

9 SAFETY

9.1 INTRODUCTION

This section presents a safety appraisal of the potential impacts of the fixed link options⁵⁵ and the reconfigured ferry option is presented against the Do Minimum (see Section 7.6).

The Government safety objective for transport covers two STAG sub-objectives: accidents and security. The former includes consideration of whether the options would have any measurable impact on the number of transport related accidents and/or their severity and the second the effects of the options on security in terms of vehicular and non-vehicular users and community perceptions.

9.2 SOURCES OF INFORMATION

The following sources of information and organisations have been used to inform the understanding of this appraisal:

- SIC Roads Service;
- SIC Ferries Service;
- National Census, 2001;
- Consultations with Northern Constabulary; and
- First Stage Consultation Report, Bressay STAG Study, October 2007.

9.3 BASELINE INFORMATION

9.3.1 Road Safety

At the current time most sections of road in Bressay are single track with passing places. Road traffic accidents are lowest on these types of road⁵⁶. In the years 2003-2007 there has been an average of eight road traffic incidents recorded each year⁵⁷. Over the five-year period nine of these were minor accidents (all damage only and no injuries or fatalities reported).

Residents report that they are able to walk on the roads⁵⁸, but there may be some demand for footways and other safety improvements in some locations⁵⁹.

Bressay is exempt from the need to have vehicles pass an MOT test, as long as the vehicles stay on the island but cars are required to be road worthy.

There are some complications associated with off-loading vehicles at Lerwick with hold-ups when turning on to the main road from the ferry⁶⁰. However, no accidents have been reported because of this.

9.3.2 Maritime

The existing ferry service travels across the main shipping lane in Lerwick Harbour. The Master of the vessel liaises with Port Control, to ensure safe passage for all vessels.

⁵⁵ It is considered that both fixed link options would have a broadly similar impact and therefore the two options have been appraised together. Any relevant differences have been highlighted

⁵⁶ Information provided by SIC Roads Services, April 2008

⁵⁷ Northern Constabulary Road Traffic Incident figure records

⁵⁸ First Stage Consultation Report, October 2007

⁵⁹ SIC Roads and SIC Ferries

⁶⁰ First Stage Consultation Report

SIC Ferry Service has in place well planned arrangements for maintenance, repair and operation, to ensure safety of the vessel, the crew and her passengers.

9.3.3 Community Safety

The number of non-road traffic incidents recorded by the Northern Constabulary in Bressay has increased from 39 incidents a year in 2003, to over 50 incidents in the years 2005, 2006 and 2007⁶¹. This includes routine matters, such as Firearms Certificate renewals.

9.4 METHODOLOGY

9.4.1 Accidents

An assessment of accidents was made by examining available current accident figures and undertaking a qualitative assessment of potential future impacts for the different options, based on the professional knowledge of SIC's Roads Service and Ferries Service. This was considered to be the most pragmatic approach, given the low numbers of vehicles/vessels involved.

9.4.2 Security

An assessment of the different security impacts for each of the options was made by comparing the number of different police incidents in Bressay over a five-year period (2003 to 2007) with those in other areas of Shetland which are currently more populated and more accessible.

Police incidents are classed under Road Traffic Incidents (RT) such as: road accidents, vehicle related offences, drink driving and speeding; and Community Safety Incidents (CS) such as: alcohol related calls, disturbances, neighbour disputes, and also firearms enquiries and school visits. These types of reported incidents are considered to be a fair reflection of issues of security and community safety in Shetland⁶². The areas chosen for comparison were Scalloway, Gulberwick and Lerwick, for the following reasons:

- Scalloway is of similar distance from Lerwick by road to parts of Bressay, should there be a fixed link;
- Gulberwick is close to Lerwick, by road, and is experiencing a rapidly growing population at the current time; and
- Lerwick is the main town in Shetland, with a population of over 8,000. Any improvements to the transport link would impact on Bressay's proximity to Lerwick. RT and CS Incidents for Lerwick are combined, as the figures were too large to extract manually.

The comparison is made using actual figures, rather than per capita, as current available population figures are out of date for this purpose⁶³. Information gathered during the STAG first stage of consultation⁶⁴, was also used to qualify the statistics.

9.5 ACCIDENTS

Table 9.1 provides a summary of impact of different options on road and maritime safety.

⁶¹ Northern Constabulary Road Traffic recorded incident figures

⁶² Northern Constabulary

⁶³ Census, 2001

⁶⁴ Bressay STAG, First Stage Consultation Report (2007)

Table 9.1: Qualitative Assessment of Impact of Different Options on Safety

Fixed Link Options ⁶⁵	Reconfigured Ferry	Do Minimum
<ul style="list-style-type: none"> An increase in traffic numbers on all roads leading to and from the new link. This could lead to an increase in road accidents but a low level of injury accidents would be anticipated given the character of the island's road network 	<ul style="list-style-type: none"> Road safety changes similar to fixed link, but to a lesser degree 	<ul style="list-style-type: none"> Unlikely to change other than minor changes associated with annual traffic growth etc
<ul style="list-style-type: none"> The number of accidents might be reduced due to greater police enforcement of not drinking and driving 	<ul style="list-style-type: none"> Unlikely to change 	<ul style="list-style-type: none"> Unlikely to change
<ul style="list-style-type: none"> Construction of bridge at height in Shetland weather conditions could pose some safety risks Bridge option provides opportunity for objects to fall into the harbour 	<ul style="list-style-type: none"> Increased frequency of service would increase vessel movements in harbour, but necessary management systems in place 	<ul style="list-style-type: none"> Unlikely to change
<ul style="list-style-type: none"> There is risk of more serious effects from fire in a tunnel; however, the risk of accidents in a tunnel has been demonstrated to be less than on the connected road network⁶⁶ because of the short length of crossing and the low traffic flows 	<ul style="list-style-type: none"> Not applicable 	<ul style="list-style-type: none"> Not applicable

9.6 SECURITY

The following tables compare a variety of incidents reported to the Northern Constabulary during a five year period, 2003 to 2007, for Bressay, Scalloway, Gulberwick and Lerwick. The areas for comparison are areas in Shetland of a higher population concentration and are generally more accessible than Bressay is currently.

Table 9.2: Road Traffic and Community Safety Incidents, 2003- 2007

		2003	2004	2005	2006	2007
Bressay (approx 380)	RT*	9	10	8	7	7
	CS	39	38	57	55	52
Scalloway (approx 1,000)	RT	75	90	51	38	32
	CS	139	138	232	218	125
Gulberwick (unknown)	RT	19	27	24	19	11
	CS	21	22	69	30	15
Lerwick, inc. Gott & Gulberwick (approx 12000)	RT & CS	2407	3099	3449	2593	1938

* RT: Road Traffic and CS: Community Safety

⁶⁵ It is considered that both options would have a broadly similar impact

⁶⁶ Report for ZetTrans by Faber Maunsell (in progress)

The data available show a general decline in all incidents for Bressay and all of the comparison areas, from a high point in 2004 to 2005. The data do not provide a clear picture of possible impact of different options.

A qualitative assessment of the impact of different options from evidence provided from the first stage consultation is considered more useful. This covers people's perceptions as to how things might change.

Table 9.3: Qualitative Assessment of Impact of Different Options on Security

Fixed Link Options	Reconfigured Ferry	Do Minimum
<ul style="list-style-type: none"> • More joy riders 	<ul style="list-style-type: none"> • Little/no impact, but public transport from ferry would cut down on drink driving from ferry 	<ul style="list-style-type: none"> • Little change
<ul style="list-style-type: none"> • Less safe to walk/cycle on roads, particularly for young people (primary age) because of increased traffic flows 	<ul style="list-style-type: none"> • Unlikely to change 	<ul style="list-style-type: none"> • No change
<ul style="list-style-type: none"> • Increased risk of burglary, need to lock houses and cars 	<ul style="list-style-type: none"> • Unlikely to change 	<ul style="list-style-type: none"> • No change
<ul style="list-style-type: none"> • More accessible by taxi, therefore less need to drink drive 	<ul style="list-style-type: none"> • Unlikely to change 	<ul style="list-style-type: none"> • No change
<ul style="list-style-type: none"> • Deterioration of social cohesion provided by ferry 	<ul style="list-style-type: none"> • Ferry provides: opportunities to meet people, provide sense of community and support networks, ferry crew able to look after younger and older members of the community, when accessing Shetland Mainland, and provides constraint to open access into Bressay 	<ul style="list-style-type: none"> • Ferry provides: opportunities to meet people, provide sense of community and support networks, ferry crew able to look after younger and older members of the community, when accessing Shetland Mainland, and provides constraint to open access into Bressay
<ul style="list-style-type: none"> • Options that lead to an increase in the population could enhance social cohesion, as there would be more people and lead to a more sustainable community 		

9.7 SUMMARY

- There are currently high levels of road and maritime safety, although some drink driving issues were highlighted in the first stage of consultation.
- There are currently low levels of community safety incidents and low levels of fear of crime.
- There would be increased levels of vehicle use on the roads to and from the fixed link options, but the current low severity and quantity of accidents means that it would be unlikely for any increase of significance.
- There would also be an increase in traffic levels with Option 3 (reconfigured ferry service), particularly around the Lerwick terminal, where there are already some issues associated with off-loading (see Section 3.2) however, this is unlikely to have a significant impact on current road safety.
- Inclusion of enhanced public transport measures with Options 1-3 could assist with reducing current road incidents if their use was taken up.

- There is risk of more serious effects from fire in a tunnel (Option 1). The risk of accidents in a tunnel however has been demonstrated to be less than on the connected road network⁶⁷.
- There are risks of marine incidents with the high level bridge (Option 2).
- The Do Minimum is generally considered to be adequate, in terms of emergency service provision, however, there is an issue around non blue-light emergency out-of-hours access which has been identified in consultation, which would not be resolved by the reconfigured ferry (Option 3).
- The fixed link options (Options 1 and 2) would enable non blue-light out-of-hours access and, in some circumstances, enable people to be driven to A&E, rather than have to wait for an ambulance. Provision would have to be put in place for Option 2, high level bridge, to mitigate against potential weather disruption.
- It is difficult to quantify the likely impact on incidents of crime, as the figures are currently low and inconsistent in comparable areas.
- The importance of people's perceptions of how security might change with different options (for example, joy riders and the need to lock doors with fixed link options), and their feelings of being safe are considered as important. In the main, people's feelings, whether for negative or positive change as a result of different options, are bound up with their overall desire or not, for a fixed link.
- The ferry options provide opportunities to meet people, being a social hub and provides constraint to open access into Bressay.
- In summary there is little change in impact on Safety, in relation to the four options. The current low levels of road traffic incidents would be likely to remain with any option, although in the long-term developments resulting from a fixed link could lead to increases. The level of this cannot be quantified at present.

⁶⁷ Ongoing work by Faber Maunsell for SIC

