### **Operation (2026)**

- 5.2.73 Volume 5: Appendix CT-004-000 provides details of the developments which are assumed to have been implemented by 2026, additional to those identified in the main ES and SES and AP2 ES (Volume 5: Appendix CT-004-000).
- 5.2.74 None of the identified developments affect the assessment of the amendment's likely operational impacts on socio-economics.

### *Effects arising during construction*

- 5.2.75 The main ES identified that disruption throughout the five year construction period, to seven businesses within the Network Park industrial estate, would result in a significant isolation effect. However, Part 1 of the SES and AP2 ES reported that as a result of the alterations at Network Park (SES-026-001) to the SES scheme the potentially significant temporary isolation effect reported in the main ES on businesses within Network Park industrial estate would be removed.



- 5.2.76 The amendment requires additional land to facilitate the permanent underground diversion of an overhead line which currently runs through the Network Park industrial estate. The amendment will not result in any change to the operation of the remaining businesses within Network Park industrial estate. Therefore the amendment will not give rise to a new or different effect or change the level of significance of effects reported in Part 1 of the SES and AP2 ES.

#### *Effects arising from operation*

- 5.2.77 The amendment will not give rise to a new or different significant operational effect and will not change the level of significance of the effects reported in Part 1 of the SES and AP2 ES.

#### *Mitigation and residual effects*

- 5.2.78 No additional mitigation measures (i.e. in addition to those identified in the main ES and subsequent SES and AP ES reports) are required.

- 5.2.79 The amendment will not give rise to a new or different significant effect and will not change the level of significance of the effects reported in Part 1 of the SES and AP2 ES.

#### *Cumulative effects*

- 5.2.80 There are no new or different likely significant cumulative effects for socio-economics as a result of the AP4 amendments interacting with one another, the AP2 amendments or any other relevant committed development.

### **Sound, noise and vibration**

#### *Introduction*

- 5.2.81 This section of the report describes the environmental baseline in relation to sound, noise and vibration that is relevant to the assessment. It then identifies any new or different likely significant environmental effects as a result of the amendment, compared to those of the SES3 scheme.

#### *Scope, assumptions and limitations*

- 5.2.82 The assessment scope, key assumptions and limitations for the sound, noise and vibration assessment are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001-000/1) and the SMR Addendum (Volume 5: Appendix CT-001-000/2) of the main ES.
- 5.2.83 Local assumptions and limitations for sound, noise and vibration are set out in main ES Volume 2 CFA Report 26, Section 11.

#### *Existing baseline*

- 5.2.84 The existing baseline sound, noise and vibration information for the area is as described in the main ES (Volume 2, CFA Report 26, Section 11 and Volume 5: Appendix SV-002-026).



- 5.2.85 In this area, the existing sound environment is characterised by the sounds of road traffic from local roads, including Adderley Road, the B4114 Saltley viaduct and Duddeston Mill Road, overflying aircraft, and commercial/industrial activities.

### *Future baseline*

#### **Construction (2017)**

- 5.2.86 Volume 5: Appendix CT-004-000 of the SES3 and AP4 ES provides details of the developments which are assumed to have been implemented by 2017, additional to those identified in the main ES and SES and AP2 ES.
- 5.2.87 The identified development 2014/05645/PA (reference CFA/26/P/29 in Volume 5: Appendix CT-004-000 of the SES3 and AP4 ES), regarding a change of use to a place of worship at 7-8 Adderley Road, is relevant to the assessment.

#### **Operation (2026)**

- 5.2.88 Volume 5: Appendix CT-004-000 of the SES3 and AP4 ES provides details of the developments which are assumed to have been implemented by 2026, additional to those identified in the main ES and SES and AP2 ES.
- 5.2.89 None of the identified developments affect the assessment of the AP4 amendment's likely operational impacts on sound, noise and vibration.

### *Effects arising during construction*

- 5.2.90 The amendment of the utility diversion at Network Park industrial estate introduces additional construction works not assessed in the main ES.
- 5.2.91 In the main ES no significant construction noise effects were reported in the vicinity of the amendment.
- 5.2.92 An assessment has been undertaken to determine whether the construction works associated with the amendment will result in any likely significant effects, using the significance criteria detailed in the main ES (Volume 5: Appendix SV-001-000).
- 5.2.93 SES3 and AP4 Volume 5: Appendix SV-003-026 details the relevant changes to the results reported in the main ES, Volume 5: Appendix SV-003-026, sound, noise and vibration assessment.
- 5.2.94 As a result of the amendment, noise at up to 85 dwellings on Adderley Road is forecast to slightly exceed the noise insulation trigger level. The duration of noise impacts at any of these dwellings is likely to be one month, although the impacts in total along Adderley Road are spread over 11 months. Noise insulation will be offered for qualifying buildings as defined in the draft CoCP (Volume 5: Appendix CT-003-000 of the main ES) noise insulation and temporary re-housing policy. Noise insulation will avoid residents being significantly affected by levels of construction noise inside their dwellings.
- 5.2.95 The noise from the construction works associated with the amendment is likely to give rise to adverse effects at around 150 dwellings on Adderley Road, with expected impact durations of one month at any dwelling. These adverse effects are significant when considered on a community basis, taking into account local context.

5.2.96 On a reasonable worst-case basis, noise from the construction of the amendment is forecast to result in a significant effect on the following non-residential receptors:

- Adderley Primary School;
- Adderley Children's Centre on St Saviours Road;
- Adderley Children's Centre and commercial properties facing onto Adderley Road;
- Madina Masjid Mosque; and
- the identified proposed development (CFA26/P/29).

5.2.97 The level of detail on likely construction methods available at this time is adequate to predict likely noise levels, and a standard extent of mitigation known to be deliverable throughout the works has been included in the assessment. It is, however, likely that under the requirements of the draft CoCP the contractors will, by applying the best practicable means specific to each site, find additional ways to reduce noise levels so that the extent of noise insulation and residual impacts will be less and of shorter duration than those reported at this stage.

5.2.98 HS2 Ltd will continue to seek reasonably practicable measures to further reduce or avoid these significant noise and effects, for example through the use of alternative construction methods.

#### *Effects arising during operation*

5.2.99 The amendment will not give rise to a new or different significant operational effect from those reported in the main ES.

#### *Mitigation and residual effects*

5.2.100 No additional mitigation measures (i.e. in addition to those identified in the main ES and subsequent SES and AP ES reports) are required.

5.2.101 The amendment will give rise to a new construction noise residual significant effect assessed on a community basis at approximately 150 dwellings along Adderley Road for up to one month. On a reasonable worst-case basis, a significant noise effect is forecast at non-residential receptors located along Adderley Road adjacent to the proposed utility diversion works, including Adderley Children's Centre, commercial premises, the Madina Masjid Mosque, Adderley Primary School, and identified proposed development (CFA26/P/29). At all of these locations the duration of the impact will last for one or two months.

#### *Cumulative effects*

5.2.102 There are no new or different likely significant cumulative effects for sound, noise and vibration as a result of the AP4 changes interacting with one another, or the AP2 amendments, or any relevant committed developments.

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

- 5.2.103 The amendment will give rise to different significant landscape and visual effects on Washwood Heath Rail Corridor LCA, viewpoint 384.2.005: view west from residences on Alum Rock Road, viewpoint 387.6.002: view east from Mainstream Way, during construction and new moderate adverse significant effects at viewpoint 386.3.008: views west from Adderley Park, and viewpoint 386.2.012: view west from residences on Adderley Road. In operation, the amendment will give rise to different significant visual effects at viewpoint 384.2.005: view west from residences on Alum Rock Road, and viewpoint 387.6.002: view east from Mainstream Way.
- 5.2.104 The amendment will give rise to a new direct construction noise residual significant effect at approximately 150 dwellings along Adderley Road for up to one month and at non-residential receptors located along Adderley Road, including Adderley Children's Centre, the Madina Masjid Mosque, proposed development (CFA26/P/29) and Adderley Primary School. At all these locations the duration of impact is short, lasting one or two months.

### 5.3 Provision for the relocation of Curzon Street auto-transformer station at A4540 Lawley Middleway (AP4-026-002)

- 5.3.1 The Bill provides for an auto-transformer station located to the west of the A4540 Lawley Middleway, south of Curzon Street, and north of Curzon Street No. 3 viaduct as it approaches Curzon Street station (see map CT-05-141 in main ES, Volume 2, CFA26 Map Book).
- 5.3.2 Since submission of the Bill, ongoing discussions with BCC have resulted in a proposed new location for the Curzon Street auto-transformer station, further east, across the A4550 Lawley Middleway, south of Vauxhall Road, and north of Curzon Street No. 3 viaduct. The land required for the amendment is within the original limits of the Bill, however it will require a change to the Bill powers, hence the need for this amendment. See maps CT-05-141 AP4 ES, Volume 2, CFA26 Map Book for amendments.
- 5.3.3 The construction of the auto-transformer station will be supported from Curzon Street No.3 viaduct satellite compound. Works will commence in the fourth quarter of 2022 and will take approximately one year to complete.
- 5.3.4 The relocation of Curzon Street auto-transformer station is not considered to make changes that require a reassessment of the environmental effects or proposed mitigation as set out in the main ES with respect to all topics.

## **6 Combined effects of amendments in this CFA due to changes in traffic flows**

- 6.1.1 All of the effects of the changes proposed in the CFA have been described above and there are no further combined effects to report.



**High Speed Two (HS2) Limited**

One Canada Square  
London E14 5AB

**T** 020 7944 4908

**E** [hs2enquiries@hs2.org.uk](mailto:hs2enquiries@hs2.org.uk)

Z31