

11 Pedestrians, Cyclists, Equestrians and Community Effects

11.1 Introduction

This section provides an assessment of the potential impacts, with respect to pedestrians, cyclists, equestrians and other community effects (referred to as 'pedestrians and others'). In addition to these users, this section also assesses the impacts on vehicle users utilising the local road network to access facilities in the area.

As stated within the DMRB Volume 11, Environmental Assessment, the main effects from road improvement schemes are likely to be community severance, changes to journey lengths and changes to travel patterns within the local community.

11.2 Methods

11.2.1 Baseline Methods

The assessment of the impacts upon pedestrians and others has been completed in accordance with the requirements of Part 8, Section 3, Volume 11 of the DMRB. In addition, information has been obtained from the following sources:

- Consultation with relevant authorities including SBC, British Horse Society, Cyclists' Touring Club and Sustrans Scotland.
- A site walkover of the route of the proposed scheme.
- SBC Structure Plan 2001 – 2011
- SBC Ettrick and Lauderdale Local Plan 1995.
- A68 Route Action Plan, published in 1997 by SBC.
- A68 traffic survey information provided by SiAS. (Survey undertaken Thursday 29 April 2004)
- Manual Oxton traffic counts undertaken by SBC (Tuesday 6 September 2005).
- Various Automatic Traffic counts undertaken by SBC (14 - 18 March 2005, 28 February - 3 March 2006, 29 May – 3 June 2006, and 5 - 9 and 19 - 23 June 2006)
- Cycle Audit, SBC, June 2000.
- Consultation with Oxton & Channelkirk Community Council and local residents.

11.2.2 Impact Assessment Methods

Based on the use of an area by pedestrians and others and following the criteria in Table 11.1 below, the value of a site can be assessed as being of high, medium or low value. An assessment of the magnitude of the effect is then made using Table 11.2 below. Using these two values, an overall impact significance can be made using the matrix in Table 11.3 below.

The criterion for vehicle journeys is not contained in the DMRB but has been developed based on professional judgment to allow an assessment to be carried out.

Table 11.1. Value of the Area to Pedestrians and Others.

Value	Criteria
High	Presence of formal or nationally important footpaths / cycleways or Rights of Way or many locally important paths / accesses highly valued and considered susceptible to relatively small changes. No alternative route available and all vehicular journeys on the local road network will be affected.
Medium	Presence of several formal/informal paths/accesses considered important to users but reasonably tolerant of change. Alternative route available and a significant number of vehicular journeys on the local road network will be affected.
Low	Presence of few informal paths/accesses considered potentially tolerant of substantial change. Alternative route available and only a small number of vehicular journeys on the local road network will be affected.

Table 11.2. Magnitude of Impact upon Pedestrians and Others.

Magnitude	Criteria
Major	A major loss or alteration to the use by pedestrians and others such that post-development character will be fundamentally changed. Alternative route is a significant detour and will add substantially to vehicular journey times on the local road network.
Moderate	A loss or alteration to the baseline conditions of use by pedestrians and others such that the post-development character will be significantly changed. Alternative route is a significant detour and will add moderately to vehicular journey times on the local road network.
Slight	A detectable change from baseline conditions. Change arising from the alteration will be measurable but will not significantly alter the use by pedestrians and others from pre-construction conditions. Alternative route is a slight detour but will not add significantly to vehicular journey times on the local road network.
Negligible	Not expected to affect pedestrians and others in any measurable way, therefore no effects are predicted. No significant detour or increase in vehicular journey times on the local road network.

Table 11.3. Overall Impact Significance for Pedestrians and Others

Value	Magnitude of Impact			
	Major	Moderate	Slight	Negligible
High	Major	Major	Moderate	Slight
Medium	Major	Moderate	Slight	Negligible
Low	Moderate	Slight	Negligible	Negligible

11.3 Baseline Conditions

11.3.1 Pedestrian Use

The majority of the A68 within the route corridor has no adjacent footways. Within the study area there is only one short section of footway on the west side of the road (from the C84 Oxton junction to approximately 150m further south), providing access to a bus lay-by for northbound buses. This footway also provides access to a bus lay-by for southbound buses, which is 30m south of the C84 junction, (see Figure 11.1).

There are no formal footpaths or informal paths / tracks in the vicinity of the proposed scheme.

The only Claimed Right of Way in the area is from Inchkeith to Main Street in Oxton, to the south west of the study area. Inchkeith is situated approximately 5km south of Oxton. This Right of Way will not be affected by the proposed scheme. Its location is shown on Figure 11.1.

There is currently an initiative to provide a walkway / cycleway along the line of the disused railway between Lauder and Oxton. This is being organised and funded by SNH and Borders Paths, which is a partnership organisation including SBC and Scottish Borders Enterprise. A Lauderdale Paths Group has been formed to provide a local community input. The A68 Route Action Plan published in 1997 (RAP) recommended provision of a separate route for pedestrians, cyclists and equestrians. The RAP suggested that there was potential to provide a separate route for pedestrians / cyclists over most of the length A68 without the need for significant engineering works and indicated the location of the footway / cycleway proposals.

The A68 RAP proposed a dedicated pedestrian / cycle route over Soutra Hill, which would link the local road networks between the Lothians and Borders. The footway / cycle route is shown in Figure 11.1. This shows that the footway / cycleway would utilise the dismantled railway line between Lauder and Oxton, the local road network (C83 and D47/5) between Oxton and the "King's Road" that follows the line of the A68 from the D47/5, northwards over Soutra Hill.

The A68 RAP considered proposals for pedestrian facilities, which are part of the Accident Prevention Strategy (APS). The report concluded that provision of a separate route for pedestrians; cyclists and equestrians would benefit those users and vehicle

drivers and would improve road safety.

No detailed information is available on the number of pedestrians using or crossing the A68, however, it is predicted that there will be relatively few. The main crossing points are likely to be at the C83 / D47/5 junction and also the C84 junction where pedestrians could cross to access the bus stop to the north-east of the A68. All bus services currently enter Oxton itself to drop off and / or pick up passengers so this will further reduce the number of pedestrians using or crossing the A68.

SBC has indicated in the past that, due to the volume and mix of traffic, the A68 trunk road is not considered as a route suitable for pedestrians. The value of the area with respect to pedestrian use is considered to be **low**.

11.3.2 Cyclists Use

There are no formal cycleways or informal cycle paths or tracks in the vicinity of the proposed scheme. The Cyclists' Touring Club (CTC) Scotland has indicated that it would be very unusual for any CTC group to ride along the A68 for any distance.

No detailed information is available on the number of cyclists using or crossing the A68, however, it is predicted that there will be very few.

SBC undertook a study into the provision for cycling in the Scottish Borders. This study was completed in March 2000 and produced the Border Cycle Network Study, Preliminary Report. The study determined that segregated cycling facilities should be provided between the local road network in Lauderdale at Annfield (C83 Kirktonhill) and the local road network in Midlothian at Soutra Mains junction (A6137 Haddington) which lies on the A68 approximately 6km further north of the scheme. This was seen as a longer distance leisure / tourist link leading out of the Borders and was placed in Category 4, which is low priority. A Cycle Audit was carried out for the WS2+1 Soutra Hill evaluation scheme in June 2000 by SBC. This audit found that there were very few cyclists using the area and it was therefore not seen as a potential cycle route at that time. It was however anticipated that segregated facilities would be provided in the future utilising the King's Road to link the local road networks on either side of Soutra Hill.

The value of the area with respect to cyclist use is considered to be **low**.

11.3.3 Equestrian Use

The British Horse Society has advised that, as the A68 is a major busy trunk route, they would not advocate any horses and riders crossing or riding on it unless in unavoidable circumstances. They also advise that they are not aware of any rides that cross the A68 in the vicinity of the proposed scheme. Therefore, the only anticipated equestrian journeys in this area will be local horse owners around the Oxton area. There are no special measures currently in place for equestrian users in the vicinity of the A68.

No detailed information is available on the number of equestrian journeys crossing the A68, however, it is predicted that there will be very few if any at all.

The value of the area with respect to equestrian use is considered to be **low**.

11.3.4 Community Use

There are no facilities used by the local community within or adjacent to the proposed scheme, apart from the bus lay-bys at the C84/A68 Junction. The buses currently run on an hourly service, they enter Oxton and turn at the cul-de-sac, which is situated to the west of the crossroads. There is a bus stop within the village of Oxton, near the local shop. Munros are currently contracted to provide the bus service and they have indicated that in the past when buses did not turn into Oxton very few people used the lay-bys on the A68 as it meant walking from Oxton along the C84.

There is a single set of rugby posts in the field to the north west of Riggsyde; however these are owned by Riggsyde and are for private use.

The nearest public facilities are located within the village of Oxton to the west of the scheme and Carfraemill to the south. These facilities include a hotel, a shop/post office, a primary school, a part time clinic and a small number of other commercial premises within Oxton and the Carfraemill Lodge at Carfraemill. There are no hospitals or aged persons' homes in the area.

No new developments are proposed within the scheme limits at this time.

The value of the general area with respect to community use is considered to be **low**, and the value with respect to Oxton village itself is considered to be **medium**.

11.3.5 Vehicle Journeys on the Local Road Network

There is one private vehicular access onto the A68 from the residential property known as Riggsyde and there are eleven agriculture accesses onto the A68 via field gates. Two farms in the area use existing field gates to take stock across the A68, namely Carfrae and Netherhowden. Further details are explained in Chapter 7 (Land Use).

The existing arrangement of the C83 and D47/5 allows the small number of residents to the east of the A68 direct vehicular access the village of Oxton. Similarly, the residents in the Carfraemill area can gain vehicle access to Oxton via the A697, the A68 and the C84. Local residents can also gain easy northbound or southbound access to the A68 from the study area. The existing Annual Average Daily Traffic (AADT) flow for the C84 is 604 vehicles, C83 is 187 vehicles and the D47/5 is 73 vehicles (2004 figures).

Channelkirk Primary School in Oxton includes Carfrae within its catchment area. This results in traffic crossing the A68 for the morning and afternoon school runs. A traffic survey was carried out on the 29th April 2004 and covered the period from 06:00 to

19:00. The thirteen hour counts were factored to AADT. On average 22 vehicles a day carry out crossing manoeuvres at this junction. If the D47/5 road was to be closed for any reason, alternative access to Oxton would be via the D47/5 towards Carfraemill and then onto the A697, the A68 and finally the C84. Similarly, if the C83 junction was closed, an alternative route via Oxton and the C84 is available.

In terms of Oxton village and the surrounding area a further 13-hour manual traffic survey was carried out on Tuesday 6th September 2005 between 6am and 7pm. This revealed that existing 13 hour traffic flows on Station road through Oxton are 579 vehicles (approx. 665 AADT). This equates to a one way flow of around 290 vehicles or 22 vehicles an hour if you assume a 50-50 split.

Further automatic traffic counter surveys were also undertaken in and around the village and these recorded similar figures, indicating that the flows obtained during the manual count were representative of a typical day. These traffic flows are as expected for a village of this size and nature.

The value of the area with respect to vehicle journeys is considered to be **low**.

11.4 Assessment of Impacts

11.4.1 Pedestrian Use

The level of pedestrian use on and adjacent to the A68 is anticipated to be very low. Pedestrian use in and around Oxton is expected to be high.

The scheme will involve the stopping up of the existing C83 junction and the realignment of the D47/5 junction as shown in Figure 11.2. To allow the safe passage of pedestrians in this area, an underpass is to be installed to link the existing C83 and the D47/5 side roads. Cyclists and equestrians will also be able to use the underpass to safely cross from one side of the A68 to the other.

In addition to the provision of the underpass, the section of the C83, between the A68 and the D1/5 junction, will be re-classified as a footway / cycleway / equestrian way, with access available for utility vehicles and the local farmer.

Away from the A68, the provision of the proposed new side road, as shown in Figures 2.1b and 2.1c, along with the resultant reduction in traffic on the existing C83 side road, will provide alternative more pleasant / safer routes for pedestrians.

The provision of the underpass, together with the re-classified section of the C83 and the new side road is considered to provide a moderate beneficial impact magnitude. Combined with the site's low value in terms of pedestrians, the overall impact is considered to be of **slight beneficial significance**.

Furthermore the inclusion of the underpass linking the existing C83 to the D47/5, and the new side road, may encourage additional pedestrian journeys. This will contribute

to a more sustainable system of travel locally.

11.4.2 Cyclists Use

The level of cyclist use in the study area is anticipated to be very low. CTC has suggested that access provision is made for cyclists onto the A68 at the junction of the C83 and D47/5. As discussed in section 11.4.1 above, an underpass is to be installed to link the C83 and the D47/5, which will allow cyclists to safely cross beneath the A68. In addition, the proposed underpass in combination with the realigned D47/5 will provide cyclists with access to the A68. Details of these proposed alterations are shown in Figure 11.2. Similar to the potential benefits experienced by pedestrians, the provision of the underpass, together with the re-classified section of the C83 and the new side road is considered to provide a moderate beneficial impact magnitude. Combined with the site's low value in terms of cycling, the overall impact is considered to be of **slight beneficial significance**.

The proposed scheme would provide 1 metre hard strips either side of the road. Although these do not provide a formal dedicated cyclist route they would represent an improvement on the existing conditions where cyclists share carriageway space with all other vehicles on a 7.3 metre wide kerbed road. For the occasional cyclists using the A68 it is considered that 1 metre hard strips would provide a moderate beneficial impact. Combined with the site's low value in terms of cycling, the overall impact is considered to be of **slight beneficial significance**.

The inclusion of an underpass from the C83 to the D47/5, and the new side road, may encourage additional cycling journeys in this area. This will contribute to more sustainable methods of travel locally and will be of more significance if the outcomes of the Border Cycle Network Study are implemented.

11.4.3 Equestrian Use

The only anticipated equestrian journeys in this area will be local horse owners around the Oxton area. A pedestrian / cyclist / equestrian underpass is proposed to link the existing C83 and D47/5 side roads. It is proposed to provide an unsegregated underpass 4.0 metres wide by 2.7 metres high in accordance with TD 36/93 Subways for Pedestrians and Pedal Cyclists – Layout and Dimensions.

Due to the constraints in the area (i.e. existing water table, Headshaw Burn and the Annfield bridge beneath the D47/5), 2.7m high is the maximum height that can be provided. However installing an underpass of this height will make it suitable for equestrians, although they will have to dismount and lead their horses through the structure. Facilities for riders to dismount and remount will be provided and signs will be erected to inform them of this requirement.

The height of 2.7m is a recognised figure and is referred to in the above mentioned TD36/93. It is also mentioned in TA 57/87, which is referred to in the British Horse Society's Advisory Statement No. 13, Horse Crossings and in Appendix 2 of the

Advisory Statement itself.

The underpass, along with the reduced traffic flows on the C83 side road, is considered to provide a moderate beneficial impact. Combined with the site's low value in terms of equestrians, the overall impact is considered to be of **slight beneficial significance**.

11.4.4 Community Use

As part of the proposed scheme it is intended to remove the bus lay-bys on the A68 to prevent buses from stopping within the proposed changeover section. As mentioned in section 11.3.4 the buses run on an hourly service, all the buses enter Oxton, turn and access the bus stop near the shop. The removal of the bus lay-bys is considered to pose a slight adverse impact. Combined with the site's low value in terms of community use, the overall impact is considered to be of **negligible adverse significance**.

It is proposed to stop up the C83 Kirktonhill road at its junction with the A68. This will result in all traffic accessing the three farms, the church and around 17 residential properties to the northwest of Oxton having to use the C84 junction. However to avoid this traffic having to travel along the C83 and through Oxton, it is proposed to provide a new side road linking the C83, from its junction with the D1/5, to the C84, approximately 40m south of its junction with the A68.

Using traffic figures from the survey undertaken on the 6th September 2005 (which included registration matching), the predicted changes in traffic flows in and around Oxton have been estimated. The predicted 13 hour traffic flow on Station Road is estimated to be around 571 vehicles (approx. 657 AADT), which is very similar to the existing flow. Figure 11.3 shows the existing and predicted traffic flows in and around Oxton, as well as the predicted flows on the proposed new side road. The changes in traffic are not considered to have any significant impact in terms of community use.

There are no other significant impacts on community use as a result of the proposed scheme. Access in and around the community is predominantly by vehicle and these impacts are assessed in the following section.

11.4.5 Vehicle Journeys on the Local Road Network

With the stopping up of any junction or access, the issue of increased vehicle journey lengths and times must be considered. The C83 Kirktonhill junction is to be stopped up and a new side road linking the C83 to the C84 is to be provided. The impacts of this are predicted as follows:

- Vehicle users on both sides of the A68, who currently cross over from the D47/5 to the C83 (22 vehicles AADT), will have to use the C84 junction to gain access in and out of Oxton.
- An increase in journey lengths and journey times for vehicles travelling

between the A68 and the north west of Oxton.

- Increased severance of one field belonging to Carfrae farm due to the closure of all field accesses on the A68.
- Increased severance of Netherhowden farm due to the closure of all field accesses on the A68.

Tables 11.4 and 11.5 below highlight the difference between the existing distances to key facilities and locations on the A68. The distances have been measured from three properties on the east side of the A68 and two properties to the west side of the A68 to give a general overview of the predicted impacts. Existing and proposed routes are given in Figures 11.4 to 11.6. Positive values indicate an increase in journey length and a negative value indicates a decrease in journey length.

Table 11.4. Changes in Distance from Properties East of A68 to Key Facilities in Oxton, (Refer to Figure 11.5).

Facility	Post Office			Channelkirk Primary School		
	Existing Distance	Proposed Distance	Change	Existing Distance	Proposed Distance	Change
The Shieling	1.581	2.008	+0.427	1.68	2.169	+0.489
Carfrae Farm	2.662	3.049	+0.387	2.761	3.21	+0.449
Carfrae Cottages	2.568	2.957	+0.389	2.667	3.118	+0.451

all distances in kilometres

Table 11.5. Changes in Distance from Properties to the A68 North and Southbound (Refer to Figure 11.6).

Position	A68 Southbound			A68 Northbound		
	Existing Distance	Proposed Distance	Change	Existing Distance	Proposed Distance	Change
The Shieling	2.186	2.194	+0.008 or no change	0.659	0.919	+0.260
Carfrae Farm	3.267	3.275	+0.008 or no change	1.739	1.999	+0.260
Carfrae Cottages	3.171	3.179	+0.008 or no change	1.646	1.906	+0.260
The Gas Works	3.118	2.739	-0.379 or no change	1.646	3.408	+1.762
Hainwind	---	---	No change	1.768	2.222	+0.454

all distances in kilometres

The “no change” comment in the Table 11.5 above is to highlight that there is a route available to these properties which is unaffected by the proposed scheme.

The largest impact identified from the tables above is for access to the Gas works. With the C83 junction being stopped up, access from the A68 will be via the C84 junction and the new side road. This alteration adds an additional 1.762km for northbound journeys. This additional journey will also be experienced by vehicles travelling to and from the three farms that are situated to the northwest of Oxton; namely Kirktonhill, Hartside and Threeburnford, the church and around 11 residential properties, when they wish to travel north. The six properties situated at Airhouse are closer to the C84 junction with the A68 and will thus experience a shorter additional journey. If however, they choose to use the new side road as opposed to going through Oxton, they will experience a similar additional journey when traveling north.

Assuming that a vehicle on the C83 / C84 will average a speed of 32 kph (20 mph) and on the A68 will average 80 kph (50 mph), the increase in journey time from the gas works to the northbound measurement point on the A68 will be an additional 2 minutes, 10 seconds (Approx. 4½ minutes on a round trip).

The increase in distance to be travelled and the increase in journey times means that the magnitude of impact is moderate adverse which, when combined with the low site value, gives an overall impact significance of **slight adverse**. However, this additional journey is only experienced by a small number of vehicles.

11.5 Mitigation

11.5.1 Pedestrian / Cyclists and Equestrian Use

No significant adverse impacts with respect to journey length and travel patterns for pedestrians, cyclists or equestrian users have been identified. Therefore, no specific mitigation measures are required. However, the scheme will include a pedestrian/cyclist/equestrian underpass that will ensure that there is no severance for these users and provide a safer route beneath the trunk road. The inclusion of the underpass as well as the new side road will provide benefits to pedestrians and others. The underpass will also become an important section of the larger cycle network when it is implemented.

11.5.2 Community Use

No significant adverse impacts with respect to community use have been identified. Therefore, no specific mitigation measures are required.

11.5.3 Vehicle Journeys on the Local Road Network

With regard to vehicle journeys on the local road network, the new side road between the C83 and C84 will reduce the slight adverse impacts associated with the closure of the C83 junction. These impacts will be further mitigated by the proposal to improve the condition of the C84 Oxton road as it approaches the trunk road.

To mitigate the increased severance created by the proposed stopping up of all

existing field gates and private accesses, alternative access arrangements in the form of new access points, access tracks and stock holding pens, are proposed. These measures will maintain access and facilitate the movement of stock by vehicle and thus reduce the degree of severance. Many of these measures will be provided as part of the accommodation works for the affected landowners, therefore their implementation is dependant on the agreement of the relevant parties.

11.6 Residual Impacts

No significant adverse impacts with respect to journey length and travel patterns for pedestrians and others have been identified. The incorporation of a pedestrian/cyclist/equestrian underpass and the new side road creates a **slight beneficial** impact significance for pedestrians and others.

No significant impacts with respect to community severance have been identified; however the removal of the bus lay-bys on the A68 will give rise to a **negligible adverse** impact significance for local users.

The impact significance for vehicle journeys on the local road network will remain **slight adverse**, albeit for a small number of vehicles.