Diversity Impact Assessment (DIA)

Guidance for completing each section is provided in the
Everyone Guide to Diversity Impact Assessments

Name of policy, programme or project: C31 Littleport station - Anglia Level Crossing Reduction Strategy

Step 1: Clarifying aims

Q1. What are the aims of this project/piece of work?

Anglia Level Crossing Reduction Strategy

Network Rail has committed to achieving a 25% reduction in level crossing system risk nationally as part of a programme of works undertaken within Control Period 5 (CP5), which runs from 2014-19.

Network Rail has been working hard to better manage its level crossings and the risks they pose. It has developed proposals for the possible closure or change to public rights of way at around 130 level crossings within the counties of Suffolk, Cambridgeshire, Essex, Hertfordshire, and the unitary authorities of Thurrock, Havering, and Southend-on-Sea. This is referred to as the Anglia Level Crossing Reduction Strategy ('the Strategy'). Closing or modifying level crossings can help to bring about a number of benefits:

- Improve the safety of level crossing users;

- Deliver a more efficient and reliable railway, which is vital in supporting the regional and UK economy;
- Reduce the ongoing operating and maintenance cost of the railway;
- Reduce delays to trains, pedestrians and other highway users; and
- Improve journey time reliability for railway, highway and other rights of way users.

C31 – Littleport station level crossing

The crossing has an All Level Crossing Risk Model (ALCRM – the system used to measure risk at crossings) score of D4. The individual risk rating for crossing users is 'D' (where 'A' is highest risk and 'M' is lowest) and the collective risk rating for this crossing is '4' (where '1' is highest risk and '13' is lowest), making Littleport station a moderately high risk crossing. Key issues at the crossing include deliberate misuse or user error, short sighting time, a large numbers of users and the fact that the crossing is located inside a station.

The crossing is on the two track Ely to King's Lynn line (a section of the West Anglia Main Line) and is located inside Littleport station. Approximately 60 trains use this part of the network daily at a line speed of 60mph. It has been noted that there is a separate platform lengthening scheme proposed by Network Rail at this station, which will double capacity on this line.

At Littleport station there are two platforms, with a ticket machine on platform two (the same side as the station car park). Littleport station level crossing is a station passenger crossing with miniature stop lights. The crossing provides the only access onto the eastern or up platform (platform one) at the station. Appendix A contains site photographs.

The crossing deck is wooden with anti-slip boards. Since February 2016, there have been 109 reports of misuse or near misses.

Network Rail aims to ensure the most viable option for continued access across the line based on the need to ensure public safety, meet local needs, and ensure compliance with its duties under the Equality Act 2010.

Project location

Littleport station level crossing is located in the village of Littleport, Cambridgeshire.

The station is located on the outskirts of Littleport, with a small number of residential and commercial properties located on either side of the station. Most amenities are located to the south west of the station, in the village of Littleport itself. The station has a car park on the western side, although this is not a railway-owned facility. The below map shows the location of the level crossing.

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Proposals for the project

Network Rail has conducted two rounds of public consultation; the first was to obtain feedback on its initial options for level crossings in the programme (in June 2016), and the second to obtain feedback on its preferred options (in September 2016). Following the receipt of feedback, consideration was given as to how any proposed closure of the level crossing and implementation of an alternative route might best be progressed and managed.

The proposal is to close the level crossing to all users and remove the crossing infrastructure. The preferred option (presented at the second round of consultation in September 2016) is to divert all users to an existing vehicular and pedestrian underpass 100m south of the crossing, via new ramped access. The diversion route would add up to an additional 160m to the route (this refers to those using the existing station car park and wishing to access platform one on the opposite side of the railway).

It is noted that in the period 2008-2016, there have been 16 incidents of vehicles colliding with the deck of the underpass. The proposal to pedestrianise the underpass, permanently terminating vehicular access through this route, is desirable to maintain and improve pedestrian safety.

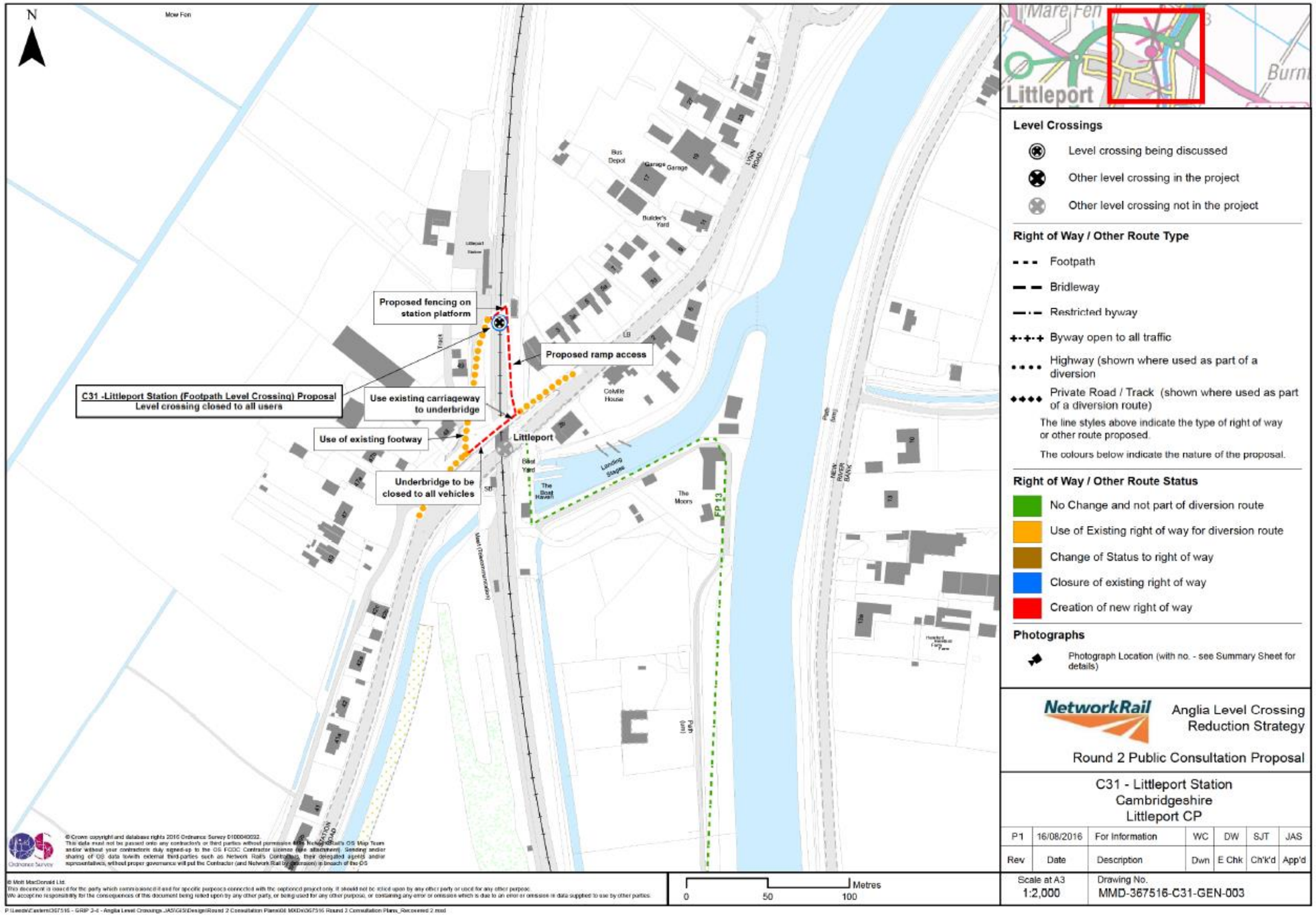
The diversion route will make use of the existing footpath to the west of the railway and a new ramped footpath will be created to the east of the railway providing pedestrian access to the eastern platform (platform one).

There are further plans to install ticket machines on both platforms and provide additional disabled parking near the new ramp on the eastern side of the railway.

The first round of public consultation received 31 questionnaire responses regarding the proposed changes at Littleport station. Of the responses, 18 respondents either agreed with the proposals (7 responses) or were neutral towards them (11 responses). The second round of public consultation received 7 questionnaire responses; 2 agreed and 5 disagreed with the preferred option.

The map below shows the proposed diversion route (presented at the second round of public consultation). Appendix B contains drawings from public consultation rounds 1 and 2.

Note that there is currently a project to extend the platforms at Littleport station to allow then to accommodate 8 coach trains. The level crossing is considered high risk with significant misuse, but in the event that a replacement level crossing were provided at the north end of the lengthened platforms, access to the up platform from the existing entrance to Platform 2 would lengthen by around 100m.


N
Mow Fen
Proposed fencing on station platform
Proposed ramp access
C31 -Littleport Station (Footpath Level Crossing) Proposal
Level crossing closed to all users
Use existing carriageway to underbridge
Use of existing footway
Underbridge to be closed to all vehicles
Littleport
Bus Depot
Garage
Builder's Yard
Colville House
The Boat Haven
The Moors
Mare Fen
Burn
Level Crossings
Level crossing being discussed
Other level crossing in the project
Other level crossing not in the project
Right of Way / Other Route Type
Footpath
Bridleway
Restricted byway
Byway open to all traffic
Highway (shown where used as part of a diversion
Private Road / Track (shown where used as part of a diversion route)
The line styles above indicate the type of right of way or other route proposed.
The colours below indicate the nature of the proposal.
Right of Way / Other Route Status
No Change and not part of diversion route
Use of Existing right of way for diversion route
Change of Status to right of way
Closure of existing right of way
Creation of new right of way
Photographs
Photograph Location (with no. - see Summary Sheet for details)
NetworkRail
Anglia Level Crossing Reduction Strategy
Round 2 Public Consultation Proposal
C31 - Littleport Station
Cambridgeshire
Littleport CP
P1 16/08/2016 For Information WC DW SJT JAS
Rev Date Description Dwn E Chk Ch'k'd App'd
Scale at A3 1:2,000
Drawing No. MMD-367516-C31-GEN-003
0 50 100 Metres

Q2. Could this work impact on people? If yes, briefly explain how (considering our duty to promote equality, tackle discrimination and foster good relations between groups).

Yes, the work could impact on people.

Without the closure of Littleport station level crossing, the risk of an accident or fatality at the location will remain. The permanent closure of the crossing will separate people from the railway line, thereby improving the safety of station users.

The proposal for Littleport station level crossing will primarily impact walking distances for station users. The diversion route would add an additional 160m to the route (this refers to those using the station car park and wishing to access the opposite platform – platform one). It is noted that for users travelling to the eastern platform on foot from Littleport, distance would be reduced as access will be in closer proximity to the village.

The implementation of a permanent diversion via the Station Road underpass may disproportionately affect certain sections of the population who find walking longer distances difficult and may struggle with the gradients associated with the new platform ramp.

Step 2: The evidence base

Q3. Record here the data you have gathered about the diversity of the people potentially impacted by this work e.g. from the 2011 national census or from HR Shared Service. You should also include any research on the issues affecting inclusion in relation to your work.

Consider evidence in relation to all the protected characteristics:

- Disability including carers[1]
- Pregnancy/maternity
- Religion or belief
- Sexual orientation
- Gender reassignment
- Age
- Race
- Gender
- Marriage/Civil Partnership

This Diversity Impact Assessment is primarily concerned with ensuring fulfilment of Network Rail's duties under the Equality Act 2010. Network Rail's responsibility is to identify any potential negative impacts on those people with protected characteristics and mitigate these wherever possible and practicable by reasonable adjustments.

User profile

A nine-day census was carried out for the **underpass diversion route** in June 2016. The census indicated that 564 pedestrians used the underpass during the survey period - an average of 63 people per day. The survey results show adult pedestrians constituted 96% (542/564) of underpass users, none of whom were categorised as older people. An adult accompanied all 11 child users documented using the route. Eight pushchairs / prams, two scooters and no wheelchairs were recorded during the survey period. Traffic census data recorded 3940 vehicles using the underpass over the nine-day survey period - an average of 438 cars per day. While cyclists are not a protected characteristic group, it is noted that the underpass is a popular cycle route, with 62 cyclists using the crossing over the survey period.

A breakdown of all census data can be found in Appendix C.

A recent census has not been undertaken for the **level crossing** within Littleport station, However, Office of Rail and Road (ORR) statistics on station usage estimate 229,628 entries/exits at Littleport station in 2015/16.[2] Assuming an equal number of northbound and southbound journeys, this would equate to around 316 users per day. Note that the ALCRM census undertaken in November 2014 identified 105 users per day.

Population profile

In order to gain a better insight into the local community and potential users of the level crossing, existing statistical data was reviewed to establish the composition of the local population – here taken as East Cambridgeshire.[3] These are as follows:

[1] Including those with physical, mental and hidden impairments as well as **carers** who provide unpaid care for a friend or family member who due to illness, disability, or a mental health issue cannot cope without their support.

[2] Office of Rail and Road (2016): http://orr.gov.uk/statistics/published-stats/station-usage-estimates [3] Source: ONS Population estimates taken from nomis. Available at: https://www.nomisweb.co.uk/reports/lmp/la/1946157206/report.aspx?town=littleport.

- Children (under 16 years of age) make up 20% of the district of East Cambridgeshire. This is broadly in line with the national average of 19%.
- Younger people (16-24 years old) make up 9% of the population of East Cambridgeshire, which is slightly lower than the national figure (12%).
- The proportion of older people (here described as people of retirement age – 65 and over) in East Cambridgeshire is 17%, which is in line with the national figure of 16%.
- 15% of the East Cambridgeshire population is living with a long-term illness or disability that limits their daily activities. The national average is 17%.
- 14% of East Cambridgeshire is from Black, Asian or ethnic minority (BAME[4]) groups. This is lower than the national figure of 20%.
- East Cambridgeshire has a low proportion of its population belonging to minority faith groups (including Buddhist, Hindu, Jewish, Muslim, Sikh and 'other' in national Census data) - 2% compared with 9% for England.

The above demographic analysis suggests that the populations of all of the protected characteristics (for which there is demographic data) are broadly in line with national proportions. There are two exceptions; East Cambridgeshire has a much lower proportion of people from both BAME and minority faith groups.

Local amenities

According to a review in December 2016, there are plans for a residential development, incorporating a new access and public open space to be built on Station Road in Littleport.[5] This is likely to increase the volume of traffic in the local area.

An analysis of local amenities indicates that there are a small number of residential and commercial facilities located close to the level crossing, with most community amenities located south west in the centre of Littleport (approximately 900m away). In Littleport, there are several places of importance to equality groups; for example, a medical centre and a church are both located 1km away from the crossing. There is also a primary school located approximately 1.8km away.

Although there are 20 bicycle stands located at the station and 62 cyclists / people with bicycles were recorded using the Littleport Station underpass during the nine-day census, it is unclear how many people travel to the station by bicycle. All trains serving the station can accommodate wheelchairs and bicycles.

Littleport station is located over 600m from the edge of Littleport village proper. Station users walking to and from the station will benefit from the entrance to the up platform being located closer to Station Road. There is a bus route which stops at the station on Station Road, and the proposal will similarly bring access to the up platform closer to Station Road. Limited car parking availability contributes to 'kiss and ride' passengers being dropped off at the station, and the change of access to the up platform may lead to different waiting practices, which should be monitored by the station management team.

The map below shows local amenities.

[4] Including white Irish, Gypsy and Irish travellers and other white ethnic populations.
[5] East Cambridgeshire District Council: http://pa.eastcambs.gov.uk/online-applications/applicationDetails.do?activeTab=documents&keyVal=MZCLJJGG07G00.

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Step 3: Impact

Q4. Given the evidence listed at step 2, what potentially negative impacts could this work have on people with protected characteristics?

The below table assesses the impact of the proposed work at Littleport station level crossing on the protected characteristic groups as outlined in the Equality Act 2010 (disability, age, pregnancy / maternity, race, religion / belief, gender, sexual orientation, marriage / civil partnership and gender reassignment).

Protected Characteristic		Explain the potential negative impact
Disability	Y	The permanent closure of Littleport station level crossing will remove pedestrian access at this point, potentially resulting in disproportionate impacts on disabled people (including people with mobility, sensory and respiratory conditions) compared to non-disabled people. **Permanent increased walking distance due to length of diversions** Increases in walking distances, as a result of the permanent diversion route, are likely to disproportionately impact upon some disabled people. Disabled people are more likely to have difficulties walking long distances and many experience pain in doing so. Studies have shown 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.[6] The proposed diversion route via the Station Road underpass would add 160m, (this refers to those using the station car park and wishing to access the opposite platform – platform one), to the route for people using the existing station car park and wishing to access platform one, potentially adversely impacting some disabled people who may struggle with the increased distance. Stakeholders raised concerns about the additional length of the permanent diversion route and its manageability for disabled people. However, to help mitigate this impact, it is proposed that new disabled parking will be created on the eastern side of the track. Ticket machines will also be provided on both platforms, removing the need to cross the railway line to get a ticket. Adverse impacts on walking distances will therefore only be experienced by disabled people who are unable to find a parking space in the new parking area. It is also noted that for users travelling to the eastern platform on foot from Littleport, distance would be reduced as access will be closer to the village. **Potential impacts on pedestrian accessibility due to suitability of diversion routes**

[6] Department for Transport (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'.

		Even when routes are free from obstacles such as steps, as is the case with the underpass and new ramp, diversions involving gradients can act as a barrier for disabled people. Underpasses and ramps can be difficult for disabled people unless they are designed with accessibility for the disabled in mind.[7] Steep gradients can be challenging to manage for those in wheelchairs or mobility scooters (two of which were recorded using Littleport station underpass during the survey period). Gradients can act as a barrier for those with sight and mobility impairments, and can make routes difficult to manage for those in wheelchairs.[8] Studies suggest that gradients steeper than 2.5% can be impossible for many manual wheelchair users to manage. [9] As such, in order to comply with the Equality Act 2010, a gradient of no more than 5% (1 in 20) is required.[10] The Department for Transport (DfT) also states that underpasses should be as wide as possible to give sufficient room for disabled users, and ensure a sense of security. The current underpass is approximately 4.5 metres wide (subject to confirmation at detailed design). The existing headroom for vehicles is 2.5 metres (as indicated on the existing signage on-site). The DfT recommends that to achieve inclusive mobility for new or enhanced underpass infrastructure, designers should aspire to a width of at least 4.8 metres and a headroom of 3 metres, or as close to these parameters as reasonably practicable / deliverable. Within the underpass, handrails set at 1000mm above the walking surface should be provided on both sides. There should be a clear view from one end to the other and a good level of lighting. CCTV cameras should also be placed in underpasses to enhance security. Notices to the effect that CCTV is in operation should deter vandals and provide a measure of comfort to pedestrians.[11] **Permanent improved user safety due to reduced interaction with the railway and diversion route improvements** Safety issues related to level crossings can disproportionately impact disabled people. Crossing speeds are likely to be slower for people with disabilities and level crossings often require users to negotiate physical challenges related to 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.[12] People with visual or hearing impairments can also have difficulties crossing safely, due to not being able to pick up on the variety of visual and audible

[8] Department for Transport (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'.
[9] Department for Transport (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'.
[10] Transport Scotland (2013): 'Roads for All: Good Practice Guide for Roads'.
[11] Department for Transport (2005): 'Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'.
[12] Rail Safety and Standards Board (2011): 'Research Programme: Operations and Management - Improving safety and accessibility at level crossings for disabled pedestrians'.

		warning messages at level crossings.[13] Whilst use of the Littleport station level crossing by disabled people may be minimal, reduced interaction with the railway means potentially reduced crossing risk for this group. In the case of the proposed diversion via the underpass, stakeholders raised concerns regarding the shared use of the underpass with vehicles. The nine-day census of the underpass indicated that there were two occasions when a scooter was documented using the underpass, whilst 3940 cars used the underpass during the survey period. It is also noted that in the period 2008-2016, there have been 16 incidents of vehicles colliding with the deck of the underpass. The proposals include provision to close the underpass to all vehicles – improving safety and helping to ensure that disabled people are not deterred from using the new route. Concerns were also raised regarding the general maintenance of the underpass, including the uneven surface and poor lighting. The work at Littleport level crossing should incorporate plans to improve the whole underpass to ensure pedestrian safety and perceptions of pedestrian safety are improved.
Age	Y	The permanent closure of Littleport station level crossing will remove pedestrian access at this point, potentially having a disproportionate impact on certain age groups – namely children and older people – compared to the general population. **<u>Children</u>** **Permanent improved user safety due to reduced interaction with the railway** Safety issues related to level crossings disproportionately impact children. This is due to their potentially slower walking speeds and because children and younger people can have difficulties correctly processing the speed of oncoming vehicles. Research conducted on behalf of the House of Commons Transport Select Committee, showed that children perceived vehicles moving towards them at more than 20 mph as stationary.[14] As such, reduced interaction with the railway (due to the use of a safe diversion as an alternative) is likely to lead to significantly reduced crossing risk for this group. Due to the lack of pedestrian footpaths along part of the diversion route, safety benefits associated with the closure of the level crossing may be reduced by the need for pedestrians to walk in the carriageway when using the underpass. It is also noted that in the period 2008-2016, there have been 16 incidents of vehicles colliding with the deck of the underpass. However, plans for the closure include the pedestrianisation of the underpass which would remove this issue.

[13] Rail Safety and Standards Board (2011): 'Research Programme: Operations and Management - Improving safety and accessibility at level crossings for disabled pedestrians'.
[14] House of Commons Transport Committee (2014): 'Safety at level crossings: Eleventh Report of Session 2013–14'.

		<u>Older people</u> **Permanent increased walking distance due to length of diversions** Increases in walking distances, as a result of the closure of Littleport station level crossing and the permanent use of the diversion route, are likely to disproportionately impact older people compared to the general population. The proposed diversion routes would increase walking distances by 160m, (this refers to those using the station car park and wishing to access the opposite platform – platform one), potentially adversely impacting older people who approach the station from the western side of the railway line and need to access the opposite platform (platform one). Older people are more likely to experience conditions such as arthritis or weak muscles, meaning that they typically walk slower, get tired more easily and struggle to climb stairs.[15] Therefore, increased walking distances as a result of the diversion could disproportionately impact older people with mobility issues, as these people are more likely to have difficulties walking long distances and experience pain or discomfort in doing so.[16] It is noted though that for users travelling to the eastern platform on foot from Littleport, distance would be reduced as access will be closer to the village. **Permanent reduced pedestrian accessibility due to nature of diversion routes** Older people are more likely than other sections of the population to have mobility impairments and therefore require accessible infrastructure. [17] While the proposed diversion route makes use of the nearby underpass, it could potentially reduce pedestrian accessibility on account of the gradients along the routes. Like disabled people, older people are more likely to require accessible infrastructure that other sections of the general population. NHS data indicates that 62% of fatal falls in those aged 65 and over are on or from stairs or steps.[18] Slopes and gradients can act as a barrier for older people, and can make routes more challenging to manage for those who are frail (even when designed to accessible standard specifications). The scheme could therefore result in potentially reduced pedestrian accessibility due to gradient of the route – particularly the new ramp. Studies suggest that gradients steeper than 2.5% can be impossible for many manual wheelchair users to manage.[19] As such, to comply

[15] NHS (2014): 'Safe, compassionate care for frail older people using an integrated care pathway'.
[16] Department for Transport (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'.
[17] Highways Agency: 'Design Manual for Roads and Bridges – Assessment and Preparation of Road Schemes'.
[18] Health Promotion England: 'Older people and accidents'.
[19] Department for Transport (2005): 'Inclusive mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure'

with accessibility guidelines, a gradient of no more than 5% (1 in 20) is preferred, with the absolute maximum allowance being 8% (1 in 12). Gradients exceeding this are to be designed as ramps, requiring the provision of more frequent landings the steeper the incline. [20] This are set out in the table below:

Gradient	Maximum Length	Maximum Rise
1 in 20 (5%)	10m	500mm
1 in 15 (7%)	5m	333mm
1 in 12 (8%)	2m	166mm
More than 1 in 12 (>8%)	Not permitted	Not permitted

The existing gradient on the approach to and departure from the underpass on either side is approximately 1 in 30 (3%), which is well within the DfT guidelines outlined in the table above.

Adapting the alternative route to meet DfT standards (as outlined above) should mitigate some of the negative impacts arising from the route.

Permanent improved user safety due to reduced interaction with the railway

Safety issues related to level crossings disproportionately impact older people, due to their potentially slower walking speeds. 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 1.2m/s[21]), placing them at greater risk. Older people are also particularly at risk as their field of vision declines over time, making them more vulnerable to moving vehicles. Studies have shown that this can be at a rate of 1° and 3° per decade.[22]

Whilst user data of the level crossing within Littleport station is currently unavailable, reduced interaction with the railway means potentially reduced crossing risk for this group.

Stakeholders also raised concerns regarding the suitability of the underpass as a diversion route – including its width and state of repair.

The proposals for Littleport station include provision to close the underpass to all vehicles – improving safety and helping to ensure that older people are not deterred from using the new route. This should be designed to meet standards outlined in the Equality Act 2010.

As with disabled people, the lack of pedestrian footpaths along part of the diversion route (potentially limiting the safety benefits of the

[20] Transport Scotland (2013): 'Roads for All: Good Practice Guide for Roads'.
[21] 1.2 m/s 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.
[22] House of Commons Transport Committee (2014): 'Safety at level crossings: Eleventh Report of Session 2013–14'.

		closure) will be mitigated through the pedestrianisation of the underpass along the diversion route. As noted above, the project provides an opportunity to implement improvement measures along the underpass, improving safety along the route for older people.
Pregnancy / maternity	Y	**Permanent reduced pedestrian accessibility due to the nature of the diversion routes** Inaccessible infrastructure can disproportionately impact upon people with pushchairs. Underpasses and ramps can be difficult for this user group unless they are designed with accessibility for people with pushchairs / prams in mind.[23] Steep gradients can be challenging to manage for those with pushchairs / prams. As discussed above, standards are in place to ensure that gradients do not exceed appropriate levels. The gradient of the underpass is is 1:30, placing it well within the DfT's guidance for accessibility. The proposals for Littleport station include provision to close the underpass to all vehicles – improving safety and helping to ensure that people with pushchairs / prams are not deterred from using the new route. This should be designed to meet standards outlined in the Equality Act 2010.
Race	N	No disproportionate impacts are anticipated for this protected characteristic because of the project.
Religion or belief	N	No disproportionate impacts are anticipated for this protected characteristic because of the project.
Gender	Y	**Improved user safety due to reduced interaction with the railway** Safety issues related to level crossings can disproportionately impact men. Male pedestrians dominate accidents at level crossings, associated with 70% of all train strikes. Given that males represent approximately 50% of the population as a whole, this would suggest male pedestrians are more at risk at level crossings than female pedestrians.[24] Reduced interaction with the railway (due to the diversion to the underpass) would lead to reduced crossing risk for men. As noted above, the lack of pedestrian footpaths along part of the diversion route may potentially limit the safety benefits of the level crossing closure, however there are plans to mitigate these effects through the pedestrianisation of the underpass along the diversion route.
Sexual orientation	N	No disproportionate impacts are anticipated for this protected characteristic because of the project.

[24] Rail Safety and Standards Board (2011): 'Research Programme: Operations and Management - Improving safety and accessibility at level crossings for disabled pedestrians'.

Marriage/Civil Partnership	N	No disproportionate impacts are anticipated for this protected characteristic because of the project.
Gender reassignment	N	No disproportionate impacts are anticipated for this protected characteristic because of the project.

Q5. What could you do to ensure your work has a positive impact on diversity and inclusion including by supporting delivery of the Everyone Strategy.

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

- Commitment 1: Get everyone home safe every day.
  Improving the safety of level crossings reduces the risk of crossing the railway for all users. The project will help to improve safety for rail users by reducing interaction with the railway through safe diversionary route.
- Commitment 2: Deliver reliable infrastructure.
  The project will help to deliver more reliable infrastructure by reducing the assets along the network requiring maintenance and management.
- Commitment 6: Being a customer focused organisation.
  The project will help to improve the safety of journeys for infrastructure users through, among other things, use of customer engagement and stakeholder involvements in the planning process.
- Commitment 9: A railway fit for the future.
  The project helps to deliver an inclusive and accessible railway that links people to communities, education and jobs – ultimately delivering economic growth. The project helps to deliver required improvements and rationalisation to ensure network infrastructure is fit for future use.

Step 4: Consultation

Q6. How has consultation with those who share a protected characteristic informed your work?

List the groups you have consulted or reference previous relevant consultation?[25]	What issues were raised in relation to one or many of the protected characteristics?
Public consultation – round 1 (June 2016)	Questionnaire responses received during the first round of public consultation identified the following comments / issues regarding the proposals for Littleport station level crossing: • A request was made to ensure that the underpass is fully pedestrian friendly. • Flooding is a very common occurrence. • Some responses supported the proposals as it stops people rushing across the level crossing when the train arrives. • Concerns were raised about the general maintenance of the underpass.

[25] This could include our staff networks, the Built Environment Access Panel, local faith leaders etc.

	• Concerns were also raised about the shared use of the tunnel with vehicles. • The proposals could lead to potentially long queues when the gates are closed to trains. • The lighting would need upgrading. • Concerns were expressed regarding the added length of the diversion route especially for those with disabilities. • Extra car and cycle parking would be required. • A second ticket machine is required on the southbound side of the railway. • Several requests were made for a tunnel under the station.
Public consultation – round 2 (September 2016)	Questionnaire responses received during the second round of public consultation identified the following comments / issues (as outlined below) regarding the proposals for Littleport station level crossing.
Parish and District Council	• Raised concerns that Parish and District Council views have been ignored, for example the request for a footbridge and request for increased parking provision on the southbound platform. • The proposal has also not taken into consideration pedestrian / cyclist safety. • Network Rail has also not worked with other parties to give due consideration to long term expansion of the town.
Littleport Parish Council	• Request was received to widen the underpass
Other local stakeholder (not specified)	• Disagreement over the closing of the underpass to vehicles. • Agreement though that the crossing of the lines is extremely dangerous and needed to be stopped. • Pedestrian access and disabled parking on the southbound platform is essential. • A bridge over the railway lines for pedestrians should be reconsidered and not solely discounted due to cost.
Ramblers South East Cambridgeshire	• Network Rail must ensure that the underpass is maintained in a safe, secure and welcoming condition for pedestrians, including lighting and regular inspections / maintenance.
Public response	• The level crossing is regularly miss-used so supported the proposals to make the “up platform” accessible directly from the road. • Converting the underpass to pedestrian-only is also a welcome bonus – although flooding issues would need to be resolved. • The pedestrianised underpass should have kerbs and bollards and footways installed.

Q7. Where relevant, record any consultation you have had with Network Rail teams who are delivering work that might overlap with yours. This will ensure that our solutions are joined up.

N/A

Step 5: Informed decision-making

Q8. In light of the assessment above, what is your decision?
Please tick one box and provide a rationale (for most DIAs this will be box 1).

1. Change the work to mitigate against potential negative impacts found	
2. Continue the work because no potential negative impacts found	
3. Justify and continue the work despite negative impacts (please provide justification)	✓ Due to the relatively short diversion route and proposed diversion route improvements, closure and redirection to the underpass and new ramp is considered an appropriate solution.
4. Stop the work because discrimination is unjustifiable and no obvious ways to mitigate	

Step 6: Action planning

Q9. What specific actions will be taken to deliver positive impacts and address any potentially negative impacts identified at step 3 or through consultation?

Action	By when	By who
Ensure that the underpass is pedestrianised to mitigate any negative implications. The Department for Transport (DfT) also states that underpasses should be as wide as possible to give sufficient room for disabled users, and ensure a sense of security. The DfT recommends that to achieve inclusive mobility for new or enhanced underpass infrastructure, designers should aspire to a width of at least 4.8 metres and a headroom of 3 metres, or as close to these parameters as reasonably practicable / deliverable. These recommendations will be considered during the detailed design stage. Within the underpass, handrails set at 1000mm above the walking surface should be provided on both sides. There should be a clear view from one end to the other and a good level of lighting. CCTV cameras should also be placed in underpasses to enhance security. Notices to the effect that CCTV is in operation should deter vandals and provide a measure of comfort to pedestrians.	Detailed design	Network Rail project team
Improvements should also be made to disabled parking and ticket machines at the station.	Detailed design	Network Rail project team
Develop a communication strategy to ensure that local residents and station users are kept abreast of developments, including scheduling of works, details of enhancements and improvements, and any other benefits of the scheme, particularly focussing on user safety.	Ongoing	Network Rail project team
Review the DIA at every GRIP stage to ensure equality of access is maintained for all.	**Ongoing**	**Network Rail project team**

Step 7: Sign off

Name	Position	Signed	Date
Superuser[26]	LNM	Steve Day	23/10/2017
Senior Manager[27]	HORSHE	[illegible]	20/11/17

If you don't have a local superuser please send your DIA for quality assurance to DiversityImpactAssessment@networkrail.co.uk

To help us respond more quickly please make sure you have;

1. Sent your DIA as a Word document not a PDF
2. Used this naming convention '**Name of project-Draft DIA**'
3. Used the correct DIA form with no additional pages e.g. 'not for circulation cover-sheets'
4. Included any relevant maps / diagrams needed to understand your project
5. Completed all sections of the DIA in line with guidance and training

Step 8: Publication

Send your final DIAs to DiversityImpactAssessment@networkrail.co.uk. Customer related DIAs will be published on our website.

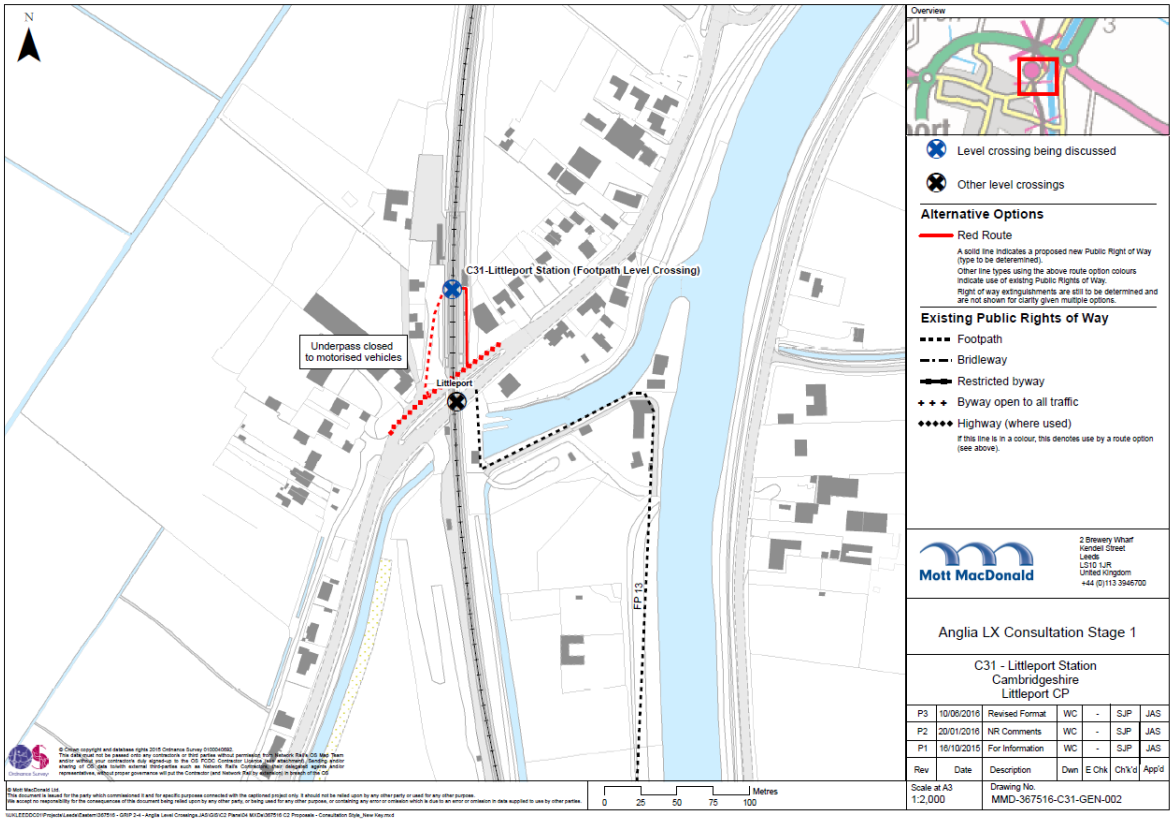
[26] Quality assurance check.

[27] Sign-off should be by someone who can approve policy, programme or budget changes.

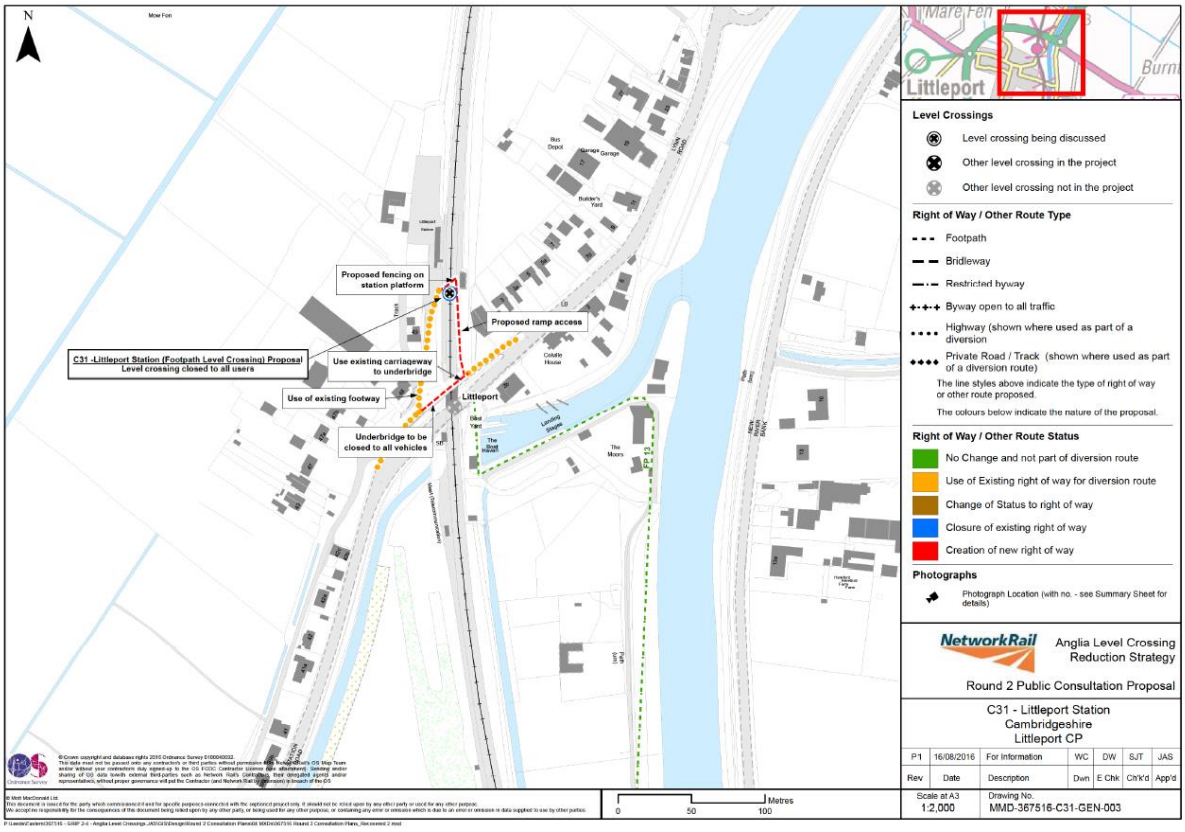
Appendix A: Site photographs

Appendix B: Site drawings

Round 1 consultation (June 2016) – Proposed diversion route (initial option)



Round 2 consultation – preferred option (at the time, September 2016)



Appendix C: Nine-day pedestrian census report

Summary

The survey was successfully completed in accordance with Network Rail specification. The data is summarised below:

Littleport Station underpass - pedestrian census

		Combined			
		Horse riders	Wheeling bicycle	Pushing bicycle	Total
Saturday	18/06/2016	0	0	0	0
Sunday	19/06/2016	0	0	0	0
Monday	20/06/2016	0	0	0	0
Tuesday	21/06/2016	0	10	0	10
Wednesday	22/06/2016	0	11	0	11
Thursday	23/06/2016	0	9	0	9
Friday	24/06/2016	0	10	0	10
Saturday	25/06/2016	0	5	0	5
Sunday	26/06/2016	0	17	0	17
		0	62	0	62

Direction:	Combined									
	Adult	Accompanied Child	Unaccompanied Child	Elderly	Impaired	Wheelchair	Pushchair/ Pram	Scooter	Railway Personnel	Total
	56	3	0	0	0	0	1	0	0	60
	47	6	0	0	0	0	5	0	0	58
	63	1	0	0	0	0	0	0	0	64
	78	0	0	0	0	0	0	2	0	80
	77	0	0	0	0	0	0	0	0	77
	92	0	0	0	0	0	2	0	0	94
	71	0	0	0	0	0	0	0	1	72
	29	1	0	0	0	0	0	0	0	30
	29	0	0	0	0	0	0	0	0	29
	542	11	0	0	0	0	8	2	1	564

Littleport Station underpass – vehicular census

3267-LON		Mott MacDonald																
		Saturday 18th - Sunday 26th June 2016									Posted Speed Limit (PSL)		110%(PSL) + 2 (SL1)		DfT PSL+15 (SL2)			
Site	Location	Exact	Direction	Start Date	End Date	Posted Speed Limit (PSL)	Total Vehicles	5 Day Ave.	Ave. Day	>PSL	>PSL%	>SL1	>SL1%	>SL2	>SL2%	Mean Speed	85%ile Speed
Site AC25 - Littleport Station underpass	attached to the road sign east of the underpass entrance	52°.46167 N, 0°.3164779 S	Eastbound	18 June 2016	26 June 2016	30	1926	255	213	174	9.0	31	1.6	4	0.2	22.9	27.6
	attached to the road sign east of the underpass entrance	52°.46167 N, 0°.3164779 S	Westbound	18 June 2016	26 June 2016		2014	274	224	91	4.5	20	1.0	0	0.0	20.1	24.5

Diversity Impact Assessment

Supplemental information for C31 Littleport Station: closure of station private access level crossing

Planning Permission

Since the attached Diversity Impact Assessment was prepared, planning permission for expansion of the council-owned station car park by 80 spaces has been granted (application reference 16/01729/F3M). This application includes provision of a 1.2m wide footway under the underpass, whilst still leaving the underpass open to vehicles with a 3.0m road width. This proposal is to mitigate against increasing traffic generated by the new car parking spaces, and has not had regard to possible usage of the underpass for access to the up platform in lieu of the station private access level crossing.

Network Rail considers that closure of the underpass to vehicles is the more appropriate solution, with the displaced vehicles being diverted to the current manually operated public road level crossing immediately adjacent. Separating pedestrians from motor vehicles has the potential to improve safety and inclusion, and will additionally eliminate the risk of vehicular collision with the underbridge. A 1.2m footway with traffic alongside may also not be of sufficient width for 2 wheelchair users of pushchair users to pass comfortably.

The impact on traffic as a result of closure of the underpass to vehicles has been assessed and no issues have been identified.

Gradients

For clarity, the current and proposed gradients presented to users of the station are outlined below:

The access ramp from the station car park to the down platform is built at a gradient of 1:20. This will continue to be the access to the down platform if the proposals proceed.

Passengers accessing the up platform must presently walk to the end of the down platform, then down the platform end ramp with a gradient of 1:12 to the station private access level crossing. The ramp to the up platform from the level crossing has a gradient of 1:11.

If the proposals proceed, users of the up platform will cross the railway via the underbridge, which has a gradient of 1:30, then along a new ramp on the east side of the railway, which will have a gradient of 1:20. This will eliminate the steeper 1:11/1:12 gradients on the platform end ramps, thus improving accessibility.