

High Speed Rail (Crewe – Manchester)

Equality Impact Assessment

Equality Impact Assessment Report

HS2

High Speed Rail (Crewe – Manchester)

Equality Impact Assessment

Equality Impact Assessment Report



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, 2022, except where otherwise stated.

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

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



Printed in Great Britain on paper containing 100% recycled fibre.

Contents

1	Introduction	5
1.1	Public consultation on this document	5
1.2	Background	6
1.3	The Proposed Scheme overview	9
1.4	Design development	13
1.5	Equality Act 2010 and the Public Sector Equality Duty	14
1.6	Aims of the Equality Impact Assessment	16
1.7	Relationship to the Environmental Statement	17
1.8	Further steps to fulfil the Public Sector Equality Duty	18
1.9	Structure of the report	19
2	Scope and methodology	20
2.1	Introduction	20
2.2	Scope of the EQIA	20
2.3	Assessment methodology	21
3	Stakeholder engagement and consultation	23
3.1	Background	23
3.2	Key stages and mechanisms for engaging with Stakeholders	23
3.3	Targeted engagement to inform the EQIA	26
4	Baseline	28
4.1	Introduction	28
4.2	Baseline analysis - route wide	29
4.3	Baseline analysis - off route works	32
5	Route-wide assessment	35
5.1	Introduction	35
5.2	General measures to mitigate potential equality effects	35
5.3	Potential effects during construction	44
5.4	Potential effects during operation	57
5.5	Community areas	61
6	Hough to Walley's Green (MA01)	62
6.1	Introduction	62
6.2	Description of the area	62
6.3	Bentley Manor Care Home	62

Equality Impact Assessment Report

6.4	Oakfield Lodge School	63
6.5	Leighton and Coppenhall Moss (North Crewe): area-based effects	65
7	Wimboldsley to Lostock Gralam (MA02)	67
7.1	Introduction	67
7.2	Description of the area	67
7.3	Greenheyes Farm	67
7.4	Lostock Green Picnic Area	68
7.5	Darnhall Primary School	69
7.6	Lostock Lodge Care Home	70
7.7	Lostock Gralam: area-based effects	71
8	Pickmere to Agden and Hulseheath (MA03)	73
8.1	Introduction	73
8.2	Description of the area	73
8.3	Cheshire Showground	73
9	Broomedge to Glazebrook (MA04)	75
9.1	Introduction	75
9.2	Description of the area	75
9.3	Warburton and Mossbrow: Area-based effects	75
9.4	Partington: area-based effects	77
10	Risley to Bamfurlong (MA05)	78
10.1	Introduction	78
10.2	Description of the area	78
10.3	Lowton Junior and Infant School	78
10.4	Hesketh Meadows Playing Fields	80
10.5	English Karate Academy	81
11	Hulseheath to Manchester Airport (MA06)	82
11.1	Introduction	82
11.2	Description of the area	82
11.3	Children's Adventure Farm Trust (CAFT)	82
11.4	Fairfield Farm Project, Higher Thorns Green Farm	84
11.5	Ringway: area-based effects	85
12	Davenport Green to Ardwick (MA07)	87
12.1	Introduction	87
12.2	Description of the area	87

Equality Impact Assessment Report

12.3	Birchfields Primary School	87
12.4	The Christie Hospital	88
13	Manchester Piccadilly Station (MA08)	91
13.1	Introduction	91
13.2	Description of the area	91
13.3	SOL Christian Academy	91
13.4	Manchester Action on Street Health (MASH)	93
13.5	Manchester Offenders: Diversion, Engagement and Liaison Team (MO:DEL)	94
13.6	True Jesus Church	95
13.7	Straight Blast Gym (SBG) Manchester	95
13.8	Front Line Fit (FLF) Performance Centre	96
13.9	St Anne's Roman Catholic Primary School	97
13.10	Cloud Aerial Arts	98
13.11	Manchester Piccadilly Station	99
14	Glossary of terms	102
15	List of acronyms	105
16	References	106
	Annex A: Baseline methodology	111
	Annex B: Baseline Population Data	114
	Annex C: Literature review	121
	Tables	
	Table 1: Summary of route-wide data in Annex B	32
	Table 2: Average population at the route, regional and England level, by age range	114
	Table 3: Average population at the route, regional and national level, by self-reported limiting long-term health problem or disability	114
	Table 4: Average population at the route, regional and national level, by ethnic sub-groups	115
	Table 5: Average population by religion at the route-wide, regional and national level	115
	Table 6: Ethnic Categories and Ethnic Groups used in Census 2011	116
	Table 7: Average representation of people from Mixed ethnic groups in LSOAs where Mixed ethnicity is disproportionately represented.	116
	Table 8: Average representation of people from Asian ethnic groups in LSOAs where Asian ethnicity is disproportionately represented.	116
	Table 9: Average representation of people from Black ethnic groups in LSOAs where Black ethnicity is disproportionately represented.	117

Equality Impact Assessment Report

Table 10: Average representation of people from Other ethnic groups in LSOAs where Other ethnicity is disproportionately represented. 117

Table 11: LSOAs along the route with a disproportionate representation of three or more PCGs, broken down by sub-groups 118

Figures

Figure 1: The HS2 network and Crewe Northern Connection 8

Figure 2: The Proposed Scheme 11

1 Introduction

1.1 Public consultation on this document

- 1.1.1 HS2 Ltd is seeking views on this Equality Impact Assessment (EQIA) of the proposals for HS2 Phase 2b Western Leg. This is a public consultation and responses are welcome from any person or organisation who wishes to take part. A summary document and an Easy Read version of this report are also available. All of our documents are available to view or download and print from our website: www.gov.uk/hs2. If you are unable to access the documents online, please contact the HS2 enquiries team on 08081 434 434 or HS2enquiries@hs2.org.uk.
- 1.1.2 If you require a translated document or an alternative format – for example, large print – please also contact the team. HS2 Ltd will consider all requests for alternative formats and, wherever possible and reasonable, endeavour to fulfil your request.
- 1.1.3 The HS2 Ltd helpdesk is available if you struggle to access or engage with any HS2 materials. The helpdesk remains operational all day, every day, and is your first point of contact should you need advice or information from HS2 Ltd. The helpdesk can be reached in the following ways:
- Freephone: 08081 434 434;
 - Minicom: 08081 456 472;
 - Email: HS2enquiries@hs2.org.uk; or
 - Website: by completing our website enquiry form which can be found at <https://www.hs2.org.uk/contact-us/contact-form/>

How to respond

- 1.1.4 You can comment on the EQIA for Phase 2b at <https://ipsos.uk/HS2EQIA> or download the response form from www.gov.uk/hs2. Please provide as much detail as possible and let us know if you think anything has been missed from the assessment.
- 1.1.5 Before you comment, please read the confidentiality and data protection conditions that apply, as set out in the response form.
- If you respond online, you can follow the instructions at: <https://ipsos.uk/HS2EQIA> or www.gov.uk/hs2
 - If you download the response form from our website at www.gov.uk/hs2 you can either:
 - email your response to HS2BillEQIA@ipsos-MORI.com; or
 - post your response to: FREEPOST HS2 Bill EQIA.
- 1.1.6 The consultation closes at **23:45 on 31 March 2022**.

1.2 Background

- 1.2.1 Consideration of equality issues has been, and will continue to be, an integral part of the planning, design, construction and operation of High Speed Two (HS2). This Equality Impact Assessment (EQIA) Report describes the current understanding of the equality issues that will or may arise from construction and operation of the HS2 Phase 2b Western Leg, referred to as the Proposed Scheme, and the measures to be applied in future to reduce or offset them. In describing these issues, the report takes into account the measures that are already included in the scheme design and commitments made by HS2 Ltd regarding further mitigation and control processes.
- 1.2.2 This report is produced in accordance with the methodology set out in the EQIA Scope and Methodology Report (SMR), published alongside this EQIA Report¹. It also takes into account HS2 Phase 2b Western Leg Information Paper H1: Equality, diversity and inclusion policy², which outlines HS2 Ltd's approach to embedding inclusion in its workforce and in the planning, design, construction and operation of the Proposed Scheme. This report is informed by the feedback received on the working draft EQIA Report consultation, held between July and September 2017.
- 1.2.3 This EQIA Report is intended primarily to inform decision-making about the Proposed Scheme. Equality issues will continue to be considered and addressed through the further design stages, the planning and delivery of construction, and the management and operation of the railway and its associated facilities.

Introduction to HS2

- 1.2.4 High Speed Two (HS2) is a new high speed railway proposed by the Government to connect major cities in Britain. It will transform intercity and long distance passenger rail travel in the UK, providing the first major increase in intercity rail capacity for over a century and freeing up substantial capacity for rail travel and freight on the conventional rail network. London, Birmingham, Manchester and cities in the Midlands, the North and Scotland will be served by high speed trains running at speeds of up to 360kph (225mph) on HS2 lines and on the existing conventional rail network. As part of the Proposed Scheme, new stations will be built at Manchester Piccadilly and Manchester Airport, in addition to the new stations in London and the West Midlands included in HS2 Phase One.
- 1.2.5 HS2 is being built in phases. Phase One is the 230km long (143 miles) section between London and the West Midlands. This first section of the HS2 network, will start operating between 2029 and 2033. It was the subject of an Environmental Statement (ES) deposited

¹ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester) *Equality Impact Assessment Scope and Methodology Report*, Available online at: <https://www.gov.uk/hs2>.

² High Speed Two Ltd (2022), Phase 2b Western Leg Information Paper H1: Equality, diversity and inclusion policy.

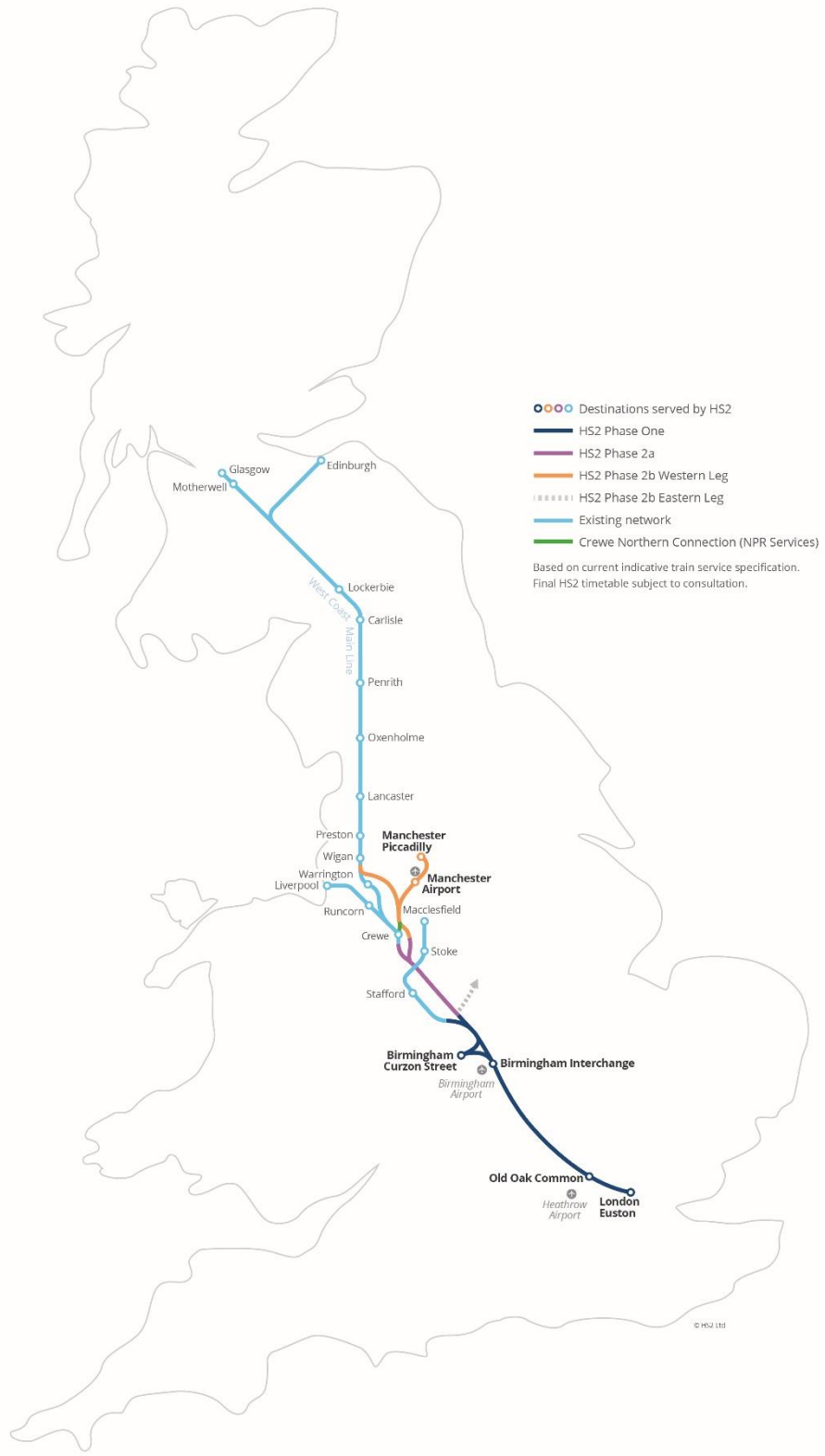
Equality Impact Assessment Report

with the High Speed Rail (London – West Midlands) Bill in November 2013³. It was also subject to an EQIA. The Bill was deposited in November 2013 and enacted as the High Speed Rail (London – West Midlands) Act 2017. Advance works on Phase One commenced in July 2017. The main works commenced in April 2020.

- 1.2.6 Phase Two will extend the route from Phase One and is being taken forward in stages. Phase 2a comprises the section of the route between the West Midlands and Crewe. The High Speed Rail (West Midlands – Crewe) Bill, together with an ES was prepared for the Phase 2a proposals. Both were deposited in Parliament in July 2017. It was also subject to an EQIA. The Bill was enacted as the High Speed Rail (West Midlands – Crewe) Act 2021.
- 1.2.7 The full Phase 2b scheme comprises the following two sections of route:
- Crewe to Manchester with a connection onto the West Coast Main Line (WCML) – referred to as the ‘Phase 2b Western Leg’; and
 - the West Midlands to Leeds via the East Midlands and South Yorkshire (referred to as the ‘Phase 2b Eastern Leg’).
- 1.2.8 The powers for the Western Leg, are being sought through a hybrid Bill named the High Speed Rail (Crewe – Manchester) Bill, with the aim of receiving Royal Assent in 2024, construction assumed to begin in 2025, and operation planned to start in 2038. The Phase 2b Eastern Leg is not the focus of this bill.

³ High Speed Two Ltd (2022), High Speed Two (Crewe – Manchester), *Environmental Statement*. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

Figure 1: The HS2 network and Crewe Northern Connection



1.3 The Proposed Scheme overview

1.3.1 The Proposed Scheme comprises:

- the route from Crewe to Manchester with connections onto the WCML;
- a number of works beyond the route corridor, to allow HS2 trains to call at existing stations further north on the WCML and provide depots for HS2 trains; and
- provision for future Northern Powerhouse Rail (NPR) services to connect with HS2.

1.3.2 The route of the Proposed Scheme is summarised in the text and figures that follow. Each of the distances provided in this section are approximate.

The route of the Proposed Scheme

- 1.3.3 The route of the Proposed Scheme will run from Crewe to Manchester and to the WCML near Bamfurlong, as shown in Figure 2. The total length of the route is 85km (52 miles). The route will begin to the south of the existing Crewe Station, south of the A500 Shavington Bypass, where it will connect to HS2 Phase 2a. It will then enter the Crewe tunnel, which will include two vent shafts: at Cowley Way and Middlewich Street. The route will re-emerge to the north of the B5076 Bradfield Road. The Crewe Northern Connection will be provided to the north of Crewe tunnel to connect the route of the Proposed Scheme to the WCML and enable future NPR services to connect with HS2. The HS2 Phase 2a route will also connect to the WCML to the south of Crewe Station and so integrates the existing station into the HS2 route.
- 1.3.4 Crewe North rolling stock depot (RSD) and Crewe North infrastructure maintenance base – rail (IMB-R) will be located between the route of the Proposed Scheme and the WCML where they diverge to the east of Walley's Green. The RSD will serve as an operational and maintenance hub for HS2 rolling stock. The IMB-R will be an infrastructure maintenance facility and storage area for the Proposed Scheme. Reception tracks will connect the RSD with the WCML, the route of the Proposed Scheme and the IMB-R.
- 1.3.5 The route of the Proposed Scheme will continue north passing between the towns of Winsford and Middlewich on a series of embankments and viaducts to the west of Lostock Green and east of Higher Shurlach, Rudheath, Lostock Gralam and Higher Wincham. The route will then cross the M6 on a viaduct. The HS2 WCML connection will then diverge from the HS2 spur to Manchester. The Proposed Scheme also includes the London to Liverpool junction at this location. This junction will be provided to enable future NPR services between London and Liverpool to connect to HS2.
- 1.3.6 The HS2 WCML connection will continue north towards the M56. The NPR Manchester to Liverpool junction overbridge will span the route to the south of the M56. This will enable a future NPR route between Manchester and Liverpool to cross over the route of the Proposed Scheme. The HS2 WCML connection will pass beneath the M56, which will be carried on an overbridge, before crossing the Manchester Ship Canal on a viaduct to the east of Hollins Green. It will then continue north to cross the M62 on viaduct and pass to the west

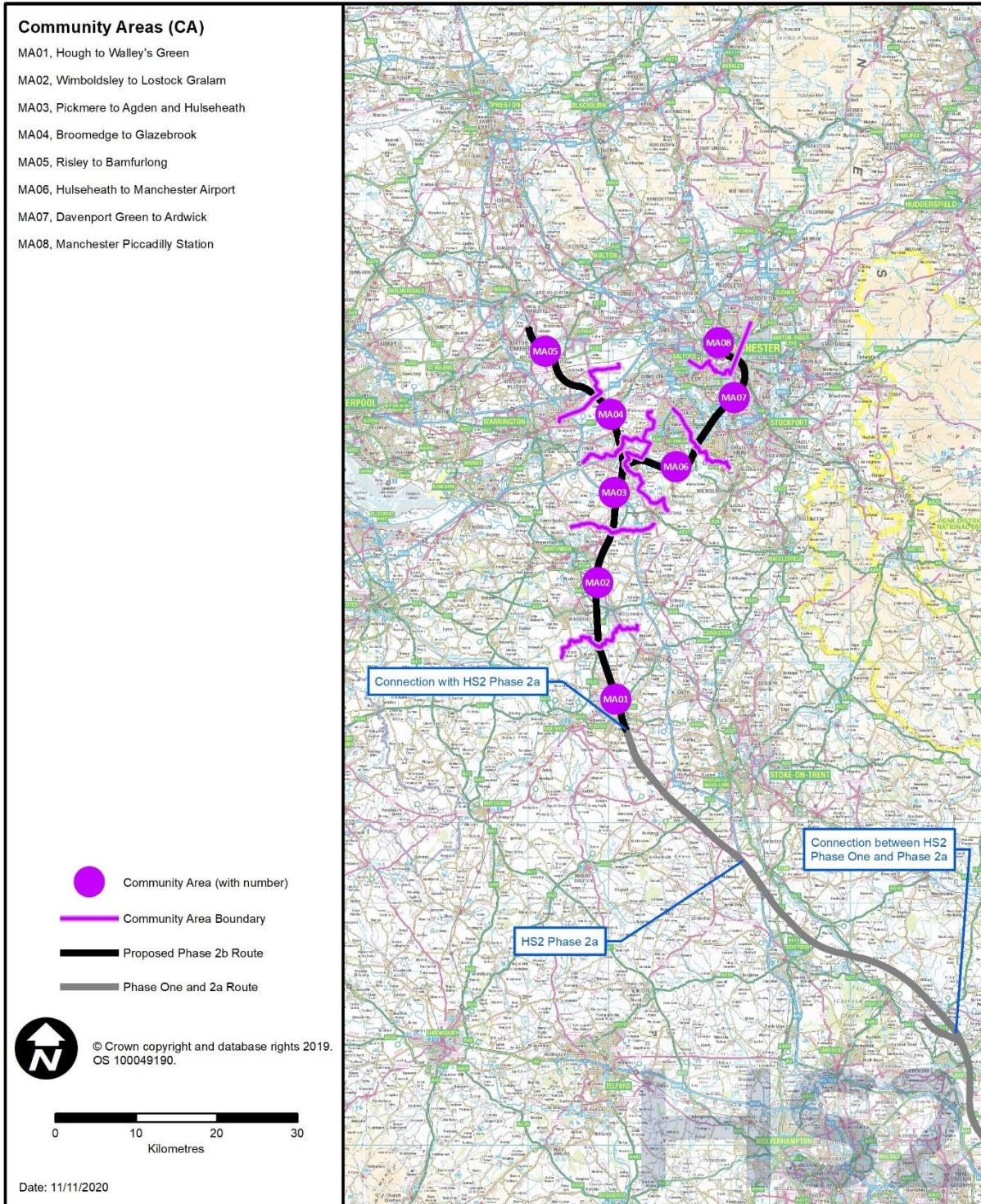
Equality Impact Assessment Report

of Culcheth, before continuing through Lowton and connecting with the WCML south of Bamfurlong.

- 1.3.7 The HS2 Manchester spur will continue in a north-easterly direction towards Manchester. After crossing under the A556 Chester Road, it will run in an easterly direction, broadly parallel with the M56, passing to the north of Rostherne Mere. The Proposed Scheme includes the NPR Manchester to Liverpool junction at this location. This junction will enable a future NPR route between Manchester and Liverpool to connect to HS2. Ashley IMB-R will also be located adjacent to the route in this area. Ashley IMB-R will be a maintenance facility and storage area for the Proposed Scheme.
- 1.3.8 Continuing in an easterly direction, the HS2 Manchester spur will cross the Mid-Cheshire Line on a viaduct. It will then turn northwards before passing beneath the M56 in a box structure to the east of Warburton Green.
- 1.3.9 The HS2 Manchester spur will then continue to Manchester Airport High Speed station. The station will be located adjacent to the M56 and north-west of Manchester Airport. It will include four platforms, two of which will be for future NPR services. A section of viaduct will be constructed across the station to enable future provision of a Metrolink (a light rail network operated by Transport for Greater Manchester) stop at the station. Two Metrolink platforms will be provided on the viaduct.
- 1.3.10 The HS2 Manchester spur will enter the Manchester tunnel to the north of Manchester Airport High Speed station, near Davenport Green. The tunnel will pass beneath south Manchester in a northerly direction and will include four vent shafts: at Altrincham Road, Palatine Road, Wilmslow Road and Birchfields Road.
- 1.3.11 The northern portal of the tunnel will be located in the Ardwick area, with the route re-emerging into a box structure and cutting. The Proposed Scheme also includes the NPR Manchester to Leeds junction at this location. This junction will enable a future NPR route between Manchester and Leeds to connect to HS2.

The HS2 Manchester spur will then rise onto embankment and continue on viaduct before terminating at the proposed Manchester Piccadilly High Speed station, a six-platform station for HS2 and future NPR services, with its southern edge adjoining the existing Manchester Piccadilly Station. The Proposed Scheme in the area will include the relocation of the existing Piccadilly Metrolink stop, which will be located at sub-surface level beneath the HS2/NPR platforms. It will also include the realignment of existing Metrolink tracks and provision for a new Metrolink stop, called Piccadilly Central.

Figure 2: The Proposed Scheme



Off-route works

- 1.3.12 In addition, the following works will form part of the Proposed Scheme. These are referred to as 'off-route works' and include:
- works to accommodate HS2 services at Preston and Carlisle stations;
 - construction of stabling facilities for HS2 trains serving the north of England and Scotland at Annandale depot (near Gretna in southern Scotland); and
 - minor enhancement to existing facilities at Polmadie Depot (Glasgow) to provide overnight stabling for HS2 trains serving the north of England and Scotland.

Interfaces between the Proposed Scheme and Phase 2a

The route of Phase 2a will include and terminate at the end of the retained cutting leading to Crewe tunnel southern porous portal⁴, which will be constructed as part of the Proposed Scheme. The Proposed Scheme will continue in that tunnel underneath Crewe towards Manchester. Phase 2a also includes spurs connecting to the WCML south of Crewe and into Crewe Station.

Hybrid Bill powers

- 1.3.13 The Government will deposit a hybrid Bill for Phase 2b Western Leg for consideration by Parliament in 2022. Upon Royal Assent, the Bill will become an Act of Parliament conferring powers, including deemed planning permission, to build the railway and thereafter to operate and maintain it. The powers will include:
- authority to nominate an undertaker to construct, operate and maintain the railway and associated works as described in the Act (and its accompanying plans and sections) and other ancillary works;
 - powers of compulsory acquisition or temporary possession of land and properties required for the Proposed Scheme;
 - powers to divert or protect gas, water, telecommunications and electricity infrastructure which might be affected by the Proposed Scheme;
 - powers over rights of way, public highways and waterways;
 - powers to carry out works to listed buildings and buildings in conservation areas; and
 - powers to carry out protective works to buildings and third-party infrastructure.

⁴ Perforated structures at tunnel portals (entrances), usually formed of concrete, designed to allow the passage of air from the tunnel. These reduce both air pressure changes and the noise generated when a high speed train enters or leaves a tunnel.

1.4 Design development

1.4.1 In February 2020 the Government announced its decision to proceed with the legislation to allow for the development of the Phase 2b Western Leg. A number of changes have been made to the design of the Proposed Scheme since the consultation on the working draft EQIA Report and the working draft ES⁵ in October 2018. The key changes (including approximate dimensions where appropriate) include:

- Crewe tunnel south portal, tunnel portal building and rescue area, which were provided for in the HS2 Phase 2a scheme, will now form part of the Proposed Scheme;
- introduction of the Crewe Northern Connection (and associated design changes) to the north of Crewe tunnel to connect the route of the Proposed Scheme to the WCML and enable future Northern Powerhouse Rail (NPR) services to connect with HS2;
- introduction of the Crewe North Infrastructure Maintenance Base – Rail (IMB-R) as a permanent base and satellite site to the Phase 2a Stone IMB-R, to support the maintenance of railway infrastructure;
- introduction of four borrow pits, in the Wimboldsley to Lostock Gralam area (MA02), for the extraction of acceptable engineering material for construction;
- changes to the Crewe North rolling stock depot, to align with a revised stabling strategy and design development;
- provision for the NPR London to Liverpool, Manchester to Liverpool, and Manchester to Leeds junctions, to enable these future NPR routes to connect to HS2;
- realignment of the route of the Proposed Scheme, 70m east of Hollins Green to reduce impacts on local residents and visitors to Hollinfare Cemetery;
- introduction of retaining walls to define the extent of the Manchester Ship Canal and protect the Manchester Ship Canal viaduct against ship impact;
- introduction of a temporary railhead at Ashley – a facility for the construction of track, signal and electrification systems for the Proposed Scheme;
- introduction of Ashley IMB-R, to support railway infrastructure maintenance activities for the Proposed Scheme;
- changes to Manchester Airport High Speed station through design development and to accommodate future NPR services and Metrolink services;
- changes to the length and alignment of Manchester tunnel;
- changes to the location of Manchester tunnel north portal and to tunnel vent shafts and associated infrastructure;
- reconfiguration of the Manchester Piccadilly High Speed station from four platforms to six platforms, to accommodate future NPR services;

⁵ High Speed Two Ltd (2018), *High Speed Rail (Crewe to Manchester and West Midlands to Leeds): Working Draft Environmental Statement*. Available online at:

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

- works to Metrolink to provide an interchange with the Manchester Piccadilly High Speed station;
- introduction of a multi-modal transport hub located between Manchester Piccadilly High Speed station and the existing Manchester Piccadilly Station;
- revisions to viaducts, embankments and cuttings on various sections of the route;
- revisions to road and public rights of way (PRoW) works, including changes to road realignments and bridges;
- revisions to the number and location of grid supply points, auto-transformer stations and auto-transformer feeder stations; and
- introduction of utilities works and telecommunications sites.

1.4.2 In addition, the location and layout of construction compounds, stockpiles and site haul routes have been considered as part of the development of the design. Mitigation such as noise barriers, landscape earthworks, compensatory planting and replacement ponds and wetlands have also been included to reduce adverse effects from the Proposed Scheme.

1.5 Equality Act 2010 and the Public Sector Equality Duty

1.5.1 Under section 149 of the Equality Act 2010 ('the Act')⁶, a public authority, in the exercise of its functions (and a person exercising public functions) is subject to the Public Sector Equality Duty (PSED). The PSED requires public bodies to have due regard to three aims, to:

- eliminate discrimination, harassment and victimisation and any other conduct that is prohibited by or under the Act;
- advance equality of opportunity between people who share a relevant protected characteristic and people who do not share it; and
- foster good relations between people who share a relevant protected characteristic and those who do not share it.

1.5.2 The 'relevant' protected characteristics for the purposes of the PSED are all those listed below excluding marriage and civil partnership.

1.5.3 The Act explains that the second aim (advancing equality of opportunity) involves, in particular, having due regard to the need to:

- remove or minimise disadvantages suffered by people due to their protected characteristics;
- take steps to meet the needs of people with relevant protected characteristics where these are different from the needs of other people; and

⁶ *Equality Act 2010*. London, Her Majesty's Stationery Office. Available online at: <http://www.legislation.gov.uk/ukpga/2010/15/contents>.

- encourage people with relevant protected characteristics to participate in public life or in other activities where their participation is disproportionately low.

1.5.4 In addition, section 20 of the Act requires decision-makers to make reasonable adjustments in certain circumstances. As summarised in the glossary to the Equality and Human Rights Commission (EHRC) Technical Guidance on the PSED in England, where a disabled person is at a substantial disadvantage in comparison with people who are not disabled, there is a duty to take reasonable steps to remove that disadvantage by (i) changing provisions, criteria or practices; (ii) altering, removing or providing a reasonable alternative means of avoiding physical features; and (iii) providing auxiliary aids⁷. The Act makes it lawful to treat some persons with a protected characteristic more favourably than others. In the case of a disabled person, the Act requires service providers to anticipate their needs by considering who might use a service and making appropriate reasonable adjustments before a request is received. The EQIA enables HS2 Ltd to identify where such adjustments may be required, such as noise insulation or maintaining accessible routes, in order to meet its anticipatory duty.

Protected characteristics and protected groups

- 1.5.5 The Act consolidated previous legislation designed to prohibit discrimination on the grounds of protected characteristics. The Act identifies nine protected characteristics. These are⁸:
- age: this refers to a person belonging to a particular age or range of ages;
 - disability: a person has a disability if she or he has a physical or mental impairment that has a substantial and long-term adverse effect on that person's ability to carry out normal day-to-day activities;
 - gender reassignment: people who are proposing to undergo, are undergoing, or have undergone a process (or part of a process) for the purpose of reassigning their sex⁹;
 - marriage and civil partnership: marriage can be between a man and a woman or between two people of the same sex. Same-sex couples and, since December 2019¹⁰, mixed-sex couples can also have a civil partnership. Civil partners must not be treated less favourably than married couples (except where permitted by the Equality Act);
 - pregnancy and maternity: pregnancy is the condition of being pregnant or expecting a baby. Maternity refers to the period after the birth, and is linked to maternity leave in the

⁷ Equality and Human Rights Commission (EHRC) (2014), *Technical Guidance on the Public Sector Equality Duty: England*. Available online at: <https://www.equalityhumanrights.com/en/publication-download/technical-guidance-public-sector-equality-duty-england>

⁸ Unless otherwise stated, definitions are based on those provided by the Equality and Human Rights Commission (EHRC) (2017), *Protected Characteristics*. Available online at: <https://www.equalityhumanrights.com/en/equality-act/protected-characteristics>.

⁹ *Equality Act 2010*. London, Her Majesty's Stationery Office. Available online at: <http://www.legislation.gov.uk/ukpga/2010/15/contents>.

¹⁰ *The Civil Partnership (Opposite-sex Couples) Regulations 2019*. London, Her Majesty's Stationery Office. Available online at: <http://www.legislation.gov.uk/uksi/2019/1458/contents/made>.

employment context. In the non-work context, protection against maternity discrimination is for 26 weeks after giving birth;

- race: refers to a group of people defined by their colour, nationality (including citizenship) ethnic or national origins;
- religion and belief: religion refers to any religion, including a lack of religion. Belief refers to any religious or philosophical belief including lack of belief (such as atheism);
- sex: this refers to a man or to a woman, or to a group of people of the same sex. (Sex is the protected characteristic and not gender); and
- sexual orientation: whether a person's sexual attraction is towards their own sex, the opposite sex or to both sexes.

1.5.6 The Equality Act 2010 does not specify socio-economic status as a protected characteristic.

1.5.7 In relation to marriage and civil partnership, a body subject to the PSED only needs to comply with the first of the three aims of the duty set out above (eliminate discrimination, harassment, victimisation) and only in relation to work. This is because the parts of the Act covering services and public functions, premises, and education do not apply to that protected characteristic.

1.5.8 The EQIA Report uses the term 'protected characteristic groups' (or PCGs) to refer to groups of people who share a particular protected characteristic.

1.6 Aims of the Equality Impact Assessment

1.6.1 The EQIA Report contributes towards HS2 Ltd's active fulfilment of its PSED obligations both during the design stage of the Proposed Scheme and during subsequent design development. The EQIA is a predictive assessment, considering, in advance of implementation, the potential impacts from the construction and operation of the Proposed Scheme, and the potential effects of these for PCGs. The EQIA, which draws on the findings of the EIA, has also served to inform design, mitigation and other relevant project-related decisions.

1.6.2 The objectives underpinning the EQIA are to:

- identify the presence of PCGs along the route of the Proposed Scheme, in particular where such groups are disproportionately represented amongst those most likely to be affected by the Proposed Scheme;
- draw on engagement with stakeholders and literature review to inform the understanding of likely needs of those groups, relevant to identified potential effects;
- assess the potential effects of the Proposed Scheme's construction and operation for PCGs, including how the Proposed Scheme could affect relations between groups;
- identify measures, including reasonable adjustments, to minimise potential negative equality effects on PCGs; and

- identify relevant measures, which as part of the Proposed Scheme design or mitigation, can further enhance equality of opportunity, address existing disadvantage or support good relations between PCGs and other people.

1.7 Relationship to the Environmental Statement

- 1.7.1 The EQIA Report considers the equality effects of the Proposed Scheme, based on the design that is reported in the High Speed Rail (Crewe – Manchester) Environmental Statement (ES).
- 1.7.2 An overarching spatial approach based around eight community areas and three off-route works (ORW) sites is used across the ES and EQIA Report, ensuring consistency between the assessments.
- 1.7.3 The eight community areas are:
- Hough to Walley's Green (MA01);
 - Wimboldsley to Lostock Gralam (MA02);
 - Pickmere to Agden and Hulseheath (MA03);
 - Broomedge to Glazebrook (MA04);
 - Risleigh to Bamfurlong (MA05);
 - Hulseheath to Manchester Airport (MA06);
 - Davenport Green to Ardwick (MA07); and
 - Manchester Piccadilly Station (MA08).
- 1.7.4 The ORW sites are:
- Preston Station;
 - Carlisle Station; and
 - Annandale depot.
- 1.7.5 The ORW at Polmadie was scoped out of the EQIA (and also the ES) on the basis that the nature of the works proposed would not give rise to any equality effects.
- 1.7.6 The EQIA draws on information reported in the ES, however, it does not use the same assessment process or significance criteria to judge equality effects. The 'test' the EQIA uses is whether or not there is potential for a differential or disproportionate effect on PCGs (see Section 2.3 of this report).
- 1.7.7 The EQIA Report draws on the lessons learned from reports and public consultations undertaken for Phase One and Phase 2a of HS2. The EQIA Report and the ES have shared data gathering across assessment topics, particularly with regard to community baseline data. The EQIA Report has also drawn on baseline evidence and assessment from other environmental impact assessment (EIA) topics, where relevant.
- 1.7.8 The EQIA assesses whether any of the significant effects identified in relevant ES assessments (community; health; socio-economic; traffic and transport; air quality; sound,

noise and vibration; and landscape and visual) could have disproportionate or differential effects on groups with protected characteristics.

- 1.7.9 In some instances, impacts not reported as significant effects in the ES may give rise to equality effects for people with needs or recognised sensitivities associated with their protected characteristic. For example, some disabled people may be more sensitive than the general population to changes in noise, or traffic and transport, and these may result in differential effects which are reported in the EQIA where known. For example, this may include the temporary relocation of bus stops or taxi ranks. The EQIA also draws upon findings from the health assessment, which does not assign significance to identified impacts.
- 1.7.10 Where the EQIA has assessed that the construction and/or operation of the Proposed Scheme has potential to give rise to equality effects that could be avoided or reduced by reasonably practicable changes to the design of the Proposed Scheme such as, for example, the installation of additional physical mitigation, any such changes incorporated into the Proposed Scheme have been assessed as part of the environmental impact assessment and their effects reported, where appropriate, in the ES. Some equality effects may be avoided or reduced by other measures that do not relate to the design of the Proposed Scheme, such as assistance with the relocation of specific services currently provided for PCGs that may otherwise experience differential effects. Where such other measures are proposed, they are reported in this EQIA Report.

1.8 Further steps to fulfil the Public Sector Equality Duty

- 1.8.1 The PSED is an ongoing duty requiring consideration of equality issues by public bodies. This report contributes to fulfilling that obligation, by reporting findings of potential effects on equality as a result of the Proposed Scheme, based on the available information about people with protected characteristics in affected communities. As the Proposed Scheme progresses, through design, construction and operation stages, further equality issues may be identified and will require consideration in decision-making by HS2 Ltd and may have implications for other relevant public bodies, including the Department for Transport.
- 1.8.2 Under the Equality Act 2010, there is no requirement to undertake an EQIA, and such an exercise is neither necessary nor sufficient for compliance with the PSED. HS2 Ltd has taken the view that, in this instance, an EQIA will materially assist in the fulfilment of the PSED by highlighting the areas where particular attention should be paid to the needs of PCGs. The effects of the Proposed Scheme on PCGs will be monitored and assessed on an on-going basis.
- 1.8.3 HS2 Ltd will ensure that potential effects identified in this EQIA Report are kept under review and, where appropriate, the baseline evidence will be updated and further stakeholder engagement undertaken. This further information and appraisal of potential effects will be used to inform future decisions.

1.8.4 HS2 Phase 2b Western Leg Information Paper H1: Equality, diversity and inclusion policy¹¹ outlines HS2 Ltd's approach to embedding inclusion in its workforce and in the planning, design, construction and operation of the Proposed Scheme. HS2 Ltd has an equality lead responsible for overseeing monitoring and reporting of equality effects during the construction of the Proposed Scheme and all phases of HS2. The HS2 Ltd Equalities, Diversity and Inclusion (EDI) team will continue to bring equality issues to the attention of the project team and is responsible for reporting on the effectiveness of measures taken to mitigate potential or actual negative effects as well as actions to promote equality.

1.9 Structure of the report

1.9.1 The remainder of this report is structured as follows:

- Section 2 – summarises the scope and methodology employed for the EQIA;
- Section 3 – outlines the approach taken to stakeholder engagement and public consultation;
- Section 4 – sets out baseline data on people with protected characteristics;
- Section 5 – reports a route-wide assessment of potential equality effects, taking account of general and specific mitigation measures assumed to be employed; and
- Sections 6-13 – provide a more detailed assessment of specific individual effects in each of the eight community areas.

¹¹ High Speed Two Ltd (2022), *Phase 2b Western Leg Information Paper H1: Equality, diversity and inclusion policy*.

2 Scope and methodology

2.1 Introduction

- 2.1.1 This section of the report summarises the scope and methodology for the assessment of potential equality effects associated with the construction and operation of the Proposed Scheme. The draft EQIA SMR was issued for consultation from 17 July 2017 to 29 September 2017¹². HS2 Ltd's response to issues raised through the EQIA SMR consultation is summarised in the EQIA SMR Consultation Summary Report¹³, which was published alongside a revised EQIA SMR¹⁴ and the working draft EQIA in October 2018¹⁵. An EQIA SMR has been published alongside this EQIA Report¹⁶. This confirms that the scope of the EQIA includes ORW.
- 2.1.2 Limited further changes have been made to the SMR published alongside this EQIA Report. These include:
- revisions to the description of the Proposed Scheme to reflect the decision to progress with Crewe to Manchester, and to reflect design refinements consulted upon subsequently;
 - further clarification on the relationship between the ES and the EQIA Report; and
 - clarifications as to the types of equality effects considered in the assessment.

2.2 Scope of the EQIA

- 2.2.1 The scope of the EQIA takes account of the requirements of the PSED: to eliminate discrimination, harassment and victimisation and any other conduct that is prohibited by or under the Act; advance equality of opportunity between people who share a relevant protected characteristic and people who do not share it; and foster good relations between people who share a relevant protected characteristic and those who do not share it.

¹² High Speed Two Ltd (2017), *HS2 Phase 2b draft Equality Impact Assessment Scope and Methodology Report*. Available online at: <https://www.gov.uk/government/consultations/hs2-phase-2b-draft-equality-impact-assessment-scope-and-methodology-report>.

¹³ High Speed Two Ltd (2018), *HS2 Phase 2b: Crewe to Manchester and West Midlands to Leeds, Equality Impact Assessment, Scope and Methodology Report, Consultation Summary Report*. Available online at: <https://www.gov.uk/hs2>.

¹⁴ High Speed Two Ltd (2018), *HS2 Phase 2b: Crewe to Manchester and West Midlands to Leeds, Equality Impact Assessment, Scope and Methodology Report*. Available online at: <https://www.gov.uk/government/publications/hs2-phase-2b-equality-impact-assessment-scope-and-methodology-report>.

¹⁵ High Speed Two Ltd (2018), *High Speed Rail (Crewe to Manchester and West Midlands to Leeds) Working Draft Equality Impact Assessment Report*. Available online at: <https://www.gov.uk/hs2>.

¹⁶ High Speed Two Ltd (2022), *High Speed Rail (Crewe – Manchester) Equality Impact Assessment, Scope and Methodology Report*. Available online at: <https://www.gov.uk/hs2>.

- 2.2.2 The report considers potential equality effects for people sharing protected characteristics, grouped in relation to key equality concerns. Further information on potential equality effects is provided in Sections 5 and 6 of this report and in the EQIA SMR.

Spatial scope

- 2.2.3 The spatial scope of this EQIA Report is guided by the assessments reported in the ES and professional experience and judgement. An overarching spatial approach based around eight community areas and three ORW sites is used across the ES and EQIA reports, ensuring consistency between the assessments (see Section 1 of this report).
- 2.2.4 All distances, lengths and area measurements provided in this report are approximate.

Temporal scope

- 2.2.5 The report considers potential equality effects arising during the construction period (2025-2038), and once the Proposed Scheme is operational (starting in 2038).

2.3 Assessment methodology

Guidance

- 2.3.1 There is a limited range of methodological guidance available. The methodology for the EQIA is set out in the EQIA SMR and draws on lessons learned from the equality impact assessments undertaken for HS2 Phase One and Phase 2a. Further information on the guidance used to inform the assessment is provided in the EQIA SMR.

Evidence base

- 2.3.2 An Equality Analysis was conducted on behalf of HS2 Ltd in July 2013¹⁷, as part of an Appraisal of Sustainability (AoS) of the proposed Phase Two route from the West Midlands to Manchester, Leeds and beyond, and the main alternatives. This analysis was updated in 2016¹⁸, and identified key equality concerns and potential impacts for PCGs, and 'clusters' of PCGs along the Phase Two route.
- 2.3.3 The EQIA considers relevant evidence, including baseline data and published research on equality issues, and builds on the evidence collected during the Equality Analysis to develop a more detailed understanding of PCGs in potentially affected communities. Annex E to this

¹⁷ High Speed Two Ltd (2013), *High Speed Rail: Consultation on the route from the West Midlands to Manchester, Leeds and beyond. Sustainability Statement, Appendix A – Equality Analysis*. London.

¹⁸ High Speed Two Ltd (2016), *High Speed Rail: HS2 Phase 2b preferred route. Sustainability Statement including Post Consultation Update, Appendix A – Equality Analysis*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/568165/C331_Sustainability_Statement_Update_Post_Consultation_Appendix_A_Equality_Analysis_WEB_VERSION.pdf

report provides a summary of relevant published evidence to inform the understanding of the needs of PCGs. A summary of baseline evidence is included in Section 4 of this report, and the EQIA map book. Further information on the data used to build the evidence base for the assessment is provided in the EQIA SMR.

Stakeholder engagement

2.3.4 Engagement enables communities and specialist, expert and technical groups to comment on and inform the scope and methodology of the assessment, the enhancement of beneficial effects, and the mitigation of disproportionate or differential effects. The approach to stakeholder engagement to inform the EQIA is described in full in Section 3 of this report and in the EQIA SMR. Section 3 also provides a summary of stakeholder engagement undertaken to date.

Assessment criteria

- 2.3.5 The EQIA does not assess significance of effects. Equality effects are defined as where an impact is identified as likely to have disproportionate or differential effects on groups of people on the grounds of their protected characteristics. A disproportionate equality effect arises when an impact has a proportionately greater effect on PCGs than on other members of the general population in a particular location. For the purposes of the EQIA, disproportionality can arise in two main ways, either:
- where an impact is predicted on a residential area and PCGs are known to make up a greater proportion of the affected resident population than their representation in the wider local authority (LA) district and/or county/region; or
 - where an impact is predicted on a community resource predominantly or heavily used by PCGs (e.g. primary schools attended by children; care homes catering for older people).
- 2.3.6 A differential equality effect is one that affects members of a PCG differently from the rest of the general population because of specific needs, or a recognised sensitivity associated with their protected characteristic. For example, some disabled people may be more sensitive to the effects of noise, and could therefore experience differential effects as a result of increased noise levels in their homes or in community resources used by particular groups (e.g. schools attended by children with autism; care homes catering for people with dementia).
- 2.3.7 In some cases, PCGs could be subject to both disproportionate and differential equality effects.
- 2.3.8 Where the characteristics of those affected are not known, then the EQIA is unable to judge whether there is a potential disproportionate or differential effect. Should this information subsequently be made available to HS2 Ltd, for example, through the engagement process, the potential for further equality effects will be considered as part of HS2 Ltd's ongoing PSED.

3 Stakeholder engagement and consultation

3.1 Background

3.1.1 Stakeholder engagement and public consultation have been an integral and ongoing part of the process of designing and assessing the full Phase 2b scheme and latterly the Proposed Scheme from its inception, enabling the general public, businesses, local authorities, statutory bodies, and expert, technical and specialist stakeholders to respond to, and inform:

- the development of the design, including the consideration of alternatives;
- the scope and methodology of the environmental and equality assessments;
- the collection of relevant baseline environmental information and data;
- the assessment of the environmental and equality effects arising from construction and operation of the Proposed Scheme;
- the measures identified to avoid or mitigate significant adverse effects; and
- monitoring arrangements.

3.1.2 As part of this process, a programme of stakeholder engagement has been designed and undertaken specifically to inform the EQIA. The purpose of this engagement has been to gather information on PCGs and local sensitivities, and to identify the potential equality effects of the Proposed Scheme, and potential mitigation measures that could be put in place to address any adverse equality effects.

3.1.3 The first part of this section describes the range of engagement and consultation activities undertaken since the confirmation of the Phase 2b route in July 2017, including consultation on the EQIA SMR, the working draft EQIA, and proposed design refinements. The second part of this section describes stakeholder engagement that has been undertaken specifically to inform the EQIA.

3.2 Key stages and mechanisms for engaging with Stakeholders

Introduction

3.2.1 A variety of mechanisms have been used to enable an open and inclusive approach to engagement and consultation, reflecting the differing requirements and expectations of stakeholders. Although many of these have not specifically been focused on equality issues, information gathered has informed the EQIA where relevant.

3.2.2 Programmes of public information events have been held as part of engagement and consultation activities to share new information with communities along the Proposed Scheme and to engage them on it. HS2 Ltd notified people of events by sending leaflets to

addresses along the route, advertising in local media and via social media. Public information events were held in September 2017, between June and July 2018, October and December 2018 and June and July 2019. In October and November 2020, public information events were held using online channels including webinars and a virtual exhibition room. Public information events held in June, July and September 2021 used a combination of in-person information events and online webinars. Members of local communities and other interested parties were invited to engage on issues pertinent to the development of the Proposed Scheme design and its assessment. Engagement has also been undertaken with national and local environmental stakeholders, local authorities, parish councils, individual landowners and organisations.

- 3.2.3 Further targeted engagement has been, and will continue to be, undertaken with community stakeholders, particularly those close to the Proposed Scheme. These stakeholders include educational establishments, organisations with specialist interests or those catering to the needs of vulnerable people within the community. This has informed the assessment of community and health impacts in the ES and has also informed this EQIA.
- 3.2.4 The remainder of this section sets out further detail on the consultation activities relevant to the EQIA since confirmation of the Phase 2b route in July 2017 as well as targeted engagement that has been undertaken to support the EQIA.

Consultation on the Draft EQIA Scope and Methodology Report

- 3.2.5 The draft EQIA SMR was formally consulted on between July and September 2017. It was issued to statutory bodies, non-government organisations and local authorities relevant to the full Phase 2b scheme at the time of consultation. It was also made available on the gov.uk website, allowing comment by local interest groups and the public. Following formal consultation, further engagement was undertaken with relevant local authorities and statutory stakeholders in Scotland as the design was developed.
- 3.2.6 A total of 29 responses to the draft EQIA SMR were received, these were considered and where appropriate changes were made to the EQIA SMR. The changes between the draft EQIA SMR and the publication of the EQIA SMR were set out in the EQIA SMR Consultation Summary Report¹⁹, published in October 2018. Further minor changes have been made to the EQIA SMR (as set out in Section 2.1).
- 3.2.7 The assessment reported in this EQIA is based on the EQIA SMR.

¹⁹ High Speed Two Ltd (2018), *HS2 Phase 2b EqIA, Scope and Methodology Report, Consultation Summary Report*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/745641/HS2_Phase_2b_Working_Draft_EQIA_Scope_and_Methodology_Report_Consultation_Summary_Report.pdf.

Consultation on the working draft EQIA Report

- 3.2.8 Consultation on the working draft EQIA Report took place from October to December 2018. A parallel consultation on the working draft ES was also undertaken during this period. These consultations were relating to the full Phase 2b scheme (including both Eastern Leg and Western Leg). As part of the process of consultation, stakeholders were invited to comment on the full Phase 2b scheme, the working draft EQIA Report and the working draft ES. Documents were made available on the gov.uk website.
- 3.2.9 Information events were held in communities along both the Eastern and Western legs of the full Phase 2b scheme as part of the consultation.
- 3.2.10 Feedback from consultation was considered in the further development of the full Phase 2b scheme and the Proposed Scheme and taken into account in preparation of this EQIA Report that accompanies the Bill. A summary of these changes is provided in the Working Draft EQIA Consultation Summary Report²⁰.

Consultation on design refinements

Design Refinements 2019

- 3.2.11 Consultation on 11 proposed key design refinements to the full Phase 2b scheme took place from June to September 2019. Details of the proposed design refinements, along with supporting information such as visualisations and plan and profile maps, were made available in public locations and online at the gov.uk website.
- 3.2.12 As part of this process, stakeholders were invited to comment on the 11 key design refinements made to the full Phase 2b scheme since the working draft ES consultation. Information events were held in communities where the design refinements were proposed and directly affected stakeholders were invited to participate. Those directly affected by the proposals were written to and offered one-to-one meetings.
- 3.2.13 Feedback from the design refinement consultation was considered in the further development of the full Phase 2b scheme and relevant feedback to the Proposed Scheme taken into account in the preparation of this EQIA. A summary of how the responses received were considered in the development of the Proposed Scheme is outlined in the High Speed Two: Design Refinement Consultation Response²¹. This report relates to development of the Western Leg of the Proposed Scheme only.

²⁰ High Speed Two Ltd (2022), *HS2 Phase 2b Working Draft EQIA Consultation Summary Report*. Available online at: <https://www.gov.uk/hs2>.

²¹ High Speed Two Ltd (2020), *High Speed Two: Phase 2b Design Refinement Consultation*. Available online at: <https://www.gov.uk/government/consultations/hs2-phase-2b-western-leg-design-refinement-consultation>.

Design Refinements 2020

- 3.2.14 Consultation on further proposed key design refinements, in four geographical locations, to the Proposed Scheme took place between October 2020 and December 2020. Details of the proposed design refinements, along with supporting information such as visualisations and comparative construction and operational plans, were made available on the gov.uk website. The proposals were also made available at the hs2.org.uk website, where an interactive map and a virtual exhibition room provided alternative ways for people to access the information. Printed copies of the materials were sent free of charge following requests to the HS2 Helpdesk.
- 3.2.15 A series of 13 live webinars were held for people to view the proposals and ask questions about them. Those directly affected by the proposals were written to and offered virtual one-to-one meetings. Feedback from the design refinement consultation was considered in the further development of the Proposed Scheme and taken into account in the preparation of this EQIA.
- 3.2.16 A summary of the comments received is available at the gov.uk website.

3.3 Targeted engagement to inform the EQIA

The objectives of targeted engagement

- 3.3.1 The stakeholder engagement process for the EQIA has involved specific engagement with people with protected characteristics and other identified stakeholders about potential equality effects. The primary mechanism for this interaction has been through face-to-face meetings.
- 3.3.2 The key objectives of the EQIA stakeholder engagement process have been to:
- identify PCGs within LA areas;
 - identify facilities and services potentially affected by the construction or operation of the Proposed Scheme that may be used by people with protected characteristics;
 - engage with representatives of facilities and services so identified with a view to understanding their operation and use, including user profiles;
 - engage with people who share protected characteristics or representatives of PCGs to better understand how impacts arising from the construction and operation of the Proposed Scheme might affect those members of the community differently; and
 - consider potential mitigation.

Identifying stakeholders

- 3.3.3 Stakeholder mapping is a process that identifies the key stakeholders for any given project and how they can be most appropriately engaged. This process provides a proactive approach to identifying relevant stakeholders and appropriate mechanisms for engagement.

3.3.4 A stakeholder mapping exercise identified four different stakeholder groups to be engaged with for the EQIA:

- relevant public bodies such as the Equality and Human Rights Commission (EHRC), and other national and local organisations that support or represent people with protected characteristics;
- local authority officers who have responsibility for equality and diversity across their organisation along the route of the Proposed Scheme;
- parish councils along the route of the Proposed Scheme; and
- owners or operators of community resources that provide services to people with protected characteristics that are likely to experience equality effects.

Summary of targeted engagement

3.3.5 HS2 Ltd has engaged with over 30 organisations on the route of the Proposed Scheme whose users may potentially experience equality effects. The purpose of this was to help understand the needs of the PCGs that they serve and, where relevant, to identify measures to avoid or reduce the equality effects that could arise from the construction and operation of the Proposed Scheme.

3.3.6 Face to face meetings and/or workshops have been offered to all local authorities along the route of the Proposed Scheme specifically regarding the EQIA. Meetings have also been held with parish councils and other public, private and voluntary organisations that provide services, which may be impacted by the Proposed Scheme.

4 Baseline

4.1 Introduction

- 4.1.1 This section of the report presents a summary of baseline information that has been collected to establish, so far as reasonably practicable, the representation of people with protected characteristics in communities along the route of the Proposed Scheme and separately for the ORW sites.
- 4.1.2 The baseline considers the following protected characteristics, as defined in the Act: age, disability, race and religion or belief. It also considers deprivation in order to provide broader socio-economic context at a local level along the route of the Proposed Scheme and around the ORW sites. Data is presented at Lower Super Output Area (LSOA) level²².
- 4.1.3 Data for the protected characteristics of sex, sexual orientation, gender re-assignment or pregnancy and maternity have not been considered in the baseline, due to the absence of consistent national data sets. But these characteristics have been considered in, and informed, the assessment on a case-by-case basis; drawing upon evidence, where available, from relevant research literature (see Appendix E).
- 4.1.4 Data for the protected characteristic of marriage and civil partnership has not been collected. As explained in Section 1 of this report, only the first aim of the PSED applies to this characteristic, and only in relation to work. It is, therefore, considered outside the scope of this assessment.
- 4.1.5 A statistical test (called the standard deviation) has been applied to identify variation from the route-wide or regional average as a way of highlighting 'disproportionate' representation of PCGs (or PCG sub-groups) at LSOA level. LSOAs with a disproportionate representation of relevant PCGs are displayed in the EQIA Map Book.
- 4.1.6 Further details of the methodology used to collect and analyse the data for the baseline are provided in Annex A. Annex B presents summary data for the percentage of the population belonging to each population sub-group at the route-wide, regional and national level. Annex C presents summary data for the average percentage of population in individual racial sub-groups, for those LSOAs where they are disproportionately represented. Annex D lists those LSOAs with a disproportionate representation of residents from multiple PCGs.

²² An LSOA is a statistical unit used by the Office for National Statistics, including for the Census. Each LSOA comprises approximately 1,500 people and 650 households.

4.2 Baseline analysis - route wide

Deprivation

- 4.2.1 Those LSOAs along the route of the Proposed Scheme which fall within the 20% most deprived in England and Wales as measured by the Index of Multiple Deprivation (IoMD) 2019 are shown on Map EQ-03-301.
- 4.2.2 Across the eight community areas identified in Section 1 there are 229 LSOAs, of which 87 LSOAs are amongst the 20% most deprived areas in England and Wales.
- 4.2.3 These are located in the Manchester Piccadilly Station (4), Risley to Bamfurlong (4), Hulseheath to Manchester Airport (4), Hough to Walley's Green (11), Davenport Green to Ardwick (56) and Broomedge to Glazebrook (4) areas. An additional four LSOAs are located on the border of Manchester Piccadilly Station and Davenport Green to Ardwick areas and a further four LSOAs are located on the border of Hulseheath to Manchester Airport and Davenport Green to Ardwick areas.

Age

- 4.2.4 In 2011, 12 of the LSOAs within 1km of the route had a disproportionate representation of residents aged 0 to 15, in comparison to the route-wide and/or regional averages. These LSOAs are located in the Hough to Walley's Green (3), Davenport Green to Ardwick (7) and Broomedge to Glazebrook (2) community areas, as shown in Map EQ-08-301.
- 4.2.5 Overall, 40 LSOAs had a disproportionate representation of residents aged 16 to 24, in comparison to the route and/or regional averages. Thirty-eight are located within the community areas of: Manchester Piccadilly Station (13), Davenport Green to Ardwick (24) and Hough to Walley's Green (1) and an additional two are located on the border of Manchester Piccadilly Station and Davenport Green to Ardwick areas as shown on Map EQ-09-301.
- 4.2.6 A total of 28 LSOAs had a disproportionate representation of residents in the 65-84 age category in comparison to the route-wide and/or regional averages. Twenty of these are located in the community areas of: Risley to Bamfurlong (9), Hulseheath to Manchester Airport (3), Hough to Walley's Green (6), Wimboldsley to Lostock Gralam (1) and Pickmere to Agden and Hulseheath (1). An additional eight, are located on the border of two or more community areas as shown on Map EQ-10-301.
- 4.2.7 In the 85 years and over age category, a total of 15 LSOAs had a disproportionate representation of older residents, in comparison to the route-wide and/or regional averages. Fourteen of these are located in the community areas of: Hough to Walley's Green (5) Hulseheath to Manchester Airport (3), Wimboldsley to Lostock Gralam (3), Davenport Green to Ardwick (2), Risley to Bamfurlong (1) and an additional one is located on the border between three community areas (Broomedge to Glazebrook, Pickmere to Agden and Hulseheath, and Hulseheath to Manchester Airport) as shown on Map EQ-11-301.

Disability

- 4.2.8 In 2011, five LSOAs had a disproportionate representation of residents whose day-to-day activities were limited 'a lot' by a health problem or disability which lasted or was expected to last for more than 12 months²³. These are located in the community areas of Risley to Bamfurlong (2), Manchester Piccadilly Station (2) and Davenport Green to Ardwick (1), as shown in Map EQ-12-301.

Race

- 4.2.9 In total, 62 LSOAs had a disproportionate representation of residents of 'Mixed ethnicity'. Fifty-four of these are located within the community areas of: Davenport Green to Ardwick (50) and Manchester Piccadilly Station (4). An additional eight are, located on the border between the Manchester Piccadilly Station and Davenport Green to Ardwick areas (6) and the Hulseheath to Manchester Airport and Davenport Green to Ardwick areas (2) as shown on Map EQ-14-301.
- 4.2.10 There were a total of 21 LSOAs with a disproportionate representation of residents of 'Asian/Asian British ethnicity' when compared to the route-wide and/or regional averages. Twenty of these are located in the community areas of Manchester Piccadilly Station (2) and Davenport Green to Ardwick (18). One additional LSOA, is located on the border between the Manchester Piccadilly Station and Davenport Green to Ardwick areas, as shown on Map EQ-15-301.
- 4.2.11 Overall, 35 LSOAs, showed a disproportionate representation of residents of 'Black ethnicity' when compared to the route-wide and/or regional averages. Twenty-nine of these are located in the community areas of Manchester Piccadilly Station (3) and Davenport Green to Ardwick (26). An additional six are located on the border between the Manchester Piccadilly Station and Davenport Green to Ardwick areas as shown on Map EQ-16-301.
- 4.2.12 A total 46 LSOAs, had a disproportionate representation of residents of 'Other ethnicity' when compared to the route-wide and/or regional averages. Of these, 41 are located in the community areas of Davenport Green to Ardwick (32), Manchester Piccadilly Station (8) and Hulseheath to Manchester Airport (1). An additional five LSOAs, are located on the border between the Manchester Piccadilly Station and Davenport Green to Ardwick areas (4) and the Hulseheath to Manchester Airport and Davenport Green to Ardwick areas (1). These are shown on Map EQ-17-301.

²³ This is based on Census data for long-term health problem or disability, which provides a measure of the number of adults in England and Wales with a long-term health problem or disability which limits their day-to-day activities 'a little' or 'a lot'.

Religion or belief

- 4.2.13 In 2011, 21 LSOAs contained a disproportionate representation of residents with Muslim beliefs. The majority of these (20) are located in the Davenport Green to Ardwick area and the remaining LSOA is located on the border between the Manchester Piccadilly Station and Davenport Green to Ardwick areas, as shown in Map EQ-06-301.
- 4.2.14 Six LSOAs had a disproportionate representation of residents with Jewish beliefs, in comparison to the route-wide and/or regional averages. Five of these are located in the Davenport Green to Ardwick (1) and Hulseheath to Manchester Airport (4) areas. One is located on the border between the Hulseheath to Manchester Airport and Pickmere to Agden and Hulseheath areas. These are shown on Map EQ-05-301.
- 4.2.15 Twelve LSOAs contained a disproportionate representation of residents with Hindu beliefs. Ten of these are located in the Davenport Green to Ardwick (7), Manchester Piccadilly Station (2) and Hulseheath to Manchester Airport (1) areas. The remaining two are located on the border between the Manchester Piccadilly Station and Davenport Green to Ardwick areas. These are shown on Map EQ-04-301.
- 4.2.16 Six LSOAs had a disproportionate representation of residents with Buddhist beliefs when compared to the route-wide and/or regional average. Four of these are located in the Manchester Piccadilly Station area, one is located in the Davenport Green to Ardwick area and one on the border between the Manchester Piccadilly Station and Davenport Green to Ardwick areas. These are shown on Map EQ-03-301.
- 4.2.17 There are no LSOAs within 1km of the route of the Proposed Scheme which had a disproportionate representation of residents with Christian or Sikh beliefs, and therefore, no maps have been produced for these sub-groups.

Coincidence of multiple PCGs

- 4.2.18 Annex D of this report identifies the LSOAs in which there was a disproportionate representation of three or more PCGs. Table 10 in Annex D of this report also gives a further breakdown of the sub-groups within each PCG.
- 4.2.19 In total, there were 44 LSOAs containing a disproportionate representation of three or more PCGs. The majority (31) are located in the community area of Davenport Green to Ardwick with seven located in the Manchester Piccadilly Station area and two located in the Hulseheath to Manchester Airport area. The remaining four are located on the border between the Manchester Piccadilly Station and Davenport Green to Ardwick areas as shown on Map EQ-18-301. Further information is provided in Annex D of this report.

Summary

4.2.20 Baseline data is presented in detail in Annex B. A summary of the data comparing route-wide and national averages for the four PCGs (age, race, disability, religion or belief) is provided in Table 1.

Table 1: Summary of route-wide data in Annex B

Category	Data
Proportion of the total population in 2011 ²⁴ that fell into each of the relevant age groups, at the route-wide, and national level	Route-wide, 18.2% of the population were aged between 0 and 15 (consistent with the national average of 18.9%), and 19.5% were aged between 16 and 24 (compared with 11.9% nationally). Among older groups, 10.2% were aged between 65 and 84 (compared with the national average of 14.1%), while 1.5% were aged 85 and over (compared with 2.2% nationally).
Average population with a long-term limiting illness at the route-wide and national level	Route-wide, 8.4% of the population reported that their day to day activities were limited 'a lot' by a health problem or a disability which had lasted or was expected to last for more than 12 months. This compares with the national average of 8.3%.
Average population in each of the relevant ethnic sub-groups at the route-wide and national level	Route-wide, 78.7% of the population were White, below the national figure of 85.4%. All the main ethnic sub-groups (Black, Asian/Asian British, Mixed and Other) had higher average representation along the route than nationally.
Average population by religion, at the route-wide and national level	Less than 1% of people route-wide had Buddhist, Jewish or Sikh beliefs. Route-wide, 9.9% of the population were Muslim, compared with the national average of 4.9%.

4.3 Baseline analysis - off route works

4.3.1 This section presents a summary of the baseline information for the ORW sites at Preston, Carlisle and Annandale. As the ORW sites are remote from the route of the Proposed Scheme, the standard deviation has been applied to identify variation from the regional averages only. The two English ORW sites, Preston and Carlisle, are assessed against the North West England average; the Scottish ORW site, Annandale, has been assessed against Dumfries and Galloway average. The LSOAs within 1km of the ORW sites are assessed and those with a disproportionate representation of the relevant PCGs are displayed in Map EQ-19-302 for Carlisle and Map EQ-19-303 for Preston. Annandale does not have a disproportionate representation of the relevant PCGs nor any areas which fall within the 20% most deprived in Scotland. Therefore, a baseline map has not been produced for Annandale.

²⁴ Data is taken from the ONS Census 2011. The next census is due to take place in March 2021, with the first data expected to be released within the following year.

Deprivation

- 4.3.2 Across the two English ORW sites identified above there are 30 LSOAs, of which 12 are amongst the 20% most deprived in North West England. Nine are located around the Preston ORW site and three around the Carlisle ORW site.
- 4.3.3 There is one LSOA within 1km of the Annandale ORW site and it is not within the 20% most deprived areas in Dumfries and Galloway.

Age

- 4.3.4 None of the LSOAs around the ORW sites has a disproportionate representation of residents aged 0 to 15 and 64-84 in comparison with their respective regional averages. Four of the LSOAs around the Preston ORW site had a disproportionate representation of residents aged 16-24. Two of the LSOAs around the Carlisle ORW site had a disproportionate representation of residents aged 85 years and over.

Disability

- 4.3.5 None of the LSOAs around the ORW sites has a disproportionate representation of residents whose day-to-day activities were limited 'a lot' by a health problem or disability which lasted or was expected to last for more than 12 months²⁵ in comparison with their respective regional averages.

Race

- 4.3.6 None of the LSOAs around the ORW sites has a disproportionate representation of residents of 'Mixed Ethnicity', 'Asian/Asian British ethnicity', 'Black ethnicity' and 'Other ethnicity' in comparison with their respective regional averages.

Religion or belief

- 4.3.7 None of the LSOAs around the ORW sites has a disproportionate representation of residents with Buddhist, Jewish or Sikh beliefs. Of the LSOAs assessed around the Preston ORW site, six have a disproportionate representation of residents with Hindu beliefs and one has a disproportionate representation of residents with Muslim beliefs in comparison with the North West England average.

²⁵ This is based on Census data for long-term health problem or disability, which provides a measure of the number of adults in England and Wales with a long-term health problem or disability which limits their day-to-day activities 'a little' or 'a lot'.

Coincidence of multiple PCGs

- 4.3.8 None of the LSOAs assessed around the ORW sites has a disproportionate representation of three or more PCGs.

5 Route-wide assessment

5.1 Introduction

- 5.1.1 This section of the report provides a summary of the potential route-wide equality effects of the Proposed Scheme during construction and operation. It also sets out general measures that will serve to reduce negative equality effects or enhance potential positive equality effects. The assessment assumes the timely delivery of these measures during construction and once the Proposed Scheme becomes operational.

5.2 General measures to mitigate potential equality effects

- 5.2.1 A range of general measures have been put in place, which will serve to reduce potential negative equality effects and support the delivery of potential positive equality effects of the Proposed Scheme during construction and operation, including, for example, training and apprenticeship schemes. A set of Phase 2b Western Leg Information Papers have been published alongside the hybrid Bill. These are referred to throughout this section where relevant.

Environmental Minimum Requirements

- 5.2.2 As with Phase One and Phase 2a, the Secretary of State will establish a set of environmental controls known as the Environmental Minimum Requirements (EMR), which will include a Code of Construction Practice (CoCP), as well as policies setting out the approach to managing specific aspects of the Proposed Scheme, such as land acquisition and disposal, noise mitigation and property compensation arrangements; and any undertakings and assurances given to petitioners and to Parliament during the passage of the hybrid Bill. The EMR documents are finalised at Royal Assent. The nominated undertaker will be responsible for implementing them.

Draft Code of Construction Practice

- 5.2.3 The draft CoCP (see Volume 5: Appendix CT-002-00000), sets out measures to provide effective planning, management and control of environmental issues and issues affecting people during construction. In addition, a Local Environmental Management Plan (LEMP) will be produced for each local authority area. The CoCP and LEMP will be the means of managing the construction works associated with the Proposed Scheme, and will set out monitoring requirements, with the objective of ensuring that the effects of the works on people and the natural environment are reduced as far as reasonably practicable.
- 5.2.4 The draft CoCP uses the term 'nominated undertaker' to describe the body or bodies that will be appointed, in due course, to construct and maintain the Proposed Scheme. As

required in the draft CoCP, the nominated undertaker and its contractors will produce and implement a Community Engagement Framework and provide appropriately experienced community relations personnel to implement it, to provide appropriate information and to be the first point of contact to resolve community issues. The community engagement framework will sit under the HS2 Ltd Community Engagement Strategy which is applicable to all phases of HS2²⁶.

- 5.2.5 HS2 Ltd and the nominated undertaker will take appropriate steps to engage with the community, particularly focusing on those who may be affected by construction impacts, including local residents, businesses, landowners and community resources, and giving due regard to best practice regarding equality and inclusivity.
- 5.2.6 The nominated undertaker will maintain a construction operations website, as HS2 Ltd has for Phase One²⁷, (which will include an email function or the latest communication technique) and telephone helpline staffed 24 hours a day, seven days a week, to handle enquiries from the general public and local businesses regarding construction activities. It will also act as a first point of contact for information in case of any emergency or an incident. The helpline will be widely promoted and displayed on site signboards and hoardings. It will also be possible to contact the HS2 helpline service via the HS2 website email function. Information for the public will also be provided using other methods (for example social media, email alerts, local radio and newspapers), as appropriate. The service will also be made available in different languages and alternative formats, on a case-by-case basis as appropriate, by the nominated undertaker.
- 5.2.7 The nominated undertaker and its contractors will ensure that local residents, occupiers, businesses, local authorities and parish councils affected by the proposed construction works will be informed in advance of works taking place by methods identified in the community engagement framework.

Advocacy and support

- 5.2.8 HS2 Ltd has an advocacy and support service for people who need extra support, operated by an independent provider. For example, the service can help people understand HS2 Ltd documentation or literature, respond to HS2 Ltd, or complete paperwork. The service has continued to operate throughout the Covid-19 pandemic. This means that those already referred to the service have still been supported, and new referrals have still been made. The service can be accessed via the HS2 helpdesk.

²⁶ High Speed Two Ltd, *Community Engagement Strategy*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/773683/HS2_Community_Engagement_Strategy_FULL_HiRes_WEB.pdf.

²⁷ High Speed Two Ltd, *In your area*. Available online at: <https://www.hs2.org.uk/in-your-area/>.

Residential property compensation and assistance schemes

- 5.2.9 People whose properties have to be acquired for construction of the Proposed Scheme will be eligible for compensation in line with the provisions of the Compensation Code ('the Code').
- 5.2.10 The Compensation Code is the collective term for the principles derived from both statute and case law, relating to compensation for compulsory acquisition. It ensures that when land is needed to build an infrastructure project, the owners receive compensation for the market value of the land or property compulsorily acquired plus disturbance costs which can cover the moving costs together with special adaptation costs to help them to move to an equivalent residential property or to relocate a business. The Code also ensures landowners that who experience physical effects from a scheme once it has been in operation for one year are entitled to claim compensation in line with the decrease in the value of their land, for example from vibration or noise effects.
- 5.2.11 In addition, and as for HS2 Phase One and Phase 2a, the Government has developed a package of non-statutory property schemes, which go above and beyond the Code. In July 2017, it was announced that the Government will implement long-term property compensation and assistance schemes for Phase 2b, based upon schemes already in place for Phase One and Phase 2a. These include express purchase, a need to sell scheme, rent back, and an extended homeowner protection zone to safeguard properties where changes to the route occur. The compensation and assistance schemes allow owners to use local valuers in assessing the value of their house²⁸. Eligibility for these schemes depends on the location of the affected property. Further information can be found through the gov.uk website²⁹.
- 5.2.12 Further measures have been implemented in rural areas. The rural support zone (RSZ) is the area that starts at the outer border of safeguarding and stops 120 metres from the centre of the HS2 railway in rural areas. The Phase 2b RSZ, as originally announced, ran from the connection with Phase 2a south of Crewe to the M56 junction 5 Manchester Airport and to the connection with the WCML at Bamfurlong. The RSZ for Phase 2b was extended in 2017 to areas north of Crewe, as set out in the Government's July 2017 Property Consultation

²⁸ High Speed Two Ltd, Need to Sell scheme: Guidance notes and frequently asked questions. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/717018/Need_to_Sell_scheme_-_Guidance_-_CS954a1_FINAL_1_.pdf.

²⁹ High Speed Two Ltd, Property Schemes: Guide to HS2 property schemes, Phase 2b. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/629740/HS2_phase_2b_property_schemes_guidance.pdf.

Response³⁰. Further information about the RSZ for Phase 2b, including eligibility criteria and how to apply, is available through the gov.uk website³¹.

- 5.2.13 Following Royal Assent of the hybrid Bill for the Proposed Scheme, a Homeowner Payment scheme will be implemented as is currently in place on Phase One and Phase 2a. The Homeowner Payment scheme is for owner-occupiers of rural properties near the line of the route. The scheme provides for payments to homeowners, dependent upon the distance from the route. HS2 Ltd will contact people living in eligible areas when the scheme is available.
- 5.2.14 The Government recognises that there may be some residents and businesses near the HS2 route who need assistance despite not meeting the eligibility requirements of the HS2 property schemes. The non-statutory property compensation package therefore includes provision for atypical properties or special circumstances which allows wider consideration to be given to an applicant's circumstances, including health and mobility, and the suitability of their current property. Further information is available through the gov.uk website³².

Community facilities and public open spaces

- 5.2.15 The nominated undertaker will be required to provide information on public open space changes, including closures, through community liaison officers and in accordance with the measures contained within the draft CoCP.
- 5.2.16 The nominated undertaker will be required to maintain, where reasonably practicable, public rights of way (PRoW), including diversions, for pedestrians, cyclists and equestrians affected by the Proposed Scheme. Where reasonably practicable, this will include reasonable adjustments to maintain existing inclusive access or achieve new inclusive access measures. The nominated undertaker will install appropriate signage to communicate all temporary and permanent diversions of PRoW to the local community.
- 5.2.17 On completion of construction works in a particular location, the nominated undertaker will be required to reinstate public open spaces that had been occupied temporarily during construction. In cases where replacement facilities are to be provided, this will involve

³⁰ High Speed Two Ltd, *High Speed Two Phase 2b: Crewe to Manchester, West Midlands to Leeds and beyond – Property Consultation Response*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/629394/high-speed-two-phase-2b-crewe-to-manchester-west-midlands-to-leeds-and-beyond-property-consultation-response-web-version.pdf.

³¹ High Speed Two Ltd, *Property schemes: Rural support zone, Guidance and application form*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877835/DIGITAL_CS_RSZ_GuidanceApForm.pdf.

³² High Speed Two Ltd, *Property Schemes: Guide to HS2 property schemes, Phase 2b*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/629740/HS2_phase_2b_property_schemes_guidance.pdf.

working with third parties, including relevant local authorities and community groups, to facilitate delivery.

- 5.2.18 The draft CoCP includes additional provisions relating to construction activity near schools including, where reasonably practicable, the avoidance of heavy goods vehicles (HGVs) operating adjacent to schools during drop off and pick up periods.

Businesses and employment

- 5.2.19 Businesses displaced by the Proposed Scheme will be eligible for compensation in line with the provisions of the Code. HS2 Ltd recognises the importance of displaced businesses being able to relocate to alternative premises. The policy to provide additional support to facilitate this is set out in Phase 2b Western Leg Information Paper C7: Business relocation³³.
- 5.2.20 HS2 Ltd has seven strategic goals³⁴, including skills, employment and education (SEE). The HS2 Ltd Skills, Employment and Education Strategy³⁵, which was published in autumn 2018 sets out how these goals will be delivered. The Strategy's aims extend through the supply chain using procurement and contractual requirements. All major contracts will contain contractual requirements to provide SEE outputs, including apprenticeships, workless job starts³⁶ and schools' engagement. These requirements have the potential to identify and provide opportunities to workless people and members of PCGs who are more likely to experience employment-related disadvantage.
- 5.2.21 HS2 launched a Job Brokerage³⁷ service in January 2021 and an EQIA was undertaken as part of its development. The EQIA sets out how the new service will deliver on its primary aim of creating pathways into employment for people from disadvantaged and under-represented groups, including members of PCGs.
- 5.2.22 For each relevant contract, HS2 Ltd will set EDI requirements. These requirements have the potential to be positive for equality. Contract bids will be evaluated against a range of EDI criteria. Potential contractors will be encouraged to adjust recruitment models and criteria where barriers to equality are identified and will be required to monitor aspects of EDI, including recruitment and retention, to inform targeted efforts to address under-representation.

³³ High Speed Two Ltd (2022), *Phase 2b Western Leg Information Paper C7: Business relocation*.

³⁴ High Speed Two Ltd has seven strategic goals as defined in the strategic case which is available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/629393/high-speed-two-phase-two-strategic-case.pdf.

³⁵ Further information is available online via the HS2 Ltd website: <https://www.gov.uk/government/organisations/high-speed-two-limited>.

³⁶ This refers to jobs that are taken up by people who were previously out of work.

³⁷ High Speed Two Ltd, *Careers with our supply chain*. Available online at: <https://www.hs2.org.uk/careers-with-our-supply-chain/>.

- 5.2.23 The SEE requirements and the procurement strategy identify appropriate positive actions, to the extent permitted by the Act, to promote equal opportunities in the construction sector. This will contribute to the promotion of equal opportunity for groups of people with protected characteristics, building on existing initiatives within the construction industry and lessons learned from comparable major schemes, including the London 2012 Olympic Park and Crossrail (the Elizabeth line). Children in low-income households where adults benefit from new employment will also potentially benefit, as a result of increased household income.
- 5.2.24 HS2 Ltd has committed to providing a minimum of 2,000 apprenticeships over the lifetime of the entire project³⁸, (which includes Phase One, Phase 2a and Phase 2b). The vast majority of these apprenticeships will be delivered through the supply chain across a wide range of trades and professions from construction to accountancy, quantity surveying to business administration. HS2 Ltd also runs a graduate recruitment programme, and in 2020 employed 21 new graduates in its Birmingham and London-based teams.

Crime, safety and personal security

- 5.2.25 General measures set out in the draft CoCP will contribute to addressing concerns about personal security and reducing risks of crime and anti-social behaviour associated with construction activities. These measures will reduce risk that members of PCGs will experience differential effects in terms of heightened concern or actual vulnerability to greater risks of crime or anti-social behaviour associated with the presence of construction activities.
- 5.2.26 During construction footways of adequate width to facilitate pedestrian flows will be provided, where reasonably practicable, including signs to facilitate safe access around the site boundary. Where appropriate, construction site boundaries will be lit and illumination will be sufficient to provide a safe route for the public to use. Precautions will be taken to avoid shadows cast by site hoardings on surrounding footpaths, roads and amenity areas.
- 5.2.27 Communication initiatives for local schools will be introduced to warn of the dangers of construction sites. Consultation with neighbours and local crime prevention officers with regard to on site security matters will also be undertaken.
- 5.2.28 Fencing and hoardings will be maintained to prevent unwanted access to construction sites. Site information boards will be provided with out-of-hours contact details, 24-hour telephone numbers, community information and information on the works programme. Notices will be displayed on site boundaries to warn of hazards on site, such as construction access.

³⁸ As stated in the HS2 corporate plan:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/629028/HS2_Corporate_Plan_2017-2020_Online_interactive.pdf.

- 5.2.29 Clear sight lines will be maintained around hoardings and fencing with no hidden corners in order to avoid, where reasonably practicable, opportunities for anti-social behaviour and crime.

Traffic, transport and accessibility

- 5.2.30 In the design and construction of the Proposed Scheme, the nominated undertaker will be required to comply with all relevant accessibility requirements set out in the DfT Design Standards for Accessible Railway Stations³⁹, and the Design Manual for Roads and Bridges⁴⁰.
- 5.2.31 HS2 Phase 2b Western Leg Information Paper D6: Inclusive design policy⁴¹ outlines the approach to inclusive design. The approach will apply to all publicly accessible elements of the HS2 rail network, including stations. HS2 Ltd's objective is to design and provide a service that can be used safely, independently, easily and with dignity by everyone.
- 5.2.32 The design will comply with the European Railway Agency's Persons of Reduced Mobility Technical Specification for Interoperability (PRM TSI), which sets standards for accessible trains, stations and other facilities, and with applicable UK standards. Station design will be considered at detailed design stage as part of the ongoing discharge of the Public Sector Equality Duty.
- 5.2.33 The draft CoCP sets out various mitigation measures to reduce the impact of construction traffic. These include:
- traffic management measures and plans, which will be prepared in consultation with the highway authorities and emergency services, where required;
 - an approach to reduce the impacts of temporary road and PRoW closures or disruption to railways or navigable waterways;
 - use of internal site haul routes for construction vehicles to reduce the need to use public roads;
 - workplace travel plans to reduce employee movements to/from construction sites and compounds;
 - various management procedures intended to reduce the impact of construction traffic; and
 - agreed routes for construction vehicles (HGVs), keeping to the main road network (e.g. motorways and strategic trunk roads and other 'A' roads).

³⁹ Department for Transport and Transport Scotland (2015), *Design Standards for Accessible Railway Stations*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/425977/design-standards-accessible-stations.pdf.

⁴⁰ Highways Agency (2021), *Design Manual for Roads and Bridges*. Available online at: <http://www.standardsforhighways.vo.uk/dmrb>.

⁴¹ High Speed Two Ltd (2022), *Phase 2b Western Leg Information Paper D6: Inclusive design policy*.

Equality Impact Assessment Report

- 5.2.34 Traffic management mitigation to be used during construction and utility works may include temporary lane closures, junction signal retiming, temporary traffic signals, reduced lane widths and overnight/weekend (instead of daytime/weekday) road closures. Traffic diversions will be provided where temporary road closures are required. New highway crossings of the Proposed Scheme will be built offline, where reasonably practicable, so that they can be completed prior to closure of the existing road. This will avoid or substantially reduce disruption to road users. A diversionary route will be identified for bus routes affected by temporary road closures and temporary bus stops provided at appropriate locations.
- 5.2.35 Where reasonably practicable, PRow (including diversions) will be maintained for pedestrians, cyclists and equestrians affected by the Proposed Scheme, including reasonable adjustments to maintain or to achieve inclusive access.
- 5.2.36 Where reasonably practicable, inclusive access (including for people with reduced mobility) will be maintained to services and buildings where they have been temporarily disrupted during the work.
- 5.2.37 Where the normal means of access has to be diverted or blocked off, alternative safe routes for people with restricted mobility will be identified, taking into account existing hazards and obstructions such as pavement kerbs and street lighting standards.
- 5.2.38 Where a need is identified (e.g. through stakeholder engagement with relevant local organisations or community liaison processes), HS2 Ltd will review access and routes. These reviews will indicate where additional measures or reasonable adjustments may be required for the purposes of ensuring accessibility for disabled people or those with reduced mobility.
- 5.2.39 The draft CoCP and route-wide traffic management plan (RTMP) will make provision for measures, including engagement with 'vulnerable' road users (including pedestrians, motorcyclists, cyclists and equestrians), to reduce impacts from construction activities and ensure the safety of road users during traffic management and temporary traffic control measures. Local traffic management plans will include measures to address road safety and reduce the risks to pedestrians and other road users from construction vehicles on the roads.
- 5.2.40 Specific measures will be included in the LEMP that outline steps to ensure the safety of other road users, including pedestrians and cyclists, giving particular attention to providing signage and identifying safe places to cross roads especially where the needs of PCGs require special attention, including those identified in the EQIA.
- 5.2.41 The draft CoCP includes measures that seek to reduce the impacts and effects of deliveries of construction materials and equipment, including reducing construction HGV trips during peak background traffic periods. The draft CoCP also includes clear controls on vehicle types, hours of site operation and routes for HGVs to reduce the impact of road-based construction traffic. Generic and site-specific traffic management measures will be implemented.

- 5.2.42 Where reasonably practicable, the number of private car trips to and from the site (both workforce and visitors) will be reduced by encouraging alternative modes of transport or vehicle sharing. Site haul routes will be provided through the land required for the Proposed Scheme, which will reduce the numbers of construction vehicles having to use public roads to access the works. Overnight accommodation for construction staff will be provided at a number of compounds. This accommodation will help to reduce daily travel for those workers not normally based locally.
- 5.2.43 Together these measures will reduce the incidence of severance effects associated with construction traffic, which may have a differential effect on vulnerable road users, including children, older people and disabled people.

Noise

- 5.2.44 Construction noise and vibration will be controlled and managed in accordance with the draft CoCP. As set out in HS2 Phase 2b Western Leg Information Paper E13: Control of construction noise and vibration⁴², households affected by noise during construction may also be eligible for noise insulation or temporary re-housing. The nominated undertaker will consider, on a case-by-case basis, applicants who may not be eligible for noise insulation or temporary re-housing according to the criteria in the policy but who nevertheless have special circumstances, supported by evidence, making it appropriate for the nominated undertaker to provide noise insulation or temporary rehousing as a result of construction noise (airborne or ground borne) or vibration.
- 5.2.45 An example of special circumstances would be where an occupant has a medical condition that will be seriously aggravated by construction noise. Those with a medical condition that has a substantial and long-term adverse effect on that person's ability to carry out normal day-to-day activities are protected under the Act.
- 5.2.46 Buildings qualifying for noise insulation or residents qualifying for temporary re-housing will be identified as early as possible with a view to installing noise insulation, or providing temporary re-housing, before the start of the works predicted to exceed noise insulation or temporary re-housing criteria, subject to all necessary approvals being obtained.
- 5.2.47 A prolonged disruption compensation scheme will be in place for those particularly affected by construction works during the building of the Proposed Scheme. The scheme will enable people who would be eligible to be temporarily re-housed to request to receive cash compensation to stay in their home. In special circumstances, it will also give owner-occupiers of residential dwellings and other buildings the option of requiring the Secretary of State to purchase their property⁴³.

⁴² High Speed Two Ltd (2022), *Phase 2b Western Leg Information Paper E13: Control of construction noise and vibration*.

⁴³ High Speed Two Ltd (2022), *Phase 2b Western Leg Information Paper E13: Control of construction noise and vibration*.

- 5.2.48 The development of the Proposed Scheme alignment and design has sought to reduce noise impact as far as reasonably practicable. Through the procurement process for the trains and the track, the use of proven international technology will enable the railway to be quieter than implied by current minimum UK and European standards. In addition, the Proposed Scheme will incorporate noise barriers, in the form of landscape earthworks and/or noise fence barriers to avoid or reduce significant airborne noise effects. Significant noise effects from the operational static sources such as line-side equipment will be avoided through their design and the specification of noise emission requirements.

Air quality

- 5.2.49 Emissions to the atmosphere will be controlled and managed during construction through the route-wide implementation of the CoCP. The draft CoCP includes a range of mitigation measures that are considered generally sufficient to avoid any significant effects from dust during construction.

5.3 Potential effects during construction

- 5.3.1 This section reports on potential differential and disproportionate equality effects that may arise along the route of the Proposed Scheme, including the ORW areas, during construction. Environmental effects referred to in this section are drawn from the ES, and further information can be found in the Volume 2 Community Area reports.
- 5.3.2 Specific equality effects, where the protected characteristics of those people affected are known, are reported separately in the relevant community area assessments in sections 6 to 13 of this report.

Residential properties and care homes

Loss of resource

- 5.3.3 There will be some loss of housing in various locations along the route of the Proposed Scheme. Displaced occupiers of market housing⁴⁴ will be eligible for compensation in accordance with the Code and may be eligible for the non-statutory property compensation schemes outlined above. The EQIA does not assess the impact of the Proposed Scheme on occupiers of individual dwellings.
- 5.3.4 In areas where a substantial proportion of housing will be lost or where there is a relatively high level of housing deprivation, there is the potential for a differential and disproportionate effect on older people, disabled people, or children and young people, who

⁴⁴ Market housing is defined as private housing for rent or sale where the price is set in the open market.

may be more likely to experience or be at higher risk of housing-related disadvantage^{45 46 47}. Where resident in affected properties, these groups may be more sensitive to emotional distress and anxieties associated with relocation and the loss of existing social ties, particularly if they are unable to find suitable alternative accommodation nearby.

Visual

- 5.3.5 Visual effects have the potential to affect residents who have particular needs or sensitivities to change in the visual environment. There may be the potential for these impacts to result in differential effects for people with conditions such as autism and dementia.
- 5.3.6 Residents of the Bentley Manor Care Home, Crewe (Hough to Walley's Green, MA01) and Lostock Lodge Care Home, Lostock Gralam (Wimboldsley to Lostock Gralam, MA02) may experience differential visual effects from the construction of the Proposed Scheme.
- 5.3.7 Assessment of the specific equality effects arising from the construction of the Proposed Scheme for residents of these care homes are provided in sections 6 and 7 of this report.

Construction noise and vibration

- 5.3.8 The ES reports that people living close to the route of the Proposed Scheme may experience significant noise effects due to a change in the acoustic environment during construction of the Proposed Scheme. Within the demographic potentially affected, there may be people who are more sensitive to noise and/or vibration.
- 5.3.9 Residents of Bentley Manor Care Home, Crewe (Hough to Walley's Green, MA01) may experience disproportionate and differential effects as a result of construction vibration. An assessment of the specific equality effects arising from the construction of the Proposed Scheme for residents of this resource is provided in Section 6 of this report.

Traffic-related severance

- 5.3.10 Construction traffic using local roads to access compounds and worksites may increase severance effects for non-motorised users, such as difficulties crossing some roads. This may give rise to differential effects on people with protected characteristics who may be

⁴⁵ Homeless Link (2016), *Young and Homeless 2015*. Available online at:

<http://www.homeless.org.uk/sites/default/files/siteattachments/201512%20-%20Young%20and%20Homeless%20-%20Full%20Report.pdf>.

⁴⁶ Department for Work and Pensions (2015), *Households below average income, 2013/2014: supporting data tables*. Available online at:

<https://www.gov.uk/government/statistics/households-below-average-income-19941995-to-20132014>.

⁴⁷ Department for Communities and Local Government (2015), *English housing survey, households, 2013-2014*. Available online at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/461439/EHS_Households_2013-14.pdf.

more likely to experience difficulty crossing busier roads, such as children, older people, disabled people, pregnant women and women with babies up to six months.

- 5.3.11 Residential care homes whose residents may experience differential effects from the increases in traffic on adjacent roads, due to the construction of the Proposed Scheme will be:
- Acorn Hollow Care Home (Wimboldsley to Lostock Gralam, MA02);
 - Avandale Lodge Care Home (Wimboldsley to Lostock Gralam, MA02);
 - Crossways Care Home (Wimboldsley to Lostock Gralam, MA02);
 - Lostock Lodge Care Home ((Wimboldsley to Lostock Gralam, MA02);
 - Victoria Nursing Home (Davenport Green to Ardwick, MA07); and
 - Mary and Joseph House (Davenport Green to Ardwick, MA07).
- 5.3.12 In some rural locations along the route of the Proposed Scheme individual residential properties and small groups of residential properties may be affected by isolation due to road closures and/or lengthy diversion or delay to local journeys, or the physical presence of the Proposed Scheme. The EQIA does not assess the impact of the Proposed Scheme on individual residential properties.

Schools and educational facilities

Loss of facilities and services

- 5.3.13 The construction of the Proposed Scheme will require acquisition of land, which will result in the loss of the following schools and educational facilities:
- Fairfield Farm Project, Higher Thorns Green Farm (Hulseheath to Manchester Airport, MA06); and
 - SOL Christian Academy (Manchester Piccadilly Station, MA08).
- 5.3.14 The Fairfield Farm Project provides training for children, young people and adults. A detailed assessment of the equality effects arising from the loss of this resource is provided in Section 11 of this report.
- 5.3.15 A small area of land will also be acquired at Lowton Junior and Infant School, in the Risley to Bamfurlong area (MA05). The potential disproportionate and differential equality effects on children resulting from the loss of land at the school, in combination with other construction effects, are reported in Section 10 of this report.
- 5.3.16 Construction of the Proposed Scheme will result in the permanent loss of parking spaces at Fallowfield Retail Park which are used for an informal 'park and stride' scheme to access nearby Birchfields Primary School and Manchester Enterprise Academy Central secondary school, in the Davenport Green to Ardwick area (MA07). If the 'park and stride' scheme is still operational when construction work commences on this site, at this stage it is unclear what the equality effect(s) might be. HS2 Ltd will work with the schools to monitor the impacts of

the loss of parking spaces on travel behaviour for students at these schools and identify measures that would help to mitigate identified equality effects.

Construction noise and vibration

- 5.3.17 The learning environment at a number of schools and educational facilities close to construction worksites may be subject to construction noise effects for varying durations. Increased noise levels during construction may give rise to differential and disproportionate effects for children and young people engaging in indoor or outdoor learning at affected facilities. Children, in particular younger children, are considered to be more sensitive than adults to increased noise levels which may affect their concentration and ability to learn, with implications for educational attainment.
- 5.3.18 HS2 Ltd will continue to seek reasonably practicable measures to further reduce, in accordance with the draft CoCP, effects on schools as a result of construction noise. In doing so, the nominated undertaker will work closely with local education authorities and individual schools.
- 5.3.19 Educational facilities whose users may experience disproportionate and differential effects from noise associated with the construction of the Proposed Scheme will be:
- Oakfield Lodge School, Crewe (Hough to Walley's Green, MA01);
 - Darnhall Community Primary School (Wimboldsley to Lostock Gralam, MA02);
 - Newchurch Community Primary School, Culcheth (Risley to Bamfurlong, MA05);
 - Lowton Junior and Infant School, Lowton (Risley to Bamfurlong, MA05);
 - First Steps Day Nursery, Lowton (Risley to Bamfurlong, MA05);
 - Birchfields Primary School, Manchester (Davenport Green to Ardwick, MA07);
 - University of Manchester (buildings on Sackville Street) (Davenport Green to Ardwick, MA07); and
 - St Anne's RC Primary School, Manchester (Manchester Piccadilly Station, MA08).

Traffic-related severance and traffic delays

- 5.3.20 Children may experience differential effects by reason of increases in their journey time and ease of reaching school, arising from impacts on the road network such as construction traffic movements and diversions leading to severance for pedestrians and cyclists. Evidence shows health and social benefits for children who walk to school, while safety concerns including traffic volume and speed can be a barrier to walking⁴⁸.
- 5.3.21 Schools and other educational facilities whose users may experience differential effects from the increases in traffic due to the construction of the Proposed Scheme will be:

⁴⁸ Living Streets (2018), *Swap the School Run for a School Walk: Our solution for active children, healthy air and safe streets*. Available online at: https://www.livingstreets.org.uk/media/3618/livingstreets_school_run_report_web.pdf.

Equality Impact Assessment Report

- Oakfield Lodge School, Crewe (Hough to Walley's Green, MA01);
- Kids Planet Nursery, Crewe (Hough to Walley's Green, MA01);
- Hungerford Primary Academy (Hough to Walley's Green, MA01);
- Monks Coppenhall Academy (Hough to Walley's Green, MA01);
- First Steps Pre-school (Hough to Walley's Green, MA01);
- Bright Stars Children's Day Nursery (Hough to Walley's Green, MA01);
- Darnhall Primary School (Wimboldsley to Lostock Gralam, MA02);
- Rudheath Primary Academy and Nursery (Wimboldsley to Lostock Gralam, MA02);
- Little Owls Pre School and Nursery (Wimboldsley to Lostock Gralam, MA02);
- Lostock Gralam Church of England Primary School (Wimboldsley to Lostock Gralam, MA02);
- The Mere Day Nursery (Pickmere to Agden and Hulseheath, MA03);
- Little Bollington Church of England Primary School (Pickmere to Agden and Hulseheath, MA03);
- High Legh Primary School (Pickmere to Agden and Hulseheath, MA03);
- Fairfield House School (Broomeedge to Glazebrook, MA04);
- Broadoak Secondary School (Broomeedge to Glazebrook, MA04);
- Gillitots Day Nursery (Broomeedge to Glazebrook, MA04);
- Partington Central Academy Primary School (Broomeedge to Glazebrook, MA04);
- Oughtrington Pre-School (Broomeedge to Glazebrook, MA04);
- Lowton West Primary School and After School Club (Lowton Time-Out Club) (Risley to Bamfurlong, MA05);
- St Thomas Church of England Junior and Infant School (Risley to Bamfurlong, MA05);
- St Thomas Playschool (Risley to Bamfurlong, MA05);
- Elmridge Primary School (Hulseheath to Manchester Airport, MA06);
- Birchfields Primary School, (Davenport Green to Ardwick, MA07);
- Manchester Enterprise Academy (MEA) Central, Manchester (Davenport Green to Ardwick, MA07);
- All Saints Primary School, Manchester (Davenport Green to Ardwick, MA07);
- St Brigid's Roman Catholic Primary School, Manchester (Davenport Green to Ardwick, MA07);
- The East Manchester Academy (Davenport Green to Ardwick, MA07);
- St Clements Church of England Primary School (Davenport Green to Ardwick, MA07);
- Manchester Road Primary Academy (Davenport Green to Ardwick, MA07); and
- St Anne's Roman Catholic Primary School, Manchester (Manchester Piccadilly Station, MA08).

5.3.22 Pinewood Children's Centre in the Wimboldsley to Lostock Gralam area (MA02) is a fully accessible centre offering short breaks for disabled children, young people and their

families. Pinewood is OFSTED registered and fully equipped to care for children with a disability and complex needs. During construction of the Proposed Scheme increases in traffic flows are predicted between Glebe Green Drive and B5074 Swanlow Lane, leading to traffic-related severance for non-motorised users. This could have a differential effect on disabled children, and young people who attend Pinewood Children's Centre who may be more likely to experience difficulty crossing busier roads.

- 5.3.23 Springfield School, Crewe, in the Hough to Walley's Green area (MA01) is a dedicated special educational needs and disabilities (SEND) school which caters for children and young people between the age of 4 – 19 with severe learning difficulties and complex needs. This includes children that are on the autistic spectrum. Although the school is not expected to experience significant increases in traffic flows which result in traffic-related severance for non-motorised users, it is located on a construction traffic route. The presence of construction traffic on local roads, including routes used by children to access the school, could constitute a change in the environment and likely to make it more difficult to cross the road, which could contribute to adverse differential effects on some children with autism.
- 5.3.24 During construction of the Proposed Scheme traffic delays at A534/Crewe Road and at A534/A533 Old Mill Road may affect journey times for pupils travelling by vehicle from the east to Springfield School. The National Autistic Society highlights the need for many individuals with autism to have regular routines and activities, such as travelling the same way to and from school or work. Traffic delays have the potential to have differential effects on some school children who travel to this school on affected roads. The requirements of the draft CoCP to reduce impacts, where reasonably practicable, will apply.

Visual

- 5.3.25 The landscape and visual assessment in the ES reports significant visual effects at Lowton Junior and Infant School, Lowton (Risley to Bamfurlong, MA05) as a result of construction activities associated with the Carr Brook aqueduct adjacent to the school. As this school has a dedicated SEND unit these impacts could give rise to differential effects for some children at the school.

Places to practise religion or belief

Loss of facilities and services

- 5.3.26 The construction of the Proposed Scheme will require the demolition of True Jesus Church in the Manchester Piccadilly Station area (MA08). Potential disproportionate and differential equality effects for PCGs resulting from the loss of this resource are discussed in more detail in Section 13 of this report.

Construction noise and vibration

- 5.3.27 Construction noise affecting places to practise religion or belief may give rise to disproportionate or differential effects on those using these places for worship, quiet prayer, contemplation, or for social and cultural uses.
- 5.3.28 HS2 Ltd will continue to seek reasonably practicable measures, in accordance with the draft CoCP, to further reduce or avoid noise effects for those attending of the following:
- Crewe Cemetery and Crematorium (Hough to Walley's Green, MA01);
 - Glazebrook Methodist Church, Glazebrook (Broomedge to Glazebrook, MA04);
 - The Church of St Helen, Hollins Green (Broomedge to Glazebrook, MA04);
 - St Anne's Presbytery (Manchester Piccadilly Station, MA08); and
 - Eternal Life Sanctuary (Manchester Piccadilly Station, MA08).
- 5.3.29 In doing so, HS2 Ltd will continue to engage with stakeholders to understand fully these places to practise religion or belief, their use, and the benefit of any potential mitigation measures.

Community centres

Construction noise and vibration

- 5.3.30 There could also be the potential for differential or disproportionate effects as a result of noise impacts on community centres, where these are used by, or provide services to, people with protected characteristics. Community centres predicted to experience significant effects as a result of noise and vibration associated with the construction of the Proposed Scheme will be Rixton-with-Glazebrook Community Hall (Broomedge to Glazebrook, MA04) and Lowton Youth and Community Centre (Risley to Bamfurlong, MA05).

Traffic-related severance

- 5.3.31 Children, disabled people and older people attending the following community centres could find it more difficult to cross the road and may experience differential effects as a result of the significant increase in traffic severance for non-motorised users:
- Partington Children's Centre (Broomedge to Glazebrook, MA04);
 - Partington Community Centre (Broomedge to Glazebrook, MA04);
 - The Hideaway Children's Play Centre (Broomedge to Glazebrook, MA04);
 - Oughtrington Community Centre (Broomedge to Glazebrook, MA04);
 - FUSE Community Centre (Broomedge to Glazebrook, MA04); and
 - The Grange Community Resource Centre (Davenport Green to Ardwick, MA07).

Health and social care centres

Loss of facilities and services

- 5.3.32 The construction of the Proposed Scheme will require acquisition of land, which will result in the loss of the following health and social care centres:
- Manchester Offenders: Diversion, Engagement and Liaison Team (MO:DEL) (Manchester Piccadilly Station, MA08); and
 - Manchester Action on Street Health (MASH) (Manchester Piccadilly Station, MA08).
- 5.3.33 Construction of the Proposed Scheme could also have differential effects for users of the Christie Hospital in the Davenport Green to Ardwick area (MA07) as a result of acquisition of land currently used for car parking (including Blue Badge spaces).
- 5.3.34 These effects are discussed in more detail in the relevant community area assessments provided in sections 11, 12 and 13 of this report.

Visual

- 5.3.35 Visual impacts have the potential to result in differential effects for service users who have particular needs or sensitivities to change in the visual environment. Patients with cancer attending the Christie Hospital in Manchester (Davenport Green to Ardwick area, MA07) may experience differential effects during the construction of the Proposed Scheme. A detailed assessment of the specific equality effects arising from the construction of the Proposed Scheme on this resource is provided in Section 12 of this report.
- 5.3.36 Children and disabled people attending the Children's Adventure Farm Trust (CAFT) (Hulseheath to Manchester Airport, MA06) may experience differential effects during the construction of the Proposed Scheme. A detailed assessment of the specific equality effects arising from the construction of the Proposed Scheme on this resource is provided in Section 11 of this report.

Construction noise and vibration

- 5.3.37 A proposed new cancer research centre at the Christie Hospital in Manchester (Davenport Green to Ardwick area, MA07) may be affected by vibration associated with the construction of the Proposed Scheme. The potential for equality effects to arise as a result of this impact is discussed in more detail in the relevant community area assessment provided in Section 12 of this report.

Traffic-related severance and traffic delays

- 5.3.38 During construction of the Proposed Scheme roads to the north and east of Leighton Hospital (Hough to Walley's Green, MA01) will be affected by traffic delays related to the construction of the Middlewich Street vent shaft satellite compound. Delays will be

experienced on the A530 Middlewich Road/B5076 Flowers Lane/Eardswick Lane and B5076 Flowers Lane/B5076 Bradfield Road/Minshull New Road/Smithy Lane. This may give rise to disproportionate and differential effects on pregnant women needing to access the dedicated maternity unit at this hospital.

- 5.3.39 The Children’s Adventure Farm Trust (CAFT) in the Hulseheath to Manchester Airport area (MA06), will be affected by the temporary closure of Millington Lane, which may have differential effects on children, including disabled children who visit this facility. When Millington Lane is open, it will be a construction traffic route which is likely to make it more difficult to cross the road for non-motorised users. This may give rise to differential effects on children and disabled children attending CAFT. A detailed assessment of the specific equality effects arising from the construction of the Proposed Scheme on this resource is provided in Section 11 of this report.

Recreational facilities

Loss of facilities and services

- 5.3.40 The construction of the Proposed Scheme will require acquisition of land, which will result in the permanent loss of the following recreational facilities which will no longer be able to operate from their existing premises:
- Cheshire Showground (Pickmere to Agden and Hulseheath, MA03);
 - English Karate Academy, Warehouse Studios, Wigshaw (Risley to Bamfurlong, MA05);
 - Cloud Aerial Arts, Manchester (Manchester Piccadilly Station, MA08);
 - Totem Gymnastics, Manchester (Manchester Piccadilly Station, MA08);
 - Front Line Fit (FLF) Performance Centre, Manchester (Manchester Piccadilly Station, MA08); and
 - Straight Blast Gym (SBG) Manchester (Manchester Piccadilly Station, MA08).
- 5.3.41 National user data for similar facilities suggests that there may be the potential for equality effects. Specific effects on individual resources, where it is known that people with protected characteristics are likely to be affected, are discussed in more detail in the relevant community area assessments provided in sections 6 to 13 of this report.

Construction noise and vibration

- 5.3.42 Significant noise effects may give rise to differential effects for some users of Studio A Dance Studio in Carlisle (off-route works) during the construction of the Proposed Scheme. Studio A offers dance classes for children from the age of two.

Traffic-related severance

- 5.3.43 Construction traffic using local roads to access compounds and worksites will increase congestion at some junctions, resulting in delays to road users and increased severance

effects for non-motorised users, such as difficulties crossing some roads. This may give rise to differential effects on children, older people, pregnant women and mothers of babies up to six months and disabled people. Recreational facilities whose users may experience differential effects from the temporary increases in traffic due to the construction of the Proposed Scheme will be:

- Lymm Rugby Football Club (Broomedge to Glazebrook, MA04);
- Ambitions Dance School (Broomedge to Glazebrook, MA04); and
- Culcheth Oaks recreational ground, the site of Culcheth Athletic Football Club (Risley to Bamfurlong, MA05).

Open spaces and play spaces

Loss or partial loss of resource

- 5.3.44 The ES identifies significant effects on public open spaces at various points along the route of the Proposed Scheme. Some of these open spaces will be occupied or partially required (temporarily or permanently) by the Proposed Scheme for construction related activities. In other cases, vehicular and/or pedestrian access will be impacted, which could affect the ability to use the resource.
- 5.3.45 The construction of the Proposed Scheme will require the permanent loss of Hesketh Meadows Playing Fields in Lowton (Risley to Bamfurlong, MA05). The provision of alternative land at Cheetham Fold Farm Stables, adjacent to the existing playing fields, is considered to mitigate the loss of land required to construct the Proposed Scheme. Further information is provided in Section 10 of this report.
- 5.3.46 Open space at Yellow Park in Crewe, in the Hough to Walley's Green area (MA01) will be required temporarily during the construction of the Proposed Scheme. Access to the children's play park will be maintained during construction.
- 5.3.47 Children and young people, for whom public open space and play space are important for play, health, fitness and social interaction, may be differentially and disproportionately affected by the temporary and permanent loss or severance of access to public open spaces, although this will vary for individual sites according to the extent to which they are used by these groups. Older people and disabled people may also be differentially and disproportionately affected by the loss of these spaces, where this reduces their access to local outdoor recreation areas.
- 5.3.48 Specific effects relating to individual public open spaces, where it is known that people with protected characteristics are likely to be affected, are discussed in more detail in the relevant development area assessments provided in sections 6 to 13 of this report.

Traffic-related severance

5.3.49 Construction traffic using local roads to access compounds and worksites will increase congestion at some junctions, resulting in delays to road users and increased severance effects for non-motorised users, such as difficulties crossing some roads. This may give rise to differential effects on children, older people, pregnant women and mothers of babies of up to six months and disabled people. Open spaces and play spaces whose users may experience differential effects from the temporary increases in traffic due to the construction of the Proposed Scheme will be:

- Play Park, Landsdowne Road (Hough to Walley's Green, MA01);
- Broadfield Play Area (Wimboldsley to Lostock Gralam, MA02);
- Angus Grove Play Area (Wimboldsley to Lostock Gralam, MA02);
- Lostock Gralam Play Area and Recreation Ground (Wimboldsley to Lostock Gralam, MA02); and
- Haywood Park (Risley to Bamfurlong, MA05).

Other community facilities

Loss or partial loss of resources

5.3.50 The construction of the Proposed Scheme will require the permanent loss of Lostock Green Picnic Area, a rest facility with public toilets (including an accessible toilet) on the A556 at Lostock Green (Wimboldsley to Lostock Gralam, MA02). This could give rise to disproportionate and differential effects for groups including children, older people, disabled people, pregnant women and mothers of babies up to six months, who may need to stop more frequently than other road users for food, rest, or to use toilet and changing facilities. Further information is provided in Section 7 of this report.

Businesses and employment

Loss or partial loss of resource

- 5.3.51 The ES reports that an estimated 760 jobs could be lost or relocated along the route of the Proposed Scheme as a result of land required for construction. Approximately 280 additional jobs could be lost through indirect effects.
- 5.3.52 The protected characteristics of affected business owners and employees is not known. However, there is the potential for the displacement of businesses or charitable organisations to result in adverse equality effects, where those businesses and organisations affected are known to provide goods or services specific to the needs of PCGs.
- 5.3.53 Greenheyes Farm (Wimboldsley to Lostock Gralam, MA02), which provides recreational and educational opportunities to schools will be demolished due to the construction of the

Proposed Scheme. Potential disproportionate and differential effects resulting from the displacement of these businesses are discussed in more detail in Section 11 of this report.

Construction employment

- 5.3.54 Across all phases of the project, HS2 will support over 34,000 jobs to build the railway and 6,000 to operate it once finished. More than 70% of the jobs will be outside London and at least 2,000 new apprenticeships will be created.
- 5.3.55 At its peak, the construction of the Western Leg Proposed Scheme is expected to support over 17,500 jobs in 2029/30 and at least 1,000 apprenticeships will be created on the full Phase 2b scheme⁴⁹. Overall, it is estimated that the construction phase will generate 87,000 person years of construction employment opportunities⁵⁰ (equivalent to 8,800 full time construction jobs)⁵¹.
- 5.3.56 Under the EDI requirements, contractors must monitor and report on supply chain spend with, and representation of, micro-organisations, social enterprises, SMEs and diverse suppliers (defined as being 51% owned or operated by people with protected characteristics). These requirements have the potential to be positive for equality.
- 5.3.57 Certain PCGs are more likely to experience low socioeconomic status and poor standards of living due to employment disadvantage in terms of below-average rates of participation in economic activity; below-average skills and qualifications; under-representation in certain employment sectors and below-average rates of pay. Income poverty and deprivation particularly affect women, children, ethnic minority groups, religious minority groups, disabled people and families with disabled members⁵². Education, skills and employment gaps particularly affect disabled people and a number of ethnic minority groups⁵³. Proactive

⁴⁹ High Speed Two Ltd (2021), *HS2 labour and skills demand and supply forecasting and analysis July 2021*. Available online at: https://assets.hs2.org.uk/wp-content/uploads/2021/08/HS2_LSF-report_clean_V2-0508.pdf.

⁵⁰ Construction labour is reported in construction person years, where one construction person year represents the work done by one person in a year composed of a standard number of working days.

⁵¹ Based on the total construction person years generated by the Proposed Scheme and a ratio of 10 construction person years to one full time permanent job.

⁵² Equality and Human Rights Commission (EHRC) (2010), *How fair is Britain? Equality, human rights and good relations in 2010*. Available online at: <http://www.equalityhumanrights.com/en/our-work/how-fair-britain>.

⁵³ Joseph Rowntree Foundation (2015), *Ethnic minority disadvantage in the labour market*. Available online at: <https://www.jrf.org.uk/report/ethnicminority-disadvantage-labour-market>.

measures in the construction sector have proved effective in addressing skills gaps and underrepresentation of PCGs, including women and disabled people^{54 55}.

- 5.3.58 Proposed arrangements for training and employment during the construction and operation are set out in Phase 2b Western Leg Information Paper H2: Skills and employment⁵⁶. These include commitments to ensure equality of opportunity in order to encourage the recruitment of local, disadvantaged or underrepresented groups. HS2 Ltd will require the supply chain to create appropriate apprenticeship and employment opportunities to local, disadvantaged and under-represented groups in order to promote fair and equal access to the employment opportunities generated by HS2.
- 5.3.59 During the procurement of any relevant contract, HS2 Ltd will require a range of SEE and EDI outputs based on the contract value⁵⁷. Tenderers' responses will be evaluated against SEE and EDI criteria, including their track record in these fields, as well as the proposed methods of meeting the required outputs. These outputs will include number of apprenticeships, workless job starts and work placements. Contractors will be asked to support local, disadvantaged and underrepresented groups to access the training and employment opportunities generated by HS2 Ltd by a variety of means as part of their recruitment, training, communicating, publicising and performance management process.
- 5.3.60 There is, therefore, the potential for the employment opportunities created during the construction phase to result in a positive equality effect on certain PCGs, including those identified above that are particularly affected by income poverty and deprivation, such as women, children, some ethnic minority groups, religious minority groups, disabled people and families with disabled members.

Air quality

- 5.3.61 The measures outlined within the draft CoCP have been designed to reduce dust and emissions from construction traffic and machinery. The predicted impacts of the construction of the railway on air quality are well within compliance levels⁵⁸. Changes in exposure to air emissions (nitrogen oxides and particulate matter) will be very small and

⁵⁴ Olympic Delivery Authority (2011), *Learning Legacy: Lessons learned from the London 2012 Games construction project*. Attracting historically underrepresented talent. Available online at: <http://learninglegacy.independent.gov.uk/documents/pdfs/equality-inclusion-employment-andskills/285-attracting-historically-underrepresented-talent-eies.pdf>.

⁵⁵ T. Wright (2014), *The Women into Construction Project: an assessment of a model for increasing women's participation in construction*. Available online at: <http://www.busman.qmul.ac.uk/media/sbm/research/researchcentres/cred/docs/Women-into-Construction-Project-EvaluationReport.pdf>.

⁵⁶ High Speed Two Ltd (2022), *Phase 2 Western Leg Information Paper H2: Skills and Employment*.

⁵⁷ High Speed Two Ltd, *Skills, Employment and Education Strategy: Opening up new opportunities*. Available online at: <https://assets.hs2.org.uk/wp-content/uploads/2018/09/26114402/CS962-HS2-Skills-Education-Employment-Strategy-210x2101.pdf>.

⁵⁸ Compliance with air quality standards for clear air varies for different pollutants. A full definition is provided in the glossary.

localised and will not lead to any measurable changes in health outcomes within the population. Therefore, it is not expected that any health effects will arise as a result of air quality effects during construction.

5.4 Potential effects during operation

5.4.1 This section provides a summary of the equality effects arising from the operation of the Proposed Scheme. Due to the smaller number of operational effects compared with construction related effects, they are reported by type of impact (i.e. noise, visual, traffic and transport etc), rather than by resource type, for ease of reference. Only those resource types that are expected to experience equality effects as a result of the operation of the Proposed Scheme are included in this section. Where further information is available, detailed assessments of specific equality effects arising from the operation of the Proposed Scheme are reported by individual resources in sections 6 to 13 of this report.

Noise and vibration

Residential properties and care homes

5.4.2 The ES indicates that people living in some properties close to the route of the Proposed Scheme may potentially experience noise effects due to a change in the acoustic environment once the Proposed Scheme is operational. Within the demographic potentially affected, there may be people who are more or less sensitive to noise.

5.4.3 Residents of the following residential care homes may experience differential effects from the operation of the Proposed Scheme:

- Bentley Manor Care Home, Crewe (Hough to Walley's Green, MA01); and
- Sherborne Court Neurological Centre, Crewe (Hough to Walley's Green, MA01).

5.4.4 Assessment of the specific equality effects arising from the operation of the Proposed Scheme on Bentley Manor Care Home is provided in Section 6 of this report.

Recreational facilities

5.4.5 Children attending the Chuffchuff performing and visual arts centre in Crewe (Hough to Walley's Green, MA01), may experience differential effects due to a change in the acoustic environment once the Proposed Scheme is operational.

Visual

Residential care homes

5.4.6 Changes in the visual environment have the potential to result in differential effects for older people and disabled people with particular needs or sensitivities living in residential care

homes, including people with conditions such as autism or dementia. Significant visual effects from the operation of the Proposed Scheme may give rise to disproportionate and differential effects for residents of Bentley Manor Care Home, Crewe (Hough to Walley's Green, MA01), due to the presence of Middlewich Vent Shaft; and Lostock Lodge Care Home, Lostock Gralam (Wimboldsley to Lostock Gralam, MA02), who will have views towards the route of the Proposed Scheme, including overhead line equipment and passing trains.

5.4.7 Assessments of the specific equality effects arising from the operation of the Proposed Scheme on these resources are provided in sections 6 and 7 of this report.

Traffic and transport

Schools and educational facilities

5.4.8 Children attending schools and nurseries in several locations along the route of the Proposed Scheme may experience differential effects during the operational phase as a result of increases in traffic flows leading to traffic-related severance for non-motorised users. Pedestrian access to the following schools and nurseries could be affected:

- Darnhall Primary School (Wimboldsley to Lostock Gralam, MA02);
- Wharton Church of England Primary School (Wimboldsley to Lostock Gralam, MA02);
- Lostock Gralam Church of England Primary (Wimboldsley to Lostock Gralam, MA02);
- Little Bollington Church of England Primary School (Pickmere to Agden and Hulseheath, MA03);
- Oughtrington Pre-School (Broomedge to Glazebrook area (MA04);
- Altrincham College (Hulseheath to Manchester Airport, MA06);
- Altrincham Children's Centre (Hulseheath to Manchester Airport, MA06);
- Back to the Garden childcare (Hulseheath to Manchester Airport, MA06);
- Broadheath Primary School (Hulseheath to Manchester Airport, MA06);
- Elmridge Primary School (Hulseheath to Manchester Airport, MA06);
- Little Faces Day Nursery in Wythenshawe (Davenport Green to Ardwick, MA07);
- All Saints Primary School, Manchester (Davenport Green to Ardwick, MA07);
- St Brigid's Roman Catholic Primary School, Manchester (Davenport Green to Ardwick, MA07);
- The East Manchester Academy (Davenport Green to Ardwick, MA07);
- DeeDee's Nursery (Davenport Green to Ardwick, MA07);
- Love our Child Nursery and Pre-School (Davenport Green to Ardwick, MA07);
- Clever Clowns Day Nursery (Davenport Green to Ardwick, MA07);
- Haveley Hey Community School (Davenport Green to Ardwick, MA07); and
- St Anne's Roman Catholic Primary School (Manchester Piccadilly Station, MA08).

- 5.4.9 Disabled children, young people and their families attending Pinewood Children's Centre (Wimboldsley to Lostock Gralam, MA02) may experience differential effects during the operation of the Proposed Scheme as a result of increases in traffic flows between Glebe Green Drive and the B5074 Swanlow Lane, leading to traffic-related severance, which could make it more difficult for non-motorised users to cross the road.
- 5.4.10 At certain times of the day, some schools along the route of the Proposed Scheme will see a reduction in traffic flow and associated severance for non-motorised users. Children walking or cycling to school may therefore experience differential beneficial effects.

Residential care homes

- 5.4.11 Residents of residential care homes in several locations along the route of the Proposed Scheme may experience differential effects during the operational phase as a result of increases in traffic flows leading to traffic-related severance for non-motorised users. This could result in difficulties for pedestrians accessing the following care homes:
- Leftwich Green Community Support Centre (Wimboldsley to Lostock Gralam, MA02);
 - Crossways Care Home (Wimboldsley to Lostock Gralam, MA02);
 - Lostock Lodge Care Home (Wimboldsley to Lostock Gralam, MA02);
 - Cedars Rest Home Ltd (Hulseheath to Manchester Airport, MA06);
 - Anchor Care Homes (Davenport Green to Ardwick, MA07); and
 - Mary and Joseph House (Davenport Green to Ardwick, MA07).

Community centres

- 5.4.12 Children and young people attending West Gorton Youth Centre in the Davenport Green to Ardwick area (MA07) may experience differential effects during the operation of the Proposed Scheme as a result of increases in traffic flows on Bellvue Street and Gorton Lane, leading to traffic-related severance. This will make it more difficult for non-motorised users to cross the road.
- 5.4.13 Children and older people attending the Oughtrington Community Centre in the Broomedge to Glazebrook area (MA04) may experience differential effects as a result of increases in traffic flows on Stage Lane, between Burford Land and Sandy Lane which could make it more difficult for non-motorised users cross the road.

Recreational facilities

- 5.4.14 Children attending Ambitions Dance School or the Lymm Rugby Football Club in the Broomedge to Glazebrook area (MA04) may experience differential effects as a result of increases in traffic flows on Crouchley Lane, between Mag Lane and Higher Lane, which could make it more difficult for non-motorised users to cross the road.
- 5.4.15 Some older people and disabled people who use Partridge Lake Fishery in the Risley to Bamfurlong Area (MA05), and travel by means other than private transport, may experience

disproportionate and differential effects as a result of increases in traffic flows along Glaziers Lane which could make it more difficult for non-motorised users to cross the road.

Open spaces and play spaces

5.4.16 Children using open spaces and play spaces is some locations along the route of the Proposed Scheme may experience disproportionate and differential effects during operation as a result of increases in traffic flows leading to traffic-related severance for non-motorised users. Pedestrian access to the following open spaces and play spaces could be affected:

- Boothbed Lane Play Area (Wimboldsey to Lostock Gralam, MA02);
- Broadfield Play Area (Wimboldsey to Lostock Gralam, MA02); and
- Townshend Road Play Area (Wimboldsey to Lostock Gralam, MA02).

Safety and accessibility at railway stations

5.4.17 The new or reconfigured layout and design of new and existing railway stations will be designed to be accessible for all users, secure by design and supportive of passenger safety⁵⁹. Inclusive design features set out in HS2's Inclusive Design Policy will enable disabled people to use step-free options to transfer between the high-speed service and other services. New rolling stock will be designed to enable accessible travel for disabled people. This will deliver an inclusive system, differentially benefitting disabled people and other PCGs who may be more likely to experience barriers to their use of public transport⁶⁰.

5.4.18 The benefits of design that discourages crime and anti-social behaviour and supports passenger safety are of particular importance to members of PCGs who may have greater than average levels of concern about crime and anti-social behaviour or may be more at risk of being victims of some forms of crime^{61, 62, 63}.

Employment

5.4.19 The Proposed Scheme will create direct operational jobs at locations along the route and off-route, including at stations and maintenance depots, as well as employment associated with

⁵⁹ Further information about accessible and inclusive design, including links to relevant standards and HS2 policy, is included in Section 5.2.

⁶⁰ Department for Transport (2016), *National Travel Survey: England 2015*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/551437/national-travel-survey-2015.pdf.

⁶¹ Transport for London (TfL) (2014), *Understanding the travel needs of London's diverse communities: a summary of existing research*. Available online at: <http://content.tfl.gov.uk/understanding-the-travel-needs-of-london-diverse-communities.pdf>.

⁶² Home Office (2017), *Hate Crime*, England and Wales, 2018/19. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/839172/hate-crime-1819-hosb2419.pdf.

⁶³ Stonewall (2017), *LGBT in Britain: Hate crime and discrimination*. Available online at: https://www.stonewall.org.uk/sites/default/files/lgbt_in_britain_hate_crime.pdf.

train crew facilities. The key locations for new employment will be the two new railway stations of the Proposed Scheme (Manchester Airport High Speed station and Manchester Piccadilly High Speed station) and at its associated depots at Crewe North and Annandale. The Proposed Scheme will also create employment at other stations served by HS2, for example Carlisle. Route-wide there will be an estimated 4,180 direct operational jobs created.

- 5.4.20 Indirect employment will also be created, such as train crews on conventional compatible trains. Further jobs will be created route-wide and off-route through indirect effects as a result of the operational phase as result of spend via the supply chain and directly employed staff.
- 5.4.21 There may be the potential for direct and indirect employment opportunities, created during the operational phase of the Proposed Scheme, to result in a positive equality effect on certain PCGs who currently experience low socio-economic status and poor standards of living due to employment disadvantage. These groups include women, children, some ethnic minority groups, religious minority groups, disabled people and families with disabled members.

5.5 Community areas

- 5.5.1 Sections 6 to 13 of this report provide additional information on and justification for the effects reported above by community area, where the groups affected are known to have particular needs or sensitivities to impacts arising from the construction or operation of the Proposed Scheme; where a community resource used by PCGs will be demolished as a result of land acquisition for the construction of the Proposed Scheme; and where there will be multiple equality effects arising from impacts on a specific community resource.
- 5.5.2 Sections 6 to 13 of the EQIA also report potential 'area-based' equality effects which may be experienced during the construction and/or operation of the Proposed Scheme. Area-based effects occur where there is disproportionate representation of one or more PCGs within a community who are more likely to be sensitive to equality effects experienced within the local area. These 'area-based' equality effects may arise as a result of community isolation and/or a loss of social cohesion, and/or impacts on multiple resources used by PCGs who are disproportionately represented in the locality.

6 Hough to Walley's Green (MA01)

6.1 Introduction

- 6.1.1 Potential equality effects arising along the route of the Proposed Scheme, including those which could occur in this area, are described under the relevant headings in sections 5.3 and 5.4 of this report. This section reports on individual resources located in the Hough to Walley's Green area (MA01), where there will be potential specific equality effects on people with protected characteristics.
- 6.1.2 Environmental effects reported in this section are drawn from the ES, and further information can be found in the Volume 2, Community Area report: Hough to Walley's Green (MA01).

6.2 Description of the area

- 6.2.1 The Proposed Scheme in the Hough to Walley's Green area will be 10.8km in length and will lie within the Cheshire East Council (CEC) local authority area. It will extend from Hough, passing beneath the town of Crewe in tunnel, and emerge from the tunnel on the northern edge of Crewe. Other settlements in the area include the villages of Hough, Basford, Chorlton, Weston, Warmingham, Minshull Vernon and Walley's Green.
- 6.2.2 The Hough to Walley's Green area is predominantly urban around Crewe, becoming more rural in character north of Crewe. Crewe comprises approximately 30,000 residential properties. Suburbs of the town include Leighton, Maw Green, Sydney, Well Green, Wistaston and Wistaston Green. Children and older people aged 65-84 and 85 and over are disproportionately represented in Central Crewe, while parts of Sydney and Coppenhall also have disproportionate representation of older people aged 65-84 and 85 and over.

6.3 Bentley Manor Care Home

- 6.3.1 Bentley Manor Care Home is a privately-owned residential care home, located on Sherborne Road to the north of Crewe town centre. The Proposed Scheme will pass directly beneath the grounds of the home in tunnel, and the Middlewich Street vent shaft will be located just to the south of the care home.
- 6.3.2 The home provides care for people aged 55 and older who may be physically frail, have visual impairments, or conditions including Alzheimer's, Parkinson's disease, cancer, schizophrenia, epilepsy and stroke. There is also a specialist Dementia Care Unit. The home has capacity for up to 80 residents, in 78 single rooms and one shared. Facilities include a lift, gardens, kitchenettes, a minibus service, and physiotherapy. The home is close to shops and public transport, and residents are able to access a GP service if needed.

Construction

- 6.3.3 The landscape and visual assessment in the ES identifies that residents of Bentley Manor Care Home will experience significant temporary visual effects as a result of the construction of the Middlewich Street vent shaft and satellite compound. Construction works and equipment will be visible, particularly from the upper floors of the home. This may give rise to differential effects for residents with dementia, and for those with visual impairments and conditions such as schizophrenia, who may be more likely to be sensitive to changes in the visual environment.
- 6.3.4 The sound noise and vibration assessment in the ES identifies that residents will also experience construction related vibration effects for up to three months during construction. It is possible that vibration could be disconcerting for some residents, for example those with dementia. This may give rise to differential effects.

Operation

- 6.3.5 The noise assessment in the ES identifies that Bentley Manor Care Home will be subject to significant permanent noise effects as a result of the operation of the Proposed Scheme. The daytime and night-time running of trains through Crewe tunnel is expected to result in significant ground-borne noise effects, potentially impacting daytime activities and resulting in night-time sleep disturbance for residents at the home.
- 6.3.6 Significant increases in daytime and night-time ground-borne noise as a result of the operation of the Proposed Scheme may have a disproportionate effect for older people living at Bentley Manor Care Home, and may give rise to differential effects for residents who may be more sensitive to any increase in noise, including those who experience hearing loss, those with visual impairments, and those with schizophrenia or dementia.
- 6.3.7 The landscape and visual assessment reports a significant visual effect on residents of Bentley Manor Care Home during operation as a result of the presence of the Middlewich Vent Shaft. The health assessment in the ES concludes that permanent changes to the care home environment resulting from noise and visual effects could, for those affected, lead to a reduction in the wellbeing benefits associated with the care home environment. Overall, this could have a disproportionate and differential effect on older people and disabled people living in the care home.
- 6.3.8 HS2 Ltd is continuing to engage with Bentley Manor Care Home to identify reasonably practicable measures to mitigate the effects identified in this assessment.

6.4 Oakfield Lodge School

- 6.4.1 Oakfield Lodge School is a pupil referral unit (PRU) for students who are outside mainstream education as a result of permanent exclusion. It is located on Warmingham Road in Coppenhall Moss, to the north of Crewe, and is approximately 800m from the route of the Proposed Scheme.

6.4.2 The school provides Key Stage 3 and Key Stage 4 education (ages 11-16), including pathways to GCSE and skills-based learning, and aims to support students to reintegrate them into mainstream education. Its Local Offer for Special Educational Needs and/or Disability states that many students have literacy levels below national averages and/or are learning delayed in other subjects as a result of poor attendance at school⁶⁴. National data indicates that 77 per cent of children in schools for children excluded from mainstream education have recognised special educational needs or disability (SEND), and that those with SEND are seven times more likely to be excluded from school than other children⁶⁵. Oakfield Lodge accepts referrals from within Cheshire East local authority.

Construction

- 6.4.3 The noise assessment in the ES identifies that Oakfield Lodge School will experience significant temporary noise effects as a result of the construction of the Coppenhall Moss cutting, Coppenhall Moss South Embankment and Footpath Crewe 29/1 overbridge, for a period of up to three years and seven months. Both the existing school building and a proposed new school building will experience daytime noise levels above the criteria used in the assessment for educational use. This may give rise to disproportionate effects for children and young people attending Oakfield Lodge School. An increase in noise can affect children's concentration and ability to learn, with implications for educational attainment, and so there may also be a differential effect for children at the school, including potentially children with SEND.
- 6.4.4 Oakfield Lodge School is located on Warmingham Road which will be a designated construction traffic route. An increase in daily vehicle movements along Warmingham Road during the construction of the Coppenhall Moss cutting is likely to make it more difficult to cross this road, between Waldron's Lane and Groby Road. There could therefore be the potential for differential effects for any children, including children with SEND, attending Oakfield Lodge School who may currently walk to school. Evidence shows health and social benefits for children who walk to school, while safety concerns including traffic volume and speed can be a barrier to walking⁶⁶.
- 6.4.5 HS2 Ltd will work closely with Oakfield Lodge School to identify reasonably practicable measures to mitigate the effects, including discretionary measures identified in the draft CoCP.

⁶⁴ Oakfield Lodge School, Our Local Offer for Special Educational Needs and/or Disability. Available online at: https://oakfieldlodge.cheshire.sch.uk/wp-content/uploads/2019/07/CE_Local_Offer_-_CE_PRU_-_QA_Sept_Final_v1.pdf.

⁶⁵ Institute for Public Policy Research (2017), *Making the Difference: Breaking the link between school exclusion and social exclusion*. Available online at: <https://www.ippr.org/files/2017-10/making-the-difference-report-october-2017.pdf>.

⁶⁶ Living Streets (2018), *Swap the School Run for a School Walk*. Available online at: https://www.livingstreets.org.uk/media/3618/livingstreets_school_run_report_web.pdf.

Operation

6.4.6 There are no predicted equality effects identified at Oakfield Lodge School during operation.

6.5 Leighton and Coppenhall Moss (North Crewe): area-based effects

6.5.1 North Crewe comprises the communities of Leighton and Coppenhall Moss. Community facilities in this area include: Mablins Lane Community Primary School, Monks Hall Academy and Day Nursery, Oakfield Lodge School, and Bright Stars Day Nursery. Children (0-15 years) and older people (65+) are both disproportionately represented in this area, which is one of the 20% most deprived in England.

6.5.2 The Crewe tunnel north main compound will be located in northern Crewe between the WCML and Broughton Road. Construction works associated with this compound and taking place in the local area include the Crewe tunnel north portal, Crewe north portal cutting, Parkers Road Overbridge extension, Coppenhall Moss cutting and Coppenhall Moss south embankment. The main compound will be operational for seven years and three months.

6.5.3 Due to construction works in the area, the traffic and transport assessment in the ES reports a significant increase in construction traffic movements on Broughton Road, Remer Street, and the B5076 North Street/Bradfield Road/Middlewich Street. There will also be a significant increase in traffic (all vehicles) on Lime Tree Avenue. These increases will result in traffic severance, which is likely to make it more difficult for non-motorised users, including children attending Monks Coppenhall Academy and Day Nursery on Remer Street, to cross the road. Evidence shows health and social benefits for children who walk to school, while safety concerns including traffic volume and speed can be a barrier to walking. Construction traffic on these roads will make it more difficult to cross the road and could give rise to parental concerns about their children's safety. This may differentially effect children and older people.

6.5.4 Alterations to Parkers Road Overbridge will require the temporary closure of Parkers Road for one year and three months, between Broughton Road and Bleasdale Road. This will require a traffic diversion via Groby Road, Remer Street and the B5076 North Street/Bradfield Road, increasing the journey length for vehicle occupants by up to 2.7km. This will require temporary bus route diversions and temporary traffic management, with consequential increases in journey times and the need to relocate bus stops. The increase in public transport delays are reported as significant in the ES for the users of routes 12 and 317 on Parkers Road. Public transport delays have a disproportionate effect on older people, particularly older women, who are more likely to travel by bus than other age groups.

6.5.5 The health assessment in the ES identifies an adverse effect on neighbourhood quality in parts of North Crewe associated with construction activity for a period of up to five years and six months in Coppenhall and up to six months in Leighton. Residents on Remer Street

Equality Impact Assessment Report

and the B5076 North Street/Bradfield Road also likely to experience significant noise effects from increased traffic.

- 6.5.6 Overall, the coincidence of traffic-related severance for non-motorised users, public transport delays and impacts on neighbourhood quality in North Crewe during the construction of the Proposed Scheme may have disproportionate and differential effects on children and older people who are disproportionately represented in this area.

7 Wimboldsley to Lostock Gralam (MA02)

7.1 Introduction

- 7.1.1 Potential equality effects arising along the route of the Proposed Scheme, including those which could occur in this area, are described under the relevant headings in sections 5.3 and 5.4 of this report. This section reports on individual resources located in the Wimboldsley to Lostock Gralam area (MA02) where there may be potential specific equality effects on people with protected characteristics.
- 7.1.2 Environmental effects reported in this section are drawn from the ES, and further information can be found in the Volume 2, Community Area report: Wimboldsley to Lostock Gralam (MA02).

7.2 Description of the area

- 7.2.1 The Wimboldsley to Lostock Green area covers a 14.6km section of the route of the Proposed Scheme. Cheshire West and Chester Council (CWCC) and CEC are the local authorities in the area. The route in this area extends from Wimboldsley in the south, passing close to the settlements of Clive, Middlewich, Stanthorne, Bostock, Whatcroft, Rudeath, Lostock Green and Lostock Gralam.
- 7.2.2 The Wimboldsley to Lostock Gralam area is predominantly rural in nature, characterised by villages and hamlets, scattered farmsteads and dwellings, with agriculture being the main land use. Rural parts of the area, including around Clive Green and Lostock Gralam, have disproportionate representation of older people aged 65-84 and 85 and over. Older people aged 85 and over are also disproportionately represented in parts of central Middlewich.

7.3 Greenheyes Farm

- 7.3.1 Greenheyes Farm is a working dairy farm that provides free educational trips for schools and other groups as part of the Countryside Stewardship Scheme. It is located on the A533 Bostock Road in Stanthorne and is within the land required for the construction of the Proposed Scheme.
- 7.3.2 The farm covers approximately 40ha and comprises a number of farm buildings and associated land, including a pond used for pond dipping and a nature trail laid out to allow visitors to observe and learn about flora and fauna. Farm visits are open to all age groups, and the farm has partial access for disabled visitors. The farm also offers farm experience for students planning to apply for veterinary courses, and motivational courses for children in mainstream education who show disruptive behaviour.

- 7.3.3 The nearest alternative farm offering educational visits is Riverside Organic Farm, which is 4km from Greenheyes Farm. Riverside Organic Farm provides educational visits for a fee, and has partial disabled access.

Construction

- 7.3.4 The construction of the Stanthorne north embankment will require the demolition of all the farm buildings at Greenheyes Farm. The assessment of health impacts in the ES concluded that the loss of this facility will result in a reduction in the beneficial wellbeing effects associated with educational activities. The permanent loss of this free to access resource may give rise to differential effects for children and young people in the local area who visit the farm for educational purposes. There could also be differential effects for disabled people, as the farm has partial access for disabled visitors.
- 7.3.5 HS2 Ltd is continuing to engage with owners and operators of Greenheyes Farm to identify reasonably practicable measures to help mitigate the loss of this resource.

Operation

- 7.3.6 The impact on Greenheyes Farm arising from the construction of the Proposed Scheme will be permanent.

7.4 Lostock Green Picnic Area

- 7.4.1 Lostock Green Picnic Area is a rest facility on the A556 Chester Road at Lostock Green. It provides toilet facilities including a disabled toilet, a snack bar, and a picnic area, primarily for use by northbound motorists using the A556 trunk road, which is a major dual carriageway running between junction 19 of the M6 at Tabley and the A54 at Kelsall.

Construction

- 7.4.2 The realignment of the A556 Chester Road as part of the construction of the Proposed Scheme will require the permanent loss of all 2.2ha of land at Lostock Green Picnic Area, including the toilet facilities and snack bar. The UK Government recommends that the maximum distance between service areas on trunk roads should be the equivalent of 30 minutes driving time⁶⁷. The nearest alternative public toilet facilities are located at a service station on Tabley Hill Lane (accessed via the Tabley Interchange at junction 19 of the M6), which is approximately 4.5 miles (10 minutes' drive) away when travelling via the A556.

⁶⁷ Department for Transport (2013), DfT Circular 02/2013, *The Strategic Road Network and the Delivery of Sustainable Development*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/237412/dft-circular-strategic-road.pdf.

- 7.4.3 The loss of these facilities could have the potential for disproportionate and differential effects for groups including children, older people, disabled people, pregnant women and mothers of babies up to six months, who may need to stop more frequently than other road users for food, rest, and to use toilet and changing facilities.

Operation

- 7.4.4 The impact on Lostock Green Picnic Area arising from the construction of the Proposed Scheme will be permanent.

7.5 Darnhall Primary School

- 7.5.1 Darnall Primary School is based on two adjacent sites, on Sandyhill Road (key stage 2) and Darnhall School Lane (early years and key stage 1), in Winsford. The school is a mixed state primary school and nursery for children aged 2 to 11 serving Winsford and its wider community.

Construction

- 7.5.2 The sound noise and vibration assessment in the ES has identified a significant adverse temporary noise effect on the attendees of the early years department of the school which is located adjacent to Darnhall School Lane. Significant increases in road traffic noise levels are predicted due to traffic diverting away from construction routes on nearby roads. This may give rise to disproportionate effects for children and young people attending Darnhall Primary School. Increase in noise can affect children's concentration and ability to learn, with implications for educational attainment, and so there may also be a differential effect for children at the school.
- 7.5.3 The ES also reports a significant increase in traffic along Darnhall School Lane (between Glebe Green Drive and the B5074 Swanlow Lane) making it more difficult for non-motorised users to cross along this road. There could, therefore, be the potential for differential effects for children, attending Darnhall Primary School who currently walk to school. Evidence shows health and social benefits for children who walk to school, while safety concerns including traffic volume and speed can be a barrier to walking⁶⁸. An increase in traffic on Darnhall School Lane will make it more difficult to cross the road and could give rise to parental concerns about their children's safety.
- 7.5.4 HS2 Ltd will work closely with Darnhall Primary School to identify reasonably practicable measures to mitigate the effects, including discretionary measures identified in the draft CoCP.

⁶⁸ Living Streets (2018), *Swap the School Run for a School Walk*. Available online at: https://www.livingstreets.org.uk/media/3618/l_s_school_run_report_web.pdf.

Operation

- 7.5.5 The traffic and transport assessment in the ES reports significant changes in traffic flow resulting in effects on non-motorised user severance along Darnhall School Lane in the morning peak. There could, therefore, be the potential for differential effects for children, attending Darnhall Primary School who walk and cycle to school.

7.6 Lostock Lodge Care Home

- 7.6.1 Lostock Lodge Care Home is located on Cheshire Avenue, Lostock Gralam and is located approximately 0.1km away from the route of the Proposed Scheme.
- 7.6.2 Lostock Lodge is a care home providing general residential care, dementia and end of life care. The first and second floor provide dementia and end of life care respectively. Lostock Lodge accommodates 66 residents aged 55 and above.

Construction

- 7.6.3 The landscape and visual assessment reported in the ES identifies that the construction works associated with Lostock Gralam embankment and Smoker Brook viaduct will result in a noticeable change to views experienced by residents with high susceptibility to changes in the visual environment. The construction activity will take place over a period of 1-3 years, depending on the section being constructed. The construction activities may have a disproportionate and differential effect on people with dementia and people with visual impairments at the care home.
- 7.6.4 The traffic and transport assessment in the ES reports significant changes in traffic flow resulting in effects on severance for non-motorised users along the A559 Manchester Road (between Fryer Road and A556 Shurlach Road) during construction of the Proposed Scheme. This may lead to differential effects on older people and disabled people who are residents of Lostock Lodge Care Home and may find it more difficult to cross the road.

Operation

- 7.6.5 The landscape and visual assessment of the ES identifies that residents of Lostock Lodge Care home will experience adverse visual effects due to the operation of the Proposed Scheme. This may have a disproportionate and differential effect on people with dementia and people with visual impairments.
- 7.6.6 The traffic and transport assessment in the ES reports significant changes in traffic flow resulting in effects on severance for non-motorised users along the A559 Manchester Road (between Fryer Road and A556 Shurlach Road). This may lead to differential effects on older people and disabled people who are residents of Lostock Lodge Care Home.
- 7.6.7 HS2 Ltd will engage with the owners of Bentley Manor Care Home to identify reasonably practicable measures to mitigate the effects identified in this assessment.

7.7 Lostock Gralam: area-based effects

- 7.7.1 Lostock Gralam is a settlement comprising approximately 1,000 residential properties immediately to the west of Northwich along the A559. It has several community facilities, including Lostock Tiny Tots Pre-School, Lostock Belgrave Day Nursery, Lostock Gralam Church of England Primary School, St John the Evangelist Church, including its church hall and churchyard, four care homes, and Lostock Gralam Community Centre and outdoor play area. Older people aged between 65 and 84 are disproportionately represented in the population of some parts of the settlement.
- 7.7.2 The Lostock Gralam viaduct satellite compound and the Smoker Brook viaduct south satellite compound will both be located to the east of Lostock Gralam and the A556 Chester Road. The Lostock Gralam viaduct satellite compound will be operational for one year and six months and the Smoker Brook viaduct south satellite compound will be operational for four years and six months. Construction works associated with these compounds and taking place in the local area will include Wade Brook viaduct, Lostock Gralam viaduct, Smoker Brook viaduct, A556 Shurlach Road culvert and A556 Chester Road auto-transformer station. Rudheath embankment satellite compound, and B5082 Penny's Lane satellite compound will both be operational for three years and three months. Birches Lane satellite compound will be operational for six years and six months. All three will be used to manage the construction of the Rudheath embankment.
- 7.7.3 Due to construction works in the area, there is expected to be an increase in construction traffic, as well as changes to traffic routes resulting in an increase in all vehicles along some roads. The A559 Manchester Road, the A556 Shurlach Road and Station Road, which pass through or alongside the settlement, will all be used as construction traffic routes for the Proposed Scheme. The traffic and transport assessment in the ES identifies significant changes in traffic flows which is likely to make it more difficult for non-motorised users to cross on multiple roads in Lostock Gralam, including:
- A556 Shurlach Road (between Birches Lane and A559 Manchester Road);
 - Birches Lane/Station Road (between A556 Shurlach Road and School Lane);
 - A530 Griffiths Road (between A559 Manchester Road and B5082 Middlewich Road);
 - School Lane (between Station Road and Stubbs Lane);
 - Station Road (between School Lane and A559 Manchester Road); and
 - A559 Manchester Road (between A530 Griffiths Road and A556 Shurlach Road).
- 7.7.4 Avandale Lodge Care Home, Lostock Lodge Care Home, Acorn Hollow Care Home and Crossway Care Home, as well as a range of local services including a post office, a pharmacy and local shops, are located on sections of the A559 Manchester Road and Station Road where there will be an increase in traffic-related severance, which is likely to make it more difficult for pedestrians and other non-motorised users to cross the road.
- 7.7.5 The geographical extent of the roads which will experience traffic-related severance may give rise to disproportionate and differential effects on older people, who are

Equality Impact Assessment Report

disproportionately represented in the local area and who may be more likely to experience difficulty crossing busier roads.

8 Pickmere to Agden and Hulseheath (MA03)

8.1 Introduction

- 8.1.1 Potential equality effects arising along the route of the Proposed Scheme, including those which could occur in this area, are described under the relevant headings in sections 5.3 and 5.4 of this report. This section reports on individual resources located in the Pickmere to Agden and Hulseheath area (MA03) where there may be potential specific equality effects on people with protected characteristics.
- 8.1.2 Environmental effects reported in this section are drawn from the ES, and further information can be found in the Volume 2, Community Area report: Pickmere to Agden and Hulseheath (MA03).

8.2 Description of the area

- 8.2.1 The Pickmere to Agden and Hulseheath area covers a 10.6km section of the route of the Proposed Scheme in Cheshire. The area is predominantly agricultural in nature, characterised by several villages, hamlets and scattered farmlands and dwellings. The route passes through the settlements of Tabley Inferior, Pickmere, Tabley, Mere, High Legh and Agden. Cheshire East Council (CEC), Cheshire West and Chester Council (CWCC) and Trafford Metropolitan Borough Council (TMBC) are the local authorities in the area. The southern boundary of this section is formed by the boundary between the communities of Tabley Inferior and Plumley. The northern boundary of the area lies to the east of Broomedge.
- 8.2.2 In general, older people aged 65-84 and 85 and over are disproportionately represented in this area, including in the areas of Tabley, Over Tabley, Mere, Hoo Green, Agden and Little Bollin.

8.3 Cheshire Showground

- 8.3.1 Cheshire Showground is a multi-purpose greenfield venue located in Tabley, close to junction 19 of the M6. It covers 121ha, and part of the showground is within the land required for the construction of the Proposed Scheme.
- 8.3.2 The showground hosts the annual Royal Cheshire County Show, and a range of other events including the Scout Chamboree. The Chamboree is a week-long international Scout and Guide camp, held at the showground every four years. The next Chamboree will take place from 30 July to 6 August 2022. The showground is also used for CuBe, an activity camp for Cubs and Beavers scout groups.

Construction

- 8.3.3 Construction of Pickmere embankment, Pickmere Footpath 9/1 underbridge, Cheshire Showground North access diversion and Cheshire Showground South access diversion will temporarily require the use of approximately 25ha (21%) the land at Cheshire Showground, for a period of three years and six months. Following construction, a smaller area of land comprising 5ha (5%) will be required permanently. The site will be split into two by the route of the Proposed Scheme on an embankment, with an access road over the Proposed Scheme in place during construction and operation.
- 8.3.4 Based on engagement with the Showground, the viability of the business may be affected by the loss of land and it is assumed on a precautionary basis that it will not be able to continue to operate. Consequently, there may be a differential effect for some children attending Scout, Cubs and Beavers events such as the Scout Chamboree and CuBe events who may not be able to travel to alternative facilities, as the Showground will no longer be available for use.

Operation

- 8.3.5 The equality effects reported as permanent during construction will continue into operation.

9 Broomedge to Glazebrook (MA04)

9.1 Introduction

- 9.1.1 Potential equality effects arising along the route of the Proposed Scheme, including those which could occur in this area, are described under the relevant headings in sections 5.3 and 5.4 of this report. This section reports on individual resources and area-based effects located in the Broomedge to Glazebrook area (MA04), where there will be potential specific equality effects on people with protected characteristics.
- 9.1.2 Environmental effects reported in this section are drawn from the ES, and further information can be found in the Volume 2, Community Area report: Broomedge to Glazebrook (MA04).

9.2 Description of the area

- 9.2.1 The Proposed Scheme through Broomedge to Glazebrook area will be 7.3km in length and lies within the Warrington Borough Council (WBC) and TMBC. The route will extend from Broomedge in the south, and will pass close to the settlements of Little Heatley, Heatley, Mossbrow, Warburton, Partington, Hollins Green, Cadishead and Glazebrook in the north.
- 9.2.2 The Broomedge to Glazebrook area is predominantly rural in nature with a mix of settlements, and agriculture being the main land use. The majority of community facilities are located in the larger settlements of Lymm, Partington, Irlam and Cadishead. Older people aged 65-84 are disproportionately represented in Warburton. Partington and Glazebrook have disproportionate representations of children and older people aged 65-84 respectively.

9.3 Warburton and Mossbrow: Area-based effects

- 9.3.1 Warburton is a village located in the borough of Trafford, approximately two miles south-west of Partington and 2.5 miles north-east of Lymm. Facilities in Warburton include the Old Church of St Werburgh. St Werburgh's New Church, the Saracens Head public house and Moss Brow Farm Shop are located in the neighbouring hamlet of Mossbrow, to the west of Warburton. The two settlements are joined by Paddock Lane and by the A6144 Paddock Lane, which links Partington and Lymm.
- 9.3.2 Older people aged between 65 and 84 are disproportionately represented in the population of the villages and the immediate surrounding area.

Construction

- 9.3.3 The Warburton embankment satellite compound and the A6144 Paddock Lane satellite compound will both be located in Warburton between the A6144 Paddock Lane and the A57

Cadishead Way. Construction works associated with these compounds and taking place in the local area include Heatley South embankment, Heatley North embankment, Warburton cutting, Warburton embankment, A6144 Paddock Lane auto-transformer station, A6144 Paddock Lane overbridge, and A6144 Paddock Lane railway telecommunications site. The Warburton embankment satellite compound will be operational for six years and three months and the A6144 Paddock Lane satellite compound will be operational for three years and six months.

- 9.3.4 Construction activity in the area, including the construction of Warburton cutting, will require closure and permanent realignment of the A6144 Paddock Lane, which provides a link between Warburton and Mossbrow. While permanent realignment of the A6144 Paddock Lane will reduce overall journey distances for users travelling along the A6144 between Partington and Lymm, it will result in an increase in journey length locally. Journeys between the Saracens Head public house, to the west of the Proposed Scheme, in Warburton and Moss Brow Farm Shop, to the east of the Proposed Scheme, in Mossbrow will increase by 950m, which could make it more difficult for local residents to travel between the two settlements on foot.
- 9.3.5 The ES also reports significant temporary and permanent visual effects for residents of properties in Warburton and Mossbrow as a result of construction of the Proposed Scheme, which could create a visual barrier between the two settlements.
- 9.3.6 Engagement with stakeholders identified concerns that the route of the Proposed Scheme, including the presence of Warburton cutting, would separate the villages of Warburton and Mossbrow by reducing access and creating a visual barrier. Journey delays and increased local travel times, including for pedestrians, have the potential to lead to a loss of social capital and increased social isolation. This may reduce the beneficial health effects gained through social contact for some residents of Warburton, resulting in an adverse effect on community cohesion.
- 9.3.7 Older people aged 65-84 are disproportionately represented in Warburton and could therefore be disproportionately affected. There is also the potential for differential effects, as older people may be particularly sensitive to the loss of community cohesion and to impacts on the local roads, which could make it more difficult to move around the area and to access community resources, including St Werburgh's New Church. Access to places to practise religion or belief can be particularly important for older people in rural areas, where churches and other places to practise religion or belief can provide important community resources.

Operation

- 9.3.8 There are no further area-wide equality effects identified in Warburton and Mossbrow during operation. The effects related to the presence of the Proposed Scheme and the permanent realignment of the A6144 Paddock Lane will continue during operation.

9.4 Partington: area-based effects

- 9.4.1 Partington is situated between Warrington and Manchester on the southern side of the Manchester Ship Canal opposite Cadishead. Partington, has several community facilities including Little Oaks Nursery School, Our Lady of Lourdes Roman Catholic Primary School, Broadoak Secondary School and Forest Gate Academy Primary School. In addition, there are a number of care homes and General Practitioner (GP) surgeries, and several recreational facilities. There is a disproportionately high representation of children aged 0-15 years in Partington.
- 9.4.2 The Manchester Ship Canal viaduct south satellite compound will be located in Partington south of the Manchester Ship Canal and north of the A6144 Warburton Lane. The Manchester Ship Canal viaduct construction works will be associated with this compound and will take place in the local area. The Manchester Ship Canal viaduct south satellite compound will be operational for four years and three months.
- 9.4.3 The traffic and transport assessment in the ES identifies a significant increase in HGV traffic along Warburton Lane, which is a designated construction traffic route, in which is likely to make it more difficult for non-motorised users to cross the road. Partington Children's Centre, Partington Community Centre, The Hideaway Children's Play Centre, the FUSE Community Centre, and Fairfield House School, Partington Central Academy Primary School, Broadoak Secondary School and Gillitots Day Nursery are all accessed from Warburton Lane. Evidence shows health and social benefits for children who walk to school, while safety concerns including traffic volume and speed can be a barrier to walking⁶⁹. Construction traffic on these roads will make it more difficult to cross the road and could give rise to parental concerns about their children's safety.
- 9.4.4 Traffic severance for pedestrians and other non-motorised users may have disproportionate and differential effects on children in Partington, who are disproportionately represented in the local area and are likely to find it more difficult to cross the road.

⁶⁹ Living Streets (2018), *Swap the School Run for a School Walk*. Available online at: https://www.livingstreets.org.uk/media/3618/livingstreets_school_run_report_web.pdf.

10 Risley to Bamfurlong (MA05)

10.1 Introduction

- 10.1.1 Potential equality effects arising along the route of the Proposed Scheme, including those which could occur in this area, are described under the relevant headings in sections 5.3 and 5.4 of this report. This section reports on individual resources and area-based effects located in the Risley to Bamfurlong area (MA05), where there will be potential specific equality effects on people with protected characteristics.
- 10.1.2 Environmental effects reported in this section are drawn from the ES, and further information can be found in the Volume 2, Community Area report: Risley to Bamfurlong (MA05).

10.2 Description of the area

- 10.2.1 The Risley to Bamfurlong area covers a 12.7km section of the route of the Proposed Scheme in Greater Manchester. The local authorities in the area are Warrington Borough Council (WBC) and Wigan Metropolitan Borough Council (WMBC). The route passes through the parishes of Birchwood, Croft, Culcheth and Glazebury.
- 10.2.2 This area is predominantly rural in nature, with the majority of community facilities located in the larger settlements of Culcheth, Lowton, Golborne and Abram. There are also smaller settlements, clusters of dwellings and farms within the Risley and Bamfurlong area. Older people aged 65-84 are disproportionately represented in Lowton and in Culcheth. People aged 85 and over are also disproportionately represented in part of Culcheth.

10.3 Lowton Junior and Infant School

- 10.3.1 Lowton Junior and Infant School is located on the A572 Newton Road in Lowton, Warrington and is approximately 150m from the route of the Proposed Scheme and adjacent to land required for construction of the Proposed Scheme.
- 10.3.2 The school has approximately 200 pupils between the ages of four and 11. School facilities include a school building, a tarmac multi-use playground, playing fields, and a car park.

Construction

- 10.3.3 The A580 East Lancashire Road main compound will be located adjacent to the school, south of the school playing fields, for four years and nine months. This compound will be used for the construction of the A572 Newton Road overbridge, including associated highway works, Carr Brook aqueduct and Lowton cutting and will be located directly to the east of the school buildings and playground.

Equality Impact Assessment Report

- 10.3.4 A small area of the playing fields (0.01ha) will be required permanently for the Carr Brook aqueduct. The loss of this land will not directly impact on the use of the outdoor space, as it is an area of informal vegetation on boundary of the school site.
- 10.3.5 The noise assessment in the ES identifies, on a precautionary basis, that the construction of the A572 Newton Road overbridge and associated highway works is likely to result in significant construction noise effects at the school for a period of three years and three months. Increases in noise can affect children's concentration and ability to learn, with implications for educational attainment and may give rise to disproportionate and differential effects for children.
- 10.3.6 The landscape and visual assessment in the ES reports significant visual effects as a result of activities adjacent the school associated with the construction of the Carr Brook aqueduct, A572 Newton Road overbridge and Lowton cutting. While visual effects for schools without specialist SEND provision are outside the scope of the EQIA, in this case it is considered that, along with the loss of a small area of the school playing fields, visual effects arising from construction activity adjacent to the school and its playing fields could contribute to an overall adverse effect on the learning environment.
- 10.3.7 The school is accessed via the A572 Newton Road which will be realigned as part of the Proposed Scheme. The A572 Newton Road will also be a designated construction traffic route providing access to the nearby A572 Newton Road satellite compound, and to the A580 East Lancashire main compound via an access track running along the eastern edge of the school.
- 10.3.8 Evidence shows health and social benefits for children who walk to school, whilst safety concerns including traffic volume and speed can be a barrier to walking⁷⁰. Although the traffic and transport assessment in the ES does not report any significant effects on pedestrian severance along the section of the A572 Newton Road which passes the school, construction traffic could still give rise to parental concerns about their children's safety.
- 10.3.9 HS2 Ltd will work closely with Lowton Junior and Infant School to identify reasonably practicable measures to mitigate the effects, including discretionary measures identified in the draft CoCP.

Operation

- 10.3.10 There are no further equality effects identified at Lowton Junior and Infant School during operation of the Proposed Scheme. The permanent loss of land from Lowton Junior and Infant School arising from the construction of the Proposed Scheme will be experienced during operation.

⁷⁰ Living Streets (2018), *Swap the School Run for a School Walk*. Available online at: https://www.livingstreets.org.uk/media/3618/lis_school_run_report_web.pdf.

10.4 Hesketh Meadows Playing Fields

- 10.4.1 Hesketh Meadows Playing Fields is an open space located on Hesketh Meadow Lane, in Lowton. It is within the land required for the construction of the Proposed Scheme.
- 10.4.2 This 5.6ha playing field is a recreational open space with seven grass football pitches. The football pitches are under licence to East Leigh Junior Football Club, a football club for children up to the age of 18. The football club is required to ensure that access to the playing fields is available to the community for recreation. The club presently has 17 teams, ranging from under sevens to under 18s, and runs an academy for children under six. It is understood that two of the teams run by the club are girls' teams. Facilities at the playing fields include 48 car parking spaces, with vehicle access from Hesketh Meadow Lane.
- 10.4.3 There are no publicly accessible alternative open spaces of this scale that provide similar facilities for young children in the Lowton area. There is a children's playground available at Civic Park, around 200m from Hesketh Meadows.

Construction

- 10.4.4 Construction of Lowton cutting will require all 5.6ha of the playing fields and the car park (containing 48 car parking spaces), resulting in their permanent loss. The health assessment in the ES reports that there will be adverse health effects from the loss of the playing fields, the football club, and its academy for children aged under six.
- 10.4.5 The loss of this facility may give rise to disproportionate effects for members of East Leigh Junior Football Club, and other members of the wider community with protected characteristics, including children and young people, who use the fields for informal recreation. Access to open space for play, health, fitness and social interaction can be particularly important for children and young people, and so there may also be a differential effect for these groups. There may also be a differential effect for girls, as there may be fewer alternative teams available for girls in the local area.
- 10.4.6 An area of land at Cheetham Fold Farm Stables, adjacent to the existing playing fields, has been identified to replace Hesketh Meadows playing fields in a like for like manner, with public access maintained. By road, the replacement is 700m away from the existing playing fields. The provision of this alternative land is considered to mitigate the loss of land required to construct the Proposed Scheme, as well as mitigating the identified disproportionate and differential effects.

Operation

- 10.4.7 No further equality effects are identified during operation of the Proposed Scheme.

10.5 English Karate Academy

- 10.5.1 The English Karate Academy is located at Warehouse Studios on Glaziers Lane, Culcheth. It is within the land required for the construction of the Proposed Scheme.
- 10.5.2 The English Karate Academy offers karate classes for children, adults and families at all levels. There are limited alternative facilities in the area; there is one karate school located in Lowton, and four in Warrington which is approximately 10km away.

Construction

- 10.5.3 Construction of Culcheth cutting will require the demolition of a range of business premises based at Warehouse Studios, including the English Karate Academy. The permanent loss of this facility may give rise to disproportionate effects for children and young people.
- 10.5.4 HS2 Ltd is continuing to engage with the owners of English Karate Academy, to identify reasonably practicable measures to help mitigate the loss of this resource.

Operation

- 10.5.5 The permanent loss of the English Karate Academy arising from the construction of the Proposed Scheme will continue during operation.

11 Hulseheath to Manchester Airport (MA06)

11.1 Introduction

- 11.1.1 Potential equality effects arising along the route of the Proposed Scheme, including those which could occur in this area, are described under the relevant headings in sections 5.3 and 5.4 of this report. This section reports on individual resources located in the Hulseheath to Manchester Airport area (MA06), where there will be potential specific equality effects on people with protected characteristics.
- 11.1.2 Environmental effects reported in this section are drawn from the ES, and further information can be found in the Volume 2, Community Area report: Hulseheath to Manchester Airport (MA06).

11.2 Description of the area

- 11.2.1 The Hulseheath to Manchester Airport area covers a 10.7km section of the route of the Proposed Scheme in Cheshire and Greater Manchester. The route passes through the settlements of Millington, Rostherne, Mobberley, Ashley and Ringway.
- 11.2.2 The area is predominantly rural, characterised by small clusters of dwellings and individual farms, with few community facilities. In general, most facilities are located in Hale Barns and Hale. Older people aged 65-84 are disproportionately represented across much of the area, and particularly around Hale. Older people aged 85 and over are also disproportionately represented, particularly in the more rural parts of the area. Black, Asian and Minority Ethnic (BAME) people, including people from mixed ethnic backgrounds and from 'other' ethnic groups, are disproportionately represented in the Hale and Davenport Green area.

11.3 Children's Adventure Farm Trust (CAFT)

- 11.3.1 The Children's Adventure Farm Trust (CAFT) is located at Booth Bank Farm on the junction of Reddy Lane and Millington Lane in the hamlet of Millington. It is 425m north of the route of the Proposed Scheme.
- 11.3.2 The site is an open farm providing a variety of activity programmes and holiday respite accommodation for terminally ill, disabled and disadvantaged children (aged 0 - 17 years). This includes children with complex and severe physical and learning disabilities, sensory impairments and terminal illnesses, as well as children who act as carers, those dealing with bereavement and children who have been victims of abuse. The farm is open all year round, and approximately 3,500 children visit each year. All guests on site are pre-arranged visitors via referrals.
- 11.3.3 Indoor facilities on the site include a sensory suite; office accommodation; art room; kitchen; lounge area; laundry room; sports hall with activities including inflatables and a climbing

wall; games room; music room; and listening corner. Outdoor facilities include a duck pond; animal shed; adventure farm and playground; mixed playing material; and woods. CAFT is currently working on an extension and development plan for the business in order to provide new facilities with better accessibility by removing the gradients on the site. This is part of a scheme approved by Cheshire East Council in July 2021. Planning permission was granted for the development of a new residential wing with ancillary office and children's activity space; alterations, extensions and repairs to Booth Bank Farmhouse, access and landscaping. Construction will take between two and three years. CAFT would also like to separate cars and delivery vehicles from pedestrians on the site, with the construction of a new footpath.

- 11.3.4 There are no alternative resources offering the same service in the area. Higher Thorns Green Farm, located approximately 10km away, offers social and educational opportunities for children and adults with autism or learning disabilities. An alternative facility in Wigan offers different services for an older user group with focus on employment and children with additional needs.

Construction

- 11.3.5 Although the ES has not identified any significant effects at CAFT as a result of changes in air quality or noise, through engagement with CAFT it is understood that the children who use the services provided at the site may be sensitive to potential environmental impacts associated with construction activity, including impacts on air quality and due to noise.
- 11.3.6 The landscape and visual assessment reported in the ES identifies that the construction of Millington Lane realignment and overbridge, Millington Lane telecommunications site and Millington cutting will result in a noticeable change to views experienced by visitors to Booth Bank Farm, with cranes and taller construction machinery apparent on the skyline. This construction activity will take place over a period of two years and nine months. The use of Millington Lane as a construction traffic route will also introduce increased levels of traffic movement into the view. This may give rise to differential effects for children who are regular visitors to CAFT and who may be more sensitive to changes in the visual environment, including children with autism and children with visual impairments.
- 11.3.7 Millington Lane will be used as a construction traffic route, which is likely to make it more difficult for non-motorised users crossing the road. This may give rise to differential effects on children, including disabled children, attending CAFT during construction of the Proposed Scheme.
- 11.3.8 During the construction of Millington Lane overbridge and associated highways works, Millington Lane will be temporarily closed for a period of one year and nine months. A 5.5km diversion via Peacock Lane and the B5569 Chester Road will be in place during the closure, resulting in increased travel distance for vehicles. There may be the potential for this to result in differential effects for children with autism and children with complex health needs who may be more sensitive to travel disruption and increased or unreliable journey times. It

is understood that most children visiting CAFT are on a time schedule due to needs associated with, for example, toileting or medication.

- 11.3.9 These children may also be sensitive to any delays or other impacts on travel to and from the site as a result of construction traffic or disruption to the local road network.
- 11.3.10 Car parking for CAFT is located on Millington Lane, and so the temporary closure of this road may also give rise to a disproportionate effect for children, and a differential effect for disabled children, who are likely to require access to the car park in order to visit CAFT.
- 11.3.11 HS2 Ltd is continuing to engage with CAFT, to identify reasonably practicable measures to mitigate the effects identified in this assessment.

Operation

- 11.3.12 There are no equality effects identified at CAFT during operation.

11.4 Fairfield Farm Project, Higher Thorns Green Farm

- 11.4.1 Higher Thorns Green Farm is a working farm that hosts the Fairfield Care Services' farm project, run by Fairfield Residential. It is located in the hamlet of Thorns Green, within the land required for the construction of the Proposed Scheme.
- 11.4.2 The Fairfield Farm Project provides a range of social and flexible educational opportunities for children and adults with learning difficulties and/or autism, supported by qualified staff. Activities include animal husbandry, horticulture and farming skills, which may lead to recognised qualifications for participants. SEND pupils are able to visit the resource via organised farm visits. Facilities on the site include raised vegetable beds, small kitchen facilities, and farm facilities associated with animal husbandry and horticulture. There is no overnight accommodation for visitors provided on the site.
- 11.4.3 There are no alternative resources offering a similar service in the area. CAFT at Booth Bank Farm, which will also be impacted by the Proposed Scheme as described above, is located approximately 10km away. However, CAFT offers a different range of services and is focused on children.

Construction

- 11.4.4 Construction of Thorns Green cutting will require the demolition of Higher Thorns Green Farm. The socio-economic assessment in the ES notes that the farm has been expressly adapted to the specific needs of its users, which may be difficult to replicate elsewhere. The health assessment in the ES reports that the loss of the services provided by the Fairfield Farm Project will be likely to result in a permanent loss of opportunities for affected groups to engage in activities that are beneficial for their education, health and wellbeing.

- 11.4.5 The permanent loss of this facility will give rise to disproportionate effects for people who currently use its services, including children, young people and adults with learning disabilities and/or autism. Users who may be more sensitive to any disruption to their routines, including those with autism, may experience a differential effect from the loss of this resource. There could also be a differential effect for disabled people using the resource who may find it particularly difficult to access an equivalent service in the local area.
- 11.4.6 HS2 Ltd is continuing to engage with the owners and occupiers of Higher Thorns Green Farm to identify reasonably practicable measures to help mitigate the loss of this resource.

Operation

- 11.4.7 The effects associated with the permanent loss of Higher Thorns Green Farm arising from the construction of the Proposed Scheme will continue during operation.

11.5 Ringway: area-based effects

- 11.5.1 Ringway is a small linear settlement of less than 20 residential properties along Sunbank Lane, West of Manchester Airport, south of the M56. The nearest community facilities are located in Hale Barns. The area in which it is located has a disproportionate representation of older people (65-84 years and over 85 years).
- 11.5.2 The Proposed Scheme will run in an east-west alignment passing under the realigned Sunbank Lane in Ringway cutting and crossing beneath the M56 in tunnel. The Sunbank Satellite compound will be in operation for four years and six months and will be used to manage the construction of Sunbank Lane overbridge, the M56 East tunnel, M56 cutting retaining wall as well as River Bolling North embankment and Ringway cutting earthworks. The River Bollin viaduct satellite compound will be in operation for three years and six months and will be used to manage the construction of the River Bollin North viaduct.
- 11.5.3 Construction of Ringway cutting will require demolition of five properties, which represents a large proportion of the settlement. During construction of the Proposed Scheme, the ES also reports significant noise effects (for two years and three months) and visual effects on approximately 10 properties on Sunbank Lane. The health assessment also identifies an adverse effect on neighbourhood quality, as a result of noise and visual impacts.
- 11.5.4 Construction in the area will require the closure of Sunbank Lane for six years and three months, and a temporary realignment of the M56 for three years and three months. Sunbank Lane will be a designated construction traffic route for the Proposed Scheme, serving Sunbank Lane satellite compound, which will be located immediately south of the M56 east tunnel.
- 11.5.5 The traffic and transport assessment in the ES identifies a significant effect on pedestrians due to the temporary closure during construction of three PRoW in the area: Footpath Ringway 12 and Footpath Ringway 14 (both for one year and two months) and Footpath

Equality Impact Assessment Report

Ringway 11 (for three years and three months). No viable alternative routes will be available during the closures.

- 11.5.6 There are no bus stops within the village of Ringway. The closest stops are approximately 300m to the north on Chapel Lane or approximately 1km to the east on the A538 Wilmslow Road. Construction of the Proposed Scheme will require temporary bus route diversions and traffic management with consequent increase in journey times and the need to relocate bus stops. The traffic and transport assessment in the ES reports significant adverse effects on public transport, with delays to the users of bus routes: 88, 283, 741 and 869 operating on the A538 Hale Road and the A538 Wilmslow Road between Delahays Road and Mill Lane; and 288, 103 and 313 operating on the A538 Hale Road and Runger Lane between Delahays Road and Manchester Airport. These effects will be experienced during construction and operation of the Proposed Scheme.
- 11.5.7 Together, the loss of residential properties, the adverse effects on neighbourhood quality, public transport delays and closures of public rights of ways may lead to a loss of social capital and increased social isolation which may have a disproportionate and differential effect on older people who are disproportionately represented in the local area.

12 Davenport Green to Ardwick (MA07)

12.1 Introduction

- 12.1.1 Potential equality effects arising along the route of the Proposed Scheme, including those which could occur in this area, are described under the relevant headings in sections 5.3 and 5.4 of this report. This section reports on individual resources located in the Davenport Green to Ardwick area (MA07), where there will be potential specific equality effects on people with protected characteristics.
- 12.1.2 Environmental effects reported in this section are drawn from the ES, and further information can be found in the Volume 2, Community Area report: Davenport Green to Ardwick (MA07).

12.2 Description of the area

- 12.2.1 The Proposed Scheme in the Davenport Green to Ardwick area will be 13.4km in length and lies within the TMBC, MCC and Greater Manchester Combined Authority (GMCA) areas. The route in this area runs from Fairywell Brook, just south of Newall Green and Woodhouse Park at the edge of Manchester conurbation, passing close to the settlements of Newall Green, Wythenshawe, Northenden, Didsbury, Withington, Longsight and West Gorton.
- 12.2.2 The area is predominantly urban in character, with land use comprising dense residential development, light industrial and commercial uses. PCGs including children, disabled people, Black, Asian and Minority Ethnic (BAME) people including Asian/Asian British people, Black/Black British people, people from mixed ethnic backgrounds and people from 'other' ethnic groups, and religious groups including Hindus and Muslims are disproportionately represented in different parts of the area. Older people aged 85 and over are disproportionately represented in some parts of Didsbury and there is one LSOA in Didsbury where Jewish people are disproportionately represented.

12.3 Birchfields Primary School

- 12.3.1 Birchfields Primary School is located on Lytham Road in the Fallowfield area to the south of Manchester city centre. The route of the Proposed Scheme passes directly beneath the school in tunnel.
- 12.3.2 The school is a state primary school for children aged three to 11, and comprises a two-storey school building and outdoor facilities including a football pitch, basketball courts, gardens and areas for creative games.

Construction

- 12.3.3 The Birchfields Road vent shaft and Birchfields Road vent shaft satellite compound will be approximately 60m from the school building, and directly adjacent to the school's open space. The southern façade of the school building and its external amenity spaces face the proposed site of the Birchfield Road vent shaft satellite compound. The school is located adjacent to the A34 Birchfields Road, which will be a designated construction traffic route. The traffic and transport assessment in the ES identifies that construction works associated with the Birchfields Road vent shaft and satellite compound will increase HGV traffic on the A34 Birchfields Road (between A34 Moseley Road and Old Hall Lane), which is likely to make it more difficult for non-motorised users to cross the road. This may have differential effects on children walking or cycling to and from the school. Evidence shows health and social benefits for children who walk to school, while safety concerns including traffic volume and speed can be a barrier to walking⁷¹.
- 12.3.4 Construction traffic on the A34 Birchfields Road (between Lytham Road and Old Hall Lane) will make it more difficult to cross the road and could give rise to parental concerns about their children's safety.
- 12.3.5 The noise assessment in the ES reports that construction activities associated with the Birchfields Road vent shaft will result in a significant adverse effect at the school for a period of up to five years and two months. This may result in a disproportionate effect for children attending the school. Increase in noise can affect children's concentration and ability to learn, with implications for educational attainment, and so there may also be a differential effect.
- 12.3.6 HS2 Ltd will continue to work closely with Birchfields Primary School to identify reasonably practicable measures to mitigate the effects identified at the school.

Operation

- 12.3.7 There are no equality effects identified at Birchfields Primary School during operation of the Proposed Scheme.

12.4 The Christie Hospital

- 12.4.1 The Christie Hospital is a hospital and research centre focusing on cancer research and treatment. It is located on the B5093 Wilmslow Road in the Withington area of south Manchester, 130m from the route of the Proposed Scheme.
- 12.4.2 The hospital is one of Europe's largest cancer-research hospitals, treating more than 44,000 patients each year. It provides radiotherapy, chemotherapy, specialised surgery for complex

⁷¹ Living Streets (2018), *Swap the School Run for a School Walk*. Available online at: https://www.livingstreets.org.uk/media/3618/livingstreets_school_run_report_web.pdf.

and rare cancers, and a wide range of support and diagnostic services. The majority of patients come from Greater Manchester and Cheshire, with approximately 26% of patients referred from across the UK⁷².

Construction

- 12.4.3 The Wilmslow Road vent shaft satellite compound will be approximately 75m from the hospital. Construction of the Wilmslow Road vent shaft will permanently require the loss of The Christie Hospital Car Park D on the B5093 Wilmslow Road. Car Park D is one of two designated patient and visitor car parks that serve The Christie Hospital, and is located approximately 250m to the south of the hospital. It has spaces for approximately 135 vehicles, including approximately 30 Blue Badge spaces. The loss of Car Park D will reduce the total number of car parking spaces available to visitors and patients by approximately 30%, from approximately 335 spaces to 200, and to just one location. There are limited alternative parking facilities in the area, and the majority of on-street parking around the hospital requires a permit.
- 12.4.4 The permanent loss of Car Park D, including the loss of all Blue Badge parking spaces and wheelchair shelters, will give rise to disproportionate and differential effects for disabled people including those with cancer attending the hospital for treatment or to visit other patients. It is understood that Car Park D currently operates under a temporary planning permission. For the purpose of this assessment, it is assumed that at commencement of construction of the Proposed Scheme the car park will continue to be operating under a temporary planning permission.
- 12.4.5 The landscape and visual assessment in the ES has identified a significant adverse visual effect at The Christie Hospital as a result of the construction of the Wilmslow Road vent shaft and associated construction traffic. Hospital staff, patients and visitors will see large scale construction works in the background, and construction traffic will be seen accessing the site via the B5093 Wilmslow Road. There will also be night-time effects associated with additional lighting required for the Wilmslow Road vent shaft satellite compound, which will intensify existing night-time sky glow. Evidence from Cancer Research⁷³ suggests that some drugs used in chemotherapy treatment can increase sensitivity to light or change in visual stimuli. There is therefore the potential for visual effects at The Christie Hospital, particularly from construction activity and night-time lighting, to result in differential effects for patients with cancer.
- 12.4.6 There are plans to introduce a new cancer research centre as part of the Paterson Redevelopment Project at The Christie Hospital. These plans include for a magnetic resonance imaging (MRI) room, located in the basement of the new building. The noise

⁷² NHS, The Christie main site. Available online at: <https://www.nhs.uk/Services/hospitals/Overview/DefaultView.aspx?id=101>.

⁷³ Cancer Research, Your Eyes and Cancer Drugs. Available online at: <https://www.cancerresearchuk.org/about-cancer/cancer-in-general/treatment/cancer-drugs/side-effects/eyes>.

assessment in the ES has identified, on a precautionary basis, an adverse vibration effect on this building which will contain vibration sensitive equipment. It is understood that vibration levels during construction will temporarily exceed the threshold for the MRI equipment for less than one month. This temporary effect may take the form of temporary disruption to hospital activities which involve the use of very vibration sensitive equipment. Based on the information available at this stage, there is the potential for any adverse effect on the MRI room to give rise to differential effects for patients with cancer, should this impact on their diagnosis or treatment.

- 12.4.7 HS2 Ltd is continuing to engage with The Christie Hospital to identify reasonably practicable measures to mitigate the effects identified at the hospital, including as a result of impacts on Car Park D and any adverse impacts on the MRI equipment.

Operation

- 12.4.8 The permanent loss of land from Car Park D at The Christie Hospital arising from the construction of the Proposed Scheme will be experienced during operation. There are no additional equality effects identified at The Christie Hospital during operation.

13 Manchester Piccadilly Station (MA08)

13.1 Introduction

- 13.1.1 Potential equality effects arising along the route of the Proposed Scheme, including those which could occur in this area, are described under the relevant headings in sections 5.3 and 5.4 of this report. This section reports on individual resources and area-based effects located in the Manchester Piccadilly Station area (MA08), where there will be potential specific equality effects on people with protected characteristics.
- 13.1.2 Environmental effects reported in this section are drawn from the ES, and further information can be found in the Volume 2, Community Area report: Manchester Piccadilly Station (MA08).

13.2 Description of the area

- 13.2.1 The Manchester Piccadilly Station area lies entirely within the MCC area. The route of the Proposed Scheme will extend from Ardwick into Manchester city centre and the existing Piccadilly Station.
- 13.2.2 The area to the north of the existing Manchester Piccadilly Station is predominantly industrial and commercial land, comprising the Ancoats and New Islington areas. The area to the south of the station is mainly occupied by the University of Manchester campus and associated accommodation around Sackville Street. The area to the west of the station is part of the Manchester central business district. To the east of the station is the Ardwick rail depot.
- 13.2.3 The Manchester Piccadilly Station area has a large population of younger people, with people aged 16 to 24 disproportionately represented. Areas to the north, around Ancoats and New Islington, also have disproportionate representation of disabled people and BAME groups including Black/Black British people, people from mixed ethnic backgrounds and people from 'other' ethnic groups, while to the south and west there is disproportionate representation of Black, Asian and Minority Ethnic (BAME) groups including Asian/Asian British people, Black/Black British people, people from mixed ethnic backgrounds and people from 'other' ethnic groups, and people from religious groups including Buddhists, Muslims and Hindus.

13.3 SOL Christian Academy

- 13.3.1 SOL Christian Academy is an independent, co-educational faith school (Pentecostal). It is located on the B6469 Fairfield Street in central Manchester, within the land required for the construction of the Proposed Scheme.

Equality Impact Assessment Report

- 13.3.2 The school offers nursery, primary, secondary and sixth form education, and has a specialism in engineering. The school follows the Accelerated Christian Education (ACE) curriculum. This is an individualised Bible-based curriculum. Pupils work towards achieving the International Certificate of Christian Education (ICCE) qualification.
- 13.3.3 The school is registered to take up to 50 pupils aged between three and 18 years, and has advised HS2 Ltd that it currently has 48 pupils on the register, over half of whom are in nursery. The catchment area for the school is predominantly Manchester-based, with some pupils travelling from across Greater Manchester. The school operates a minibus service to transport pupils to and from north Manchester. It is understood that pupils are predominantly from Christian and ethnic minority families.
- 13.3.4 The building is also used by Source of Life, a community church, and by broadcasting station SOL Station TV. SOL House (a hall) is available for hire for weddings and community events. SOL Recording Studio is also available for use by the wider community. The school also hosts H Pan International, a charitable arm of the organisation that focuses on youth and community work and hosts events every month. It is understood that H Pan International engages with around 1,800 young people.
- 13.3.5 There are limited alternative schools offering the same curriculum within the local catchment area. King of Kings School and Lighthouse Christian School, which both follow the same ACE curriculum, are located approximately 1.9km and 6.4km away respectively.

Construction

- 13.3.6 The construction of Piccadilly approach viaduct will require the demolition of the SOL Christian Academy. The health assessment in the ES reports that the loss of the school will reduce the beneficial wellbeing effects associated with educational attainment.
- 13.3.7 The permanent loss of this facility may give rise to a disproportionate effect for children attending the school, including those from ethnic minority backgrounds and from the Pentecostal Christian faith. As there are relatively few alternative schools offering a comparable curriculum and range of facilities, there may also be a differential effect for these groups.
- 13.3.8 The loss of the school will also give rise to disproportionate effects for Pentecostal Christians who attend the Source of Life Church in the building, and for the wider Pentecostal community in the area who currently use the facilities provided in the building. There may also be disproportionate or differential effects for young people if they are no longer able to attend events organised by H Pan International.
- 13.3.9 HS2 Ltd is continuing to engage with owners and managers of SOL Christian Academy to identify reasonably practicable measures to help mitigate the loss of this resource.

Operation

- 13.3.10 The permanent loss of SOL Christian Academy arising from the construction of the Proposed Scheme will continue during operation.

13.4 Manchester Action on Street Health (MASH)

- 13.4.1 Manchester Action on Street Health (MASH) is a charity outreach service for women working in the sex industry in Manchester. It runs a drop-in centre located on the B6469 Fairfield Street in central Manchester, within the land required for the construction of the Proposed Scheme.
- 13.4.2 The drop-in centre provides services including sexual health services, needle exchanges, life skills support, counselling, advice and refreshments, and is open for afternoon and evening sessions. Advice and support are available across a range of issues including debts or benefits, reporting crimes, mental health services, addiction, domestic violence, and counselling. There are also activities available to help build confidence and develop life skills. Women can also phone MASH for advice.
- 13.4.3 The organisation's website reports that it has over 800 users per year. It caters for women who may be marginalised from traditional healthcare services, and for whom English may be a second language. The location of the drop-in centre means that it is convenient and discreet for women to attend, as well as offering a single, reliable location where women know that they are able to access a variety of resources. While alternative health resources are available nearby, the specific nature of the clientele served and services offered means that comparable alternatives providing equivalent services are not readily available. It is understood that the service provided by MASH is unique in the North West.

Construction

- 13.4.4 The construction of Piccadilly approach viaduct will require the demolition of the MASH drop-in centre on Fairfield Street. The health assessment in the ES reports that this will reduce the provision of specialist services, affecting health and wellbeing due to the loss of access to services, health and social care.
- 13.4.5 The permanent loss of this facility may give rise to a disproportionate effect for women and a differential effect for women working in the sex industry in Manchester. There may also be differential effects for women with mental health problems working in the sex industry, and for women with English as a second language, who may find it particularly difficult to access alternative health services.
- 13.4.6 HS2 Ltd is continuing to engage with owners and operators of MASH to identify reasonably practicable measures to help mitigate the loss of this resource, noting that any relocation of the drop-in centre away from the Fairfield Street area may affect the ability or readiness of the current clientele to continue accessing services and attending sessions.

Operation

- 13.4.7 The permanent loss of MASH arising from the construction of the Proposed Scheme will continue during operation.

13.5 Manchester Offenders: Diversion, Engagement and Liaison Team (MO:DEL)

- 13.5.1 Manchester Offenders: Diversion, Engagement and Liaison Team (MO:DEL) is an NHS mental health and substance abuse service for ex-offenders. It is located on the B6469 Fairfield Street in central Manchester, within the land required for the construction of the Proposed Scheme.
- 13.5.2 MO:DEL works with offenders who have mental health problems, learning disabilities and other issues such as substance misuse, homelessness and interpersonal difficulties. It offers mental health assessment, risk assessment, and case management, and covers the whole criminal justice pathway from pre-arrest, custody, court and probation, to promote equality of access to the Health and Social Care Services to which offenders who have mental health problems are entitled. Services are available for all residents of Manchester who are currently involved in the criminal justice system and are also open to users who are not from the area but consider themselves Manchester residents.
- 13.5.3 The Fairfield Street site acts as a central hub for the service, and the organisation also engages with users in police custody cells and in courts. Greater Manchester Mental Health NHS Foundation Trust operates similar services in Bolton, Salford and Trafford; however, these services are smaller than MO:DEL and do not cover Manchester city centre.

Construction

- 13.5.4 The construction of Piccadilly approach viaduct will require the demolition of the MO:DEL premises on Fairfield Street. The health assessment in the ES reports that this will reduce the provision of specialist services, affecting health and wellbeing.
- 13.5.5 The permanent loss of this facility may give rise to a disproportionate and differential effect for men and women with mental health conditions and learning difficulties living in Manchester who access the services provided by this organisation.
- 13.5.6 HS2 Ltd is continuing to engage with owners and operators of MO:DEL to identify reasonably practicable measures to help mitigate the loss of this resource

Operation

- 13.5.7 The permanent loss of MO:DEL arising from the construction of the Proposed Scheme will continue during operation.

13.6 True Jesus Church

- 13.6.1 True Jesus Church is located on St Andrew's Street in central Manchester. It is within the land required for the construction of the Proposed Scheme.
- 13.6.2 The church serves a revised apostolic congregation, the majority of whom are from Chinese ethnic backgrounds. Congregants range in age from 18-70 years, with a significant proportion aged 20-30. It is understood that the church has a regular congregation of approximately 40 people, but can attract up to 100 visitors. Children also use the church for activities.
- 13.6.3 The church is run by volunteers and worship takes place on Saturdays. As well as its primary function, the church also offers educational classes for children, Bible study courses and gospel choir, as well as informal social events. Due to its specific links with Manchester's Chinese community, comparable resources are not available nearby. The nearest alternative revised apostolic/True Jesus Church is located in Newcastle, approximately 230km from Manchester.

Construction

- 13.6.4 The construction of Piccadilly approach viaduct will require the demolition of True Jesus Church. The health assessment in the ES reports that this will affect quality of life by limiting opportunities for using a community facility, limiting participation in community events, and disrupting existing social networks.
- 13.6.5 The permanent loss of this church and the disruption to the congregation may give rise to a disproportionate effect for Christians, including children, from the revised apostolic/True Jesus denomination living in Manchester and the North West, including those from Chinese ethnic backgrounds. Given the distance to the nearest alternative facility, there may also be a differential effect for people from the Chinese Christian community in Manchester.
- 13.6.6 HS2 Ltd is continuing to engage with owners and operators of True Jesus Church to identify reasonably practicable measures to help mitigate the loss of this resource.

Operation

- 13.6.7 The permanent loss of True Jesus Church arising from the construction of the Proposed Scheme will be experienced during operation.

13.7 Straight Blast Gym (SBG) Manchester

- 13.7.1 Straight Blast Gym (SBG) Manchester is a gym located in railway arches on Sheffield Street in Manchester, close to Manchester Piccadilly Station.
- 13.7.2 The gym offers specialist training in marital arts, Brazilian jiu-jitsu, boxing, self-defence and kickboxing. Facilities include boxing rings and martial arts spaces for use in classes, practice

and competition. Classes for children aged between six and 11 are available in Brazilian jiu-jitsu and kickboxing, and adult classes are available in a wide range of disciplines.

Construction

- 13.7.3 The construction of Piccadilly Station viaduct will require the permanent closure of Sheffield Street. Sheffield Street provides the only pedestrian and vehicular access to SBG Manchester. The loss of access to the gym will affect its ability to function. The health assessment in the ES reports that this will reduce the opportunity for beneficial health outcomes achieved through physical exercise.
- 13.7.4 Opportunities for physical recreation and exercise are particularly important for children and young people, and so the permanent loss of this resource could result in differential effects for children and young people who currently attend classes or train at the gym.
- 13.7.5 HS2 Ltd is continuing to engage with owners and operators of SBG Manchester to identify reasonably practicable measures to help mitigate the effects arising from the loss of this resource.

Operation

- 13.7.6 The permanent closure of Sheffield Street and loss of access to SBG Manchester arising from the construction of the Proposed Scheme will continue during operation.

13.8 Front Line Fit (FLF) Performance Centre

- 13.8.1 Front Line Fit (FLF) Performance Centre is a gym located in railway arches on North Western Street in Manchester, close to Manchester Piccadilly Station. It offers specialist training and physical education, including workshops for schools and businesses.

Construction

- 13.8.2 The B6469 diversion and the construction of a new Network Rail access ramp will require the permanent closure of North Western Street, between Chapelfield Road and Hoyle Street. The road will be closed to both vehicles and pedestrians. The loss of access to the FLF premises will affect the gym's ability to function.
- 13.8.3 It is understood that the gym offers workshops and projects for school groups. Access to opportunities for exercise and physical activity can be particularly important for children, and so there may be differential effects for children as a result of the loss of access to this resource.
- 13.8.4 HS2 Ltd is continuing to engage with owners and operators of FLF Performance Centre to identify reasonably practicable measures to help mitigate the effects arising from the loss of this resource.

Operation

- 13.8.5 The permanent closure of North Western Street and loss of access to FLF Performance Centre arising from the construction of the Proposed Scheme will continue during operation.

13.9 St Anne's Roman Catholic Primary School

- 13.9.1 St Anne's Roman Catholic Primary School is located on Carruthers Street in the Ancoats area to the east of Manchester city centre, at the junction with the A662 Pollard Street/Merrill Street. It is approximately 660m from the route of the Proposed Scheme, and approximately 100m from the Metrolink New Islington turnback satellite compound.
- 13.9.2 The school is a state primary school for children aged three to 11. Admission criteria for the school for 2022/2023 give priority to baptised Catholic children who reside in the parish of the Holy Spirit⁷⁴. The parish of the Holy Spirit is a parish within the RC diocese of Salford. It extends east from Manchester city centre and includes the Ancoats, New Islington, and Beswick areas of the city⁷⁵.

Construction

- 13.9.3 The noise assessment in the ES identifies that construction activities associated with the Metrolink New Islington turnback satellite compound are likely to result in significant noise effects at the school for a period of five months. This may give rise to disproportionate effects for children at the school. Increase in noise can affect children's concentration and ability to learn, with implications for educational attainment, and so there may also be a differential effect.
- 13.9.4 The traffic and transport assessment in the ES reports that the construction of the Proposed Scheme will increase HGV traffic flows on the A662 Pollard Street (between Munday Street and Carruthers Street) and the A662 Merrill Street (between Carruthers Street and Every Street), which is likely to make it more difficult for pedestrians and other non-motorised users to cross the road.
- 13.9.5 Evidence shows health and social benefits for children who walk to school, while safety concerns including traffic volume and speed can be a barrier to walking⁷⁶. Construction traffic on the A662 Pollard Street/Merrill Street could make it more difficult to cross the road, and give rise to parental concerns about their children's safety. Construction of the Proposed Scheme will also require the temporary closure of the Metrolink Ashton Line, and

⁷⁴ St Anne's RC Primary – Admission Policy and Arrangements, 2011/2023. Available online at: <https://st-annes-pri.manchester.sch.uk/wp-content/uploads/2021/03/St-Annes-RC-Primary-School-Admission-Policy-2022-23.pdf>.

⁷⁵ Map of parish boundaries within the Diocese of Salford. Available online at: <https://boundaries.stjosephsmanchester.co.uk/?page=Map>.

⁷⁶ Living Streets (2018), *Swap the School Run for a School Walk*. Available online at: https://www.livingstreets.org.uk/media/3618/livingstreets_school_run_report_web.pdf.

the introduction of a bus replacement service for a period of approximately two years during the construction of the newly expanded Piccadilly Metrolink stop beneath Manchester Piccadilly High Speed station.

- 13.9.6 There could be differential effects for children who travel to the school by tram, as a result of increases in journey times due to the temporary closure.
- 13.9.7 HS2 Ltd will work closely with St Anne's Roman Catholic Primary School to identify reasonably practicable measures to mitigate the effects, including discretionary measures identified in the draft CoCP.

Operation

- 13.9.8 During operation of the Proposed Scheme, the ES predicts traffic-related severance for non-motorised users on Carruthers Street (between A662 Pollard Street and Every Street). This could make it more difficult to cross the road, and give rise to parental concerns about their children's safety.

13.10 Cloud Aerial Arts

- 13.10.1 Cloud Aerial Arts is located at Aldow Enterprise Park on Blakett Street, Manchester and offers aerial, circus, acrobatic and dance classes for adults. Cloud Aerial Arts also offers classes for children and young people.
- 13.10.2 Cloud Aerial Arts has two studios which host fitness classes. Facilities for pole classes, silks, aerial hoops, trapeze and yoga are available. There are no alternative facilities that offer the same mixture and number of classes in Manchester city centre.

Construction

- 13.10.3 The construction of Piccadilly approach viaduct will require the demolition of Cloud Aerial Arts. The permanent loss of Cloud Aerial Arts may result in children and young people being disproportionately affected. The health assessment in the ES reports that this will reduce the opportunity for beneficial health outcomes achieved through physical exercise.
- 13.10.4 HS2 Ltd will engage with owners and operators of Cloud Aerial Arts to identify reasonably practicable measures to help mitigate the effects arising from the loss of this resource.

Operation

- 13.10.5 The permanent loss of the Cloud Aerial Arts arising from the construction of the Proposed Scheme will continue during operation.

13.11 Manchester Piccadilly Station

- 13.11.1 The existing station is the principal mainline station in Manchester, and a major transport hub. The main entrance to the station is on the B6469 Fairfield Street. The Piccadilly Metrolink tram stop is located at ground level within the station and has step-free access to all platforms.
- 13.11.2 The Proposed Scheme in this area will comprise a new Manchester Piccadilly High Speed station, adjacent to the existing station. This will require modifications to the existing station and the Metrolink to allow interchange between HS2 services and neighbouring services from Network rail, Metrolink and local buses. It will also include the provision of enhanced taxi, private hire and private vehicle facilities on New Sheffield Street and in a multi-modal transport hub accessed off B6469 Fairfield Street.

Construction

- 13.11.3 During construction of the Proposed Scheme there will be significant increases in traffic flows including HGV movements on designated construction traffic routes, resulting in pedestrian severance, which could make it more difficult to cross on a number of roads around the station, including:
- A665 Pin Mill Brow (between A665 Great Ancoats Street and A635 Fairfield Street);
 - A635 Mancunian Way (between A635 Fairfield Street diversion and A665 Pin Mill Brow realignment);
 - Pin Mill Brow and the A635 Fairfield Street;
 - B6469 Fairfield Street;
 - Travis Street (between B6494 Fairfield Street and A6 London Road);
 - St Andrew's Street diversion (between B6469 Fairfield Street and Helmet Street);
 - B6181 Ducie Street; and
 - Store Street (between New Sheffield Street and Boad Street).
- 13.11.4 Construction of Piccadilly High Speed Station will also require a number of temporary footway and road closures, diversions and realignments, which will increase journey length or introduce hindrances such as changes in ground levels, including on Fairfield Street, Travis Street and Adair Street. The traffic and transport assessment in the ES reports that these will have significant adverse effects on journey length for non-motorised users.
- 13.11.5 Traffic-related pedestrian severance and increases in journey lengths for pedestrians around the station, may result in differential effects for older people, disabled people and pregnant women and mothers of babies up to six months when travelling to or from the station. Construction traffic is also likely to make it more difficult to cross the road, which may lead to differential effects on children.
- 13.11.6 The Proposed Scheme includes the construction of a new expanded Piccadilly Metrolink stop beneath Piccadilly High Speed station. This will require the temporary closure of the

Metrolink Ashton Line for approximately two years. Metrolink tram stops all have step-free access for wheelchair users and people with pushchairs, and Metrolink trams all have an area for people who use wheelchairs, space for pushchairs, and seats marked for people who have trouble standing⁷⁷. Although a replacement bus service will be put in place, the traffic and transport assessment in the ES reports significant adverse effect as a result of public transport delays associated with this closure.

- 13.11.7 Furthermore, users of the Piccadilly Metrolink stop (on the Ashton Line only) will be required to board and alight the replacement bus service at Piccadilly Gardens with an increase in journey length of up to 700m. This is likely to have a disproportionate effect on children, young people, older people, and disabled people who are more likely to use public transport. There is also a potential differential effect for pregnant women and mothers of babies up to six months, older people and disabled people, who may experience greater inconvenience or difficulty walking to Piccadilly Gardens to access replacement bus services and may be less able to make use of alternative public transport provision.
- 13.11.8 The traffic and transport assessment identifies a significant effect during construction on pedestrians as a result of the removal of car parking at Manchester Piccadilly Station multi-storey car park (694 spaces), Network Rail Ramp (179 spaces), Network Rail undercroft (243 spaces), Boad Street Car Park (56 spaces) and Gateway House car park (56 spaces), which will be removed and replaced by a new multi-storey car park on Adair Street. This will result in an increase in journey length of up to 775m associated with temporary diversions to pedestrian routes. All of the parking spaces in these car parks will be affected, including 39 Blue Badge bays located on the Network Rail ramp. This could have a differential effect on disabled people. An accessible motorised link will be provided between the replacement car parks and the Manchester Piccadilly Station entrance on Station Approach to mitigate the increase in journey length.

Operation

- 13.11.9 The Proposed Scheme will result in a reduction in general parking in the Manchester Piccadilly Station area but with an increase in station parking. A total of 2,029 short and long stay car park spaces will be provided to serve the Manchester Piccadilly High Speed station. This will comprise 1,068 parking spaces to replace some of the existing parking spaces that will be displaced by the Proposed Scheme (including 39 blue badge bays) and 961 additional parking spaces.
- 13.11.10 Replacement parking, including Blue Badge bays currently located on the Network Rail ramp adjacent to Piccadilly Station concourse, will be provided in new multi-storey car parks on Adair Street. This will require an increase journey length for pedestrians of 650m, which may have differential effects for disabled drivers travelling to or from the station.

⁷⁷ Transport for Greater Manchester, *Accessible public transport*. Available online at: <https://tfgm.com/accessibility/guides/tram-accessibility>.

Equality Impact Assessment Report

- 13.11.11 Separate from parking spaces associated with Piccadilly Station, approximately 400 general parking spaces, in the Manchester Piccadilly Station area will be permanently lost and not be replaced. These include 15 Blue Badge bays in the private car park under Gateway House and Ramp. The loss of these spaces could have a differential effect on disabled drivers who use this car park.
- 13.11.12 The layout of Manchester Piccadilly High Speed station will provide good permeability and connectivity through the station and enhance connectivity across the Manchester Piccadilly Station area to destinations including the existing Manchester Piccadilly Station, and will provide pedestrian connectivity between Manchester Piccadilly High Speed station entrances and the city centre and surrounds. These enhancements have the potential to result in improved disability access in the operational phase as compared to the current situation, consistent with the requirements of the Equality Act 2010 and corresponding inclusive access standards. To ensure this positive outcome, the new station design will include expert input on inclusive access.
- 13.11.13 Due to changes to road layout around the station, the traffic and transport assessment in the ES reports a small number of permanent significant effects on journey lengths for non-motorised users. The longest of these is due to the closure of Travis Street which currently provides north south access under the existing railway. However, during operation pedestrians and cyclists will have the option to take an alternative throughfare through the station. Pedestrians and cyclists affected by the permanent diversion of Store Street, will also be able to pass through the station via a pedestrian and cycleway thoroughfare connecting New Sheffield Street and the existing Piccadilly Station taxi rank on Fairfield Street. Another four permanent diversions in the vicinity of the station will lead to increases in journey length for non-motorised users of between 100 and 220m. There is the potential for a differential effect for older people and disabled people as well as young children and mothers of babies up to six months who use these routes, where no shorter alternative will be available, as they are more likely than other people to experience increased walking distances as a barrier to their mobility.

14 Glossary of terms

Term	Definition
appraisal of sustainability	An assessment of the impact of plans, policies and programmes from an environmental, economic and social perspective.
Baseline	Existing conditions against which future changes can be measured or predicted.
Compensation Code	The collective term for the principles derived from both statute and case law, relating to compensation for compulsory acquisition.
compliance levels (air quality)	Air quality limit values and objectives are quality standards for clear air. These are used as assessment criteria for determining the significance of any potential changes in local air quality arising from the scheme. Compliance with these standards varies for different pollutants. For some pollutants that are expressed as annual average concentrations, for other standards they are expressed as 24-hours, 1-hour or 15-minute average concentrations. Some pollutants are expressed both in terms of long term and short-term concentrations.
conventional compatible trains	Trains that are designed to run on both the new High Speed Two rail network and the existing rail network.
conventional line/railway network	The existing UK rail network (excluding High Speed One and High Speed Two).
Department for Transport	Government department responsible for transport matters in the UK (where powers have not been devolved).
environmental impact assessment (EIA)	A process of systematically assessing the likely environmental effects of proposed development projects. An EIA must fulfil the requirements of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017/571) (the 'EIA Regulations 2017'), which reflect the European Union (EU) EIA Directive (2014/52/EU) (the 'EIA Directive 2014') requirements for assessment of the effects of certain public and private projects on the environment. The Environmental Impact Assessment (Scotland) Regulations 2017 transpose the EIA Directive, as amended, into the Scottish planning system. There is no substantive difference between the two Regulations as they both transpose the EIA Directive. An EIA is reported in a suite of documents known as an Environmental Statement. In the case of hybrid Bills, Private Business Standing Order 27A of the Houses of Parliament requires that the hybrid Bill is accompanied by a set of supporting documents, including an Environmental Statement describing the likely significant effects of the Proposed Scheme on people and the environment together with a report on the reasonable alternatives studied.
Environmental Statement	A suite of documents produced as part of an environmental impact assessment. It must include all information that is reasonably required to assess the likely significant environmental effects of a proposed development.
The Equality Act	Equality Act 2010, which repealed and consolidated previous legislation – including the Sex Discrimination Act 1976, Race Relations Act 1976 and the Disability Discrimination Act 1995. It is designed, among other things, to prohibit discrimination on the grounds of those protected characteristics described in the Act.
equality impact assessment	A predictive assessment of the potential equality effects of the Proposed Scheme on protected characteristic groups during construction and operation.
High Speed Two Limited	The company set up by the Government to develop proposals for a new high speed railway line between London and the West Midlands and to consider the

Equality Impact Assessment Report

Term	Definition
	case for new high speed rail services linking London, northern England and Scotland.
hybrid Bill	Hybrid Bills mix the characteristics of public and private bills. The provisions in a hybrid Bill would affect the general public, but would also have particular effects on specific individuals or groups.
Land required for the Proposed Scheme/land required for the construction of the Proposed Scheme	The land required for the Proposed Scheme as shown on plans accompanying the hybrid Bill. The land is needed, inter alia, for the permanent works, construction activities, access rights and for off-site mitigation. On this basis, land required should be referred to as follows: i) land required for the operation of the Proposed Scheme; or ii) land required for the construction of the Proposed Scheme.
Mitigation	The proposed means to avoid, prevent or reduce the likely adverse effects of development on the environment.
Phase 2a	The section of the Phase Two route between the West Midlands and Crewe. It will include a connection with Phase One at Fradley, to the north-east of Lichfield, and a connection with the West Coast Main Line south of Crewe.
Phase 2b	The section of the Phase Two route from Crewe to Manchester and the West Midlands to Leeds, with stations at Manchester Airport, Manchester Piccadilly, the East Midlands and Leeds, connections onto the West Coast Main Line and East Coast Main Line and a number of works required beyond the route corridors, such as to the existing conventional rail network.
Phase One	Phase One of the proposed HS2 network, a high speed railway between London and the West Midlands with a connection via the West Coast Main Line at conventional speeds to the North West and Scotland. Phase One includes stations at London Euston, Old Oak Common (West London), Birmingham Interchange (near the National Exhibition Centre and Birmingham Airport) and Curzon Street (Birmingham city centre).
Phase 2b Eastern Leg	The section of Phase 2b from the West Midlands to Leeds, via the East Midlands and South Yorkshire with new stations at East Midlands and Leeds and a connection onto the East Coast Main Line.
Phase 2b Western Leg	The section of Phase 2b from Crewe to Manchester, with new stations at Manchester Airport and Manchester Piccadilly, a connection onto the West Coast Main Line and a number of works required beyond the route corridor, such as to the existing conventional rail network.
Phase Two	Phase Two of the proposed HS2 network to extend the high speed railway beyond the West Midlands to Manchester and other northern cities, including via connections with the conventional rail network.
Proposed Scheme	The scheme which is the subject of the hybrid bill for the Phase 2b Western Leg. It includes the section of Phase 2b from Crewe to Manchester, with new stations at Manchester Airport and Manchester Piccadilly, a connection onto the West Coast Main Line and a number of works required beyond the route corridor, such as to the existing conventional rail network.
Protected characteristics	Nine characteristics afforded protection by the Equality Act 2010: - age; - disability; - gender reassignment; - marriage and civil partnership; - pregnancy and maternity; - race;

Equality Impact Assessment Report

Term	Definition
	<ul style="list-style-type: none"> - religion and belief; - sex; and - sexual orientation.
Public Sector Equality Duty (PSED)	<p>The PSED requires public bodies to have due regard to three aims:</p> <ul style="list-style-type: none"> - to eliminate discrimination, harassment and victimisation of persons with relevant characteristics; - to advance equality of opportunity between people who share a relevant protected characteristic and people who do not share it; and - to foster good relations between people who share a relevant protected characteristic and those who do not share it.
Route of the Proposed Scheme	The proposed new rail corridor (including specific points along the corridor, i.e. the line of the route/track only).
West Coast Main Line	Inter-urban rail line connecting London, Birmingham, Manchester, Liverpool and Glasgow.

15 List of acronyms

Abbreviation	Meaning
AoS	Appraisal of Sustainability
BAME	Black, Asian and Minority Ethnic
CEC	Cheshire East Council
CWCC	Cheshire West and Chester Council
DfT	Department for Transport
EDI	Equality, Diversity and Inclusion
EHRC	Equality and Human Rights Commission
EIA	Environmental Impact Assessment
EQIA	Equality Impact Assessment
ES	Environmental Statement
GMCA	Greater Manchester Combined Authority
HGV	Heavy goods vehicle
HS2	High Speed Two
IoMD	Index of Multiple Deprivation
LA	Local authority
LGBT	Lesbian, Gay, Bisexual and Transgender
LSOA	Lower Super Output Area
MCC	Manchester City Council
ONS	Office for National Statistics
ORW	Off-route works
PCG	Protected characteristic group
PRoW	Public right(s) of way
PRU	Pupil Referral Unit
PSED	Public Sector Equality Duty
SCC	Salford City Council
SEN	Special Educational Needs
SEND	Special Educational Needs or Disability
SMR	Scope and Methodology Report
TMBC	Trafford Metropolitan Borough Council
UK	United Kingdom
WBC	Warrington Borough Council
WCML	West Coast Main Line
WMBC	Wigan Metropolitan Borough Council

16 References

References for Annexes are not included below. They are provided as footnotes.

Cancer Research, *Your Eyes and Cancer Drugs*. Available online at:

<https://www.cancerresearchuk.org/about-cancer/cancer-in-general/treatment/cancer-drugs/side-effects/eyes>.

Department for Communities and Local Government (2015), *English housing survey, households, 2013-2014*. Available online at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/461439/EHS_Households_2013-14.pdf.

Department for Transport and High Speed Two Ltd (2017), *2017-2020 Corporate Plan HS2 Ltd*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/629028/HS2_Corporate_Plan_2017-2020_Online_interactive.pdf.

Department for Transport (2017), *High Speed Two Phase Two Strategic Case Moving Britain Ahead*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/629393/high-speed-two-phase-two-strategic-case.pdf.

Department for Transport (2013), *DfT Circular 02/2013, The Strategic Road Network and the Delivery of Sustainable Development*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/237412/dft-circular-strategic-road.pdf.

Department for Transport (2016), *National Travel Survey: England 2015*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/551437/national-travel-survey-2015.pdf.

Department for Transport and Transport Scotland (2015), *Design Standards for Accessible Railway Stations*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/425977/design-standards-accessible-stations.pdf.

Department for Work and Pensions (2015), *Households below average income, 2013/2014: supporting data tables*. Available online at:

<https://www.gov.uk/government/statistics/households-below-average-income-19941995-to-20132014>.

Diocesan Boundaries Board (Diocese of Salford) (2020), *Diocese of Salford - current parishes Interactive Map*. Available online at:

<https://boundaries.stjosephsmanchester.co.uk/?page=Map>.

Equality Act 2010. London, Her Majesty's Stationery Office. Available online at:

<http://www.legislation.gov.uk/ukpga/2010/15/contents>.

Equality Impact Assessment Report

Equality and Human Rights Commission (EHRC) (2010), *How fair is Britain? Equality, human rights and good relations in 2010*. Available online at:

<http://www.equalityhumanrights.com/en/our-work/how-fair-britain>.

Equality and Human Rights Commission (EHRC) (2014), *Technical Guidance on the Public Sector Equality Duty: England*. Available online at:

<https://www.equalityhumanrights.com/en/publication-download/technical-guidance-public-sector-equality-duty-england>.

Equality and Human Rights Commission (EHRC) (2017), *Protected Characteristics*. Available online at: <https://www.equalityhumanrights.com/en/equality-act/protected-characteristics>.

Highways Agency (2021), *Design Manual for Roads and Bridges*. Available online at:

<http://www.standardsforhighways.vo.uk/dmrb>.

High Speed Two Ltd, *Community Engagement Strategy*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/773683/HS2_Community_Engagement_Strategy_FULL_HiRes_WEB.pdf.

High Speed Two Ltd, *Need to Sell scheme: Guidance notes and frequently asked questions*.

Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/717018/Need_to_Sell_scheme_-_Guidance_-_CS954a1_FINAL_1_.pdf.

High Speed Two Ltd, *Property Schemes: Guide to HS2 property schemes, Phase 2b*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/629740/HS2_phase_2b_property_schemes_guidance.pdf.

High Speed Two Ltd, *High Speed Two Phase 2b: Crewe to Manchester, West Midlands to Leeds and beyond – Property Consultation Response*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/629394/high-speed-two-phase-2b-crewe-to-manchester-west-midlands-to-leeds-and-beyond-property-consultation-response-web-version.pdf.

High Speed Two Ltd, *Property schemes: Rural support zone, Guidance and application form*.

Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877835/DIGITAL_CS_RSZ_GuidanceApForm.pdf.

High Speed Two Ltd, *Property Schemes: Guide to HS2 property schemes, Phase 2b*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/629740/HS2_phase_2b_property_schemes_guidance.pdf.

High Speed Two Ltd, *Skills, Employment and Education Strategy: Opening up new opportunities*.

Available online at: <https://assets.hs2.org.uk/wp-content/uploads/2018/09/26114402/CS962-HS2-Skills-Education-Employment-Strategy-210x2101.pdf>.

Equality Impact Assessment Report

High Speed Two Ltd (2013), *High Speed Rail: Consultation on the route from the West Midlands to Manchester, Leeds and beyond. Sustainability Statement, Appendix A – Equality Analysis*. London.

High Speed Two Ltd (2016), *High Speed Rail: HS2 Phase 2b preferred route. Sustainability Statement including Post Consultation Update, Appendix A – Equality Analysis*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/568165/C331_Sustainability_Statement_Update_Post_Consultation_Appendix_A_Equality_Analysis_WEB_VERSION.pdf.

High Speed Two Ltd (2018), EQIA CSR. Available online at: <https://www.gov.uk/hs2>.

High Speed Two Ltd (2018), *High Speed Rail (Crewe to Manchester and West Midlands to Leeds): Working Draft Environmental Statement*. Available online at:

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

High Speed Two Ltd (2018), *HS2 Phase 2b EqIA, Scope and Methodology Report, Consultation Summary Report*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/745641/HS2_Phase_2b_Working_Draft_EQIA_Scope_and_Methodology_Report_Consultation_Summary_Report.pdf.

High Speed Two Ltd (2022), *HS2 Phase 2b Working Draft EQIA Consultation Summary Report*. Available online at: <https://www.gov.uk/hs2>.

High Speed Two Ltd (2021), *HS2 labour and skills demand and supply forecasting and analysis July 2021*. Available online at: https://assets.hs2.org.uk/wp-content/uploads/2021/08/HS2_LSF-report_clean_V2-0508.pdf.

High Speed Two Ltd (2022), *Phase 2b Western Leg Information Paper C7: Business relocation*.

High Speed Two Ltd (2022), *Phase 2b Western Leg Information Paper D6: Inclusive design policy*.

High Speed Two Ltd (2022), *Phase 2b Western Leg Information Paper E13: Control of construction noise and vibration*.

High Speed Two Ltd (2022), *Phase 2b Western Leg Information Paper H1: Equality, diversity and inclusion policy*.

High Speed Two Ltd (2022), *Phase 2b Western Leg Information Paper H2: Skills and Employment*.

Homeless Link (2016), *Young and Homeless 2015*. Available online at:

<http://www.homeless.org.uk/sites/default/files/siteattachments/201512%20-%20Young%20and%20Homeless%20-%20Full%20Report.pdf>.

Home Office (2017), *Hate Crime, England and Wales, 2018/19*. Available online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/839172/hate-crime-1819-hosb2419.pdf.

Equality Impact Assessment Report

Institute for Public Policy Research (2017), *Making the Difference: Breaking the link between school exclusion and social exclusion*. Available online at: <https://www.ippr.org/files/2017-10/making-the-difference-report-october-2017.pdf>.

Joseph Rowntree Foundation (2015), *Ethnic minority disadvantage in the labour market*. Available online at: <https://www.jrf.org.uk/report/ethnicminority-disadvantage-labour-market>.

Living Streets (2018), *Swap the School Run for a School Walk*. Available online at: https://www.livingstreets.org.uk/media/3618/livingstreets_school_run_report_web.pdf.

Ministry of Housing, Communities and Local Government (2019), *English Indices of Deprivation*. Available online at: <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019>.

National Autistic Society, *Obsessions, repetitive behaviour and routines*. Available online at: <http://www.autism.org.uk/about/behaviour/obsessions-repetitive-routines.aspx>.

NHS, *The Christie main site*. Available online at: <https://www.nhs.uk/Services/hospitals/Overview/DefaultView.aspx?id=101>.

Oakfield Lodge School, *Our Local Offer for Special Educational Needs and/or Disability*. Available online at: https://oakfieldlodge.cheshire.sch.uk/wp-content/uploads/2019/07/CE_Local_Offer_-_CE_PRU_-_QA_Sept_Final_v1.pdf.

Office for National Statistics (ONS) (2011), *Statistical Disclosure Control for 2011 UK Census - Q&A*. Available online: <http://www.ons.gov.uk/ons/guide-method/census/2011/the-2011-census/processing-the-information/statistical-methodology/statistical-disclosure-control-for-2011-uk-census---q-a.pdf?format=hi-vis>.

Office for National Statistics (ONS) (2011), *2011 Census*. Available online at: <https://www.ons.gov.uk/census/2011census>.

St Anne's RC Primary – Admission Policy and Arrangements, 2011/2023. Available online at: <https://st-annes-pri.manchester.sch.uk/wp-content/uploads/2021/03/St-Annes-RC-Primary-School-Admission-Policy-2022-23.pdf>.

Stonewall (2017), *LGBT in Britain: Hate crime and discrimination*. Available online at: https://www.stonewall.org.uk/sites/default/files/lgbt_in_britain_hate_crime.pdf.

T. Wright (2014), *The Women into Construction Project: an assessment of a model for increasing women's participation in construction*. Available online at: <http://www.busman.qmul.ac.uk/media/sbm/research/researchcentres/cred/docs/Women-into-Construction-Project-EvaluationReport.pdf>.

Transport for Greater Manchester, *Accessible public transport*. Available online at: <https://tfgm.com/accessibility/guides/tram-accessibility>.

Equality Impact Assessment Report

Transport for London (2014), *Understanding the travel needs of London's diverse communities: a summary of existing research*. Available online at: <http://content.tfl.gov.uk/understanding-the-travel-needs-of-london-diverse-communities.pdf>.

The Civil Partnership (Opposite-sex Couples) Regulations 2019. London, Her Majesty's Stationery Office. Available online at: <http://www.legislation.gov.uk/uksi/2019/1458/contents/made>.

Annex A: Baseline methodology

Geographical scope of data collection

The geographical scope for baseline data collection includes all LSOAs within or intersected by a 1km buffer from the route of the Proposed Scheme and the off route works. The data is collected at LSOA level to provide as much geographical accuracy as possible.

The Office for National Statistics (ONS) 2011 Census provides the most up to date, robust and consistent datasets at this level of spatial detail in relation to people with relevant protected characteristics.

For example, claimant count data on Disability Living Allowance (DLA) will provide more up-to-date information on the number of disabled people than the census. However, DLA data is published at LA level, and therefore, will not allow the baseline analysis to identify disproportionate representation of disabled people at the local level. LSOA-level census data on long-term limiting illness, where day-to-day activities were limited 'a lot' by a health problem or disability, which has lasted or was expected to last for more than 12 months, has, therefore, been used instead as the best data available on disability at a local level.

The Index of Multiple Deprivation (IoMD) 2019 is a nationally recognised measure of relative deprivation in England⁷⁸. It combines data from seven 'domains', to provide an overall measure of multiple deprivation. The domains are income; employment; education, skills and training; health and disability; crime; barriers to housing and services; and living environment. The IoMD ranks individual LSOAs according to their overall level of multiple deprivation.

Data analysis

The focus of the data analysis is on identifying 'outliers', or areas where there was a disproportionate representation of one or more PCGs.

The race, religion or belief, and age PCGs have been divided into relevant sub-groups. For example, race has the following sub-groups: White, Mixed/multiple ethnic groups (referred to hereafter as 'Mixed'), Asian/Asian British, Black/African/Caribbean/Black British (referred to hereafter as 'Black') and Other ethnic group⁷⁹.

For the purpose of this analysis, the following age ranges have been used to define age-related sub-groups: 0-15, 16-24, 65-84 and 85 and over.

⁷⁸ Ministry of Housing, Communities and Local Government (2019), *English Indices of Deprivation*. Available online at: <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019>.

⁷⁹ The census definition of Other ethnic group includes people of Arab ethnicity and people from any other ethnic group.

Equality Impact Assessment Report

A statistical test (called the standard deviation) has been applied to identify variation from the route-wide or regional average as a way of highlighting 'disproportionate' representation of PCGs (or PCG sub-groups) at LSOA level for each development area.

The standard deviation is a measure of the difference of each LSOA from the regional⁸⁰, and national or route-wide average, in terms of the proportion of population that is from a specific PCG sub-group.

The LSOAs along the route of the Proposed Scheme have been benchmarked against a regional and route-wide average which excludes the ORW LSOAs. Where the number of people within a PCG or sub-group in a specific LSOA is more than two standard deviations higher than either the route-wide average or the regional average, that group of people is identified as being disproportionately represented in that LSOA.

The ORW LSOAs have been benchmarked against a regional average as follows:

- Annandale: Dumfries and Galloway
- Carlisle: North West England
- Preston: North West England

For the ORW areas, where the number of people within a PCG or sub-group in a specific LSOA is more than two standard deviations higher than either the regional average, that group of people is identified as being disproportionately represented in that LSOA.

LSOAs with disproportionate representation of PCGs are displayed in the EQIA Map Book. Each sub-group within each PCG that is disproportionately represented in one or more LSOAs has an individual map. There were some sub-groups that do not have any disproportionate LSOAs within one or more of the community areas, (e.g. Christian sub-group of religion and belief) and for these a map is not included. Where this is the case it has been noted at the start of each relevant section of the EQIA Map Book.

Additional information

The 2011 census used a range of measures to protect against the identification of individuals, households and businesses in published data. As a result, not all of the data included in census datasets is actual respondent data. Therefore, this report does not present data on any individual LSOAs with counts of PCGs below a threshold of 50⁸¹.

⁸⁰ Standard English Regions, with the exception of Annandale which is benchmarked against the Scotland national average.

⁸¹ In order to protect against disclosure of personal information from the 2011 Census, ONS swaps records in the Census database between different geographic areas, and so below an ONS defined threshold some counts will be affected. This process is called Statistical Disclosure Control, see <http://www.ons.gov.uk/ons/guide-method/census/2011/the-2011-census/processing-the-information/statistical-methodology/statistical-disclosure-control-for-2011-uk-census---q-a.pdf?format=hi-vis> for more details.

Therefore, the records that have been geographically swapped have been excluded from the EQIA analysis.

Equality Impact Assessment Report

Annex B of this report shows the average population of each PCG at the route-wide (MA01-MA08), regional and national level. All references to national average refer to the average for England. Regional averages refer to standard English regions (Greater London; South East; South West; West Midlands; North West; North East; Yorkshire and the Humber; East Midlands; and East of England).

Annex B: Baseline Population Data

Average population belonging to each population sub-group at the route-wide, regional and national level

Table 2 shows the proportion of the total population that falls into each of the relevant age sub-groups, at the route-wide, regional and national level.

Table 2: Average population at the route, regional and England level, by age range

	0-15	16-24	65-84	85 and over
Route average	18.2%	19.5%	10.2%	1.5%
North West average	18.8%	12.2%	14.5%	2.1%
England average	18.9%	11.9%	14.1%	2.2%

The data shows that, route-wide, 18.2% of the population were under 16 years old and 19.5% were aged between 16 and 24. The proportion of the route-wide population in the 16-24 age group is higher than the regional and national averages. A total of 10.2% were aged 65 and over, including 1.5% who were aged 85 and over.

Table 3 shows the average population with a long-term limiting illness at the route-wide, regional and national level.

Table 3: Average population at the route, regional and national level, by self-reported limiting long-term health problem or disability

	Day to day activities limited a lot	Day to day activities limited a little	Not limited
Route average	8.4%	8.4%	83.3%
North West average	10.3%	10.0%	79.8%
England average	8.3%	9.3%	82.4%

The data shows that, route-wide, 8.4% of the population reported that their day to day activities were limited 'a lot' by a health problem or disability which has lasted or was expected to last for more than 12 months, and 8.4% also reported that their day to day activities were limited 'a little'. These figures broadly align with the national averages, although there is some variation at regional level.

Equality Impact Assessment Report

Table 4 shows the average population in each of the broad ethnic sub-groups at the route-wide, regional, and national level.

Table 4: Average population at the route, regional and national level, by ethnic sub-groups

	White	Mixed	Asian/Asian British	Black	Other
Route average	78.7%	3.2%	12.1%	4.1%	1.9%
North West	90.2%	1.6%	6.2%	1.4%	0.6%
England average	85.4%	2.3%	7.8%	3.5%	1.0%

The data shows that, route-wide, 78.7% of the population were White, 12.1% were Asian/Asian British, 4.1% were Black, 3.2% were of Mixed ethnicity and 1.9% were of ‘Other’ ethnicity. These figures are broadly in line with regional and national averages however the Asian/Asian British population along the route were almost double compared to the North West.

Table 5 shows the average population by religion, at the route-wide, regional and national level.

Table 5: Average population by religion at the route-wide, regional and national level

	Christian	Buddhist	Hindu	Jewish	Muslim	Sikh
Route average	55.7%	0.6%	0.9%	0.6%	9.9%	0.3%
North West	67.3%	0.3%	0.5%	0.4%	5.1%	0.1%
National average	59.5%	0.4%	1.5%	0.4%	4.9%	0.8%

The data shows that, on average, less than 1% of the route-wide population were Buddhist, Hindu, Jewish or Sikh. These figures are in line with the national averages for each of these religious groups. It also shows that 9.9%, of the population route-wide were Muslim, which is slightly higher than the national average.

Route-wide average share of population by ethnicity for LSOAs with disproportionate representation of specific ethnic groups

The tables below show the average representation of people from specific ethnic groups in those LSOAs where the population within the each of five ethnic categories used in the 2011 Census (i.e., Asian/Black/Mixed/White/Other) was disproportionately represented.

The relationship between ethnic category and individual ethnic groups used in the 2011 Census is show in Table 6.

Table 6: Ethnic Categories and Ethnic Groups used in Census 2011

Category	Asian	Black	Mixed	White	Other
Group	Bangladeshi Chinese Pakistani Asian Other	Black African Black Caribbean Black Other	Mixed White/Asian Mixed White/Black African Mixed White/Caribbean Mixed Other	White Irish White Gypsy / Traveller White other	Arab Any other

Mixed

Table 7 shows that in LSOAs where people with Mixed ethnicity are disproportionately represented, among this group White and Black Caribbean has the highest average total population (39.7%), followed by Other Mixed, White and Asian and White and Black African.

Table 7: Average representation of people from Mixed ethnic groups in LSOAs where Mixed ethnicity is disproportionately represented.

White and Black Caribbean	White and Black African	White and Asian	Other Mixed
39.7%	18.1%	20.8%	21.4%

Asian/Asian British

Table 8 shows that the Pakistani population has by far the highest average representation (over 50%) in those LSOAs where the Asian/Asian British sub-group is disproportionately represented. The remaining populations, Indian, Bangladeshi, Chinese and Other Asian, range from 8.0% to 14.1% of the average total population in these LSOAs.

Table 8: Average representation of people from Asian ethnic groups in LSOAs where Asian ethnicity is disproportionately represented.

Indian	Pakistani	Bangladeshi	Chinese	Other Asian
8.2%	58.1%	14.1%	11.7%	8.0%

Black

Table 9 shows that in those LSOAs where people with Black ethnicity are disproportionately represented, among this group people from the African ethnic group have the highest average representation (60%). Caribbean and Other Black, on average represent 18.5% and 21.2% of the total Black population in these LSOAs.

Table 9: Average representation of people from Black ethnic groups in LSOAs where Black ethnicity is disproportionately represented.

African	Caribbean	Other Black
60.3%	21.2%	18.5%

Other

Table 10 shows that on average the Arab population has the highest representation (65%) in those LSOAs where people from the Other ethnic-groups are disproportionately represented.

Table 10: Average representation of people from Other ethnic groups in LSOAs where Other ethnicity is disproportionately represented.

Arab	All Other
65.3%	34.7%

LSOAs with a disproportionate representation of multiple PCGs

Table 11: LSOAs along the route with a disproportionate representation of three or more PCGs, broken down by sub-groups

Map reference	LSOA	PCGs	20% most deprived in England
Three sub-groups			
1-1	E01005061	Race: Mixed, Black, Other	Yes
1-2	E01005063	Race: Mixed, Black, Other	Yes
1-3	E01005077	Race: Mixed, Black, Other	Yes
1-4	E01005118	Religion: Muslim Ethnicity: Asian, Other	No
1-5	E01005170	Religion: Hindu Ethnicity: Mixed, Other	No
1-6	E01005184	Age: 16-24 Ethnicity: Mixed, Other	No
1-7	E01005195	Age: 0-15 Ethnicity: Mixed, Black	Yes
1-8	E01005199	Religion: Muslim (Islam) Ethnicity: Asian, Black	Yes
1-9	E01005201	Age: 0-15 Ethnicity: Mixed, Black	Yes
1-10	E01005217	Religion: Muslim (Islam) Ethnicity: Mixed, Asian	No
1-11	E01005218	Religion: Muslim (Islam) Age: 16-24 Ethnicity: Asian	No
1-12	E01005219	Religion: Muslim (Islam) Ethnicity: Mixed, Other	Yes
1-13	E01005231	Age: 16-24 Ethnicity: Black, Other	No
1-14	E01005272	Ethnicity: Mixed, Black, Other	Yes
1-15	E01005274	Age: 16-24 Ethnicity: Mixed, Other	Yes
1-16	E01005286	Religion: Hindu Age: 16-24 Ethnicity: Other	No
1-17	E01005287	Religion: Muslim (Islam) Ethnicity: Asian, Black	Yes
1-18	E01005308	Religion: Hindu Ethnicity: Mixed, Other	Yes

Equality Impact Assessment Report

Map reference	LSOA	PCGs	20% most deprived in England
1-19	E01005311	Age: 16-24 Ethnicity: Mixed, Other	No
1-20	E01006135	Religion: Jewish Age: 65-84, 85+	No
1-21	E01033654	Religion: Buddhist, Hindu Age: 16-24	No
1-22	E01033658	Age: 16-24 Ethnicity: Mixed, Other	No
1-23	E01005130	General Health: Disability limited a lot Ethnicity: Mixed, Black	Yes
Four sub-groups			
1-24	E01005065	Religion: Muslim (Islam) Ethnicity: Mixed, Black, Other	Yes
1-25	E01005066	Age: 16-24 Ethnicity: Asian, Black, Other	Yes
1-26	E01005194	Religion: Muslim (Islam) Ethnicity: Asian, Black, Other	Yes
1-27	E01005212	Age: 16-24 Ethnicity: Mixed, Black, Other	
1-28	E01005234	Religion: Muslim (Islam) Ethnicity: Mixed, Asian, Black	Yes
1-29	E01005238	Religion: Muslim (Islam) Age: 0-15 Ethnicity: Asian, Black	Yes
1-30	E01006137	Religion: Hindu, Jewish Age: 65-84 Ethnicity: Other	
1-31	E01033656	Religion: Buddhist Age: 16-24 Ethnicity: Mixed, Other	
1-32	E01033657	Religion: Hindu Age: 16-24 Ethnicity: Asian, Black	Yes
Five sub-groups			
1-33	E01005128	Religion: Buddhist, Hindu Age: 16-24 Ethnicity: Asian, Other	
1-34	E01005221	Religion: Muslim (Islam)	Yes

Equality Impact Assessment Report

Map reference	LSOA	PCGs	20% most deprived in England
		Ethnicity: Mixed, Asian, Black, Other	
1-35	E01005232	Religion: Muslim (Islam) Ethnicity: Mixed, Asian, Black, Other	Yes
1-36	E01005233	Religion: Muslim (Islam) Age: 0-15 Ethnicity: Mixed, Asian, Black	Yes
1-37	E01005235	Religion: Muslim (Islam) Ethnicity: Mixed, Asian, Black, Other	Yes
1-38	E01005239	Religion: Muslim (Islam) Age: 0-15 Ethnicity: Mixed, Black, Other	Yes
1-39	E01005280	Religion: Muslim (Islam) Age: 0-15 Ethnicity: Asian, Black, Other	Yes
1-40	E01005282	Religion: Muslim (Islam) Age: 16-24 Ethnicity: Mixed, Asian, Other	Yes
1-41	E01033652	Religion: Hindu Age: 16-24 Ethnicity: Mixed, Black, Other	
Six sub-groups			
1-42	E01005230	Religion: Muslim (Islam) Age: 16-24 Ethnicity: Mixed, Asian, Black, Other	Yes
1-43	E01005236	Religion: Muslim (Islam) Age: 16-24 Ethnicity: Mixed, Asian, Black, Other	Yes
Seven sub-groups			
1-44	E01005062	Religion: Buddhist, Hindu Age: 16-24 Ethnicity: Mixed, Asian, Black, Other	No

Annex C: Literature review

Introduction

Purpose of this literature review

This literature review provides a summary of key research evidence drawn from recent national and regional evidence reviews, research findings and policy documents, to inform understanding of the sensitivity of PCGs⁸² to potential effects of the Proposed Scheme, and their specific needs in relation to potential effects.

Structure of this literature review

This literature review is divided into the following sections, which correspond with the categories of impacts reported in the route-wide assessment:

- Section 2 - Housing;
- Section 3 - Community infrastructure and open spaces;
- Section 4 - Employment and business;
- Section 5 - Traffic, transport and accessibility;
- Section 6 - Noise, air quality, and other environmental effects; and
- Section 7 - Crime, safety and personal security.

Housing

Introduction

Residential accommodation along the route of the Proposed Scheme will be directly and indirectly impacted during construction and operation. It is important, therefore, to understand the housing needs of PCGs, and the relationships between different types and tenures of housing and people with protected characteristics.

Young people

Young people face significant affordability barriers to home-ownership. Young people are more likely than other groups to be living in poverty⁸³, and there is a significant risk of homelessness. Over a third of people accessing supported accommodation in England in 2018 were 16-25 and approximately 91,500 young people aged 16-24 approached their local

⁸² As defined by the Equality and Human Rights Commission (EHRC) (2021), *Technical Guidance on the Public Sector Equality Duty: England*. Available online at: <https://www.equalityhumanrights.com/en/publication-download/technical-guidance-public-sector-equality-duty-england>.

⁸³ T. McInnes, A. Tinson, C. Hughes, T. B. Born and H. Aldridge (2015), *Monitoring poverty and social exclusion 2015*, Joseph Rowntree Foundation. Available online at: <https://www.jrf.org.uk/mpse-2015>.

council in 2018/2019 due to risk of homelessness. In addition, DePaul UK found that 60% of young people accessing homelessness services had at one stage been living with close friends, 23% had stayed with acquaintances and 11% had stayed with strangers⁸⁴.

Older people

Social housing is of particular importance to older people. In 2018/2019, older people were the most prevalent group in the social rented sector, with 27.5% of social rented households headed by someone aged 65 or over⁸⁵. A higher proportion of those aged 75 and over are social tenants compared with those aged 65 and over, reflecting both changing tenure patterns over the last 30 years and the number of older owner-occupiers who find their homes are no longer suitable for their needs and become eligible for specialist social housing⁸⁶.

Approximately three-quarters of pensioners live in homes that are owned outright (compared to roughly 1 in 5 of the working-age population), and so face minimal housing costs. The percentage of pensioners in relative low income rose to 19% before housing costs and 18% after housing costs between financial year end 2019 and financial year end 2020. Material deprivation in pensioners was around 6% between financial year end 2019 and financial year end 2020⁸⁷. For owner-occupiers, housing can be a financial asset with the potential to be converted into cash, which can then be used to boost income in retirement, thereby reducing the likelihood of poverty⁸⁸.

Half of all people in Great Britain aged 75 and over live alone⁸⁹ and this is expected to increase due to changing demographics and family patterns. According to analysis conducted by Age UK, older people and people aged over 50 living in England are three times more likely to be often lonely if they feel they don't belong to their neighbourhood and 1.6 times more likely to be often lonely if they live alone⁹⁰.

⁸⁴ Homeless Link (2020), *We Have a Voice, Follow Our Lead. Young and Homeless 2020*. Available online at: <https://www.homeless.org.uk/sites/default/files/site-attachments/Young%20and%20Homeless%202020.pdf>.

⁸⁵ Ministry of Housing, Communities and Local Government (2020), *English housing survey live tables*. Available online at: <https://www.gov.uk/government/collections/english-housing-survey-live-tables>.

⁸⁶ New Policy Institute (2012), *Market assessment of housing options for older people. A report for Shelter and the Joseph Rowntree Foundation*. Available online at: http://npi.org.uk/files/5213/7485/1289/Market_Assessment_of_Housing_Options_for_Older_People.pdf.

⁸⁷ Department for Work and Pensions (2021), *Households below average income: an analysis of the income distribution FYE 1995 to FYE 2020*. Available online at: <https://www.gov.uk/government/statistics/households-below-average-income-for-financial-years-ending-1995-to-2020/households-below-average-income-an-analysis-of-the-income-distribution-fye-1995-to-fye-2020#pensioners-in-low-income-households>.

⁸⁸ Birmingham University (2009), *Briefing 1: How would housing wealth perform as a pension? European Union DEMHOW (Demographic Chance and Housing Wealth) Project*. Available online at: <http://www.birmingham.ac.uk/Documents/college-social-sciences/social-policy/DEMHOW/C2.pdf>.

⁸⁹ Office for National Statistics (2013), *General Lifestyle Survey 2011, table 3.3 (GB)*.

⁹⁰ Age UK (2018), *All the Lonely People: Loneliness in Later Life*. Available online at: https://www.ageuk.org.uk/globalassets/age-uk/documents/reports-and-publications/reports-and-briefings/loneliness/loneliness-report_final_2409.pdf.

Disabled people

Many disabled people live in unsuitable accommodation that does not meet their needs and prevents them from living independently⁹¹. An update to the EHRC's How Fair is Britain? report, undertaken in 2018, highlighted a shortage of accessible homes and long waiting times for adaptations⁹². In 2013, a quarter of a million households in the social rented sector included someone who used a wheelchair, but only 27% of social rented homes occupied by wheelchair users met all four criteria for wheelchair visitability (level access, flush thresholds, a ground floor WC, and sufficient passage space)⁹³.

In 2017 to 2018, the most common living situation for adults with learning disabilities aged 18-64 years getting long-term social care support was settled living with family/friends (48,165 people)⁹⁴. During this period, 29,975 people were living in some form of supported accommodation, 21,145 people in registered care homes, and 16,640 people in tenancies with local authorities, housing associations or registered social landlords.

According to Mencap, a charity which supports people with learning disabilities, most people with a learning disability who live with friends and family want greater independence, with around 70% wanting to change their current housing arrangements⁹⁵. Demand for places in registered care homes and supported living environments is growing rapidly: Mencap have estimated that an additional 1,324 registered care home places and 941 supported housing places are needed every year to meet this demand⁹⁶.

Adults with autism can have particular needs in relation to housing. The 2010 Strategy for adults with autism in England states that these can include location and proximity to established sources of support, including family carers. The strategy also recognises that some people with autism can find certain housing conditions distressing as a result of sensitivities such as hypersensitivity to harsh lighting, and issues around the layout of a

⁹¹ EHRC (2010), *How fair is Britain? Equality, human rights and good relations in 2010*. Available online at: <http://www.equalityhumanrights.com/en/our-work/how-fair-britain>.

⁹² EHRC (2019), *Is Britain fairer? The state of equality and human rights 2018*. Available online at: <https://www.equalityhumanrights.com/sites/default/files/is-britain-fairer-accessible.pdf>.

⁹³ Department for Communities and Local Government (DCLG) (2015), *English housing survey, households, 2013-14*. Available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/461439/EHS_Households_2013-14.pdf.

⁹⁴ Public Health England (2019), *Research and analysis Chapter 5: adult social care*, Updated 27 January 2020, Available online at: <https://www.gov.uk/government/publications/people-with-learning-disabilities-in-england/chapter-5-adult-social-care#contents>.

⁹⁵ Mencap (2017), *Housing for people with a learning difficulty*. Available online at: https://www.mencap.org.uk/sites/default/files/2016-08/2012.108-Housing-report_V7.pdf.

⁹⁶ Mencap and Housing LIN (2018), *Funding supported housing for all: Specialised Supported Housing for people with a learning disability*. Available at: https://www.mencap.org.uk/sites/default/files/2018-04/2018.052%20Housing%20report_FINAL_WEB.pdf.

home, furniture and fittings⁹⁷. Some people with autism can also be hypersensitive to noise⁹⁸.

Black, Asian and minority ethnic groups

Black, Asian and minority ethnic (BAME) groups experience a range of barriers in accessing housing suitable for their needs. Overcrowding is a particular issue, with BAME households significantly more likely to be overcrowded than White British households. Thirty-five percent (35%) of Black African households have fewer rooms than they require, compared with just 5% of White British households⁹⁹. In rural areas, there can be particular challenges associated with a lack of appropriate accommodation, compounded by little access to support and advice, language and communication difficulties, and a lack of cultural sensitivity in service delivery¹⁰⁰.

Romany Gypsies and Irish Travellers are recognised racial groups and have distinct housing needs. While many Gypsies and Travellers live in bricks and mortar housing, others express a cultural aversion to that type of housing, preferring to live in caravans on Traveller sites. However, there is a shortage of good quality sites. Sites can often be found in very poor locations, such as adjacent to motorways, railways and sewage works, and some have poor access to services. Shortage of authorised sites is a factor in illegal encampments or unauthorised sites¹⁰¹.

Women

Households headed by women are more likely to be overcrowded or substandard than those headed by men. Overcrowding is most pronounced among households with children, especially female-headed households with children. Female-headed households can be particularly reliant on social-rented housing, due to difficulty affording private rental or home ownership as a result of differences in employment rates and relatively low pay¹⁰².

⁹⁷ HM Government (2010), *Fulfilling and Rewarding Lives: The strategy for adults with autism in England*, para 6.28. Available online at: https://webarchive.nationalarchives.gov.uk/20130104203954/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_113369.

⁹⁸ HM Government (2010), *Fulfilling and Rewarding Lives*, para 4.1.

⁹⁹ Race Equality Foundation (2013), *Understanding ethnic inequalities in housing: analysis of the 2011 census*. Available online at: <https://raceequalityfoundation.org.uk/wp-content/uploads/2018/02/Housing-Briefing-23.pdf>.

¹⁰⁰ Race Equality Foundation (2008), *Rural minority ethnic experiences: housing and health*. Available online at: <https://raceequalityfoundation.org.uk/wp-content/uploads/2018/02/housing-brief7.pdf>.

¹⁰¹ EHRC (2009), *Inequalities experienced by Gypsy and Traveller communities*. Available online at: http://dera.ioe.ac.uk/11129/1/12inequalities_experienced_by_gypsy_and_traveller_communities_a_review.pdf.

¹⁰² EHRC (2010), *How fair is Britain?*

Lesbian, gay, bisexual and transgender people

There is little evidence available regarding the specific housing needs of lesbian, gay, bisexual and transgender (LGBT) people. However, research by Stonewall in Wales suggests that these groups can experience risks of housing crisis and homelessness arising from abuse and harassment, particularly where homophobia or rejection by family members leads young people to leave the family home¹⁰³.

More recent research by the Albert Kennedy Trust found that young people who identify as LGBT are significantly over-represented among homeless populations, and are more likely to face violence, develop substance misuse issues and be exposed to sexual exploitation than their non-LGBTQ+ peers¹⁰⁴.

Community infrastructure and open space

Introduction

Community infrastructure and open spaces enable people to sustain social networks, to socialise and to participate in their community, with benefits for well-being and community cohesion¹⁰⁵.

Children and young people

Children and young people need access to play and recreational facilities that are safe, easily accessible, and close to home¹⁰⁶. Access to the natural environment and opportunities for physical activity can be particularly beneficial for children and young people with autism¹⁰⁷.

While children in rural areas benefit from greater access to the natural environment, their access to facilities for play and recreation can be restricted by dispersed population patterns and a lack of suitable transport. Linear village layouts, heavy traffic, lack of pavements and safe road crossing points can act as barriers preventing children in rural areas from

¹⁰³ Stonewall Cymru and Triangle Wales (2006), *The Housing Needs of Lesbian, Gay and Bisexual (LGB) People in Wales*. Available online at: <https://www.taipawb.org/wp-content/uploads/2019/01/LGB-Housing-Homelessness-Report.pdf>.

¹⁰⁴ Albert Kennedy Trust (2021), *The LGBTQ+ youth homelessness report 2021*. Available online at: <https://www.akt.org.uk/Handlers/Download.ashx?IDMF=59eae91c-ee80-4b6b-8ecb-158edfeeaccd>.

¹⁰⁵ New Economics Foundation (2012), *Well-being evidence for policy: A review*. Available online at: http://b3cdn.net/nefoundation/10b8aabd90c5771ff9_a0m6bv5a.pdf.

¹⁰⁶ 'Accessible' is used here to refer to locations that can be reached relatively easily. Access for disabled children and young people specifically is referred to below, and is described in terms of 'inclusive accessibility'.

¹⁰⁷ Natural England (2013), *Engaging children on the autistic spectrum with the natural environment: teacher insight study and evidence review*. Available online at: <http://publications.naturalengland.org.uk/publication/11085017>.

Equality Impact Assessment Report

accessing play, while intensive farming practices and a lack of public provision of play facilities can restrict opportunities¹⁰⁸.

Evidence shows health and social benefits for children who walk to school¹⁰⁹. Across England, 51% of primary school children and 35% of secondary school children walk to school. In rural areas, however, children travel further to school, and the proportion that walk to school is consequently much lower. This is particularly the case for rural secondary school children, who travel an average of 6.7 miles (10.8 km) to school. The main reason cited by parents for children in this age group not walking to school is that the school is too far away; for children in the primary school age group, it is traffic danger¹¹⁰.

It is estimated 15.5% of all school pupils in England have a special educational need (SEND), including 3.3% who have an Education, Health and Care (EHC) plan. In Pupil Referral Units, 64.9% of pupils have SEN support, including 16.4% with an EHC plan. SEN is more prevalent in boys than girls, with boys representing 73.1% of all pupils with an EHC plan and 64.6% of pupils with SEN support¹¹¹. The most common type of need among pupils with an EHC plan is autistic spectrum disorder, with this equating to 30% of all pupils with an EHC plan. The second most common type of need is speech, language and communication needs, at 15% of all pupils with an EHC plan.

While many disabled children, autistic children, and children with SEN attend mainstream schools, some have more specialist learning needs. In England in 2018, 9.3% of pupils with SEN attended special schools¹¹². There is a significant gap in attainment between disabled and non-disabled children, with disabled young people aged 16-18 at least twice as likely as their non-disabled peers to not be in education, employment or training, and the proportion of disabled people with no qualifications being nearly three times that of non-disabled people¹¹³.

¹⁰⁸ Play England (2006), *Planning for play: guidance on the development and implementation of a local play strategy*. Available online at: http://www.playengland.net/wp-content/uploads/2015/09/planning_for_play.pdf.

¹⁰⁹ Ramblers' Association (2010), *Walking facts and figures 1: the benefits of walking*. Available online at: <http://www.ramblers.org.uk/~media/Files/What%20we%20do/factsandfigures-1-benefits-0510.pdf>.

¹¹⁰ Department for Transport (2019), *National travel survey 2018: travel to school*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729521/national-travel-survey-2017.pdf.

¹¹¹ Department for Education (2020), *Academic Year 2019/20 Special educational needs in England: July 2020*. Available online at: <https://explore-education-statistics.service.gov.uk/find-statistics/special-educational-needs-in-england>.

¹¹² Mencap, *Children – research and statistics*. Available online at: <https://www.mencap.org.uk/learning-disability-explained/research-and-statistics/children-research-and-statistics>.

¹¹³ Papworth Trust (2018), *Facts and Figures 2018; Disability in the United Kingdom*. Available online at: <https://www.papworthtrust.org.uk/about-us/publications/papworth-trust-disability-facts-and-figures-2018.pdf>.

Older people

Access to services, such as local shops, post offices and healthcare centres can be difficult for older people, particularly in rural areas. Older households who do not have access to their own car are particularly vulnerable to social isolation in rural areas, where services, such as GP surgeries, are too far away to reach on foot, and public transport can be limited¹¹⁴.

In terms of recreation, participation in sports declines significantly with age, from 16% in the 35-54 age group to 7.6% in over 55s. Walking is more likely to be maintained, with 22.3% of those in the 55-65 age category still taking at least one 30 minute walk every four weeks¹¹⁵.

Access to places to practise religion or belief is important for many older people, particularly in rural areas where churches and other places to practise religion or belief can provide important community resources. In 2014, the average age of Church of England congregations in rural areas was 53, and 21% of regular attendees at Sunday services were aged 75 and over¹¹⁶. Research has shown that, for older people in particular, membership of a faith community can reduce social isolation and have positive effects on wellbeing¹¹⁷.

Disabled people

Disabled people have specific access needs, and can face barriers to their use of public transport¹¹⁸. Social isolation can be particularly significant for some groups of disabled people, including disabled women and BAME disabled people¹¹⁹. For people with autism, difficulties with transport can make it difficult to access community services and facilities, contributing to social exclusion¹²⁰.

Play is critically important in supporting the wellbeing and development of disabled children. However, disabled children experience barriers to play associated with a lack of inclusive accessibility and a lack of support in mainstream play settings, as well as a shortage of

¹¹⁴ Action with Communities in Rural England (ACRE) (2014), *Older people: policy position paper*. Available online at: <http://www.acre.org.uk/cms/resources/policy-papers/new-acre-older-people-ppp-rgb-2014.pdf>.

¹¹⁵ Ramblers' Association (2010), *Walking facts and figures: participation in walking*. Available online at: <http://www.ramblers.org.uk/~media/Files/What%20we%20do/factsandfigures-2-participation-0510.pdf>.

¹¹⁶ Church of England (2014), *Everyone counts 2014: diversity audit key findings*. Available online at: https://www.churchofengland.org/media/2261061/everyonecounts_keyfindings.pdf.

¹¹⁷ EHRC (2010), *How fair is Britain? Research reports: Wellbeing*. <https://www.equalityhumanrights.com/en/how-fair-britain/full-report-and-evidence-downloads/how-fair-britain-research-reports>.

¹¹⁸ Department for Transport (2020), *The Inclusive Transport Strategy: achieving equal access for disabled people*. Policy paper. Available online at: <https://www.gov.uk/government/publications/inclusive-transport-strategy/the-inclusive-transport-strategy-achieving-equal-access-for-disabled-people>.

¹¹⁹ Scope (2012), *Over-looked communities, over-due change: how services can better support BME disabled people*. Available online at: <https://www.obv.org.uk/sites/default/files/images/news-2012-05-17-BME%20full%20report.pdf>.

¹²⁰ HM Government (2010), *Fulfilling and Rewarding Lives*, para 4.2.

Equality Impact Assessment Report

specialist provision. The majority (92%) of parents of disabled children feel that their child does not have the same opportunities to play as their non-disabled peers¹²¹.

Disabled people, and especially those with mobility impairments, experience barriers to access to the outdoors including physical issues on-site, such as stiles and difficult surfaces, in addition to social and cultural barriers. Guidance produced by the Sensory Trust for Natural Resources Wales sets out a framework to improve inclusivity and access to open spaces for exercise and recreation, with benefits for health and well-being¹²². Along with the provision of facilities such as disabled parking and accessible toilets, this includes measures such as careful consideration of seating and shelter, information in different languages, support from staff and volunteers, and well-designed information to help visitors find their way, including, for example, people with dementia who may become disorientated and need clear wayfinding information.

Access to hospitals and other healthcare facilities can be particularly important for some groups of disabled people. People with autism, for example, experience a higher than average prevalence of physical and mental health issues¹²³. In 2013/14, 117,025 adults with learning disabilities were using some form of community service. The most common included day services (49,555 people), home care (43,025 people), professional support (21,035 people), and equipment and adaptations (11,095 people)¹²⁴.

A report commissioned in 2019 by Alzheimer's Society from the Care Policy and Evaluation Centre (CPEC) at the London School of Economics and Political Science (LSE) estimates that 885,000 older people in the UK are living with dementia. This is forecasted to increase to 1.6 million by 2040. The prevalence rate of dementia among older people in the UK is estimated to be 7.1% in 2019¹²⁵. People with learning disabilities are three times more likely to develop dementia than the rest of the population¹²⁶. While many people with dementia live in care homes (at least 70% of all people in care homes have dementia), many prefer to live in their own homes for as long as possible, and require care and support with daily activities to

¹²¹ Sense (2016), *Making the case for play: findings of the Sense Public Inquiry into access to play opportunities for disabled children with multiple needs*. Available online at: <https://www.basw.co.uk/resources/making-case-play>.

¹²² Natural Resources Wales (2017), *By all reasonable means: Least restrictive access to the outdoors*. Available online at: <https://cdn.naturalresources.wales/media/682681/gn004-by-all-reasonable-means-least-restrictive-access-to-the-outdoors.pdf>.

¹²³ Department of Health and Social Care (2019), *Annual Autism Accountability Meeting minutes*. Available online at: <https://app.box.com/s/apcu7efgk2lz2qfcbki1js9s3cv46n5y/file/489440850324>.

¹²⁴ Public Health England, Learning Disabilities Observatory (2016), *People with learning disabilities in England 2015: Main report*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/613182/PWLDIE_2015_main_report_NB090517.pdf.

¹²⁵ The London School of Economics and Political Science. (2019). *Projections of older people with dementia and costs of dementia care in the United Kingdom, 2019–2040*. Available online at: https://www.alzheimers.org.uk/sites/default/files/2019-11/cpec_report_november_2019.pdf.

¹²⁶ Foundation for People with Learning Disabilities (2018), *Hidden in Plain Sight – Dementia and Learning Disability*. Available online at: <https://www.mentalhealth.org.uk/file/3412/download?token=-te9xWf->.

enable them to do so. In 2019/20, 61.5% of adults aged over 65 reported that they were extremely or very satisfied with their care and support¹²⁷.

Ethnic minority and religious groups

Access to places to practise religion or belief is an important consideration for some ethnic minority groups. At 48%, regular churchgoing is more than three times higher among adults of Black ethnic origin than among White adults (15%)¹²⁸. While research shows a general decline in Church of England attendances, there is evidence showing that the number of people attending black majority churches (BMCs), many of which are Pentecostal in denomination, has increased rapidly in recent decades, particularly in London and other large cities including Leeds, Manchester and Birmingham¹²⁹.

Places to practise religion or belief also provide an important function in terms of support networks and community cohesion, and it is recognised that faith-based organisations can support social interaction in local communities and play a role in providing welfare and public services¹³⁰. Research by the Joseph Rowntree Foundation has suggested that religious organisations can also help to build links between faith communities, particularly in urban areas where multiple religious groups may be present and there are opportunities to share networks and buildings¹³¹.

Research by the Church Urban Fund, an agency of the Church of England, found that churches can offer a range of services to meet community needs, including help to meet basic material needs, employment and life skills support, and children and youth services¹³². This research also highlighted the role of churches in promoting 'neighbourliness' and a sense of community. Work by the Third Sector Research Centre at Birmingham University has also shown that other faith organisations can perform a similar role, citing DCLG research on Muslim communities in England that shows that mosques and other Islamic

¹²⁷ Alzheimer's Society (2021), *A Future for Personalised Care*. Available online at: <https://www.alzheimers.org.uk/sites/default/files/2021-03/A%20Future%20for%20Personalised%20Care.pdf>.

¹²⁸ Tearfund (2007), *Churchgoing in the UK: a research report from Tearfund on church attendance in the UK*. Available online at: http://news.bbc.co.uk/1/shared/bsp/hi/pdfs/03_04_07_tearfundchurch.pdf.

¹²⁹ A. Rogers, *How are black majority churches growing in the UK? A London Borough case study*. Available online at: <http://blogs.lse.ac.uk/religionglobalsociety/2016/12/how-are-black-majority-churches-growing-in-the-uk-a-london-borough-case-study/>.

¹³⁰ A McCabe, H Buckingham, S Miller and M Musabyimana (2016), *Belief in Social Action: Exploring faith groups' responses to local needs*, Third Sector Research Centre, Working Paper 137. Available online at: <https://www.birmingham.ac.uk/documents/college-social-sciences/social-policy/tsrc/working-papers/briefing-paper-137.pdf>.

¹³¹ Joseph Rowntree Foundation (JRF) (2006), *Faith as social capital*. Available online at: <https://www.jrf.org.uk/sites/default/files/jrf/migrated/files/9781861348388.pdf>.

¹³² P Bickley (2014), Churches Urban Fund and Theos, *Good Neighbours: How churches help communities flourish*. Available online at: <https://www.theosthinktank.co.uk/cmsfiles/Reportfiles/Good-Neighbours-Report-CUF-Theos-2014.pdf>.

establishments offer a range of services to the Bangladeshi and Pakistani Muslim communities¹³³.

A key point is that places to practise religion or belief often serve a community beyond the immediate neighbourhood in which they are located. Research into BMCs in the London Borough of Southwark, for example, shows that congregants travel to churches in the borough from across the city¹³⁴.

Lesbian, gay, bisexual and transgender people

Research into LGBT communities in the UK has found evidence of a clear link between a strong sense of community, and reported wellbeing, with benefits including combating isolation, heightening confidence and self-esteem, and helping to improve or maintain physical health. A need for 'safe spaces' in which LGBT people feel able to avoid self-censorship was seen as important in driving a desire for community¹³⁵.

Employment and business

Introduction

Certain PCGs can be more likely to experience low socio-economic status and poor standards of living due to differences in economic activity, employment rates, type of work and remuneration. Income poverty particularly affects groups such as women with children, ethnic minority groups, and families with disabled members¹³⁶. Disabled people, women and many ethnic minorities are more likely to experience severe material deprivation¹³⁷.

Young people

Between October-December 2020, 11.3% of 16-24 year olds in the UK were not in employment, education or training (NEET), of whom 45% were unemployed¹³⁸. This is a slight

¹³³ McCabe et al (2016), *Belief in Social Action*.

¹³⁴ University of Roehampton, Southwark for Jesus, and Churches Together South London (2013), *Being Built Together: A story of new black majority churches in the London Borough of Southwark*. Available online at: <https://www.roehampton.ac.uk/globalassets/documents/humanities/being20built20togethersb203-7-13.pdf>.

¹³⁵ E. Formby (2012), *Solidarity but not similarity? LGBT communities in the twenty-first century*, Sheffield Hallam University, http://shura.shu.ac.uk/6528/1/LGBT_communities_final_report_Nov2012.pdf.

¹³⁶ EHRC (2010), *How Fair is Britain?*

¹³⁷ EHRC (2019), *Is Britain fairer? The state of equality and human rights 2018*. Available online at: <https://www.equalityhumanrights.com/sites/default/files/is-britain-fairer-accessible.pdf>.

¹³⁸ Office for National Statistics (ONS) (2021), *Young people not in education, employment or training (NEET), March 2021*. Available online at: <https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/unemployment/datasets/youngpeoplenotineducationemploymentortrainingneetable1>.

increase on the figure for the same period in 2019 (10.7%) and could reflect the impact of the lockdown measures taken in response to the Covid-19 pandemic.

The data for October-December 2020 shows that the proportion of young people who are considered to be NEET is higher than the average for England in both the West Midlands (12.4%) and North West (12.5%)¹³⁹. Young people in rural communities can experience particular barriers to accessing employment and training, including access to transport, careers advice, employment and training support, and youth services¹⁴⁰.

In October-December 2020, the proportion of young people who are considered to be NEET was higher among young men aged 16-24 (12.8%) than among young women (9.8%)¹⁴¹, and young people from certain BAME communities are particularly likely to be affected¹⁴². Data from the Annual Population Survey data shows that 37.9% of young people who are NEET self-report a health condition, including 21.8% who report depression, learning problems, mental problems, or nervous disorders¹⁴³.

The construction industry faces a skills shortage, with one in six employers (17%) reporting in 2018 that they did not have enough skilled workers for at least some of the last year, and a further 9% reporting that for all or most of the year they had not enough skilled workers. Nearly half of all employers recruiting skilled staff reporting difficulties in filling these positions¹⁴⁴. Efforts are being made by charities such as the Prince's Trust and the Construction Youth Trust, as well as government and industry, to encourage young people into work, training and apprenticeships in the industry.

Older people

The over 50s have among the lowest employment rates for any age group. As of February 2021, 71.1% of those aged 50-64 were in employment, compared with 85.3.6% of those aged

¹³⁹ ONS (2021), NEET statistics annual brief: 2020. Available online at: <https://explore-education-statistics.service.gov.uk/find-statistics/neet-statistics-annual-brief>.

¹⁴⁰ Commission for Rural Communities (2012), *Barriers to education, employment and training for young people in rural areas*. Available online at: <http://dera.ioe.ac.uk/15199/1/Barriers-to-education-employment-and-training-for-young-people-in-rural-areas.pdf>.

¹⁴¹ Office for National Statistics (ONS) (2021), *Young people not in education, employment or training (NEET), March 2021*. Available online at: <https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/unemployment/datasets/youngpeoplenotineducationemploymentortrainingneetable1>.

¹⁴² Trade Union Congress (TUC) (2012), *Youth unemployment and ethnicity*. Available online at: <https://www.tuc.org.uk/sites/default/files/BMEyouthunemployment.pdf>.

¹⁴³ ONS (2019), *NEET statistics annual brief: 2018*. Available online at: <https://www.gov.uk/government/statistics/neet-statistics-annual-brief-2018>.

¹⁴⁴ Construction Industry Training Board (CITB) (2018), *Skills and Training in the Construction Industry 2018*. Available online at: https://www.citb.co.uk/documents/research/citb-skills-and-training-in-the-construction-industry-report_2018.pdf.

35-49 and 85.4% of those aged 25-34¹⁴⁵. People aged over 50, once unemployed, find it harder to access new jobs, and experience the longest period of unemployment. The Office for National Statistics (ONS) Employment, unemployment and economic inactivity by age group data shows that 21.4% of men and 30.2% of women in the 50-64 age group were economically inactive¹⁴⁶.

Disabled people

Employment rates are lower among disabled adults than among non-disabled adults. In 2017/18, 51% of working age disabled adults were employed, compared with 82% of working age non-disabled adults¹⁴⁷. Disabled people in employment are considerably less likely than their non-disabled counterparts to work full-time, although it is unclear if this is down to personal choice or other, potentially discriminatory, reasons¹⁴⁸.

Disabled people are also more likely to earn less than their non-disabled counterparts. Median pay is consistently higher for non-disabled employees than for disabled employees, with a pay gap in 2018 of 12.2%. The disability pay gap is wider for men than for women. The largest pay gap is experienced by disabled employees with a mental impairment (18.6%), while those with a physical impairment experienced a pay gap of 9.7%. It is estimated that around a quarter of the difference in pay between disabled and non-disabled employees can be accounted for by factors such as occupation and qualification¹⁴⁹.

There is also evidence to suggest that people with communication impairments may face discrimination in the workplace. For example, research conducted by Action on Hearing Loss found that 75% of respondents felt that their employment opportunities were limited because of their hearing loss and over two thirds agreed that they sometimes felt isolated at work due to their hearing loss¹⁵⁰.

This is also true for adults with learning disabilities. In 2017 to 2018, 7,907 of working adults with learning disabilities in England getting long term social care support were in paid or self-employment. Most of these adults with learning difficulties (68.3%) were working for less

¹⁴⁵ ONS (2021), *Employment, unemployment and economic inactivity by age group (seasonally adjusted) 2021*. Available online:

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/employmentunemploymentandeconomicinactivitybyagegroupseasonallyadjusted05sa/current>.

¹⁴⁶ ONS (2021), *Employment, unemployment and economic inactivity by age group (seasonally adjusted) 2021*.

¹⁴⁷ DWP (2019), *Family Resources Survey: financial year 2017/18*. Available online at:

<https://www.gov.uk/government/statistics/family-resources-survey-financial-year-201718>.

¹⁴⁸ EHRC (2010), *Disability, skills and employment: a review of recent statistics and literature on policy and initiatives*. Available online at: <https://www.equalityhumanrights.com/en/publication-download/research-report-59-disability-skills-and-employment-review-recent-statistics>.

¹⁴⁹ ONS (2019), *Disability pay gaps in the UK: 2018*. Available online at:

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/disability/articles/disabilitypaygapsintheuk/2018#main-points>.

¹⁵⁰ Arrowsmith, L. (2014), *Hidden Disadvantage: Why people with hearing loss are still losing out at work*.

Available online at: <https://rnid.org.uk/wp-content/uploads/2020/05/Hidden-Disadvantage-full-report.pdf>.

than 16 hours per week¹⁵¹. The Labour Force Survey estimates that, in June 2016, the rate of employment among working-age people with a reported main health condition of a learning difficulty (including people with a learning disability) was 24%¹⁵².

Adults with autism are significantly under-represented in the labour market¹⁵³, with the National Autistic Society (NAS) estimating in 2016 that the rate of full-time employment among adults with autism is as low as 16%¹⁵⁴. Amongst those who are in employment, adults with autism are more likely to be in unskilled jobs with low wages. This is despite nearly half of adults with autism who do not have a learning disability attending higher education¹⁵⁵.

The disparity in employment rates between disabled and non-disabled adults indicates that disabled people continue to face barriers to employment. Although many of these are attitudinal, a practical lack of access to appropriate transport can also make it harder to find work.

Ethnic minority groups

National evidence suggests that school pupils from Black and Pakistani ethnic backgrounds experience gaps in attainment relative to pupils from Asian, Indian and White ethnic backgrounds¹⁵⁶. This is reflected in persistent ethnic segregation in the labour market: unskilled jobs are most likely to be taken by African (23%) and Bangladeshi men (21%)¹⁵⁷. Evidence also suggests that some ethnic groups are under-represented at senior levels in both the private and public sectors¹⁵⁸. For example, data from 2020 shows that people from

¹⁵¹ Public Health England (2019), *Research and analysis; Chapter 2: paid employment*, Updated 27 January 2020 Available online at: <https://www.gov.uk/government/publications/people-with-learning-disabilities-in-england/chapter-2-employment>.

¹⁵² Department for Work and Pensions (DWP) and Department of Health (DoH) (2016), *Work, Health and Disability Green Paper Data Pack*, cited in DWP and DoH (2017), *Improving Lives: The future of work, health and disability*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/663399/improving-lives-the-future-of-work-health-and-disability.PDF.

¹⁵³ HM Government (2016), *Think Autism, Fulfilling and Rewarding Lives, the strategy for adults with autism in England: an update*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/299866/Autism_Strategy.pdf.

¹⁵⁴ NAS (2016), *The Autism Employment Gap*. Available online at: <https://www.autism.org.uk/what-we-do/news/government-must-tackle-the-autism-employment-gap>.

¹⁵⁵ Lopez, B., and L. Keenan (2014), *Barriers to employment in autism: Future challenges to implementing the Adult Autism Strategy*. University of Portsmouth, Department of Psychology. Available online at: https://moam.info/barriers-to-employment-in-autism-university-of-portsmouth_5c25d161097c47f00a8b45fb.html.

¹⁵⁶ Department for Business, Innovation and Skills (2013), *Youth unemployment: review of training for young people with low qualifications*. Available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/70226/bis-13-608-youth-unemployment-review-of-training-for-young-people-with-low-qualifications.pdf.

¹⁵⁷ EHRC (2010), *How fair is Britain?*

¹⁵⁸ EHRC (2015), *Is Britain Fairer?*

Black and Black British ethnic backgrounds were least likely to be employed as managers, directors or senior officials¹⁵⁹.

Employment gaps between some ethnic groups are narrowing over time, but evidence shows persistent ethnic minority disadvantage in the labour market relative to the White British population¹⁶⁰. In the 2011 Census, unemployment rates were highest among people from Mixed White-Caribbean (19%), African (16%), Bangladeshi (15%), Caribbean (15%) and Mixed White-African (15%) ethnic backgrounds¹⁶¹. There are particularly high rates of persistent unemployment among women from certain ethnic groups, most notably the Bangladeshi and Pakistani populations¹⁶².

Women, pregnant women and mothers of babies up to six months

Occupational segregation is a key factor in explaining pay differences, particularly in the private and voluntary sectors where at age 40 men are earning, on average, 27% more than women¹⁶³. This is thought to be partly explained by the higher proportion of women in part-time employment compared with men: around 42% of women in employment work part-time, compared with around 13% of men in employment. Women are particularly at risk of low pay, and make up more than 60% of those in low paid work¹⁶⁴. Women are also less likely than men to be self-employed¹⁶⁵.

In the past, inflexible working practices have been a barrier to female employment in the construction industry. However, there is an increasing focus on the role of women in construction¹⁶⁶, and the Equality and Human Rights Commission (EHRC) has published guidance aimed at increasing diversity within the sector¹⁶⁷. Women now make up 14% of the total construction workforce, and 37% of new entrants into the industry from higher

¹⁵⁹ ONS (2020), Employment by occupation. Available online at: <https://www.ethnicity-facts-figures.service.gov.uk/work-pay-and-benefits/employment/employment-by-occupation/latest#by-ethnicity-and-type-of-occupation>.

¹⁶⁰ Joseph Rowntree Foundation (2015), *Ethnic minority disadvantage in the labour market*. Available online at: <https://www.jrf.org.uk/report/ethnic-minority-disadvantage-labour-market>.

¹⁶¹ JRF (2015), *Ethnic minority disadvantage in the labour market*.

¹⁶² JRF (2015), *Ethnic minority disadvantage in the labour market*.

¹⁶³ EHRC (2010), *How fair is Britain?*

¹⁶⁴ EHRC (2019), *Is Britain fairer? The state of equality and human rights 2018*. Available online at: <https://www.equalityhumanrights.com/sites/default/files/is-britain-fairer-accessible.pdf>.

¹⁶⁵ ONS (2021), Annual Population Survey, Jan 2020-Dec 2020. Available online at: www.nomisweb.co.uk.

¹⁶⁶ See, for example, organisations and initiatives such as Women into Construction: <https://www.women-into-construction.org/>.

¹⁶⁷ EHRC (2012), *Equality and diversity: good practice for the construction sector*. Available online at: http://www.equalityhumanrights.com/sites/default/files/ed_report_construction_sector.pdf.

education¹⁶⁸. With the industry facing a severe skills gap and initiatives being taken forward to encourage women into construction, this is likely to increase in future¹⁶⁹.

Traffic, transport and accessibility

Introduction

The availability of public transport is of particular importance to certain PCGs, especially where access to a car is limited. Research by the DfT shows that children, younger people, older people and disabled people may be less likely to have access to private transport¹⁷⁰. A persistent barrier to employment for various disabled groups is the lack of appropriate transport. In addition, some groups can be particularly sensitive to the effects of road traffic, which disproportionately affects socially excluded areas¹⁷¹.

Children and young people

Many young people rely on public transport in order to access education and employment. The proportion of young adults (aged 17-20) with a full driving licence has decreased since the 1990s, and people in this age group now make more trips by bus than other age groups, and twice as many as the average person. For women and men aged 17-20, around 12% of trips per person per year are made by bus. By comparison, trips made by bus account for around 5% of trips made by men and women across all age groups¹⁷².

Busy roads can divide and damage local communities and restrict walking, particularly for children and young people. Research has found that there is a strong relationship between deprivation and pedestrian casualties, particularly among children and young people from disadvantaged areas, who are most at risk on main roads and on residential roads near

¹⁶⁸ Go Construct, Women in Construction. Available online at: <https://www.goconstruct.org/construction-today/diversity-in-construction/women-in-construction/>.

¹⁶⁹ L. Worrall, K. Harris, R. Stewart, A. Thomas, P. McDermott (2010), *Barriers to Women in the UK Construction Industry, Engineering, Construction and Architectural Management*, 17:3. Available online at: <https://core.ac.uk/download/files/130/1660903.pdf>.

¹⁷⁰ DfT (2013), *Valuing the social impacts of public transport*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/226802/final-report.pdf.

¹⁷¹ Social Exclusion Unit (2003), *Making the connections: final report on transport and social exclusion*. Available online at: http://www.ilo.org/wcmsp5/groups/public/@ed_emp/@emp_policy/@invest/documents/publication/wcms_ast_8210.pdf.

¹⁷² Department for Transport (2020), National travel survey: England 2019. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/906847/nts-2019-factsheets.pdf.

shops and leisure services¹⁷³. The number of children that have been killed or seriously injured in traffic accidents has generally been decreasing over time. In 2019, there were 39 fatalities and 13,574 casualties, the lowest number of casualties on record.

Older people

The over-60s make more trips by bus than those in middle age groups, reflecting the availability of concessionary bus travel and differing levels of car ownership and driving licences. Bus use is particularly high amongst older women, and the highest proportion of trips made by over-60s of both genders is for the purpose of shopping. Other important reasons for travelling among both men and women in this age group include visiting friends, entertainment and sport and personal business¹⁷⁴. This reflects the importance of public transport in enabling older people to access essential services – including healthcare – as well as to socialise and participate in their local communities¹⁷⁵.

Disabled people

Disabled people have specific access needs. The National Travel Survey (NTS) for England defines someone with mobility difficulties as someone who has difficulties travelling on foot, by bus, or both. The NTS for 2019 reported that 9% of adults in the survey sample had a mobility difficulty. This increases with age to 26% of those aged 70 and over, and is more marked among women than men¹⁷⁶.

Disabled people are less likely to travel compared to non-disabled people, but make more frequent trips by bus and taxi. In 2014, it was found that 29% of disabled people identified difficulty with transport as the main barrier to employment¹⁷⁷. The 2010 Strategy for adults with autism in England recognises that public transport can be 'hugely daunting' for people with autism, making them reluctant to use it and therefore less able to participate fully in the community¹⁷⁸.

Inclusive design can support equal access to public transport for disabled people, and there is evidence of recent improvements in this regard. The majority (98%) of buses in England and 78% of the mainline rail fleet now complies with modern access standards for disabled

¹⁷³ Government Office for Science (2019), *Inequalities in Mobility and Access in the UK Transport System*, Foresight. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/784685/future_of_mobility_access.pdf.

¹⁷⁴ Department for Transport (2020), National travel survey: England 2019.

¹⁷⁵ Age UK (2012), *Missed opportunities: the impact on older people of cuts to rural bus services*. Available online at: http://www.ageuk.org.uk/Documents/EN-GB/For-professionals/Policy/transport/bus_services_in_rural_areas_may2013.pdf?dtrk=true.

¹⁷⁶ Department for Transport (2020), National travel survey: England 2019, Table NTS0622.

¹⁷⁷ Papworth Trust (2014), *Disability in the United Kingdom 2014*. Available online at: <http://www.papworthtrust.org.uk/sites/default/files/UK%20Disability%20facts%20and%20figures%20report%202014.pdf>.

¹⁷⁸ HM Government (2010), *Fulfilling and Rewarding Lives*.

people¹⁷⁹. The Metrolink tram system in Manchester is accessible for wheelchair users and people with pushchairs, with step-free access at every tram stop, and an area for people who use wheelchairs in every tram¹⁸⁰.

In terms of rail travel specifically, there is a range of potential problems encountered by disabled people (including those with neurodiverse conditions such as autism) in their use of railway stations. These include, but are not limited to, the following issues identified in the 2011 DfT code of practice for accessible train and station design¹⁸¹:

- cluttered or multi-level station layouts, which can cause difficulties for people with limited mobility and hard for those with cognitive or visual impairments to navigate;
- difficulty in hearing announcements, which can affect deaf people and those who are hard of hearing;
- difficulty in reading essential travel information, which can affect blind people and those with limited vision and other impairments, such as colour blindness;
- difficulty in negotiating physical features, which can affect blind people and those with limited vision;
- busy stations, which can cause confusion for people with learning disabilities;
- difficulty in understanding timetabling and ticketing information, which can affect people with learning disabilities;
- difficulty in communicating with station staff, which can affect deaf people, people with speech difficulties and people with a first language other than English;
- limited or inappropriately located Blue Badge parking and set-down points; and
- difficulty in standing for long periods, which can have particular effects for people with arthritis.

Along with inclusive design, the availability of information in appropriate formats, improved communication within stations, and the presence of well-trained staff can support improved access to rail travel for disabled people¹⁸².

¹⁷⁹ Department for Transport (2020), *The Inclusive Transport Strategy: achieving equal access for disabled people*. Available online at: <https://www.gov.uk/government/publications/inclusive-transport-strategy/the-inclusive-transport-strategy-achieving-equal-access-for-disabled-people>.

¹⁸⁰ Transport for Greater Manchester, *Accessible public transport: Metrolink trams*. Available online at: <https://tfgm.com/accessibility/guides/tram-accessibility>.

¹⁸¹ Department for Transport (2011), *Accessible train and station design for disabled people: a code of practice*. Available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/3191/accessible-train-station-design-cop.pdf.

¹⁸² Department for Transport (2011), *Accessible train and station design for disabled people*. Available online at: <https://www.gov.uk/government/publications/accessible-railway-stations-design-standards>.

Research conducted in the United States suggests that people with learning difficulties or disabilities are more at risk of being hurt or killed on roads¹⁸³. A 15-year study in California indicated that the risk of adults with learning difficulties and disabilities being killed while walking was nearly three times greater than among adults without.

Women and mothers of babies up to six months

Women's trips are more likely to relate to caring and family responsibilities, such as shopping and escorting children to school, while men are more likely to travel for business and leisure. As a result, women tend to make shorter, more frequent journeys than men¹⁸⁴, and are, therefore, more likely to travel with children and/or buggies or heavy shopping. Many women with children rely on buses and other public transport, and poor physical access can be a significant barrier. This is particularly the case for single parents, who are amongst those least likely to own a car¹⁸⁵.

Noise, air quality and other environmental effects

Introduction

A poor quality local environment can have a detrimental effect on quality of life. Certain PCGs may be particularly sensitive to environmental impacts associated with noise and air quality, and therefore, are at greater risk of harmful effects.

Children, young people and disabled people

Exposure to noise can be a particular problem around schools, leading to cognitive impairment for children during lessons and negative effects on educational attainment^{186 187}. Children with hearing difficulties benefit from a quiet learning environment, and background noise can reduce the effectiveness of hearing aids¹⁸⁸.

¹⁸³ Strauss D, Shavelle R, Anderson T W and Baumeister A (1998). *External causes of death among persons with developmental disability: the effect of residential placement*. American Journal of Epidemiology, 147 (9), 855-862.

¹⁸⁴ Department for Transport (2020), *National Travel Survey: England 2019*.

¹⁸⁵ RAC Foundation for Motoring (2011), *Low income motoring in Great Britain*. Available online at: http://www.racfoundation.org/assets/rac_foundation/content/downloadables/low_income_motoring-bayliss-280909.pdf.

¹⁸⁶ M. Haines, S. Stansfeld, S. Brentnall, J. Head, B. Berry, M. Jiggins, S. Hygge (2001), *The West London Schools Study: the effects of chronic aircraft noise exposure on child health*, Psychological Medicine, 2001, 31:8. Available online at: <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=91583>.

¹⁸⁷ Shield, B. and Dockrell, J. (2007), *The effects of environmental and classroom noise on the academic attainments of primary school children*. Available online at: <https://pubmed.ncbi.nlm.nih.gov/18177145/>.

¹⁸⁸ The National Deaf Children's Society (2003), *Deaf-friendly Teaching: Practical guidance for teachers working with deaf children*. Available online at: https://abcofworkingwithschools.files.wordpress.com/2010/06/deaf_friendly_teaching_xndcsx.pdf.

Many people with autism experience some form of sensory difference, such as hypersensitivity to light or to sound¹⁸⁹. Autistic children can therefore be particularly sensitive to the school environment and, in some cases, can be extremely distressed by loud noise¹⁹⁰. Other conditions that can cause increased sensitivity to noise include schizophrenia¹⁹¹, Down's syndrome¹⁹², and hearing impairments¹⁹³. People who have visual impairments may also be more sensitive to noise in the environment as they may be more reliant on sound for communication and navigation. For example, a number of respondents to a research project commissioned by the RNIB in 2009 commented that noise from roadworks or construction can make it more difficult to navigate busy roads by disguising other noises such as car engines or pedestrian crossing signals¹⁹⁴.

Evidence from Cancer Research¹⁹⁵ suggests that some drugs used in chemotherapy treatment can increase sensitivity to light or change in visual stimuli. Other groups who can be particularly sensitive to changes in the visual environment include autistic people, people with dementia, and people with conditions such as schizophrenia.

Children may also be more sensitive to health effects arising from poor air quality, along with older people and people with certain illnesses such as chronic lung or heart conditions^{196 197}.

¹⁸⁹ All Party Parliamentary Group on Autism and National Autistic Society (2017), *Autism and education in England 2017*, p.11. Available online at: <https://www.autism-alliance.org.uk/wp-content/uploads/2018/04/APPGA-autism-and-education-report.pdf>; HM Government (2010), *Fulfilling and Rewarding Lives*.

¹⁹⁰ Autism Education Trust (2008), *Educational provision for children and young people on the autism spectrum living in England: a review of current practice, issues and challenges*. Available online at: <https://www.autismeducationtrust.org.uk/shop/educational-provision-report-jones-et-al-2008>.

¹⁹¹ J Landon et al (2016), *When it's quiet, it's nice: Noise sensitivity in schizophrenia*. *American Journal of Psychiatric Rehabilitation* 19(2): 122-135. Available online at: https://www.researchgate.net/publication/303905329_When_it's_quiet_it's_nice_Noise_sensitivity_in_schizophrenia.

¹⁹² Down's Syndrome Association (2018), *Health Series: Hearing*. Available online at: <https://www.downs-syndrome.org.uk/?wpdmdl=20898>.

¹⁹³ Parliamentary Office of Science and Technology (2009), *Postnote: Environmental Noise*. Available online at: <https://www.parliament.uk/globalassets/documents/post/postpn338.pdf>.

¹⁹⁴ Royal National Institute for the Blind (RNIB) (2009), *Understanding the Needs of Blind and Partially Sighted People: Their experiences, perspectives, and expectations*. SSMR, University of Surrey. Available online at: <https://www.rnib.org.uk/knowledge-and-research-hub/research-reports/general-research/understanding-needs>.

¹⁹⁵ Cancer Research, *Your Eyes and Cancer Drugs*. Available online at: <https://www.cancerresearchuk.org/about-cancer/cancer-in-general/treatment/cancer-drugs/side-effects/eyes>.

¹⁹⁶ Department of Environment, Food and Rural Affairs (2013), *Short-term effects of air pollution on health*. Available online at: <https://uk-air.defra.gov.uk/air-pollution/effects?view=short-term>.

¹⁹⁷ World Health Organisation (2006), *What are the effects of air pollution on children's health and development?* Available online at: <http://www.euro.who.int/en/data-and-evidence/evidence-informed-policy-making/publications/hen-summaries-of-network-members-reports/what-are-the-effects-of-air-pollution-on-childrens-health-and-development>.

Ethnic minority groups

There is a link between socio-economic status and poorer neighbourhood quality, with those living in poor housing more likely to report concerns with the level of pollution and grime in their neighbourhood¹⁹⁸. Ethnic minority and religious minority groups are highly represented in the most deprived neighbourhoods in England.

Romany Gypsy and Irish Traveller communities may also be at increased risk of harmful effects from air quality and noise impacts, due to the poor environment on some sites and the proximity of some sites to busy roads and industrial areas¹⁹⁹. It is recognised that noise transference through the walls of trailers and caravans can be greater than through the walls of conventional housing²⁰⁰, so there is an additional risk of increased noise impacts for Gypsy and Traveller communities living in caravans or mobile homes.

Older people

There could also be the potential for older people living in mobile park homes to experience a greater risk of increased noise impacts, due to higher levels of noise transference. Legally, park homes are classed as caravans. They are usually single storey structures that resemble bungalows, and are often hidden under a brick 'skirt' or wooden structure²⁰¹. Park homes can be an attractive housing option for retirement, and it is estimated that up to 68% of the 160,000 people who live in park homes in England are aged 60 and over²⁰².

¹⁹⁸ EHRC (2010), *How fair is Britain?*

¹⁹⁹ The Traveller Movement (2016), *Impact of insecure accommodation and the living environment on Gypsies' and Travellers' health*. Available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/490846/NIHB_-_Gypsy_and_Traveller_health_accs.pdf.

²⁰⁰ See for example Coastal West Sussex Authorities and South Downs National Park Authority (2013), *Gypsy, Traveller and Travelling Showpeople Sites Study*. Available online at: <http://www.southdowns.gov.uk/wp-content/uploads/2015/02/Gypsy-Traveller-and-Travelling-Showpeople-Sites-Study.pdf>. This was also noted in DCLG guidance published in 2008, which has subsequently been withdrawn: DCLG (2008), *Designing Gypsy and Traveller Sites: Good practice guide*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/11439/designinggypsiesites.pdf.

²⁰¹ Housing Learning and Improvement Network (2014), *Viewpoint 67: Park Home Living – a good housing option for later life?* Available online at: https://www.housinglin.org.uk/assets/Resources/Housing/Support_materials/Viewpoints/HLIN_Viewpoint67_ParkHomes.pdf.

²⁰² W. Wilson (2016), *Housing of Commons Briefing no. 01080, Mobile (Park) Homes*. Available online at: https://www.housinglin.org.uk/assets/Resources/Housing/OtherOrganisation/House_of_Commons_Library-Briefing_Paper-Mobile_Park_Homes-Jan_2016.pdf.

Crime, safety and personal security

Introduction

The construction of the Proposed Scheme is likely to lead to changes in the streetscape, such as around construction sites, as well as changes to local road networks and increased HGV movements in some areas along the route of the Proposed Scheme. Members of some PCGs can have higher than average levels of concern about crime, while others can be disproportionately likely to be affected by accidents such as road traffic accidents.

Children and disabled people

Heavy goods vehicles often have 'blind spots', which can make it difficult for drivers to see pedestrians and other road-users, and are associated with a disproportionate number of accidents involving construction vehicles²⁰³. Children may be more at risk of road traffic accidents as pedestrians than other age groups. In 2019, 39 child fatalities and 13,574 child casualties resulting from traffic incidents were recorded nationally. Of the child fatalities recorded in 2019, 18 were pedestrians and 10 were cyclists²⁰⁴.

Construction traffic may pose a particular risk to some groups of disabled people, including deaf people, people who are hard of hearing, and people with mental disabilities. Children with hearing difficulties are 10 times more likely to be involved in road accidents while walking or playing than other children²⁰⁵.

A hate crime is defined as any criminal offence perceived by the victim or any other person to be motivated by hostility or prejudice based on the victim's disability, race, religion or belief, sexual orientation, or transgender identity²⁰⁶. In the year ending March 2020, the police in England and Wales recorded 8,469 hate crimes related to a person's disability, around 8% of the total²⁰⁷. Research by Civitas has found that hate crimes are more likely to

²⁰³ Transport Research Laboratory (2013), *Construction logistics and cyclist safety*. Available online at: <http://content.tfl.gov.uk/construction-logistics-and-cyclist-safety-summary-report.pdf>.

²⁰⁴ Department for Transport (2020), *Reported road casualties in Great Britain: 2019 annual report*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/922717/reported-road-casualties-annual-report-2019.pdf.

²⁰⁵ AA Foundation for Road Safety Research (2003), *The facts about road accidents and children*. Available online at: https://www.theaa.com/staticdocs/pdf/aboutaa/child_safety.pdf.

²⁰⁶ CIVITAS Institute for the Study of Civil Society (2016), *Hate crime: the facts behind the headlines*. Available online at: <http://www.civitas.org.uk/content/files/hatecrimethefactsbehindtheheadlines.pdf>.

²⁰⁷ Home Office (2020), *Hate Crime, England and Wales, 2019 to 2020*. Available online at: <https://www.gov.uk/government/statistics/hate-crime-england-and-wales-2019-to-2020/hate-crime-england-and-wales-2019-to-2020>. Increases in recent years are attributed primarily to improvements in hate crime identification and recording.

affect some groups of disabled people than others, particularly those with learning difficulties, visual impairments, or mental health difficulties²⁰⁸.

Ethnic minority groups and religious groups

In the year ending March 2020, there were 105,090 hate crimes recorded by the police in England and Wales, an increase of 8% compared with year ending March 2019²⁰⁹. Just over half (56%) of hate crime offences recorded are racially or religiously aggravated offences. Of all the recorded hate crime offences in 2019/2020, 76,070 were racially motivated, an increase of 6% compared with 2018/19. Religiously aggravated offences decreased, by 5% to 6,822 in 2019/20²⁰⁹.

While increases in hate crime over the last five years have been mainly driven by improvements in crime recording by the police, there has been spikes in hate crime following certain events such as the EU Referendum in 2016, and the terrorist attacks in 2017, and during the coronavirus pandemic in June and July 2020, which showed a greater fluctuation than non-aggravated equivalent offences²⁰⁹.

Women

Personal safety is a concern for some women on public transport. 34% of women are much more likely than men (27%) to be 'worried' and a significantly greater proportion of women had experienced a specific worrying incident in the past three months (37 per cent, compared with 28 per cent of men). In addition, 14% of women report experiencing some form of unwanted sexual behaviour while travelling in London. Women are more likely to experience worry as a barrier to their use of public transport²¹⁰. Disruption to existing public transport networks, including increases in waiting time at bus stops and stations, may exacerbate these safety concerns and discourage women from travelling.

LGBT people

In year ending March 2020 there were 15,835 and 2,540 sexual orientation hate crimes and transgender identity hate crimes respectively. Whilst these crimes were up by 19% and 16% from the previous year, these percentage increases are smaller than seen in recent years²⁰⁹. Research by Stonewall suggests that hate crime experienced by LGBT people may be underreported, with four in five of those who experienced a hate crime or incident related to their sexual orientation or gender identity stating that they did not report it to the police²¹¹.

²⁰⁸ CIVITAS (2012), *Crime fact sheets - hate crime*.

²⁰⁹ Home Office (2020), *Hate Crime, England and Wales, 2019 to 2020*. Available online at: <https://www.gov.uk/government/statistics/hate-crime-england-and-wales-2019-to-2020>.

²¹⁰ Transport for London (2019), *Travel in London: Understanding our diverse communities 2019: a summary of existing research*. Available online at: <http://content.tfl.gov.uk/travel-in-london-understanding-our-diverse-communities-2019.pdf>.

²¹¹ Stonewall (2017), *LGBT in Britain: Hate crime and discrimination*. Available online at: https://www.stonewall.org.uk/sites/default/files/lgbt_in_britain_hate_crime.pdf.

Equality Impact Assessment Report

According to a report published by Stonewall in 2017, 16% of lesbian, gay and bisexual people and 41% of transgender people have experienced a hate crime or incident because of their sexual orientation or gender identity in the last 12 months²¹². The most common form of crime motivated or aggravated by sexual orientation or gender identity are offences against the person and public order offences²¹³. Stonewall found that 87% of LGBT people who had experienced a hate incident had been insulted, pestered, intimidated or harassed; 26% had received unwanted sexual contact; 21% had been threatened with violence or use of force; and 11% had been physically assaulted²¹⁴.

²¹² Stonewall (2017), *LGBT in Britain*.

²¹³ Home Office (2020), *Hate Crime*.

²¹⁴ Stonewall (2017), *LGBT in Britain*.

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