



# **Suffolk Level Crossing Reduction Order**

Equality and Diversity Overview  
TWAO Document Ref 367516/RPT196

February 2018



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# Issue and revision record

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# 1 Introduction and approach

## 1.1 Introduction

This Equality and Diversity overview has been prepared by Mott MacDonald on behalf of Network Rail in relation to the closure of, and/or changes to rights at, 25 level crossings on railway lines within the county of Suffolk. Collectively, these level crossing closures or changes will be contained in the draft Suffolk Level Crossing Reduction Order which is part of the wider Anglia Level Crossing Reduction Strategy.

This report has been produced in response to updated proposals for the sites identified below in order to:

- support good decision-making by ensuring that equality and diversity issues are taken into account when delivering the Strategy in Suffolk;
- summarise the equality, diversity, and inclusion impacts arising from the implementation of the Strategy in Suffolk; and
- identify whether level crossing sites are likely to require a full Diversity Impact Assessment (DIA) to ensure that the individual closures are implemented having shown due regard to Network Rail's obligations under the Public Sector Equality Duty.

## 1.2 The Anglia Level Crossing Reduction Strategy

The purpose of the Anglia Level Crossing Reduction Strategy is to improve safety, allow Network Rail to more effectively manage its assets in the Anglia Region, reduce the ongoing maintenance liability of the railway and help enable various separate enhancement schemes to be developed in the future. Network Rail has considered options to provide alternative means of crossing the railway and developed proposals for the possible closure or change to public rights of way at around 130 level crossings in Anglia.

The Strategy comprises 5 phases; however, the Suffolk Order only relates to Phases 1 and 2. Phase 1 (mainline) and 2 (branch line) comprise selected level crossings where the proposals do not include any new form of grade separation across the railway.

The proposals are based on level crossings where benefits may be deliverable and affordable within the Network Rail Control Period 5 (to 31/3/19).

Phases 3 to 5 are intended to cover new grade separated crossings of the railway and diversion or downgrading of major highways. Network Rail has advised that these later Phases are likely to be implemented within Control Period 6 (2019 to 2024) after Phases 1 and 2 have been implemented. Phases 1 and 2 are not dependent on later Phases being implemented.

Within Phases 1 and 2, the Anglia Level Crossing Reduction Strategy comprises three separate projects, in the following administrative areas:

- The county of Cambridgeshire (the Cambridgeshire Level Crossing Reduction Order);
- The county of Suffolk (the Suffolk Level Crossing Reduction Order); and
- The county of Essex, the county of Hertfordshire, the unitary authorities of Thurrock and Southend-on-Sea and the London Borough of Havering (the Essex and Others Level Crossing Reduction Order).

Each of the three projects will be the subject of a separate application under the Transport and Works Act (TWA) 1992. Each Transport and Works Act Order (TWAO) application will include the necessary powers to implement the projects including the closure of certain crossings; the power to construct scheduled works (footpath/bridleway bridges and potentially new or altered roads) and other ancillary works; the extinguishment of or alteration (including downgrading) of the rights of way across certain levels crossings; the creation of new diversionary rights of way and the temporary occupation of, or permanent acquisition of, land or rights in land to construct and maintain works to create the new rights of way.

The nature and purpose of the works to be constructed is therefore:

- To close or downgrade the level crossings and extinguish / amend existing rights of way across them, including erection of fencing; and
- To provide new rights of way (public or private) on diversionary routes where possible, including the construction of a number of footpath/bridleway bridges, and new or altered roads, creation of public paths, bridleways and cycle track and additional footways under the provisions of the Highways Act 1980. These will require associated fencing, stiles, gates, signs, or other conveniences to create the new rights of way and may in some instances require surfacing to be provided.

### 1.3 Level crossing sites

The table below provides a summary of each of the sites within the Suffolk TWAO application.

**Table 1: Suffolk level crossing summary**

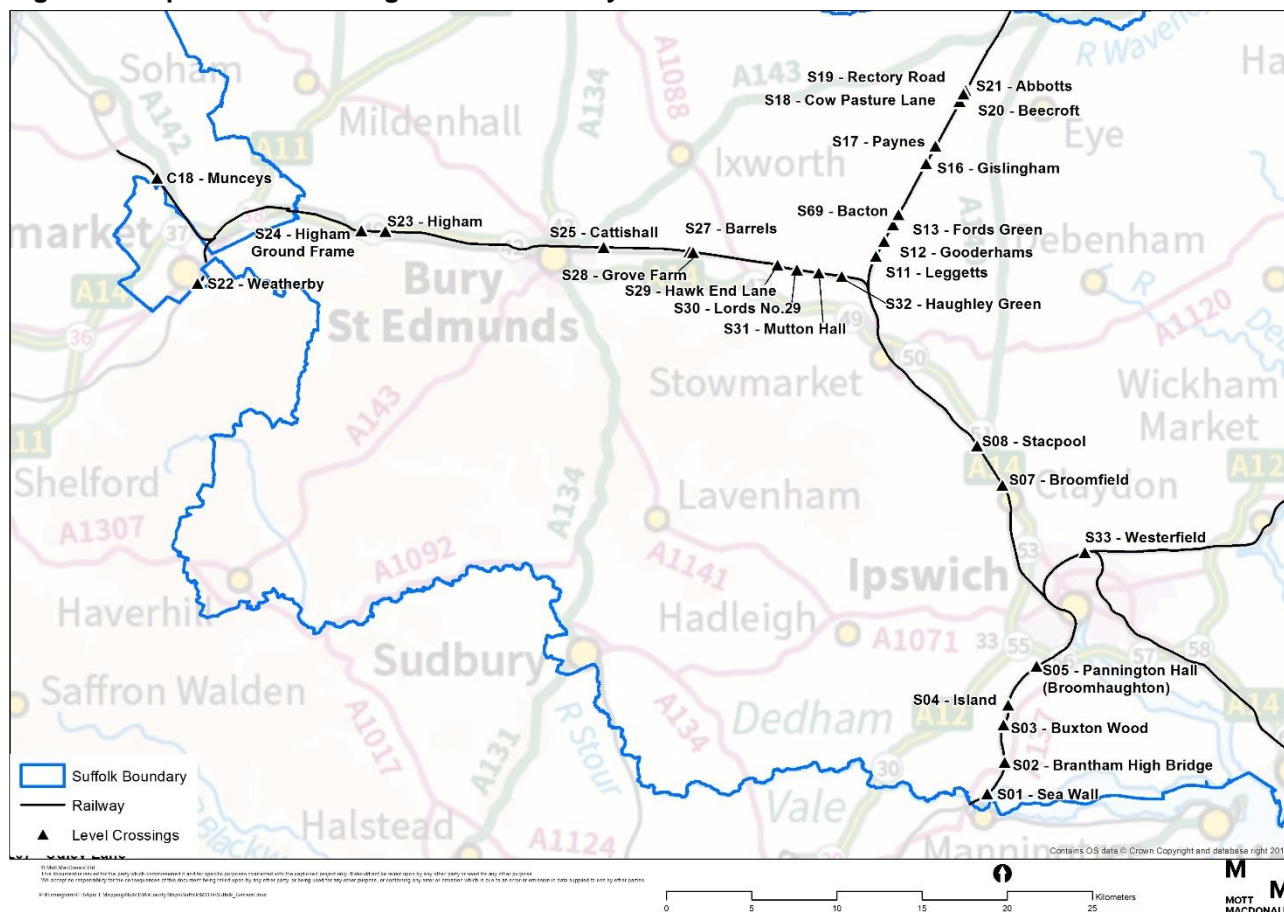
Code	Name
S01	Sea Wall
S02	Brantham High Bridge
S03	Buxton Wood
S04	Island
S05	Pannington Hall (Broomhaugton)
S07	Broomfield
S08	Stacpool
S11	Leggetts
S12	Gooderhams
S13	Fords Green
S16	Gislingham
S17	Paynes
S18	Cow Pasture Lane
S21	Abbotts
S22	Weatherby
S23	Higham
S24	Higham Ground Frame
S25	Cattishall
S27	Barrels
S28	Grove Farm
S29	Hawk End Lane
S30	Lords No. 29
S31	Mutton Hall
S33	Westerfield
S69	Bacton

Source: Network Rail and Mott MacDonald



The figure below shows the location of the level crossing sites within Suffolk County that form part of the project.

**Figure 1: Map of level crossing sites and railway lines in Suffolk**



Source: Network Rail / Mott MacDonald

## 1.4 Approach and methodology

### National policy drivers behind the DIA process

Under the Equality Act 2010, public bodies (or those carrying out public functions) are required to show due regard to equality under the Public Sector Equality Duty (PSED).

A key element of the PSED requires public bodies to consider all individuals in shaping policy, in delivering projects and services, and in relation to their own employees. It requires that government departments, public authorities, and those responsible for delivering public functions, including Network Rail, have due regard to the following three aims:

- Eliminating unlawful discrimination, harassment, and victimisation;
- Advancing equality of opportunity between different groups; and
- Fostering good relations between different groups.

Public authorities must demonstrate that they have shown due regard to the PSED through informed decision-making. While the PSED does not specify a particular process for considering the likely effects of policies, programmes and projects on different sections of society for public

authorities to follow, this process is usually undertaken through some form of equality analysis, which can include the DIA process and the analysis contained in this overview report.

The process is intended to support good decision making. It encourages public bodies to understand how different people will be affected by their activities, so that their policies and services are appropriate, accessible to all and meet the needs of different sections of society. By understanding the effect of their activities on different people, and how inclusive delivery can support and open up opportunities, public bodies can be more efficient and effective. The PSED therefore helps public bodies to deliver the Government's overall objectives for public services.

The PSED specifies that public bodies should minimise disadvantages experienced by people due to their protected characteristics, take steps to meet the different needs of people from protected groups, and encourage participation from these groups where participation is disproportionately low. Undertaking this process helps to demonstrate how Network Rail is complying with the PSED by:

- Providing a written record of the equality considerations which have been taken into account;
- Ensuring that decision-making includes a consideration of the actions that would help to avoid or mitigate any negative impacts on particular protected groups;
- Supporting evidence-based decision-making; and
- Supporting more transparent decision-making processes.

### **Network Rail equality, diversity, and inclusion drivers**

The Network Rail Equality, Diversity, and Inclusion Policy and Framework were published in October 2014 and identified the following aims (amongst others) to ensure that equality, diversity, and inclusion are embedded in their culture:

- Enhance decision-making and innovation, by encouraging positive interactions and involvement throughout the business;
- Increase their ability to relate to existing and potential customers wherever they exist;
- Build effective and productive relationships in the wider community through partnerships with community-based groups and stakeholders;
- Be committed to exceeding the minimum legal requirements; and
- Be committed to reviewing all existing policies within Network Rail to ensure they demonstrate equality, diversity, and inclusion values.

The project will also support the delivery of Network Rail's Everyone Strategy, and in particular the following commitments:

- **Commitment 1: Get everyone home safe every day**

This commitment puts safety centrally to network design, management, and maintenance. Improving crossing safety reduces the risk of crossing the railway for all users. The Strategy will help to improve safety for rail users by reducing interaction with the railway.

- **Commitment 2: Deliver reliable infrastructure**

This commitment focusses on the management of all Network Rail assets, with the aim of reducing long-term costs. The Strategy will help to deliver more reliable infrastructure.

- **Commitment 6: Being a customer focused organisation**

This commitment focusses on ensuring clearer accountability to local people, and understanding the needs of customers, to become more flexible and collaborative. The Strategy is working with local stakeholders and aims to help to improve the safety of journeys for infrastructure users.

- **Commitment 9: A railway fit for the future**

This commitment focusses on sustainability, making the business more efficient, and protecting and future-proofing railway assets. An inclusive and accessible railway will link people to communities, education, and jobs – ultimately delivering economic growth. The Strategy helps to deliver required improvements to ensure network infrastructure is fit for future use.

### **About DIA and the equality and diversity review process**

The DIA process is a systematic assessment of the likely or actual effects of policies or proposals on social groups with the following protected characteristics (as defined by the Equality Act 2010):

- **Age**, including all age groups, such as children aged 16 and under, younger people aged 16-25 and older people aged 65 and over.
- **Disability**, including people with sensory impairments, mobility impairments, learning disabilities, mental wellbeing disabilities, and long term medical conditions.
- **Gender reassignment**, including persons who are proposing to undergo, are undergoing, or have undergone gender reassignment.
- **Marriage and civil partnership**, with a focus purely on discrimination on the basis of whether someone is married or in a civil partnership – single people are not covered by this characteristic.
- **Pregnancy and maternity**, including pregnant women and nursing mothers.
- **Race and ethnicity**, including ethnic or national origins, colour, or nationality.
- **Religion or belief**, including all religion, faith, or belief groups, including lack of belief.
- **Sex**, including both women and men.
- **Sexual orientation**, including heterosexuals, lesbians, gay men, and bisexual people.

The process does this by:

- Assessing whether one or more of these groups could experience disproportionate effects (over and above the effects likely to be experienced by the rest of the population) as a result of the proposed policy being implemented. A DIA includes examining both potential positive and negative effects.
- Identifying opportunities to promote equality more effectively or to a greater extent.
- Developing ways in which any disproportionate negative impacts could be removed or mitigated to prevent any unlawful discrimination and minimise inequality of outcomes.

### **Methodology**

The preparation of this Equality and Diversity Overview Report included the following tasks:

- A review of the different level crossing sites within the Suffolk Order to understand the content and proposed changes at each site.
- Desk based evidence and policy review focussing on key national, regional, and local policy, Network Rail's strategic aims, and key published literature on rail infrastructure, the pedestrian environment, accessibility, safety, severance and community cohesion, and their relationship to equality and diversity.
- Analysis of available data on different protected characteristics to provide a comparison with national and regional averages, and to map the density of different equality groups within Suffolk.

- A review of work already undertaken on the sites in relation to equality and diversity, including previous DIA scoping work submitted as part of Phase 1 of the Anglia Level Crossing Reduction Strategy work, and the draft DIAs being prepared for selected sites as part of Stage 2.
- Analysis of available evidence to identify key conclusions and recommendations relating to the proposed level crossing closures within Suffolk.

Overall, the overview report provides a summary of the potential impacts identified from the work undertaken in support of the TWA0 submission for the project in Suffolk.

## 1.5 Purpose and structure of this report

This report has been collated from existing evidence prepared as part of the TWA0 submission and as part of the DIA process.

The remainder of this report is structured as follows:

- **Chapter 2** provides an overview of the key impact arising from the project and those groups upon whom those impacts are likely to fall disproportionately.
- **Chapter 3** provides a demographic profile of Suffolk, focussed on those protected characteristics most at risk, and on those for whom data is available.
- **Chapter 4** provides an overview of the potential equality and diversity impacts associated with individual sites that form part of the project.

## 2 Key impacts and at-risk groups

### 2.1 Introduction

This chapter identifies potential issues associated with level crossing closures and the groups likely to be affected by those issues; it is based on a review of relevant literature, level crossing details and user data provided by Network Rail, as well as an examination of the demographic data for the area. Potential impacts and issues related to level crossings closures are identified and the relevant protected characteristics are identified under each issue heading.

### 2.2 User safety

Level crossings account for an estimated 9% of the total rail system safety risk<sup>1</sup> and account for half of all fatalities on the railways when suicides and trespasses are excluded.<sup>2</sup> In 2014 there were ten accidental deaths on level crossings including eight pedestrians and two people killed in vehicles hit by trains.<sup>3</sup> If a walking trip includes a level crossing, the fatality risk to a pedestrian is approximately double the risk of an average walking trip without a level crossing and overall there is around an 8% increase in the risk of a fatality during an average car journey that includes a level crossing, compared with one that does not.<sup>4</sup>

The safety issues associated with level crossings do not impact all users uniformly. Certain user groups are particularly vulnerable to level crossing hazards because they have more difficulty processing the speed of objects coming towards them. Research conducted on behalf of the House of Commons Transport Select Committee, showed that **children** perceived cars moving towards them at more than 20 mph as stationary. **Older people** may also be vulnerable because their field of view can diminish over time; studies have suggested that this can be at a rate of between 1° and 3° per decade.<sup>5</sup>

In addition, research by University College London has shown that older pedestrians (aged 65 or over) walk more slowly than other pedestrian users (the mean walking speed achieved in controlled studies was 0.9 metres per second (m/s) in men and 0.8 m/s in women, compared to mean for the population as a whole of 1.2 m/s), placing them at greater risk.<sup>6</sup>

Similarly, **disabled people** may also be more at risk than those without a disability. Not only are crossing speeds likely to be slower for people with disabilities, but level crossings require users to cross a surface which may pose physical challenges due to its structure, gradient and exposure to the track. Pedestrians with sensory, physical or cognitive impairments may be less able to cross safely because of these factors. People with visual or hearing impairments can

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<sup>1</sup> Network Rail (unknown date): 'Level crossings risk reduction in CP5'

<sup>2</sup> House of Commons Transport Committee (2014): 'Safety at level crossings: Eleventh Report of Session 2013–14'

<sup>3</sup> RSSB (2014) 'Overview of safety performance for 2014' <http://www.rssb.co.uk/Library/risk-analysis-and-safety-reporting/SafetyPerformance-Overview-2014.pdf>

<sup>4</sup> House of Commons Transport Committee (2014): 'Safety at level crossings: Eleventh Report of Session 2013–14'

<sup>5</sup> House of Commons Transport Committee (2014): 'Safety at level crossings: Eleventh Report of Session 2013–14'

<sup>6</sup> 1.2 meters per second is the speed assumed in the programming of pedestrian level crossings on the road network, and is generally taken to be the mean walking speed.

also have difficulties crossing safely due to not being able to pick up on the variety of visual and audible warning messages at level crossings.<sup>7</sup>

Other analysis of level crossing accidents data show that **men** are more commonly struck by trains at level crossings than females, and the risk of being struck by a train increases steadily with age for adult users. Male pedestrians dominate accidents at level crossings, associated with 70% of all train strikes. Given that males represent approximately 49% of the population as a whole (according to UK government statistics) this would suggest male pedestrians are more at risk at level crossings than female pedestrians.<sup>8</sup>

## 2.3 Accessibility

Where a level crossing is replaced by a bridge, underpass or diversion there is a potential effect on accessibility. Whilst some users can face difficulties when trying to cross level crossings due to design issues, accessibility challenges can also arise where a level crossing is replaced by a bridge, underpass or diversion which does not fully accommodate the needs of all those using it.<sup>9</sup>

Certain protected characteristics groups, particularly **disabled people** and **older people**, are more likely to experience accessibility difficulties than the general population. Footbridges, underpasses and diversions can act as barriers for those with mobility impairments, can confuse blind and partially sighted people, create additional distance for frail and elderly people to travel, and be a difficult gradient to manage for those in wheelchairs, **people pushing prams** or carrying heavy bags.<sup>10</sup>

## 2.4 Walking distances

Walking distances are an important consideration for people with certain protected characteristics, and schemes that can affect existing walking distances may result in disproportionate impacts on some groups – such as **disabled people** and **older people**. For example, Inclusive Mobility – a key document to support inclusive design of the pedestrian environment – found that of people with a disability who are able to walk, around 30% can walk no more than 50 metres without stopping or experiencing severe discomfort and a further 20% can only manage between 50 and 200 metres.<sup>11</sup> Similarly, older people are also more likely to have difficulties walking long distances than the general population.

The study also found that **disabled people** tend to find standing to rest difficult and/or painful and therefore it is important for the provision of seated resting points where walking distances are increased for users.

## 2.5 Community severance

Level crossings provide a means of traversing the rail network and can act as an important point of access for the communities in which they are situated. The removal of level crossings therefore has the potential to cause issues related to community severance. Although there is

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<sup>7</sup> Rail Safety and Standards Board (2011): 'Research Programme: Operations and Management - Improving safety and accessibility at level crossings for disabled pedestrians'

<sup>8</sup> Rail Safety and Standards Board (2011): 'Research Programme: Operations and Management - Improving safety and accessibility at level crossings for disabled pedestrians'

<sup>9</sup> Law Commission (2010): 'Level Crossings: Consultation Paper'.

<sup>10</sup> Accesscode (2009): 'External Environment Fact Sheet'.

<sup>11</sup> Department for Transport (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'



not one agreed definition, community severance is generally understood to be comprised of three key dimensions:

- Physical barriers: such as the introduction of new or removal of existing infrastructure
- Psychological or perceived barriers: such as traffic noise or road safety fears
- Social barriers: such as the disruption of 'neighbourhood lifestyle' or inhibition of social interaction

The safety risks associated with existing level crossings could act as both a real and as a perceived barrier; however, the removal of level crossings and the replacement with / diversion to new or existing infrastructure such as bridges and underpasses may potentially act as a physical barrier. There is recognition that some social groups are more vulnerable to the effects of community severance than others; including **disabled people** with restricted mobility; **older people** and school children (**younger people**).<sup>12</sup> As identified above, older people are more at risk of social isolation which can be compounded by transport barriers. The effects of community severance also have a disproportionate effect on disabled people who also experience higher rates of social exclusion and existing barriers to transport.<sup>13</sup>

## 2.6 Rurality

The majority of the proposed level crossings closures in Suffolk are in rural areas. Rural areas are more likely to have problems associated with access to services, public transport and shops as they have a lower population density than urban areas and tend to be a greater distance away from key services.<sup>14</sup> Generally, people living in rural settlements have lower overall accessibility to key services compared with people living in towns and cities, and those people living in rural areas in a sparse setting usually experience the lowest overall levels of accessibility.<sup>15</sup>

Rural areas also have a higher proportion of **older people**; over 50% of the population in rural areas are aged 45 and above, compared with around 40% in urban areas.<sup>16</sup> Social isolation is a key concern for many groups in rural areas, but particularly for older people, and transport can be a key influencing factor – it is considered as a basic necessity of rural life.<sup>17</sup>

Transport barriers (for example, no longer having a private driving licence, inconvenient timetables or inaccessible bus stop locations<sup>18</sup>) can limit older residents' access to basic services, reduce social and civic participation, and pose critical challenges to engagement with health services.

## 2.7 Summary of impacts and protected characteristic groups

The table below summarises the findings of the desk-based review process, and the groups identified as being particularly vulnerable to changes in level crossing arrangements in Suffolk.

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<sup>12</sup> Department for Transport (2005): 'Understanding Community Severance'

<sup>13</sup> Bristol City Council (2014): 'Social isolation and physical and sensory impairment'

<sup>14</sup> Department for Transport (2013): 'Valuing the social impacts of public transport'

<sup>15</sup> Defra (2015): 'Statistical digest of rural England: April 2015 edition'

<sup>16</sup> Defra (2015): 'Statistical digest of rural England: April 2015 edition'

<sup>17</sup> Defra (2015): 'Statistical digest of rural England: April 2015 edition'

<sup>18</sup> Department for Environment Food and Rural Affairs (2013) '2013 Rural Ageing Research Summary Report of Findings'

**Table 2: Impacts by protected characteristic group**

Impact	Relevant protected characteristic	Potential impact identified
<b>User safety</b>	Disabled people – people with mobility and sensory impairments	Higher crossing risk than general population due to reduced mobility
	Age – older people	
	Age – younger people	Higher crossing risk than general population due to difficulty judging speeds
	Sex - males	Higher crossing risk than general population
<b>Accessibility</b>	Disabled people – those with mobility impairments	Difficulty using non-accessibly designed level crossings, bridges, underpasses and diversions due to steps, steep gradients, uneven surfaces, and other design shortcomings leading to inaccessible routes
	Age - older people	
	Pregnancy / Maternity – people with pushchairs	
<b>Walking distances</b>	Disabled people – those with mobility impairments	Difficulty in walking longer distances due to frailty of mobility impairment
	Age - older people	
<b>Community severance</b>	Disabled people	Higher vulnerability to impacts of community severance than general population due to potential lack of transport options and reduced mobility
	Age – older people	
	Age –younger people	
	All protected characteristics	Access to relevant community facilities restricted by change in access arrangements
<b>Rurality</b>	Age – older people	More likely to experience social isolation and difficulty accessing services due to high proportions of older people in rural locations



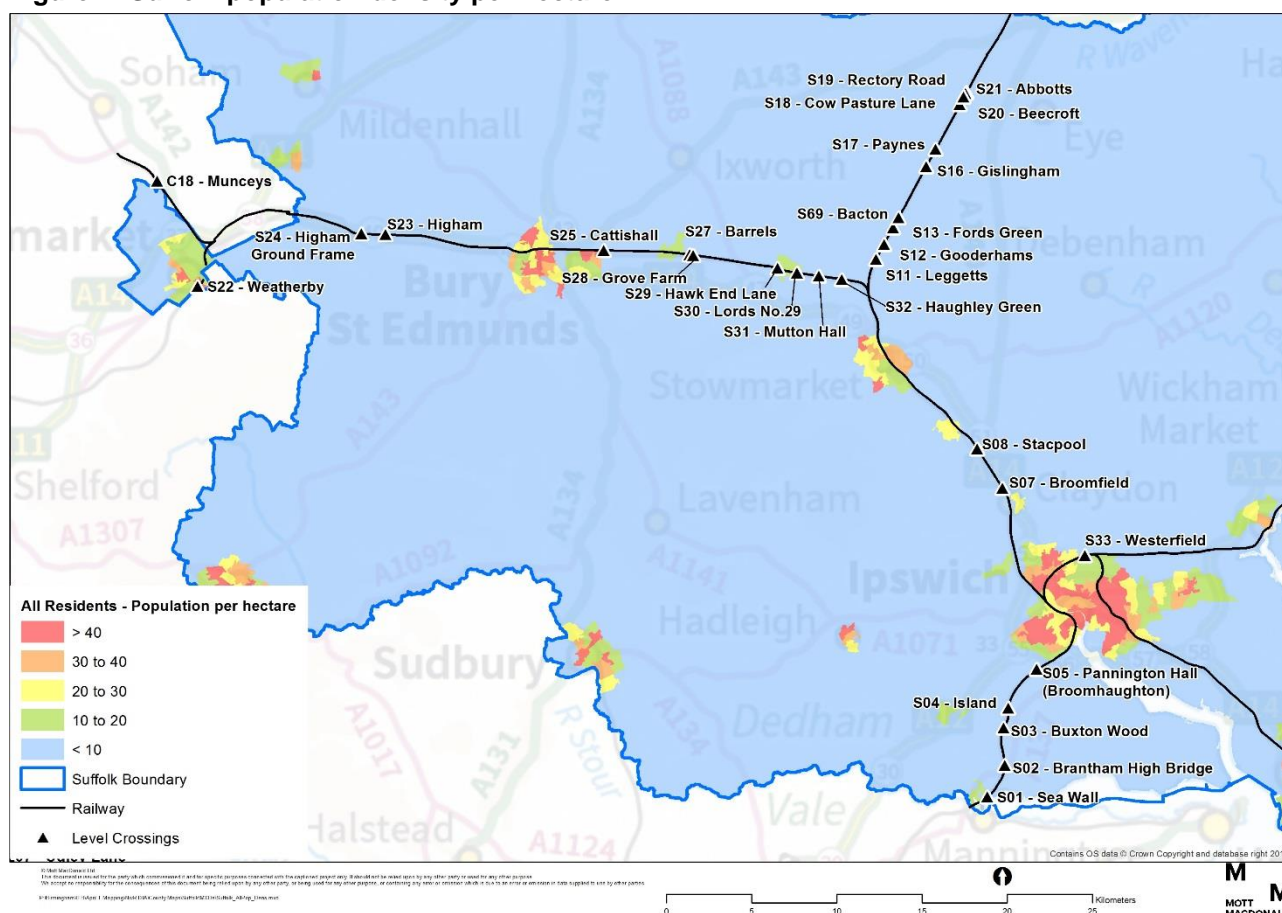
## 3 Suffolk Demographic Profile

### 3.1 Introduction and population overview

This chapter examines the demographic profile of groups with the following protected characteristics as defined by the Equality Act 2010 (age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race and ethnicity, religion and belief, gender and sexual orientation) both nationally and in Suffolk.

Analysis shows that the majority of Suffolk is rural with low densities of all of the protected characteristic groups. Ipswich (the county town) has a moderate to high density of all of the groups, as do some of the other county towns – trends indicate a split between urban and rural areas. As illustrated in the figure below:

**Figure 2: Suffolk population density per hectare**



Source: ONS Census 2011 – mid-year population estimates 2015

## 3.2 Age

This section explores two key age brackets that may experience disproportionate impacts when compared with the general population:

- Children (aged under 16); and
- Older people (aged 65 and over).

### Children (Under 16s)

The table below indicates that the proportion of people under the age of 16 living in Suffolk is comparable (1% lower) than the national proportion.

**Table 3: Number and proportion of people under the age of 16 living in Suffolk**

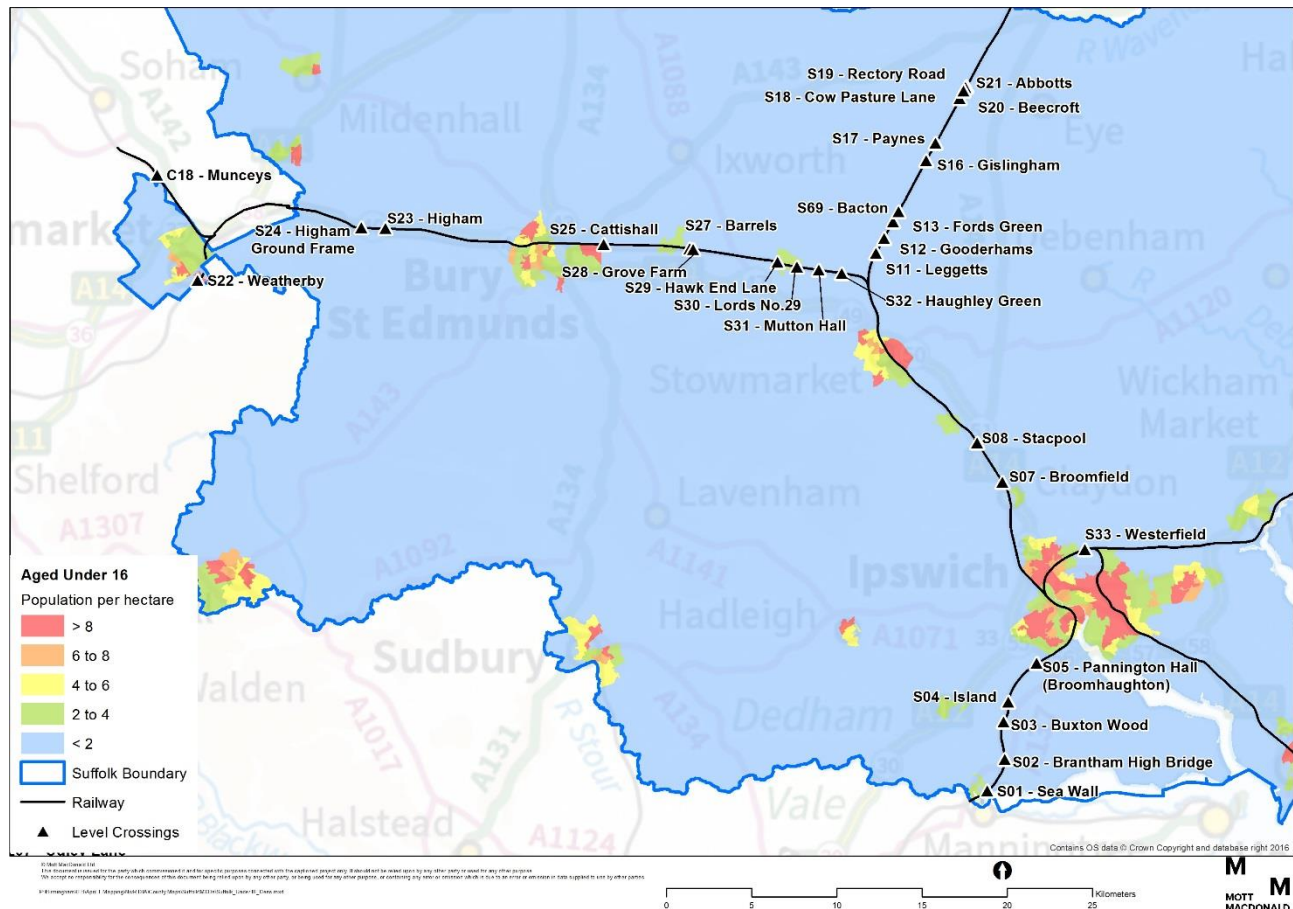
Age – under 16	Suffolk	England
Number	134,000	10,405,100
Percentage	18	19

Source: ONS Census 2011 – mid-year population estimates 2015

The map below illustrates that:

- Ipswich has a high density of people under 16. This extends into the suburbs of the town.
- There are other areas within the county that have notably densities, including Bury St Edmunds and Stowmarket.
- As the county as a whole is very rural, the majority of the people under 16 live in urban centres.

**Figure 3: Suffolk under 16 population density per hectare**



Source: ONS Census 2011 – mid-year population estimates 2015

### Older people (65 and over)

As identified in the table below, the proportion of people over 65 living in Suffolk is higher (4%) than the national average.

**Table 4: Number and proportion of people over 65 living in Suffolk**

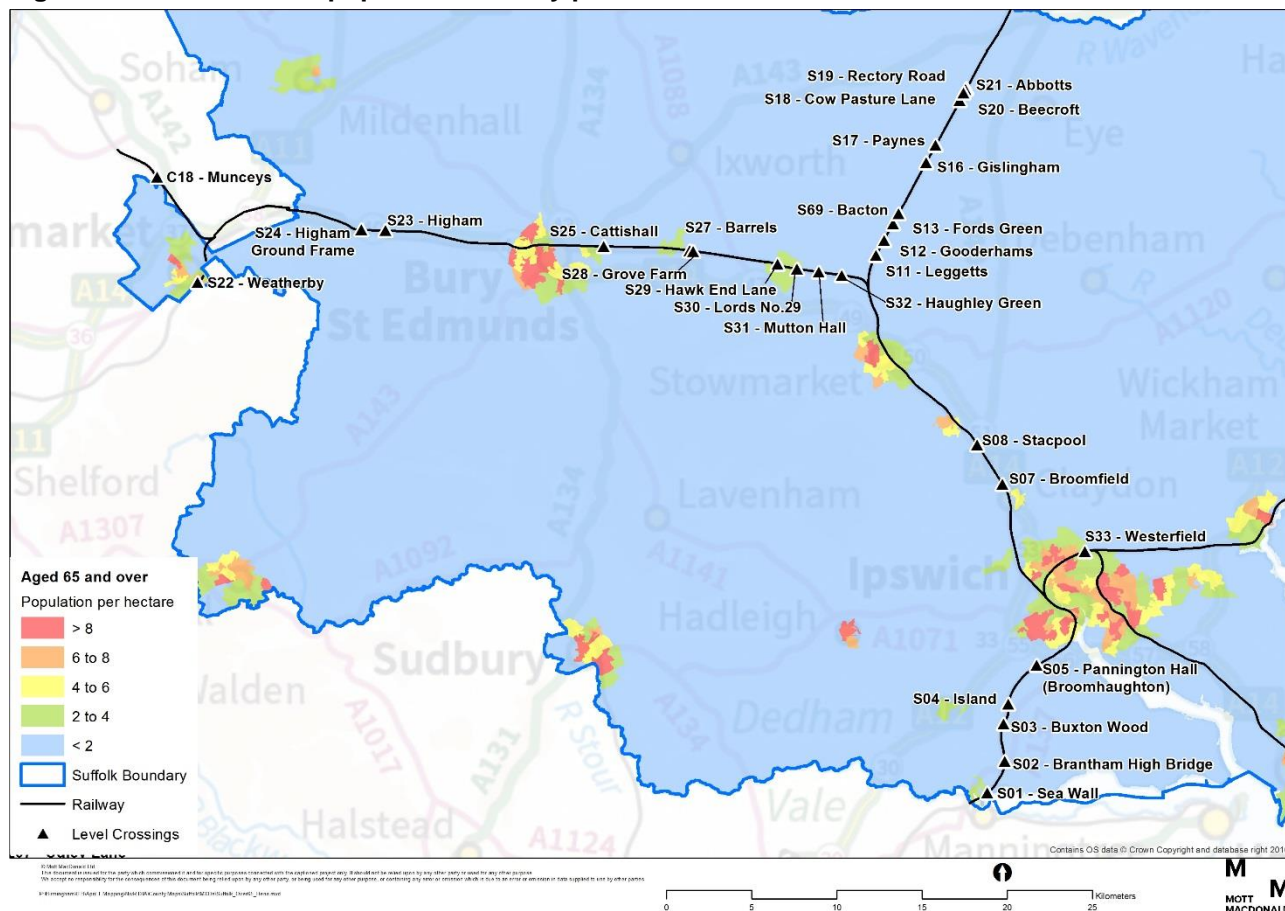
Age – over 65	Suffolk	England
Number	166,400	9,711,600
Percentage	22	18

Source: ONS Census 2011 – mid-year population estimates 2015

The map below illustrates that:

- Ipswich has a moderate to high density of people over 65, particularly in the east of the town.
- There are other areas in the county with moderate to high densities, such as Bury St Edmunds. Some smaller places within the county, such as the market towns of Hadleigh and Sudbury also have high densities.
- As with the other protected characteristic groups, the county overall has low levels of people over 65.

**Figure 4: Suffolk over 65 population density per hectare**



Source: ONS Census 2011 – mid-year population estimates 2015

### 3.3 Disability

The Equality and Human Rights Commission notes that: “You’re disabled under the Equality Act 2010 if you have a physical or mental impairment that has a 'substantial' and 'long-term' effect on your ability to do normal daily activities.”<sup>19</sup>

For the purposes of the demographic profile, we have analysed the number of people living with a long-term limiting illnesses (LLTI) within Census and mid-year population data.

As identified in the table below, the proportion of people living in Suffolk with a LLTI is slightly lower than the national proportion.

<sup>19</sup> See: <http://www.equalityhumanrights.com/advice-and-guidance/new-equality-act-guidance/protected-characteristics-definitions/>.



**Table 5: Number and proportion of disabled people in Suffolk**

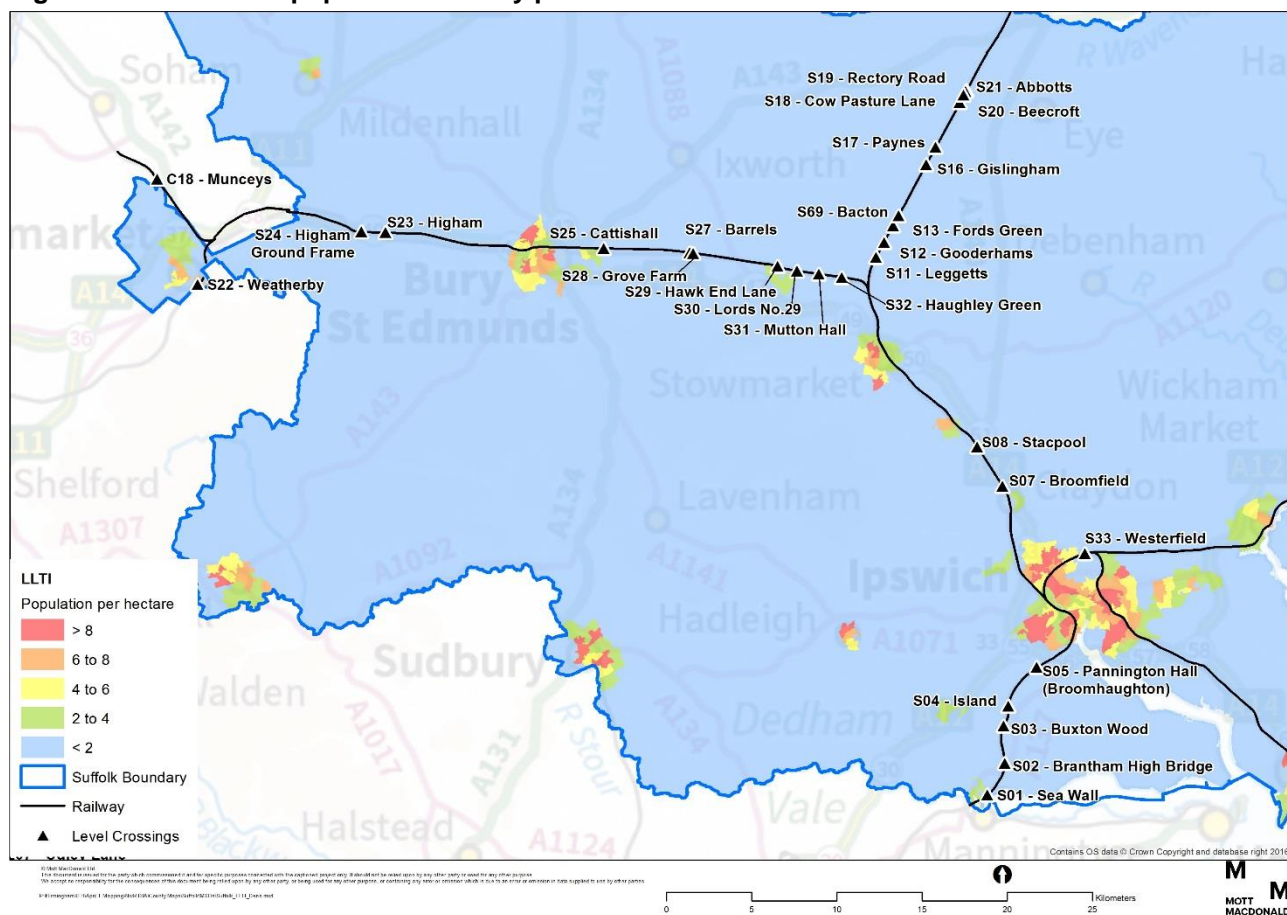
LLTI	Suffolk	England
Number	130,700	9,352,600
Percentage	18	18

Source: ONS Census 2011 – mid-year population estimates 2015

The map below illustrates that:

- Ipswich has a moderate to high density of people living with an LLTI, which is equally spread throughout the town.
- Other areas within the county, such as Bury St Edmunds and Sudbury, also have moderate densities.
- The county as a whole has very low levels of people with an LLTI.

**Figure 5: Suffolk LLTI population density per hectare**



Source: ONS Census 2011 – mid-year population estimates 2015

### 3.4 Gender reassignment

There are multiple definitions of 'gender reassignment'. For the purposes of equality law, gender reassignment is defined as 'a process which is undertaken under medical supervision for the purpose of reassigning a person's sex by changing physiological or other characteristics of sex,

and includes any part of such a process.’ This means that an individual does not need to have undergone any specific treatment or surgery to be protected by the law.<sup>20</sup>

There are no official or census data for the number of gender variant people in Suffolk or in England.

The ONS, though, has estimated that the size of the Trans community in the UK could range from 65,000 to 300,000.<sup>21</sup> Additionally, statistics from the Ministry of Justice show that between 2005 and 2014, 3,662 full Gender Recognition Certificates have been issued.<sup>22</sup>

### 3.5 Marriage and Civil Partnership

Marriage and civil partnership is covered by the Equality Act 2010 only on the grounds of unlawful discrimination.<sup>23</sup> People who are married, or in a civil partnership, must be treated the same as people who are not and, similarly, same sex civil partners must be treated the same as married heterosexual couples on a wide range of legal matters.

In 2011, 51.4% of people were married in Suffolk which is slightly higher than the national figure of 47%. The percentage of people in same sex civil partnerships was consistent at 0.2% in both Suffolk and nationally.

**Table 6: Marriage and civil partnership**

Marital Status	Suffolk		England	
	Number	Percentage	Number	Percentage
<b>Total population</b>	<b>595,261</b>	<b>100%</b>	<b>595,261</b>	<b>100%</b>
Single (never married or never registered a same-sex civil partnership)	170,614	28.7%	170,614	28.7%
Married	306,031	51.4%	306,031	51.4%
In a registered same-sex civil partnership	1,175	0.2%	1,175	0.2%
Separated (but still legally married or still legally in a same-sex civil partnership)	14,801	2.5%	14,801	2.5%
Divorced or formerly in a same-sex civil partnership which is now legally dissolved	57,718	9.7%	57,718	9.7%
Widowed or surviving partner from a same-sex civil partnership	44,922	7.5%	44,922	7.5%

Source: ONS Crown Copyright Reserved [from Census 2011]

### 3.6 Pregnancy and Maternity

The EHRC defines pregnancy as ‘the condition of being pregnant or expecting a baby’.<sup>24</sup> Protection against maternity discrimination is for 26 weeks after giving birth.

There is no single indicator by which to measure the overall distribution of ‘pregnancy and maternity’ within a given area. There are, however, a number of proxy measures that can be used.

<sup>20</sup> EHRC (2013): ‘Transgender: what the law says’. See: <http://www.equalityhumanrights.com/advice-and-guidance/your-rights/transgender/transgender-what-the-law-says/>.

<sup>21</sup> ONS (2009): ‘Trans Data Position Paper’.

<sup>22</sup> Ministry of Justice (2014): ‘Tribunals and gender recognition statistics: July to September 2014’ See: <https://www.gov.uk/government/statistics/tribunals-and-gender-recognition-certificate-statistics-quarterly-july-to-september-2014>.

<sup>23</sup> See: <https://www.equalityhumanrights.com/en/equality-act/protected-characteristics>.

<sup>24</sup> See: <http://www.equalityhumanrights.com/advice-and-guidance/new-equality-act-guidance/protected-characteristics-definitions/>.

In 2014, the total fertility rate decreased to 1.83 children per woman (from 1.85 in 2013).<sup>25</sup> In England in 2015, there were 697,852 live births, with 8,028 in Suffolk.<sup>26</sup>

A further proxy measure for pregnancy and maternity is available by identifying the population under the age of 1. This is set out in the table below and shows that the proportion of people living in Suffolk and nationally under the age of 1 is the same (1%).

**Table 7: Number and proportion of people under the age of 1 living in Suffolk**

Age – under 1	Suffolk	England
Number.	7,900	663,000
Percentage	1	1

Source: ONS Census 2011 – mid-year population estimates 2015

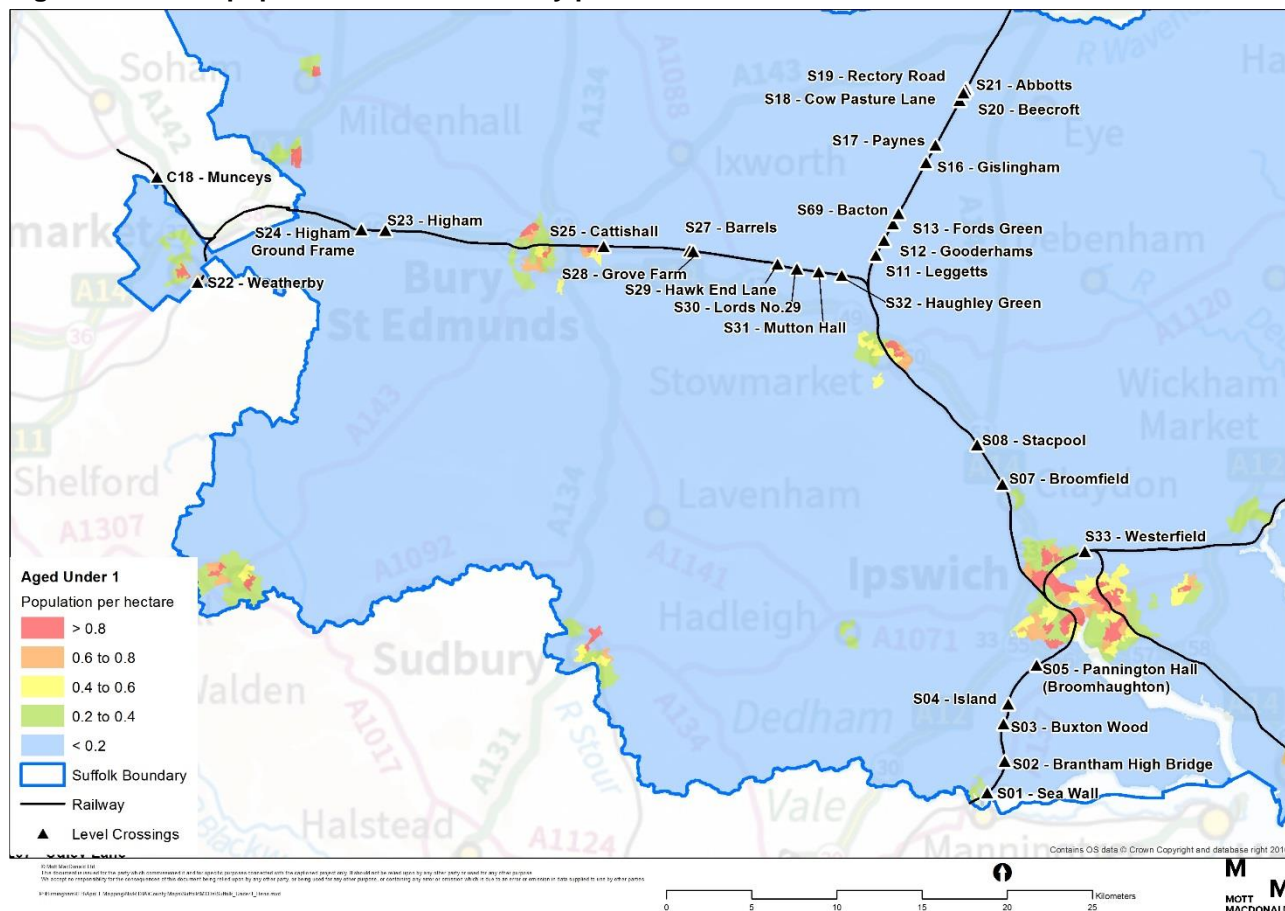
The map below illustrates that:

- Ipswich has a moderate density of people under 1, with some areas of the town having high densities.
- There are other areas within Suffolk which have moderate densities, but these are not significant.
- The wider county has very low levels of people under 1 living in the area.

<sup>25</sup> ONS (2015): 'Birth summary tables'. See:  
<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/datasets/birthsummarytables>.

<sup>26</sup> ONS (2015): 'Birth summary tables'. See:  
<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/datasets/birthsummarytables>.

**Figure 6: Suffolk population under 1 density per hectare**



Source: ONS Census 2011 – mid-year population estimates 2015

### 3.7 Race and ethnicity

Race and ethnicity refers to a group of people defined by their race, colour, nationality (including citizenship), ethnicity, or national origin.

As set out in the table below, the proportion of people from a BAME background in Suffolk is significantly lower (less than half) of the national figure.

**Table 8: Number and proportion of people from BAME backgrounds living in Suffolk**

BAME	Suffolk	England
Number	66,700	10,733,200
Percentage	9	20

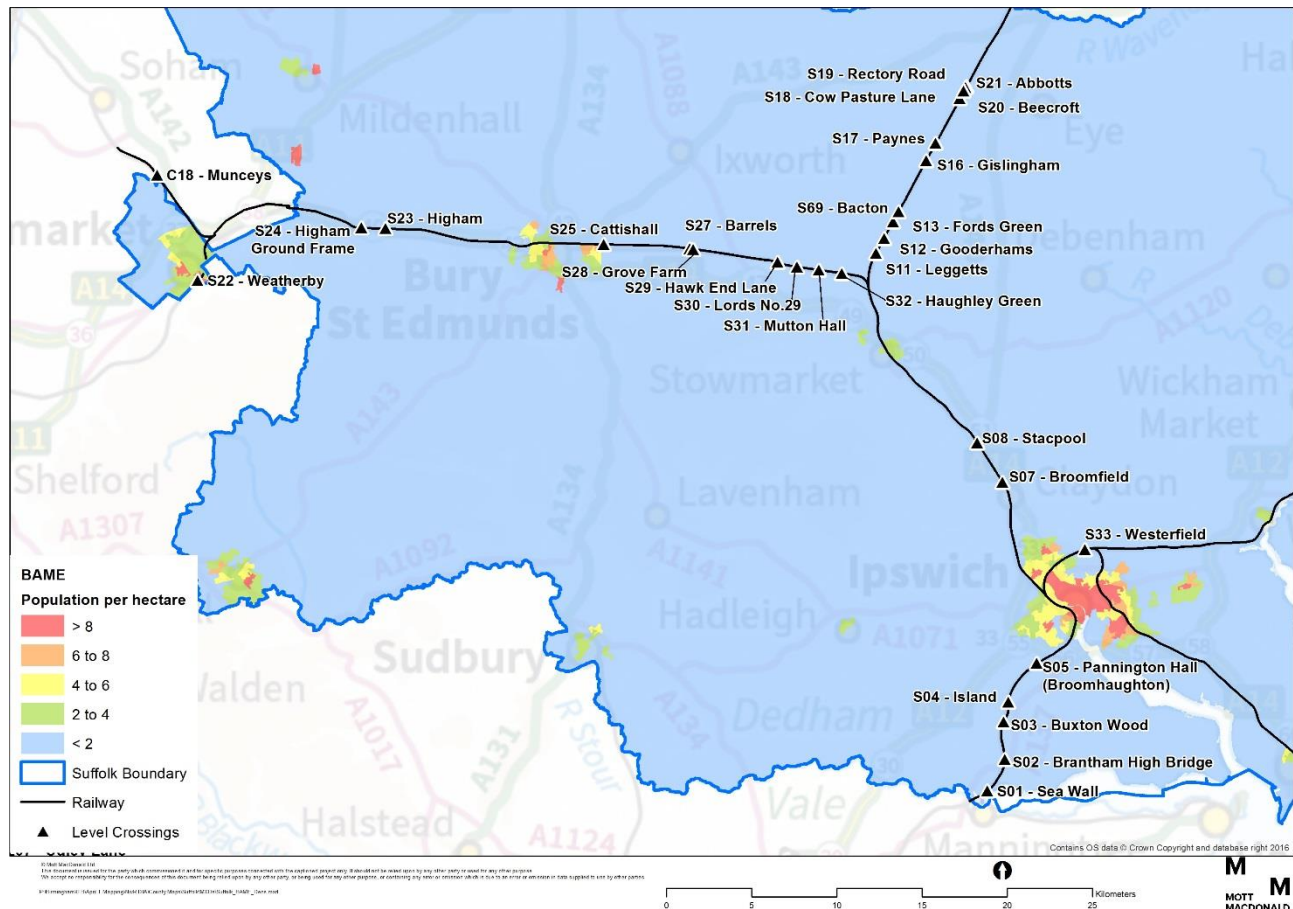
Source: ONS Census 2011 – mid-year population estimates 2015

The map below illustrates that:

- Ipswich has a high density of people from BAME backgrounds. This is particularly concentrated in the centre of the town.
- The other market towns within the area have only minimal proportions of people from this protected characteristic group, and throughout the wider county the proportions are very low.



**Table 9: Suffolk BAME population density per hectare**



Source: ONS Census 2011 – mid-year population estimates 2015

### 3.8 Religion and belief

Religion and belief refers to any religion or belief, including lack of belief.

Distinctions are frequently drawn in order to identify those professing a ‘minority faith’ which in the UK tends to include Buddhism, Hinduism, Islam, Judaism, and Sikhism (as well as other faiths, such as Baha’i and smaller groups such as pagans). This distinction is made because in most areas the majority of the population tend to express their religion or faith as some form or denomination of Christianity, as a professed lack of religion or faith (including atheists and humanists) or a preference not to answer.

As shown in the table below, the proportion of people from a minority faith group in Suffolk is significantly lower (7%) than the national figure.

**Table 10: Number and proportion of people from minority faith groups living in Suffolk**

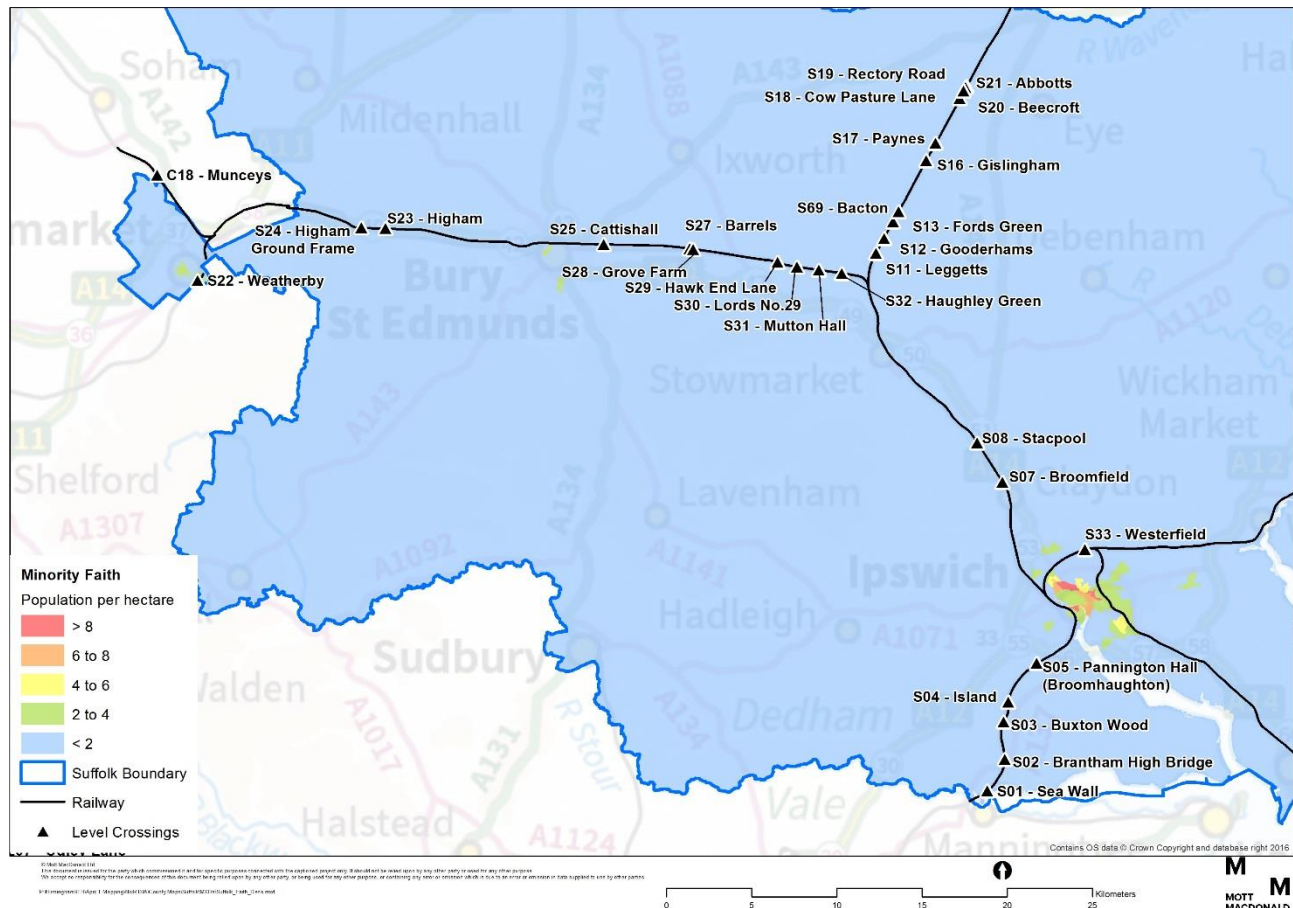
Minority faith	Suffolk	England
Number.	14,400	4,614,200
Percentage	2	9

Source: ONS Census 2011 – mid-year population estimates 2015

The map below illustrates that:

- Across Suffolk, the density of people from this protected characteristic group is very minimal.
- The only area with any significant proportion of people from a minority faith group is Ipswich – even here density is very low.

**Figure 7: Suffolk minority faith population density per hectare**



Source: ONS Census 2011 – mid-year population estimates 2015

### 3.9 Sex / gender

Sex is defined as the biological distinction between a man and a woman, while gender is the socially-determined roles of men and women, which are often accompanied by social norms such as specific dress conventions and established social and familial roles.

According to the 2015 Mid-Year Population Estimates (based on the 2011 Census), there were 31.1 million men (49% of the total population) and 32.1 million women (51% of the population) in Great Britain. In Suffolk, there were 359,787 men (49%) and 368,376 women (51%), which matches national trends.

### 3.10 Sexual orientation

Sexual orientation concerns whether a person's sexual attraction is to their own sex, the opposite sex or both sexes. In general, consideration of this characteristic focuses on lesbians, gay men and bisexuals who frequently refer to themselves as the LGB community.

There are no official or census figures for the LGB community and estimates vary. In 2005 the government estimated the number of LGB people in the UK at 3.6 million or around 6% of the population. This has been accepted by the charity Stonewall as a reasonable estimate of the UK LGB community.<sup>27</sup>

Local area statistics are even harder to identify. Experimental statistics published by the ONS from the results of the Integrated Household Survey (undertaken from April 2011 to March 2012) indicated that around 1.5% of adults in the UK identify themselves as LGB. This is highest amongst people aged 16-24 (2.7%), compared with 0.4% of people aged 65 and over. In the East of England (including the county of Suffolk), the overall figure for people identifying as LGB was slightly lower at 1%.<sup>28</sup>

### 3.11 Summary

While not all of the above-mentioned groups will be affected by the closure of the level crossings included within the order, there is potential for impacts across all the protected characteristics depending on the particular circumstances of each crossing closure.

However, as noted in Chapter 2, the sections of society most likely to experience impacts are:

- Disabled people – particularly wheelchair users and those with mobility impairments, sensory impairments, and respiratory illnesses;
- Older people with mobility impairments;
- Parents with children in pushchairs or prams;
- Those at greatest risk from level crossings including children, disabled people, older people and men; and
- Users of community facilities in close proximity to the crossings.

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<sup>27</sup> See: <https://yougov.co.uk/news/2014/07/04/average-brit-knows-31-lesbians-55-gay-men/>

<sup>28</sup> Office for National Statistics (2012): 'Integrated Household Survey April 2011 to March 2012: Experimental Statistics'. See: [http://www.ons.gov.uk/ons/dcp171778\\_280451.pdf](http://www.ons.gov.uk/ons/dcp171778_280451.pdf)

## 4 Site analysis

### 4.1 Introduction

This chapter provides a site by site analysis of the existing level crossing and local context, accessibility, risk factors and proposed works for each of the crossings in the Strategy within Suffolk.

### 4.2 Sites

Existing configuration				Future configuration		
Site description	Accessibility	Risk factors	Population and amenities	Proposed works	Diversion route accessibility	Assessment
S01 - Sea Wall						
The Sea Wall level crossing connects a coastal walking route with an industrial estate in Brantham, Suffolk.	The accessibility of this crossing is limited by the unpaved, uneven path from which the crossing can be reached. The crossing also requires users to negotiate the stiles and steps that lead up to the crossing. This would have the effect of reducing the ability of users with limited mobility or who use a wheelchair from accessing the crossing.	<p>The overall risk rating for this site is C4 with the risks of sun glare and the high frequency of trains identified as key risk factors. There are approximately 286 trains per day using this section of track, travelling at speeds of up to 100mph.</p> <p>The presence of signage and whistle boards are noted as key safety features at this site. It is estimated that approximately 12 pedestrians or cyclists use the crossing each day and despite the risks, there have been no reported accidents, near misses or incidents of user misuse at this crossing.</p>	<p>The nearest residential properties are located approximately 470m north of the level crossing at Cattawade, north of Brantham Industrial Estate. These properties are screened from the level crossing by the Industrial Estate.</p> <p>Stour and Orwell Estuaries is designated as Ramsar, SPA and SSSI and located 20m south of the level crossing.</p> <p>There is a low to moderate density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.</p>	This level crossing will be closed to all users. Users will be diverted to an existing footbridge to the northeast of the crossing. The diversion route will make use of byway E-159/014/0 to the north of the railway to connect to the footbridge. A new circular route will be provided on the south of the railway with the creation of a new 2m wide type P1 footpath looping E-159/013/0 back to the footbridge. This new footpath will follow the railway to the footbridge and a type S-B1 timber footbridge will be provided over a drainage ditch. New public wayfinding signs with details to be discussed and agreed with the local authority. The sections of E-159/013/0 either side of Sea Wall shall be extinguished to prevent a dead-end section of path being created up to the level crossing, and for reasons of nature conservation. Crossing infrastructure will be removed and type F4 and F7 fences installed to prevent trespass onto the railway.	<p>The diversion route will include use of both an existing and a new footbridge, which may result in accessibility limitations for those requiring level surfaces – such as wheelchair users. However, the existing footbridge is ramped and accessed via paved even tracks, potentially mitigating some of the negative implications on pedestrian accessibility.</p> <p>The diversion route mostly has a gradient of under 5%, although there are potentially some sections with a gradient between 5 and 15%. It is also noted that there is the potentially for gradients of up to 44% due to use of the above existing footbridge. This is steeper than the current route and may be challenging for older people, wheelchair users, or parents with pushchairs.</p> <p>To the north of the railway users are required to walk in the carriageway on Factory Lane; this may restrict pedestrian accessibility as the road is likely to be used by lorries accessing the industrial area to the north of Sea Wall crossing.</p> <p>The proposed diversion route increases walking distance to 1282m – an increase of 458m. This may be challenging for people with mobility problems to manage.</p>	<p>Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.</p> <p>Due to the problems with accessibility at the current crossing (notably the presence of steps, stiles and uneven paths), the diversion route has the potential to improve pedestrian accessibility – in terms of a ramped footbridge and new paths. Although it is acknowledged that increased walking distances and potentially steep gradients may reduce any potential benefits. It is also noted that the crossing is very remote and has limited usage for leisure purposes.</p> <p><b>Therefore, a DIA is not required for Sea Wall level crossing.</b></p>
S02 - Brantham High Bridge						
<p>This level crossing is a public footpath crossing that provides pedestrian access between two areas of agricultural land.</p> <p>Footpath E-159/006/0 starts on an unnamed track north of the Junction of Church Lane and Ipswich Rd A137 along the west and north boundary of an agricultural field. The nearest residential properties are located approximately 240m south at Hill Farm.</p>	The crossing is currently inaccessible for those with mobility and visual impairments, as well as parents with pushchairs. Not only are crossing stiles a physical barrier, but so are the steep approaches to the railway line. It should also be noted that young children may be at risk from the stile, unmaintained nettles and other weeds, as well as the loose aggregate surfaces that also surround the crossing.	Each day, 181 trains pass through Brantham High Bridge level crossing, travelling at speeds of 100mph. While no accidents, near misses or incidents of misuse have been reported at the site, the frequent trains, risks of sun glare and low sighting time have merited the level crossing with a risk rating of C8. Several safety features are present at the level crossing including whistle boards and signage. A nine-day census undertaken in 2016 recorded two adult users across the survey, indicating infrequent use.	<p>There are four grade II and one grade II* listed building within 1km of the works. Three of these (including the grade II* listed St Michael and All Saints Church (List Entry ID 1033431) are over 500m from the works and therefore the minor nature of the works are not anticipated to impact on the setting of the assets.</p> <p>There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups. The crossing</p>	This level crossing will be closed to all users. Users will make use of the dedicated footway on to the side of the highway bridge on Ipswich Road to cross the railway. The existing public right of way network to the west of the railway shall be used by connecting E-159/006/0 to Ipswich Road via a new 2m wide footpath along Jimmy Lane, an existing track. The section of E-159/006/0 to the east of the woodland to the crossing would be extinguished to prevent the creation of a dead end whilst maintaining access into the woodland. Boundary fencing (type F1) will be installed where the footpath is to	<p>The implementation of a new footbridge and steps may restrict accessibility for some users, particularly as it is not fully accessible.</p> <p>The proposed diversion route adds 680m to the route – an increase from 466 to 1146m. This is likely to pose problems for people with mobility problems, who will struggle with this increased distance.</p> <p>The proposed diversion route also requires use of new 2m wide footpaths, which may improve pedestrian accessibility along the</p>	<p>Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.</p> <p>Due to the current accessibility problems at the crossing (notably the presence of stiles and heavily overgrown approaches), there is unlikely to be any adverse impact on pedestrian accessibility through closure and redirection. Although, it is</p>



Existing configuration

does not provide pedestrian access to any community facilities which may be required by persons with protected characteristics and is additionally far from any built up areas.

Future configuration

be extinguished. To the east of the crossing a new 2m wide type P1 footpath running parallel to the railway would be provided from E-159/006/0 within field margins to The Street via steps and a proposed footbridge over a drainage ditch. A new public right to use The Street would be required. The new proposed footpath would be separated from the railway within Network Rail land using type F7 fencing. New wayfinding signs with details to be discussed and agreed with the local authority. Crossing infrastructure would be removed and type F7 fencing installed to prevent trespass onto the railway.

proposed route. This is particularly important on Jimmy Lane, as the current track is currently inaccessible for some users due to its uneven nature.

The diversion also potentially includes stretches with gradients of between 5% and 15%, this is steeper than the current route gradient and may be challenging for older people, wheelchair users, or parents with pushchairs.<sup>29</sup>

noted that there is likely to be a significant increase in walking distances, it is not felt that accessibility will decrease as a result. It is also noted that the crossing is in a remote location and has low pedestrian usage.

**Overall, it is felt that a DIA is not required.**

S03 - Buxton Wood

Buxton Wood level crossing is a public footpath crossing located in the outskirts of Bentley, Suffolk.

The eastern and western approaches are along an uneven, natural footpaths which currently limit accessibility for those with mobility impairments and parents with pushchairs. Users will also have to manage wooden stiles to traverse the line.

An estimated 286 trains, travelling as speeds of 100 mph use this part of the network daily. Due to the high frequency of trains and risks of sun glare, Buxton Wood level crossing has acquired a risk rating of C6. To date, no incidents of misuse, near misses or accidents have been recorded at the site.

A pedestrian user census undertaken in September / October 2016, 11 adults were recorded using the crossing over the nine-day period.

The crossing is completely surrounded by fields with a few properties located approximately 300m south of the level crossing. It is worth noting that the level crossing route stems from these properties, via the level crossing, and toward a primary school located approximately 500m west of the Buxton Wood level crossing.

There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.

This level crossing will be closed to all users. Users will make use of Falstaff level crossing to the north. The footpath W-138/022/0#1 to the west of the railway will be extinguished to prevent a long section of footpath with a dead end. To maintain connectivity in the network footpath W-138/022/0#3 shall be extended with a new 2m wide footpath to connect to W-138/019/0 at Falstaff level crossing. New wayfinding signs with details to be discussed and agreed with the local authority. Crossing infrastructure at Buxton Wood level crossing would be removed and type F7 fencing installed to prevent trespass onto the railway.

The proposed diversion route takes users to an uncontrolled level crossing (Falstaff level crossing), which has the same ALCRM score (C6) as Buxton Wood level crossing. This limits the safety benefits associated with closing the crossing.

Both existing and new footpaths along the diversion route may also restrict pedestrian accessibility, due to their unsurfaced nature and location in field margins. This may pose problems for people who require even surfaces – namely those in wheelchairs, with pushchairs / prams or those with mobility problems.

The diversion also potentially includes stretches with gradients of between 5% and 15%, this is steeper than the current route gradient and may be challenging for older people, wheelchair users, or parents with pushchairs.<sup>30</sup>

The proposed diversion route increases walking distances to 906m, an increase of 371m. This may pose problems for people who struggle to walk long distances.

Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.

Due to current accessibility problems at the crossing, such as the presence of stiles and uneven, natural footpaths, it is felt that there is the potential for improved pedestrian accessibility due to closure and redirection. It is also noted that there is a low pedestrian usage.

**Therefore, no DIA is required.**

S04 - Island

This crossing is a public footpath level crossing that connects two fields with rudimentary footpaths formed of grass channels along the edges of cultivated fields. Farm houses and some community amenities, such as Bentley Church, located further beyond the fields.

ProW W-138/018/#2 leads from Bentley Hall along a paved track on an east-west axis to connect with W-138/018/#1, which leads to the Island crossing. ProW W-138/036/0#2 is a footpath leading from Church Road west of Malting Farm to the west across the Island level crossing to connect with Footpath W-138/018/#1.

The pathways leading to the crossing would be difficult for many people with limited mobility to use. Wheelchair users and people with pushchairs would not realistically be able to navigate stiles and steps at both sides of the crossing. This effectively excludes these groups from using the crossing.

The crossing is rated a B6 for overall risk, meaning that there is a significantly high risk to the individual and a medium risk to others. This high individual risk can be explained as being a result of the high frequency of trains that use this line, being approximately 286 per day travelling at speeds of up to 100mph, the low sighting time due to the bends in the track and glare from the sun that further reduces the vision of both train drivers and crossing users. Signs warning users of the risks they face and there are whistle boards positioned on each line.

The nearest residential properties are located approximately 270 m south-west of the level crossing (Uplands Fruit Farm) and 280 m east of the level crossing (building near Maltings Farm).

There are four grade II\* and six grade II listed buildings within 1km of the works. A number of these are in close proximity to the works.

There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.

This level crossing will be closed to all users. The diversion route for users will make use of the highway bridge footway (Bentley Bridge) to the north. New 2m footpaths will be provided to the east and west of the railway along field margins linking existing footpaths to Bentley Bridge. The new footpath to the east of the railway will be mainly within Network Rail land and will have type F4 fencing to prevent trespass on to the railway. New wayfinding signs with details to be discussed and agreed with the local authority. The section of W-138/018/0#1 through the woodland leading to the crossing will be extinguished to prevent a dead end path being formed. Crossing

The proposed diversion route takes users to Bentley Bridge to the north of the crossing. This may restrict pedestrian accessibility, as there is only a narrow footpath on either side of the bridge which does not extend beyond the bridge.

Although most of the diversion route has a gradient under 5%, there is the potential for gradients between 5 to 15% and greater than 15% - particularly on the approaches to Bentley bridge. This is steeper than the current route and may be challenging for older people, wheelchair users, or parents with pushchairs.

Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.

Due to current problems with accessibility at the crossing (primarily the presence of both steps and stiles), the proposed diversion route and route improvement measures have the potential to improve pedestrian accessibility. Although, it is noted that there is likely to be a significant increase in walking distances and the potential for steep gradients, it is not

<sup>29</sup> The diversion includes stretches with a gradient of over 15%, however after assessing the data against the terrain this is likely to be due to an error in the available data. See section 1.5 for more detail.

<sup>30</sup> The diversion includes stretches with a gradient of over 15%, however after assessing the data against the terrain this is likely to be due to an error in the available data. See section 1.5 for more detail.

Existing configuration		Future configuration				
	A pedestrian user census undertaken in 2016, recorded 37 adults using the crossing over the survey period.	infrastructure shall be removed and type F7 fencing installed to prevent trespass onto the railway.	However, the creation of new 2m wide paths along the road may improve pedestrian accessibility and help to mitigate some of the potential negative implications.  The diversion route increases walking distance to 1,336m, an increase of 1,188m. This is a significant increase that is likely to impact people who struggle to walk long distances – particularly people with mobility problems.	felt that accessibility will decrease as a result. It is also noted that pedestrian usage is relatively low. <b>Therefore, no DIA is required.</b>		
S05 - Pannington Hall						
Pannington Hall level crossing is a public footpath level crossing in Wherstead, Suffolk.	The approach to the crossing is through fields which are completely unsurfaced (i.e. mud). The surface is uneven and is not accessible to wheelchairs or pushchair users. The crossing itself is fenced off - on both sides users have to step over a stile to access the crossing and walk down 12 steps to reach the railway line. The crossing would be difficult to access for any users with mobility difficulties.	Approximately 184 trains cross this part of the network each day travelling at speeds of 100mph. No incidents have been recorded at this crossing. The risk factors for this crossing are low sighting time, sun glare and frequent trains. As such, the crossing has a risk rating of C8. Safety protection at this crossing consists of signage and whistle boards provided on the rail approaches.  A pedestrian user census undertaken in June / July 2016, 20 users were recorded using the crossing over the nine-day period. This consisted of 20 adults and two unaccompanied children.	The crossing provides access between agricultural fields to the north and south. On the south side of the crossing agricultural fields lead to a visitor farm and clothes retailer approximately 480m from the crossing. There are no other community facilities in the area. There is an alternative crossing point around 300m west of the crossing via a vehicle bridge on The Street. It is therefore unlikely that community severance impacts will arise as a result of the closure of this crossing. The nearest residential properties are located approximately 490 m south east (Jimmy's Farm).  There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.	This level crossing will be closed to all users. Users will be diverted to The Street highway bridge to the southwest to cross the railway. To the north of the railway users will make use of the existing PROW and highway network. To the south of the railway two new sections of 2m wide footpath shall be provided. One will follow the field boundary on the north side of The Street to connect the highway bridge with E-559/041/0. The other will follow the field boundary on the south side of the street to connect E-559/029/0 to E-559/030/0. A short section of new 2m wide footpath will be provided north of The Street highway bridge in the field margin. New wayfinding signs with details to be discussed and agreed with the local authority. The section of E-559/030/0 leading to the crossing shall be extinguished to prevent a dead end path being formed. Crossing infrastructure will be removed and type F7 fencing installed to prevent trespass onto the railway.	The diversion route directs users to The Street bridge southwest of the crossing. This may restrict pedestrian accessibility, due to the lack of pedestrian footways, meaning users would have to walk in the carriageway. The creation of new footpaths on The Street may, however, positively benefit users who would otherwise be forced to walk in the carriageway.  To the north of the bridge, users would also be required to continue walking in the road for approximately 100m before turning right onto an existing footpath (E-559/033/0). This may also restrict accessibility, as it is an uneven track. The creation of new footpaths in field margins may also restrict pedestrian accessibility, as these may be unsurfaced and so cause problems for people with mobility problems. Walking distances associated with closure of the crossing are likely to reduce by 317m, meaning total walking distances of 980m. Most of the proposed diversion route has a gradient of under 5%, although parts have gradients over 15%. However, this is unlikely to impact accessibility along this route as it seems likely that these figures are due to errors in the available data.	Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.  Due to current problems with accessibility at the crossing (notably the presence of steps, stiles and unsurfaced paths), there is the potential for improved accessibility and reduced walking distances through the closure and redirection of users.  <b>Therefore, no DIA is required.</b>
S07 - Broomfield						
The Broomfield crossing is a public footpath that connects the village of Great Blackenham with the Barham Pits quarry and fishing lake.  Footpath E120/0/12/0#1 connects Barham CP (east of railway) to Great Blakenham CP (west of railway) via tracks through an open space of manmade waterbodies and the Gipping Valley River.	The pathways leading to the level crossing are uneven and unpaved meaning those people requiring wheelchairs or prams will likely struggle to access the crossing. Stiles located on either side of the crossing further exclude those with mobility impairments.	The risks identified for this crossing are the risk of sun glare and the high frequency of trains using this line - 205 trains per day, travelling at 100mph. The mitigation for these risks includes the signage and whistle boards. There has however been one accident since August 2014. Broomfield crossing has been given a risk rating of C4.  A pedestrian user census undertaken in June / July 2016 recorded 152 adults, eight accompanied children, 11 unaccompanied children, four older people and two impaired users.	The crossing is surrounded by the lake (to the east) and a field (to the west), with several houses located beyond, on either side of the crossing. A church and Great Blackenham Village Hall are located approximately 400m west of the level crossing, therefore the crossing may be used by individuals wishing to access these facilities from the eastern dwellings.  The nearest residential properties are located approximately 290m south of the level crossing at Great Blakenham and 300 east of the crossing at Barham. The Gipping Valley River Path also crosses the railway approximately 350 m north and approximately 310 m south of the level crossing. There are 11 grade II and one grade I listed buildings and one registered park and garden (List Entry ID 1000155) within 1 km of the works.	This level crossing will be closed to all users. Users will make use of an existing underpass to the south to cross the railway. An improvement to E-120/030/0#1 shall provide a 2m wide compacted stone footpath immediately to the north of existing footpath up to the underpass. To the east of the railway a new footpath will be provided to connect E-120/011/0#1 and E-120/012/0#1. This will be a 2m wide footpath right on the existing track. New wayfinding signs with details to be discussed and agreed with the local authority. The section of E-120/012/0#1 to the west of Broomfield crossing will be extinguished to prevent a dead end path being formed. Crossing infrastructure at will be removed and type F7 and F4 fencing installed to prevent trespass onto the railway.	The proposed diversion route takes users to an existing underpass to the south of the crossing. This appears to have a relatively narrow path and lots of vegetation, potentially restricting some users ability to use the route.  Taking this route will increase walking distances by 130m (from 539 to 669m). This is unlikely to cause significant problems for any users.  The diversion also potentially includes some short sections with a gradient of between 5 and 15%. This is steeper than the current route gradient and may be challenging for older people, wheelchair users, or parents with pushchairs.	Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.  Due to current problems with accessibility (notably the presence of stiles and unpaved pathways), there is the potential for improved accessibility. The proposed diversion route does not significantly increase walking distances.  <b>Therefore, a DIA is not required.</b>

Existing configuration

Future configuration

S08 – Stacpool							
<p>This crossing is a pedestrian crossing that connects a side road off Lower Street, the B1113 to an area of fields and a small quarry currently owned and operated by Lafarge tarmac.</p> <p>Footpath W-121/034/0 leads from Darmsden Hall (approximately 620 m west of Railway) across Lower Street the level crossing to connect with the Gipping Valley River Path east of the railway line.</p>	<p>The accessibility of the Stacpool crossing is limited by the presence of stiles, narrow pathways and grassy inclines that have the effect of reducing the ability of those with limited mobility or who use a wheelchair to access the site. These features may also exclude users with impaired vision who face an additional risk from the layout of the crossing and from trains that do not give an audible warning of their approach.</p>	<p>The overall risk rating of this site is C5 with the risks of sun glare and the high frequency of trains identified as key risk drivers and the presence of signage is identified as the key mitigation of these risks. This section of the line sees approximately 205 trains travelling at speeds of up to 100mph pass this crossing each day. Despite the risks at this site, there have been no reported accidents, near misses or incidents of user misuse.</p> <p>A pedestrian user census undertaken in 2016, indicated that 39 adults used the crossing over the nine day period.</p>	<p>The nearest residential properties are located approximately 450 m north east of the level crossing (Pipps Hall).</p> <p>There are 11 grade II listed buildings, a registered park and garden (List Entry ID 1000155) and a scheduled monument (List Entry ID 1006033) within 1km of the works. The closest of these to the works is the Baylham Roman Site scheduled monument at 350m south east. As the footpath creation in this location will be aligned along the existing railway it is not anticipated that the setting of any of these assets will be affected.</p> <p>There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups. This crossing does not provide access to any community facilities or homes. It is estimated that approximately nine people use this crossing each day.</p>	<p>This level crossing will be closed to all users. Users will make use of an existing bridge on W-121/031/0 to the north of the crossing. Users shall be routed along of a new 2m wide public footpath to the east of the railway between W-121/033/0 and W-121/031/0. Fencing will be installed to separate the new footpath from quarry traffic. New wayfinding signs with details to be discussed and agreed with the local authority. Crossing infrastructure will be removed and type F1 fencing installed to the west side of the railway and type G1 gate to the east side to prevent trespass onto the railway.</p>	<p>The diversion route takes users across an existing bridge to the north of the crossing. This may reduce pedestrian safety, as the bridge has no footpath, is very narrow and is likely to be used by quarry traffic.</p> <p>The bridge potentially includes gradients that are above 15%. There is also the potential for sustained periods with gradients between 5 and 15% on the track to the west of the crossing (W-121/035/0) and on the B1113. This is likely to cause significant effects as the diversion route may be difficult for older people, wheelchair users, or parents with pushchairs negotiate.</p> <p>Use of existing and new tracks may also limit pedestrian accessibility, especially for those who require even surfaces.</p> <p>Users would also be required to use the existing footway on Lower Street to the west of the crossing; although this only has a narrow footpath on one side of the road, this may be unsuitable for use by some groups – particularly people in wheelchairs and with pushchairs / prams, who may be forced to walk in the carriageway on a busy road.</p> <p>Users may also be negatively impacted by the significant increases in walking distances, which will rise to 1,149m from 578m – an increase of 571m.</p>	<p>Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.</p> <p>As pedestrian accessibility at the current site is restricted by stiles and narrow paths, it is unlikely that access using the diversion route will reduce pedestrian accessibility. Although, it is noted that there is likely to be a significant increase in walking distances, it is not felt that accessibility will decrease as a result. It is also noted that the crossing has low usage, especially by people from groups with protected characteristics.</p> <p><b>Therefore, it is felt that a DIA is not required.</b></p>	
S11 - Leggetts							
<p>This crossing is a pedestrian crossing between two areas of farmland between Haughley Green and Ward Green in Suffolk.</p> <p>Footpaths W-155/033/0 and W-419/006/0 connect run along field tracks connectin Ward Green via the existing level crossing south of Old Bells Farm. The nearest residential property is located approximately 170 m to the north of the crossing (Old Bell's Farm).</p>	<p>The accessibility of this crossing is poor as the site incorporates stiles to access the line from both sides. This excludes wheelchair users and people with limited mobility or visual impairments from using the crossing. The access routes to this crossing are also largely inaccessible to wheelchair users as the pathways are prone to mud and on uneven ground at the perimeter of farm fields. The alternative crossing is much more accessible as it uses flat and paved approach roads without stiles, steps or inclines to reach the crossing which is itself paved.</p>	<p>The overall risk rating of this crossing is C7 with the high frequency of trains and sun glare identified as key risk drivers and signage noted as key protection at this site. There are approximately 86 trains using this line each day, travelling at speeds of up to 100mph. There have been no reported accidents, near misses or incidents of user misuse at this site.</p> <p>A pedestrian user census undertaken in 2016, recorded no users of the crossing over the nine-day period.</p>	<p>There is an alternative crossing less than 600m south west of this crossing which is a traffic signal controlled level crossing with half barriers. This alternative crossing connects roads that serve all houses and farms in the area that may have used this crossing.</p> <p>There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups. Additionally, there are no community facilities in the area that this crossing provides access to.</p>	<p>This level crossing will be closed to all users. The crossing users will make use of Wassicks level crossing to the south. The local network will be used to access Wassicks with the use of W-297/013/0 to the west and W-297/048/0 to the east. The section of W-419/006/0 on the west side of Leggetts crossing will be extinguished to prevent a dead end path being formed. Crossing infrastructure at shall be removed and type F7 fencing installed to prevent trespass onto the railway.</p>	<p>The proposed diversion takes users over Wassicks level crossing, which is a half barrier controlled crossing. Wassicks level crossing has a higher ALCRM score (C3) compared to Leggetts (C7), this seriously limits the safety benefits associated with the closure of Leggetts level crossing.</p> <p>The diversion route also requires users to walk use existing highways, such as Wassicks Lane. This may potentially reduce pedestrian safety, as users would be required to walk in the carriageway on a narrow road. This route potentially also includes stretches with gradients between 5.6 and 8.3% along Wassicks Lane. This is steeper than the current route and may be challenging for older people, wheelchair users, or parents with pushchairs.</p>	<p>Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.</p> <p>Although there are problems with the accessibility of the diversion route, notably direction to another crossing, significant increases in walking distances and in parts in the carriageway, the problems seen at the current crossing (such as step, stiles and uneven pathways on the approaches) mean that pedestrian accessibility and safety will not be reduced.</p>	



Existing configuration

Future configuration

						Users may also struggle to negotiate this route on account of the significant increases in walking distances – an increase of 926m from 305 to 1,231m.	<b><i>In addition, as usage of the crossing is very minimal it is felt that no DIA is required.</i></b>
<b>S12 - Gooderhams</b>							
This crossing is a pedestrian and vehicle crossing that connects the farm of Gooderham CC and Son with an area of farmland just outside Bacton, Suffolk.	The accessibility of this crossing is poor as the use of stiles at the pedestrian crossing prevents access to wheelchair users and those with limited mobility to access the crossing. The ground surface is unpaved and uneven with grass and railway ballast forming the majority of the surface at this crossing. This would make the crossing even more difficult for wheelchair users and those with limited mobility.	The pedestrian crossing is rated as C7 while the vehicle crossing has a rating of C5, showing a marginally greater risk for the vehicle crossing. Sun glare, the high frequency of trains and the low sighting time are identified as the key risk drivers at this site. The safety precautions at the site are signage, gates and the telephones for vehicle drivers. There are approximately 90 trains that use this crossing each day at speeds of up to 100mph, operating both freight and passenger services. There have been two reported incidents of user misuse at this site since the assessment in February 2014. Aside from this, there have been no accidents, near misses or further incidences of user misuse at this crossing.  A pedestrian user census undertaken in June / July 2016 recorded eight adults users of the crossing over the nine-day period.	There are no community facilities that this crossing provides access to, except to travel between fields. There are approximately two vehicles that use this crossing each day and a further two pedestrians - it is likely that these are farm vehicles and workers.  The closest listed building to these diversion routes is approximately 50m north (Kerry's Farmhouse) therefore no impact to setting is anticipated from potential increased foot traffic on existing paths.  There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.	This level crossing will be closed to all users, with private crossing rights to be maintained. Public users will be diverted to Cow Creek level crossing to the north of the crossing via the existing public rights of way and highway network. To the west of the railway users will make use of public footpaths W-115/018/0#2 and W-115/018/0#1. To the east of the railway, users will use existing Kerry's Farm Lane and the B1113. Public footpath W-115/019/0 would be extinguished to prevent a dead end path being formed up to the railway. Crossing infrastructure shall be removed and type F1 fencing installed to prevent trespass onto the railway.	The proposed diversion route takes users to Cow Creek level crossing, an uncontrolled crossing with the same ALCRM score (C7) as Gooderhams level crossing. This limits the safety benefits associated with closure of the crossing.  User would also be forced to walk in the carriageway on the B1113 and Kerry's Farm Lane. This is likely to reduce pedestrian safety, particular on the busy B1113.  This diversion route is likely to increase walking distances by only 67m, from 1,439 to 1,506m. This is unlikely to prove challenging for users.  The entire proposed diversion route has a gradient of under 5%. This is not steeper than the current route and should not pose any problems in terms of accessibility.	Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.  Although there are potential problems with the proposed diversion route (particularly the use of an uncontrolled crossing and walking in the carriageway), the current problems with the crossing, such as stiles and unpaved / uneven walking routes to reach the crossing, means that pedestrian accessibility is unlikely to be reduced further. Walking distances are also not significantly increased. In addition, usage of the crossing is low likely due to the rural nature of the crossing.  <b><i>Therefore, no DIA is required.</i></b>	
<b>S13 - Fords Green</b>							
The level crossing at Fords Green is a rural pedestrian crossing point approximately 300m west of Fords Green, a hamlet in Suffolk.	The approach to the pedestrian crossing on both sides is through fields, culminating in stiles on both sides just before the railway. As such, it is highly unlikely that any users with mobility issues, people with pushchairs or in wheelchairs/mobility scooters currently use the crossing.	Approximately 90 trains travelling at 100 mph use this part of the network daily. In the twelve month period prior to June 2014, no near misses or incidents of misuse were recorded at the site. Due to the risks of sun glare and frequent trains, Fords Green level crossing has acquired a risk rating of C8. Safety features of the crossing include signage.  A pedestrian user census was undertaken in July 2016 and recorded six adults using the crossing over the nine-day period.	There are no businesses or community facilities within the immediate vicinity of the crossing, as it is surrounded by farmland.  There are numerous listed buildings within 1km of the study area including two grade II* and two grade I listed buildings. All but one of the listed buildings are over 500m from the footpath creation works.  There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.	This level crossing will be closed to all users. Crossing infrastructure will be removed and type F7 and F4 fencing installed to prevent trespass onto the railway. Users shall make use of Cow Creek to the south. A new 2m wide public footpath following on the west side of the railway will be created in field margins to connect footpath W-115/022/0#2 and W-115/018/0#1. The new footpath will be constructed to an appropriate standard with new wayfinding signs with details to be discussed and agreed with the local authority.	The proposed diversion route takes users to Cow Creek level crossing, an uncontrolled crossing with the same ALCRM score (C7) as Gooderhams level crossing. This limits the safety benefits associated with closure of the crossing.  The proposed diversion also forces users to walk along existing highways and make use of new 2m wide footpaths. This may restrict accessibility for users who require even footways.  Walking distances though are going to be significantly reduced due to use of the proposed diversion route. The diversion route will result in a total walking distance of 175m, a reduction of 1,331m.  The diversion route potentially includes very short stretches with gradients between 5 and 8%. This is not steeper than the current route and should not pose any problems for people who may struggle with steep gradients.	Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.  As accessibility at the current crossing is limited (by the presence of stiles and field paths to reach the crossing), it is felt that pedestrian accessibility will reduce as a result of the proposed diversion route. Walking distances will also be significantly improved as a result of the closure and redirection of the crossing.  <b><i>Therefore, it is felt that a DIA is not required.</i></b>	
<b>S16 - Gislingham</b>							
The level crossing at Gislingham is a pedestrian crossing point linking farm buildings at Eastlands farm to nearby fields.	The approach to the crossing on the eastern side is along a level, gravel road and does not pose any restriction for any users. On the western side, the path is covered with vegetation and leads along a field. There are also	Approximately 90 trains, travelling at 100 mph, use this part of the network daily. In the twelve month period prior to November 2014, no incidences of misuse were recorded at the site. Due to the risks of sun glare for	The village of Finningham is 600m south-east of the crossing, but as there is a railway bridge on Wickham Road (approximately 300m to the south), it is unlikely that the residents of Finningham actively rely on the	This level crossing will be closed to all users and a new 3m wide bridleway to the south will be provided. It will provide a link to an existing public byway. This diversion makes use of the existing underpass on byway W-	The proposed diversion route makes use of an existing underpass, which appears to have an uneven surface that may make it difficult for some people with mobility problems to navigate.	Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these	



Existing configuration

manually operated gates on either side of the crossing. The crossing itself is level with a smooth surface.	pedestrians and frequent trains, Gislingham level crossing has acquired a risk rating of C9. Safety features of the crossing include signage, manually operated wooden gates and a telephone for users.  A pedestrian user census undertaken in 2016, recorded five adults (including two railway personnel) using the crossing over the nine-day period. No children, elderly or impaired people used the crossing during this period. This indicates that the crossing is infrequently used.	Gislingham level crossing. Aside from the village, there are several farms within a 1km radius, and the village of Gislingham just over 1km to the north of the crossing.  There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.  There are numerous listed buildings and the Finningham Conservation Area within 1km of the works, all but two of these are located within the village of Finningham approximately 400m from the works and the conservation area is approximately 350m west.	246 022 to allow users to cross the railway – resulting increasing walking distances by up to 1.2km. The new bridleway will be constructed to an appropriate standard with new wayfinding signs with details to be discussed and agreed with the local authority. Crossing infrastructure shall be removed and type F4 fencing installed to prevent trespass onto the railway. A short length of the bridleway W-246 010/0 will be extinguished as it would form a dead end.	Using this route will also increase walking distances by 1.2km. This is likely to be challenging for people who struggle to walk long distances.  Most of the proposed diversion route has a gradient of less than 5%. There are however periods with a sustained gradient of over 5%, particularly on the western side of the line. <sup>31</sup> This is steeper than the current route gradient and may be challenging for older people, wheelchair users, or parents with pushchairs.	groups will be improved by the closure of the crossing.  Due to the long diversion, <b>A DIA is considered to be required.</b>
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S17 - Paynes

<p>This crossing is a footpath crossing that connects two areas of farmland, between Star House farm and Red House farm south west of Gislingham, Suffolk.</p> <p>Footpath W-267/027/0#1 leads from the High Street in Gislingham to agricultural fields and a number of connecting footpaths to the south east of the settlement. The existing Footpath W-267/022/0 connects Starhouse Farm, 600 m south east of the level crossing to Gislingham approximately 540m to the north-east.</p>	<p>The accessibility of this crossing is poor as the approach route consists of narrow and uneven pathways along farmer's fields that reduce the ability of wheelchair users and people with limited mobility to access the crossing. This is exacerbated by the presence of steps to reach the line. These have a significant impact on people with limited mobility or wheelchair users who will not be able to navigate these obstacles to use the crossing. This is also the case for users with visual impairments.</p>	<p>The overall risk rating for this site is C6 with the high frequency of trains and the sun glare identified as key risk drivers with signage as the key protection. At this section of the line there are approximately 90 passenger and freight trains each day, travelling at speeds of up to 100mph. It is estimated that there is an average of four users of this crossing each day. There have been no reported accidents, near misses or incidents of user misuse at this site.</p> <p>A pedestrian user census undertaken in 2016, recorded 14 adults using the crossing over the nine-day period.</p>	<p>The closest residential properties are at Gislingham, approximately 500 m east of the level crossing. There are numerous listed buildings within 1km of the works. The closest of these to the works is 200m and is visually screened from the works by modern farm buildings.</p> <p>There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.</p>	<p>This level crossing will be closed to all users. Users will make use of an existing bridge to the north. A new 2m wide public footpath approximately 350m to the east of the railway will be created to connect footpath W-267/022/0 and W-267/021/0. This footpath shall be constructed to an appropriate standard with new wayfinding signs, the details of which are to be discussed and agreed with the local authority. The existing public right of way network to the west of the railway will be used to link to the existing bridge. Crossing infrastructure shall be removed and type F4 fencing installed on the west side of the railway and type F7 on the east side to prevent trespass onto the railway.</p>	<p>The diversion route takes users to an existing bridge to the north of the crossing. The bridge appears to be accessed via evenly tarmacked roads, although the bridge requires pedestrians to share the road with vehicles.</p> <p>Most of the proposed diversion route has a gradient of less than 5%. There are however periods with a sustained gradient of over 5% (and some above 15%), particularly on the approaches to the bridge north of the crossing. This is steeper than the current route gradient and may be challenging for older people, wheelchair users, or parents with pushchairs.</p> <p>The route also requires users to make use of existing paths and a new path that will be created in the field margin. This may restrict accessibility for some users who struggle to manage uneven surfaces.</p> <p>The proposed diversion route also increases walking distances by 968m, an increase from 537 to 1505m. This is likely to be challenging for some users who struggle with walking longer distances.</p>	<p>Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.</p> <p>As pedestrian accessibility is compromised at the current location (due to the approach route consisting of narrow and uneven pathways), it is felt that the diversion route has the potential to improve access, as the negotiation of steps will no longer be required. Although, it is noted that there is likely to be a significant increase in walking distances and the potential for steep gradients, it is not felt that accessibility will decrease as a result. It is also noted that usage of the crossing by pedestrians is limited, largely due to its remote nature.</p> <p><b>Therefore, a DIA is not required.</b></p>
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S18 - Cow Pasture Lane

<p>The level crossing is a byway open to all traffic crossing located in rural Suffolk.</p>	<p>The approach to the level crossing, from both directions, is along Cow Pasture Lane, a natural, relatively level footpath. The level crossing furniture does not span the entire length of the crossing; therefore the crossing has been partially levelled off with gravel. This may impede accessibility for some users – such as those with mobility or visual impairments, or parents with pushchairs.</p>	<p>An estimated 90 trains, travelling at speeds of 100 mph, use this part of the network daily. Due to the frequency of trains and risks of sun glare, the level crossing has acquired a risk rating of C6.</p> <p>Safety features of the crossing include manually operated picket gates and signage. To date, no incidents of misuse, near misses or accidents have been recorded at the site.</p> <p>A pedestrian user census was undertaken in June / July 2016 and</p>	<p>The crossing is completely surrounded by agricultural fields and provides access to farm houses located approximately 400m to the north-west (on Mellis Road) and 720m south-east of the crossing. A church is located on Mellis Road, a total walking distance of approximately 950m away from the level crossing. It is therefore unlikely that residents in the south-east will use this route to access this facility. Consequently, it is unlikely that</p>	<p>This level crossing will be downgraded to a bridleway. There is already an existing traffic regulation order prohibiting vehicle movements north of Locks Cottage along Cow Pasture Lane which extends to the north side of the level crossing. Therefore, this legal downgrade will not affect existing users and formalises the existing use.</p>	<p>As the crossing will be downgraded to bridleway status, no change in pedestrian accessibility will occur.</p>	<p>Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.</p> <p><b>As the current route will remain open and no diversion route will be implemented, it is not felt that a DIA is required – pedestrian access will be retained at the current level.</b></p>
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<sup>31</sup> The diversion includes stretches with a gradient of over 15%, however after assessing the data against the terrain this is likely to be due to an error in the available data. See section 1.5 for more detail.

Existing configuration

Future configuration

	recorded 67 adults using the crossing over the nine-day period.	community severance impacts will occur as a result of the closure.  There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.	
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S21 - Abbotts

Abbotts level crossing is a private footpath crossing located in Mellis Parish connecting residential properties on Earlsford Road to some farm houses and agricultural land on the opposite side of the railway.	The approach to the pedestrian gate on the eastern side is along the side of a field, culminating in a stile fence just before the railway. On the western side, the approach is over a patch of grass, again with a stile just before the crossing. As such, people with mobility impairments or parents with pushchairs are currently unable to use this crossing.	No incidences of misuse, near misses or accidents have been recorded at the site. However, due to the risks of sun glare for pedestrians and frequent trains, Abbots level crossing has acquired a risk rating of C6. Safety features of the crossing include signage and stiles on either side of the crossing.  A pedestrian census was undertaken in July 2016 and recorded 26 users of the crossing over the nine-day period – including 24 adults and two accompanied children.	The crossing is on the outskirts of the village of Mellis, and is located in close proximity to community facilities which are of importance to equality groups, such as a church and a primary school.  There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.	This level crossing will be closed to all users. Users will need to cross the railway by using the Mellis automatic half barrier road level crossing to the north. This diversion uses the footway on Mellis Road as well as rural roads without footways and existing footpaths. Crossing infrastructure will be removed and type F4 fencing installed to prevent trespass onto the railway.	The diversion route takes users to a controlled crossing, Mellis level crossing, which somewhat limits the safety benefits of closing the crossing.  There are also no designated footpaths on either Mellis Road or Earlsford Road, meaning that users would have to walk in the carriageway.  Walking distances along this diversion route increase to 1,006m, which is an increase of 866m. This is likely to pose significant challenges for people who struggle to walk long distances.  The proposed diversion route has a maximum gradient of 1.4%, which is very similar to the existing route and suggest that no impact will be felt by people who may struggle with steep gradients.	Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.  Despite accessibility problems at the current crossing, the proposed diversion routes raises significant problems. Walking distances are significantly increased and users would have to walk in the carriageway along parts of the route.  <b>Therefore, it was felt that further investigation was required and a DIA was undertaken.</b>
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S22 - Weatherby

The level crossing at Wetherby is a pedestrian crossing point in the town of Newmarket, Suffolk.	On the northern side, the crossing is accessed via Granary Road. There is a pedestrian crossing linking the level crossing to the pavement on the opposite side of Granary Road. On the southern side, the level crossing is accessed via Willow Crescent, with a pavement leading up to the crossing. On both sides, the approach is paved, level and accessible for any users with mobility issues and people with pushchairs or in wheelchairs/mobility scooters. There are also gates on either side of the crossing.	Approximately 34 trains travelling at 40mph use this part of the network daily. In the twelve month period prior to June 2014, one near miss and no incidents of misuse were recorded at the site. Due to the risks of sun glare, user misuse and the high number of users, Weatherby level crossing has acquired a risk rating of D2. Safety features of the crossing include signage and a gate.  A pedestrian user census undertaken in June / July 2016 recorded 3,732 pedestrians, including 291 accompanied children, 119 unaccompanied children, six older people, 17 impaired users, one wheelchair user and 119 pushchairs / prams.	The crossing is in an urban area, with houses, a football club and allotments within 150m. Consequently, the crossing is frequently used (on average 454 pedestrians a day) and it is likely that people from different equality groups use it to access employment, education and community resources frequently.  There is a low to moderate density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.	The proposal is to close the level crossing to all users and divert pedestrians to an existing underpass on The Avenue / New Cheveley Road, 200m south west of the current crossing. Current crossing infrastructure would be removed and fencing installed to prevent trespass onto the railway.	The proposed diversion route takes users to an existing underpass, which may restrict use for some people due to the steepness and poor lighting of the route.  Parts of the diversion route, particularly Cricket Field Road, also only have narrow footways on one side of the road, meaning that some users may be forced to walk in the carriageway. Sections of this route also include stretches with a gradient between 5 and 7.5%, particularly along Green Road, New Cheveley Road and Cricket Field Road. This is steeper than the current route gradient and may be challenging for older people, wheelchair users, or parents with pushchairs.  Walking distances along this route are likely to increase to 907m, an increase of 891m. This will pose significant challenges for people who struggle to walk long distances – notably those users with mobility problems.	Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.  Despite accessibility problems at the current crossing, the proposed diversion routes raises significant problems. Walking distances are significantly increases and users would have to walk in the carriageway along parts of the route. There may also be some issues with steep gradients along the route.  <b>Therefore, it was felt that further investigation was required and a DIA was undertaken.</b>
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S23 – Higham

The level crossing is located in rural Suffolk and is surrounded by agricultural fields.  The crossing has currently been closed for safety reasons due to the condition of the approach to the railway.	The accessibility of this crossing is severely limited by the approach roads being through uneven and occasionally muddy farmland that would pose a significant challenge to many wheelchair users and people with limited mobility. The uneven surfaces and obstacles to reach the crossing effectively exclude	The overall risk rating of this site is C9 with the high frequency of trains using the line and the risk of sun glare identified as key risk drivers at this site. The presence of signage is identified as the key safety feature at the crossing. There are approximately 104 trains using this line each day, travelling at speeds of up to 75mph.	This crossing connects a small area of farmland secluded from the surrounding area by the A14, the railway line and Higham Road to another area of farmland. Higham Road, which runs parallel to the pathway from this crossing, approximately 300m east, allows access to the surrounding area, while	This level crossing will be closed to all users. Crossing infrastructure shall be removed and type F7 fencing installed to prevent trespass onto the railway. Users shall be diverted via existing rural roads, to cross over the railway at the road bridge on Higham Road to the east of the existing level crossing.	The proposed diversion route directs users to Higham Road to the east of the crossing – there is no footpath on either side of the road or over the bridge. This means people will be forced to walk in the carriageway, potentially causing a detrimental effect on pedestrian safety.	Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.
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Existing configuration			Future configuration			
	wheelchair users from accessing the crossing.	<p>There have been no reported accidents, near misses or incidents or user misuse at this site, this may partly be attributable to the infrequency with which the crossing is used.</p> <p>A pedestrian user census was undertaken in June / July 2016 did not record any users of the crossing.</p>	<p>the pathway from the crossing leads to the edge of the A14 which pedestrians should not try to cross. These may contribute to the infrequency with which this crossing used.</p> <p>There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.</p>		<p>The diversion also requires users to walk along grassy verges along the A14. This is likely to pose problems in terms of both pedestrian accessibility and safety.</p> <p>The route also proposes the creation of steps and a timber footbridge on Coalpit Lane, which may restrict access for some users.</p>	<p>Although there is the potential for problems with pedestrian accessibility along the proposed diversion route, as the crossing has already been closed for safety reasons due to the condition of the approach to the railway, closure and redirection is not likely to reduce pedestrian accessibility and safety.</p> <p><b>Therefore, no DIA is required.</b></p>
S24 - Higham Ground Frame						
The level crossing is a public footpath in rural Suffolk, completely surrounded by agricultural fields.	The accessibility of this crossing is limited by the approaching roads being through uneven and muddy farmland that would pose a challenge to many wheelchair users and people with limited mobility. The uneven surfaces may serve to exclude some wheelchair users from accessing the crossing.	<p>The overall risk rating of this site is C7 with the high frequency of trains using the line and the risk of sun glare identified as key risk drivers at this site. The presence of signage is identified as the key safety feature at the crossing. There are approximately 104 trains using this line each day at speeds of up to 75mph. There have been no reported accidents, near misses or incidents or user misuse at this site, this may partly be attributable to the relative infrequency with which the crossing is used.</p> <p>A pedestrian census undertaken in 2016, recorded 50 adults using the crossing over the nine-day period. However, it must be noted that all 50 were recorded on one day, suggesting that overall usage of the crossing is relatively minimal.</p>	<p>It connects a small area of farmland secluded from the surrounding area by the A14, the railway line and Higham road to another area of farmland. This crossing is used approximately twice a day, this is likely to be for recreational walking or cycling as there is reason to use this crossing to access any specific destination.</p> <p>The level crossing is located approximately 140m south of the A14 connecting footpaths W-316/003/0 to W-127/006/01 running north to south. Footpath W-316/003/0 is currently intersected by the A14. There is a small area of woodland and dense vegetation immediately north east of Higham Ground Frame and arable land to the south.</p> <p>The closest residential properties are located approximately 560m south west of the level crossing.</p> <p>There is an area of historic landfill approximately 120m north of the level crossing and Breckland Farmland SSSI and SPA are located approximately 1.4km from the level crossing. Breckland Farmland SSSI and SPA are located approximately 150m north of proposed bridleway creation works.</p> <p>There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.</p>	<p>Existing public rights of way over the level crossing will be extinguished. Users south of the railway will be diverted along a new 2m wide type P1 footpath from footpath W-127/006/01 heading either west towards Higham Road bridge.</p> <p>Crossing infrastructure will be removed at Higham Ground Frame level crossing and type F7 fence to be installed to prevent trespass to the railway.</p>	<p>The proposed diversion route takes users to an existing bridge to the east of the crossing. Higham bridge does not have a pedestrian footway on either side of the bridge and the route requires users to walk in the carriageway on existing highways. This is likely to cause a significant problem to the north of the crossing, as the road looks busy and has warning signs for soft verges, potentially reducing pedestrian accessibility and safety.</p> <p>It is also proposed that steps and a timber footbridge will form part of the route. This may restrict access for some people who may potentially struggle to negotiate the new infrastructure.</p> <p>The majority of the proposed diversion route also has a gradient under 5%, there are the potential for some sustained stretches between 5 and 6.3%.<sup>32</sup> This may be challenging for older people, wheelchair users, or parents with pushchairs.</p> <p>The proposed diversion route increase walking distances fby 1km..</p>	<p>Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.</p> <p>Although current accessibility at the crossing is not especially inclusive, the presence of steps as part of the route means that pedestrian accessibility is likely to be reduced. Walking distances are also likely to increase as a result of the proposed diversion.</p> <p><b>Therefore, it is felt that a DIA is required.</b></p>
S25 - Cattishall						
This crossing is a relatively popular pedestrian level crossing connecting a small area of housing with a large housing estate in Cattishall, east of Bury St Edmunds in Suffolk.	The good level of accessibility is a strength of this crossing as it is fully paved, including the approaches and uses wide standard gates that would allow most standard width wheelchairs and mobility scooters to use the crossing.	<p>Survey data shows that approximately 41 people use this crossing each day. The overall risk rating for the crossing is C4 with the large number of users, sun glare and high frequency of trains identified as key risk drivers at this site. The presence of signage is identified as the key protection against these risks.</p> <p>This site sees approximately 110 trains each day, travelling at speeds of up to 75mph. The risks at this site, including the increased risk brought</p>	<p>The level crossing connects a paved track running south-north Mount Road (Cherry Trees property) and Green Lane via Cattishall Farm. The agricultural fields south of the level crossing and west of Cattishall Farm are allocated for development. The closest residential properties are located at Cattishall Farm 120 m north of the level crossing and 200 m west at Great Barton.</p> <p>This crossing does not appear to provide vital access to community</p>	<p>This level crossing will be closed to all users. Crossing infrastructure will be removed and type F4 fencing installed to prevent trespass onto the railway. Users shall be diverted on a new public track in farm fields on the north side of the railway which provides a link to Mount Road via an existing railway underpass and the shared cycle/foot path. This will be suitable for use as a cycle trail.</p>	<p>The proposed diversion route takes users to an existing underpass, which could potentially restrict pedestrian accessibility. However, it is noted that work will be undertaken on the underpass to improve pedestrian access.</p> <p>Walking distances at this location will be significantly increased – by 1,013m from 233 to 1,246m. This is likely to be seriously challenging for people who struggle to walk long distances –</p>	<p>Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.</p> <p>It appears likely that the proposed diversion route will not change pedestrian accessibility compared to the existing route (both appear fully accessible). However, the significant</p>

<sup>32</sup> The diversion includes stretches with a gradient of over 15%, however after assessing the data against the terrain this is likely to be due to an error in the available data. See section 1.5 for more detail.



Existing configuration			Future configuration			
		<p>about by the approximately 41 users per day has resulted in there being one accident at this site, this was prior to the May 2014 assessment with none since. In addition to this, there have been two near misses at the site since May 2014 and one incident of user misuse which was prior to May 2014.</p> <p>There is a low to moderate density of all equality groups for which we have data in the immediate area, including under 1s, over 65s, people with a LLTI, and people from BAME groups. There is a high density of people under 16 living in the local area. As with national trends, there is a low proportion of people from minority faith groups.</p>			<p>especially people with mobility problems.</p> <p>All of the proposed diversion route has a gradient of under 5.6%, apart from two points which on closer inspection appear to be errors in the available data. Therefore, it is unlikely that the gradient of the new route will cause any problems in terms of accessibility.</p>	<p>increases in walking distances mean that further investigation should be undertaken at this location. <b>Therefore, a DIA is required</b> (it is noted that a DIA has been undertaken by Network Rail).</p>
S27 – Barrels						
<p>The crossing is located on a public footpath that runs from north to south through agricultural land from the end of Birds Road in the south to Barrels Road to the north.</p>	<p>The narrow, unpaved, pathways that lead to the crossing are uneven and overgrown in places and the use of both stiles and steps to reach the line makes this journey untenable for those with disabilities and parents with pushchairs.</p> <p>This crossing does not provide a connection between the two sides of the line that would otherwise be unreachable.</p>	<p>An estimated 98 trains, travelling at speeds of up to 75mph, use this part of the network daily. Due to the frequency of trains and additional risks of sun glare, this level crossing has acquired a risk rating of C6. Visibility along the line is generally good and safety features at the site include stiles and signage. It is important to note that no accidents, near misses or incidents of misuse have been reported for this site.</p> <p>A pedestrian census undertaken in 2016, recorded 23 adults (including one older person) using the crossing over the nine-day period.</p>	<p>There are a small number of dispersed properties in the vicinity of the crossing, the nearest of which are located 70m to the south, 120m to the north east and 150m to the north.</p> <p>The village of Thurston is located approximately 350 north west of the crossing at its nearest point.</p> <p>There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups. Therefore it is unlikely that community severance and / or disproportionate equality impacts will arise as a result of the closure.</p>	<p>This level crossing will be closed to all users. Crossing infrastructure will be removed and type F7 fencing installed to prevent trespass onto the railway. Users heading west will be diverted to Barrel's Road (west) and shall cross the railway at the existing road bridge. Users heading east will be diverted on new 1.5m wide footpath and existing public footpaths to Barrel's Road (east). The new footpath on the north side of the railway shall be in Network Rail land, will be fenced off from the railway and shall be constructed to an appropriate standard, including new wayfinding signs. Details will be discussed and agreed with the local authority.</p>	<p>The diversion route directs users to one of two proposed crossing points.</p> <p>The first is Barrell's Road to the west, which currently does not have a pedestrian footway on either side of the road. However, it is noted that pedestrian improvements will be implemented along this part of the route.</p> <p>Along other parts of the diversion route, there are no pedestrian footways along some of the existing roads. This may reduce pedestrian accessibility, as many (such as Birds Lane) are very narrow with poor visibility, meaning users may be forced into the carriageway.</p> <p>Although most of the proposed diversion route has a gradient of under 5%, the approaches to Barrell's Road bridge potentially has gradients that are significantly above this. These gradients are steeper than the existing route. There is therefore the potential for negative impacts for people who struggle with steep gradients.<sup>33</sup></p> <p>To the east users would be directed to Barrell's Road east, which also does not have a footpath meaning that users would have to share the space with vehicles.</p> <p>Walking distances along this route will be increase be 972m – from 321 to 1,293m. This is likely to significantly increase walking distances and pose problems to users with mobility problems.</p>	<p>Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.</p> <p>As pedestrian accessibility at the current location is restricted (due to the presence of steps, stiles and overgrown pathways), it is felt that pedestrian accessibility will not be reduced. Although, it is noted that there is likely to be a significant increase in walking distances and potential for steep gradients, it is not felt that accessibility will decrease as a result. It is also noted that the crossing is very remote and pedestrian usage is also limited.</p> <p><b>Therefore, no DIA is required.</b></p>
S28 - Grove Farm						
<p>This is a pedestrian crossing that connects an area of farmland to a small area of housing on Bird's Road near Bury St Edmunds.</p>	<p>The accessibility of this crossing is poor as the crossing has stiles and steps. This excludes wheelchair users, those with pushchairs and many with</p>	<p>This site has an overall risk rating of C6 with the high frequency of trains and sun glare identified as key risks. The presence of signage is noted as</p>	<p>The crossing is located on a public footpath that runs in a north-easterly direction through agricultural land from the end of Birds Road 180m to the</p>	<p>This level crossing will be closed to all users. Crossing infrastructure will be removed and type F4 fencing installed to prevent trespass onto the railway.</p>	<p>The diversion route directs users to one of two proposed routes.</p> <p>The first is Barrell's Road to the west, which currently does not have a</p>	<p>Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level</p>

<sup>33</sup> The diversion includes stretches with a gradient of over 15%, however after assessing the data against the terrain this is likely to be due to an error in the available data. See section 1.5 for more detail.

Existing configuration

	<p>limited mobility from using the crossing. The narrow and unpaved pathways along the edges of farm fields on either side also act to exclude these groups for whom the uneven surfaces and high chance of mud poses a significant challenge.</p>	<p>the key protection against this risk. Each day, approximately 109 freight and pedestrian trains use this section of the line, travelling at speeds of up to 75mph. There have been no reported accidents, near misses or incidents of user misuse at this site.</p> <p>A pedestrian user census undertaken in June / July 2016 and recorded 13 adults using the crossing over the nine-day period.</p>	<p>west to an unnamed public highway 400m to the east. There are a small number of dispersed properties in the vicinity of the crossing, the nearest of which are located 70m to north east and 100m to the north west. The footpath passes West Cottage, a Grade II listed building approximately 400m east of the crossing. The village of Thurston is located approximately 550 north west of the crossing at its nearest point.</p> <p>There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups. There are also no community facilities in the area that the crossing provides access to.</p>	<p>Users heading west will be diverted to Barrels Road (west) and shall cross the railway at the existing road bridge. Users heading east will be diverted on new 1.5m wide footpath and existing public footpaths to Barrels Road (east). The new footpath will be in Network Rail land, shall be fenced off from the railway and will be constructed to an appropriate standard, including new wayfinding signs. Details will be discussed and agreed with the local authority.</p>	<p>pedestrian footway on either side of the road. However, it is noted that pedestrian improvements will be implemented along this part of the route.</p> <p>Along other parts of the diversion route, there are no pedestrian footways along some of the existing roads. This may reduce pedestrian accessibility, as many (such as Birds Lane) are very narrow with poor visibility, meaning users may be forced into the carriageway.</p> <p>To the east users would be directed to Barrell's Road east, which also does not have a footpath meaning that users would have to share the space with vehicles.</p> <p>This proposed diversion route results in a total walking distance of 769m, this is 245m further than the current route. This may pose challenges to some users groups.</p> <p>Although most of the proposed diversion route has a gradient of under 5%, the approaches to the bridge to the east of the crossing potentially has gradients that are significantly above this (between 6 and 46%). This may pose challenges for people who struggle with steep gradients and represents a significant increase on the existing route.</p>	<p>crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.</p> <p>As pedestrian accessibility at the current location is restricted (due to the presence of steps, stiles and narrow and uneven pathways), it is felt that pedestrian accessibility will not be reduced. It is also noted that usage of the crossing is limited.</p> <p><b>Therefore, no DIA is required.</b></p>
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S29 - Hawk End Lane

<p>The crossing is a pedestrian only crossing that connects the back of a housing estate with an industrial estate on the other side of the railway line.</p>	<p>Accessibility is an issue for this crossing as there is a stile on each side of the track which would exclude wheelchair users and those with limited mobility from accessing the crossing. The narrow alley that is the approach to the crossing would also restrict wheelchair users and those with pushchairs or young children as the overgrown grass and dilapidated fencing may pose a challenge to mobility and a risk to young children.</p>	<p>The overall risk rating for this site is C7. Approximately 110 trains per day use this stretch of track and travel at speeds of up to 75mph. It is for this reason that the high frequency of trains is a key risk factor for this crossing, along with the risk of glare from the sun. Signage warns users of the general risk they face and this is the only safety feature. It is estimated that approximately two pedestrians or cyclists use this crossing each day. There have been no recorded accidents, near misses or incidents of user misuse at this site. The crossing is currently closed owing to adjacent construction work.</p>	<p>The crossing is located at the junction of two footpaths, one that runs north eastwards through an industrial area, and one the runs south and joins Hawk End Lane approximately 20m to the south. The land to the south of the railway is occupied by a densely populated residential area of Elmswell with the nearest properties within 10m of the crossing. There are also a number of listed properties in the vicinity, the nearest of which is on Hawk End Lane, approximately 50m south east.</p> <p>The land to the immediate north and north east of the crossing is occupied by a development site. There are agricultural fields 75m north west of the crossing and in the wider surrounding area.</p> <p>There is a low density of all equality groups for which we have data in the immediate area, including under 1s and people from BAME and minority faith groups. There is a moderate density of people with a LLTI and those over 65 living in close proximity to the crossing.</p>	<p>Close the level crossing to all users. Users walking on the north side of the railway would be diverted west on a new 2m wide public footpath, mostly along field margins, to an existing underbridge at Hall Farm. New wayfinding signs with details to be discussed and agreed with the local authority. Users on the south side of the railway would use the existing public footpath, W-234/013/0#2 to travel to the underbridge. In addition to this, users wishing to travel east would be able to cross the railway at Elmswell manned barrier and CCTV monitored level crossing on Station Road. To get to Elmswell level crossing users on the north side of the railway will use the existing public footpath, W-234/012/0 and the business park footways. Users on the south side of the railway would use the footways on Station Road and School Road to access Elmswell level crossing. Crossing infrastructure would be removed and type F4 steel fencing installed to prevent trespass onto the railway.</p>	<p>The proposed diversion route requires users to negotiate new footpaths to be created in field margins. This may restrict accessibility for some users who require even surfaces.</p> <p>To the west, users will also be diverted to an existing underbridge, which could potentially pose some problems for user groups.</p> <p>To the east, users would be diverted to Elmswell level crossing, which is a managed barrier controlled crossing. Although the crossing is flat with segregated pedestrian walkways, the use of another crossing somewhat limits the safety benefits associated with closing Hawks End level crossing.</p> <p>Walking distance at this crossing is likely to increase by 871m (from 70 to 942m). This is likely to pose significant challenges for people who struggle to walk long distances, especially people with mobility problems.</p> <p>Although most of the proposed diversion route has a gradient of under 5%, some sections particularly to the west of the crossing have sustained period of between 5 and 15%. This may be challenging for older people, wheelchair users, or parents with pushchairs and represents an</p>	<p>Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.</p> <p>As accessibility at this crossing is already restricted (by the presence of stiles and natural tracks), meaning that closure and redirection would improve accessibility. Although, it is noted that there is likely to be a significant increase in walking distances and the potential for steep gradients, it is not felt that accessibility will decrease as a result. In addition, pedestrian usage of the crossing is likely to be low.</p> <p>The developer will be providing a new accessible footpath 'short cut' to Station Road, which will help to mitigate the increased walking distances created by the closure of the level crossing.</p> <p><b>Therefore, no DIA is required.</b></p>
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Existing configuration	Future configuration					
						increase as compared to the current route.
S30 - Lords No. 29						
This is a pedestrian level crossing just outside Elmswell in Suffolk.	The accessibility of this crossing is poor as the approaches are narrow, uneven and muddy tracks that run along fields in dense farmland. This has the effect of making access difficult for many people with limited mobility or those who use wheelchairs. Similarly, the presence of stiles and steps to access the crossing itself also restrict and exclude users with limited mobility and those who use wheelchairs as well as people with pushchairs who would not realistically be able to navigate the stiles and steps.	The overall risk rating of this crossing is C6 with the high frequency of trains and sun glare noted as key risk drivers and the presence of signage identified as key mitigation of this risk. This site has approximately 109 freight and passenger trains travelling at speeds of up to 75mph along this line each day. Despite the risks, there have been no reported accidents, near misses or incidents of user misuse at this site.  A pedestrian census, undertaken in June / July 2016, recorded 49 people using the crossing over the nine-day period. This included 44 adults, one unaccompanied child and four accompanied children.	This crossing is used an estimated six times a day and due to the surrounding area and its distance from community facilities, homes and businesses. It is likely that these uses are for recreational travel such as walking or cycling.  There is an alternative route over the railway line via a footbridge approximate 220m west of this crossing that could take the additional capacity of this crossing were it to be closed. Both this crossing and the alternative one lead to the same field, so recreational users of this crossing would not be too severely impacted by its closure.  The land surrounding the crossing comprises of agricultural fields. The town of Elmswell is located to the west, with the nearest residents located approximately 240m to the west. Mutton Hall, a Grade II listed building is located approximately 500m to the south east  There is a low density of all equality groups for which we have data in the immediate area, including under 1s and people from BAME and minority faith groups. There is a moderate density of people with a LLTI and those over 65 living in close proximity to the crossing.	This level crossing will be closed to all users. Users will be diverted to the existing bridge to the west via a new 2m wide public footpath in field margins on the north side of the railway. An additional new 2m wide public footpath will be created parallel to the railway on the south side (to be confirmed with the landowner) to allow users to continue to utilise the existing network of permissive footpaths on the Mutton Hall estate. The new footpaths shall be constructed to an appropriate standard with new wayfinding signs with details to be discussed and agreed with the local authority. Crossing infrastructure shall be removed and type F7 fencing installed to prevent trespass onto the railway.	The alternative route via the footbridge is more accessible as it uses ramps rather than steps. Although, these ramps take the form of long and unpaved pathways that may be a significant challenge to people with limited mobility or wheelchair users.  The majority of the diversion route has a gradient of under 5%, however the approaches to either side of the footbridge potentially have a gradient which exceeds 15%. This is significantly steeper than the existing route and may pose challenges for users who struggle with steep gradients.  The creation of new footpaths in field margins may also potentially cause accessibility problems, especially for users who require even surfaces.  Use of this route is likely to increase walking distances by 458m – an increase from 28 to 486m. This is likely to pose significant problems for people who struggle to walk long distances.	Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.  Although there is the potential for problems for some user groups along the proposed diversion route, it is felt that the replacement of steps and stiles with ramps will help to improve pedestrian access. Moreover, the approaches to the current route are along narrow, muddy and uneven track meaning that the alternative route via a footbridge and new footpaths is likely to improve pedestrian safety. Although it is noted that walking distances are going to be significantly increased and there is the potential for steep gradients. Safety benefits are also likely to be important for the children using the crossing.  <b>Overall, it is felt that a DIA is not required.</b>
S31 - Mutton Hall						
This crossing is a pedestrian crossing at Base Green, east of Elmswell in Suffolk.	The accessibility of this site is limited by the narrow, uneven and overgrown pathways from which the crossing is reached and the presence of stiles, which collectively exclude wheelchair users, people with pushchairs and those with impaired vision or mobility who would be at an unduly great risk from attempting to cross.	The overall risk rating for this site is C6 with the high frequency of trains and sun glare identified as key risk drivers with signage noted as key protection against some of this risk. This crossing sees approximately 109 passenger trains per day, travelling at speeds of up to 75mph. There have been no reported accidents, near misses or incidents of user misuse at this site.  A pedestrian user census undertaken in June / July 2016 recorded 38 people using the crossing over the nine-day period. This included 34 adults, two accompanied children and two impaired users.	The crossing is located at the junction of three footpaths, one the runs west along the north side of the railway, one that runs west along the south side of the railway before turning south to follow the course of a stream, and one that runs east along the north of the railway. The area surrounding the crossing is predominantly agricultural with a small number of dispersed farm buildings and residential properties in the vicinity. The nearest is Batts Farm, also a listed building, approximately 200m to the north east. An unnamed stream is located approximately 120m west of the crossing.  There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.	This level crossing will be closed to all users. Users will be diverted via existing public footpath W-554/020/0 to the north of the railway and via a new 2m wide public footpath to the south of the railway to the existing road bridge on Westerden Street. The new footpath will be constructed to an appropriate standard with new wayfinding signs with details to be discussed and agreed with the local authority. Crossing infrastructure shall be removed and type F7 fencing installed to prevent trespass onto the railway.	The proposed diversion route requires users to walk in the carriageway on Westerden Street, which may reduce pedestrian safety. However, it is noted that route improvement measures are under consideration.  Although the majority of the route has a gradient of below 5%, there is the potential for gradients (of up to 45%) on the approaches to the existing road bridge on Westerden Street.  The proposed route increases walking distances by 499m, an increase from 24 to 525m. This is likely to pose significant challenges for people who struggle to manage long distances.	Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.  Although walking distances are significantly increased and there is the potential for steep gradients along the proposed diversion route, pedestrian accessibility is likely to be improved by closure and redirection of crossing users (as stiles will no longer form part of the route and the pathways will not be overgrown, narrow and uneven). In addition, pedestrian usage of the crossing is also limited.  <b>Therefore, a DIA is not required.</b>
S33 - Westerfield						
This crossing is part of the East Suffolk Line Walks route between the Westerfield and Castle Hill areas of north Ipswich.	The accessibility of this site is severely limited by the presence of stiles, steps and uneven pathways through which the crossing is accessed. This	The overall risk rating for this site is C6 with the high frequency of trains and sun glare highlighted as key risk drivers and the presence of signage	The closest residential properties are at Westerfield, approximately 180m to the east of the level crossing.	This level crossing will be closed to all users. Crossing users would make use of Westerfield Road level crossing to the east. Westerfield Road and E-	The proposed diversion route takes users to a controlled crossing, Westerfield level crossing, somewhat	Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level



Existing configuration

Fonnereau Way (Footpath E-014 018/0#1), an unpaved path, leads along treeline bordering fields from The Grove at the north-east border The Dales/Ipswich to Lower Road in Westerfield, approximately 1.3km north-east. The path crosses the railway approximately 210 m west of the Westerfield Rd crossing.	crossing connects two pathways with mud or grass surfaces that are too narrow to reasonably allow wheelchair users access to the crossing itself. These pathways would also cause difficulty for users with limited mobility or visual impairments, for whom the uneven ground and various obstacles would likely cause a significant challenge and have major safety implications, given that this is a level crossing with trains travelling in either direction on both tracks. The stiles and steps effectively exclude wheelchair users and those with pushchairs and the presence of exposed, rusted ironwork poses a hazard to users, especially young children.	noted as a key safety feature. There are approximately 133 trains per day that use this section of the line, travelling at this crossing at speeds of up to 60mph. Despite the risks at this site, there have been no reported accidents, near misses or incidents of user misuse.  A pedestrian user census undertaken in June / July 2016 recorded 45 users over the nine-day period. This included 39 adults and six accompanied children.	There is a low to moderate density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups. There are also no community facilities, businesses or homes that area accessed solely by this crossing.	014/018/01 will be connected with a new 2m wide footpath alongside the south of the railway. To the north of the railway E-14/018/0#1 will be linked to Westerfield Road along a new 2m wide footpath on an existing track. Type F9 fencing will be installed between the new footpath and the railway. Users shall make use of the footway along the west side of the Westerfield Road to connect the two new footpaths. New wayfinding signs with details to be discussed and agreed with the local authority. Crossing infrastructure at shall be removed and type F4 fencing installed to prevent trespass onto the railway.	limiting the benefits of closing crossing.  The proposed diversion route increases total walking distance to 329m – an increase from 241 to 570m. This may pose challenges for people who struggle to walk long distances, especially those with mobility problems.  Apart from three points which appear to be errors with the available data, the diversion route has a gradient of under 5%. This is less steep than the existing route and is unlikely to result in challenges for people who struggle with steep gradients.	crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.  Due to the current accessibility problems (due to steps, stiles and inaccessible walking route to access the crossing), it is felt that the new route will improve pedestrian access for all user groups. The gradient of the proposed diversion route is also less steep than the existing route, which may potentially benefit some users.  <b>Therefore, no DIA is required.</b>
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S69 – Bacton

Bacton level crossing lies directly to the south of the small village of Bacton. Arable farmland lies on both sides of the railway track.  The existing Footpaths run along the boundaries of agricultural fields. W-115/022/0#2 leads to a number of footpaths along agricultural field connecting to Church Road Bacton, approximately 900m north-west of the level crossing. To the east, the Footpath leads to Finningham Road in Fords Green (approximately 550 m).	The approach to the level crossing is uneven with a gravel path and requires the use of stiles.  It is unlikely therefore that the crossing is currently used by people with mobility issues, or with wheelchairs and pushchairs.	Bacton level crossing is a ‘Stop, Look and Listen’ crossing, where the user determines whether it is safe to cross.  The crossing has an All Level Crossing Risk Model (ALCRM – the system used to measure risk at crossings) score of C6. The individual risk rating for crossing users is ‘C’ (where ‘A’ is highest risk and ‘M’ is lowest) and the collective risk rating for this crossing is ‘6’ (where ‘1’ is highest risk and ‘13’ is lowest), making Bacton a high-risk crossing.  Key issues relate to frequent trains and sun glare. Approximately 100 trains (both passenger and freight) use it daily, and a line speed of 100mph. Between 2011 and 2015, there weren't any incidents of misuse, near misses or accidents at the crossing.  28 pedestrians were recorded using the crossing over the nine-day survey period (undertaken in June/July 2016).	The nearest residential property is located approximately 450 m to the east of the crossing (Fords Green). There are numerous listed buildings within 1 km of the works including two grade I and two grade II* listed buildings.  There is a low density of all equality groups for which we have data in the immediate area, including under 1s, under 16s, over 65s, people with a LLTI, and people from BAME and minority faith groups.	The proposal involves diverting users to an existing underbridge on Pound Hill, which is 150m from the current crossing (via Broad Road to the east and Birch Avenue to the west). Users would connect to the existing public right of way network to the west via an existing track and the addition of a new 2m wide footpath and a proposed timber footbridge over an existing drainage ditch which currently provides an obstruction.  In addition, a second 2m wide footpath will run down the eastern side of the railway to connect to S13 Fords Green. The new footpaths and footbridge will be constructed to an appropriate standard and will include new wayfinding signs.	The diversion route takes users under Pound Hill underbridge which does not have a designated footpath. There is also no footpath on Broad Road B1113, meaning that pedestrian safety may be reduced.  It was noted that Pound Hill underbridge was used by 22,531 vehicles during the nine-day survey period.  This proposed diversion route will increase walking distances by 1,028m, from 95 to 1,123m. This is likely to pose serious problems for people who struggle to walk long distances, particularly those with mobility problems.  The entire proposed diversion route has a gradient of under 5%. This is not steeper than the current route and so should not pose any problems in terms of accessibility.	Safety is especially relevant as children, older people, disabled people and men are more likely to be involved in accidents at level crossings than other groups in society. In general, personal safety for these groups will be improved by the closure of the crossing.  Although the approach to the current crossing is restricted, due to the potential for safety issues associated with users having to walk significant distances, and for some distance in the carriageway on a busy road, it is felt that further investigation is required.  <b>Therefore, Bacton was subject to a more detailed DIA.</b>
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4.3 Recommendations

In light of the evidence presented, the following crossings were recommended (in earlier versions of this report) for further DIA analysis:

- S24 – Higham Ground Frame
- S21 – Abbotts
- S22 – Weatherby
- S69 – Bacton
- S25 – Cattishall

All DIAs recommended above had been undertaken at the time of updating this report to revision C.





