

**Forth Replacement Crossing**

**Public Information Exhibitions:  
Feedback & Outcomes Report  
Appendix to the June 2009 Report**

**November 2009**

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# 1. INTRODUCTION

## 1.1 January 2009 Public Information Exhibitions

In June 2009, Transport Scotland published the Public Information Exhibitions: Feedback & Outcomes Report which documented feedback received following the public information exhibitions held at various venues in Edinburgh, Fife and West Lothian in January 2009. The June 2009 report is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

In Chapter 6 and Annex C of the June 2009 report, Transport Scotland provided responses to the most commonly expressed points of feedback received following the January 2009 public information exhibitions. In Chapter 7 of the June 2009 report Transport Scotland explained how feedback was being taken into account in the development of the project and highlighted changes that had been introduced as a result of the feedback from the January 2009 public information exhibitions. This included:

- The location of South Queensferry Junction which was moved to the west to connect directly to the A904
- Buillyeon Road at the western edge of South Queensferry. In conjunction with this the embankment on the
- main carriageway to the south of South Queensferry was lowered.
- Public transport links were added to connect to the A90 at South Queensferry.
- Modifications were made to the alignment of the northbound slip road onto the A90 at Ferrytoll Junction.
- The B981 from North Queensferry was realigned to pass to the west of the Dunfermline Waste Water
- Treatment Works to connect to Ferry Toll Road.

This Appendix to the June 2009 report provides responses to the issues raised which were not covered by the responses to the common or repeated points of feedback in the June 2009 report.

## 1.2 Feedback from the January 2009 Public Information Exhibitions

More than 200 individual responses were received following the public information exhibitions and those responses contained over 1200 comments. Of these comments 848 were common or repeated comments. A breakdown of the number of comments covered by the responses in the June 2009 report and the remaining comments covered in this Appendix to that report is given below.

Category	No. of individual comments	No. of comments covered by common or repeated points	No. of other comments
Environment	286	232	54
Accessibility	240	155	85
Public Transport	143	93	50
Construction	122	85	37
Other	488	283	205
<b>Totals</b>	<b>1279</b>	<b>848</b>	<b>431</b>
<b>Percentages</b>	<b>100%</b>	<b>66%</b>	<b>37%</b>

Responses were provided in the June 2009 report to approximately 66% of the individual comments received. It was noted in the report that some aspects of the feedback related to issues that were still under development or work that was still being undertaken at the time and, as such, specific outcomes could not be provided in the report.

The remaining points of feedback identified above included comments relating to the development and construction of the proposed scheme, together with more general comments, as set out in the table below.

Category	Scheme development comments	Construction comments	General comments	Total
Environment	18	-	36	54
Accessibility	52	-	33	85
Public Transport	21	-	29	50
Construction	-	37		37
Other	54	-	151	205
<b>Total</b>	<b>145</b>	<b>37</b>	<b>259</b>	<b>431</b>

Responses covering those scheme development comments included in the above table are provided in Annex A of this Appendix; responses covering construction related comments are provided in Annex B of this Appendix; and responses covering other general comments are provided in Annex C of this Appendix.

## A – RESPONSES TO SCHEME DEVELOPMENT COMMENTS

The number of individual comments received which related to the development of the proposed scheme is provided below.

Category	Sub category	No. of scheme development comments
Environment	General environmental impacts	7
	Ecology	1
	Landscape	4
	Noise	2
	Visual impact	4
	<b>Total</b>	<b>18</b>
Accessibility	Junctions	20
	Local roads	14
	Traffic generation	1
	Route capacity	6
	Traffic routing	6
	Non-motorised user access	5
	<b>Total</b>	<b>52</b>
Public Transport	Public transport general	5
	Bus	6
	Park and ride	10
	<b>Total</b>	<b>21</b>
Other	Route choice	3
	Bridge design	12
	General design comments	26
	Scheme cost	1
	Existing bridge	2
	Other miscellaneous	10
	<b>Total</b>	<b>54</b>
<b>Overall Total</b>		<b>145</b>

A summary of the individual comments made and responses to these comments are provided in Sections A1 to A4 of this Annex overleaf.

## A.1 Environmental Comments

### A.1.1 General Environmental Impacts

**Ref No. SE1**

**Comment:**

**Measures are required to minimise visual and noise impacts resulting from the project on the Queensferry Hotel.**

**Response:**

Assessments relating to traffic noise, landscape and visual impacts have been undertaken and appropriate mitigation has been developed taking consideration of the proposed scheme design and potential environmental impacts. The assessment and mitigation measures proposed are described in Chapters 12 (Landscape), 13 (Visual) and 16 (Noise) of the Environmental Statement, submitted with the Forth Crossing Bill. The proposed scheme is elevated forming part of the cable stayed bridge and approach viaducts as it passes the Queensferry Hotel and mitigation measures such as planting are not, therefore, appropriate to screen the hotel from the replacement crossing. Low noise road surfacing is proposed to reduce noise effects due to traffic on the bridge.

**Ref No. SE2**

**Comment:**

**Noise mitigation and landscaping should be provided on the elevated section of the M9 Spur.**

**Response:**

Assessments relating to traffic noise, landscape and visual impacts have been undertaken and appropriate mitigation has been developed taking consideration of the proposed scheme design and potential environmental impacts. The assessment and mitigation measures proposed are described in Chapters 12 (Landscape), 13 (Visual) and 16 (Noise) of the Environmental Statement submitted with the Forth Crossing Bill. Planting is proposed at the southern end of the M9 Spur and adjacent to Junction 1a to mitigate landscape impacts, replace lost woodland and provide screening. Noise mitigation will include low noise road surfacing where appropriate.

**Ref No. SE3**

**Comment:**

**The routing of the southern approach roads combines serious environmental impact with poor access to the M9.**

**Response:**

The routing of the southern approach roads was selected following work undertaken for the Forth Replacement Crossing Study which led to the selection of the corridor for the replacement crossing and consideration of corridor options for the network connections.

A number of alternative options for the road network connections were considered as part of the work undertaken during 2008 and these included options providing a more direct link between the replacement crossing and the M9. These options were discounted in favour of the proposed scheme which demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

Improved access to the M9 is proposed with Junction 1a on the M9 to be upgraded to cater for traffic travelling to and from the M9 to the west.

An environmental impact assessment has been undertaken to assess the impact of the proposed scheme on the environment. The assessment has informed the development of mitigation measures to reduce the environmental impact of the proposed scheme. The results of the environmental impact assessment and the mitigation measures proposed are presented in the Environmental Statement submitted with the Forth Crossing Bill.

**Ref No. SE4****Comment:**

**Local residents have not had any influence over the location of the new bridge so everything should be done to ensure that the impact of the new bridge will be minimised for local residents at South Queensferry.**

**Response:**

The location of the replacement crossing was selected following work undertaken for the Forth Replacement Crossing Study which led to the Ministerial announcement in December 2007. Public information exhibitions were held in August 2007 as part of the study.

A number of alternative options for the road network connections were considered as part of the work undertaken during 2008. The corridor for the proposed scheme was selected as it demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

One of the main objectives of the proposed scheme is to minimise, where possible, the impact on people and the natural and cultural heritage of the Forth area. One of the main concerns expressed regarding the overall impact on South Queensferry was related to the line and elevation of the proposed scheme to the south of the town. Further development of the connecting road strategy for the proposed scheme was undertaken as a result of feedback from the January 2009 public information exhibitions and further design development which helps reduce the impact on South Queensferry (refer to Chapter 7 of the Feedback & Outcomes Report). This is also covered in Repeated Comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report.

Consideration of potential impacts on South Queensferry has been given through refinement of the design and environmental impact assessment. The assessment criteria cover potential impacts on the human, natural and built environment and therefore cover assessments relevant to potential impacts on South Queensferry. The assessments have informed the design of mitigation measures to reduce potential impacts where necessary and these mitigation measures, together with any residual impacts, are described in the Environmental Statement submitted with the Forth Crossing Bill.

Consultation has been undertaken with groups including Queensferry and District Community Council and communities adjacent to the proposed scheme, and this has been used in the development of the proposed scheme. Consultation undertaken as part of the environmental impact assessment is described in Chapter 6 of the Environmental Statement.

**Ref No. SE5****Comment:**

**The design has changed to reduce cost so surely some money can be found to reduce all forms of pollution in the area.**

**Response:**

The corridor for the proposed scheme was selected as it demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure compared to the other options considered. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

An air quality assessment has been undertaken for the proposed scheme in accordance with the Design Manual for Roads and Bridges and the assessment is described in the Environmental Statement submitted with the Forth Crossing Bill. As part of the assessment, air quality monitoring has been undertaken and a computerised model prepared to predict the changes in air quality, both beneficial and adverse. The model takes into account factors such as emissions from traffic that may occur due to the introduction of the proposed scheme. The results of the air quality assessment describe the potential impacts of the proposed scheme in relation to relevant air quality standards.

In addition to assessing the potential effects of the proposed scheme in relation to local air quality pollutants, the wider effects in relation to CO2 emissions and climate change targets were assessed in line with the requirements of the Design Manual for Roads and Bridges.

The predicted impacts of the proposed scheme in relation to air quality are generally very small and as a result no specific mitigation measures are proposed. Further information regarding the air quality assessment is provided in Chapter 15 (Air Quality) of the Environmental Statement submitted with the Forth Crossing Bill.

A detailed noise assessment has been undertaken in accordance with the requirements of the Design Manual for Roads and Bridges and this is also described in the Environmental Statement. The assessment has been undertaken using a computerised model developed specifically for the proposed scheme. As part of the model development, noise monitoring was undertaken at various locations to enable baseline noise conditions to be determined and the computerised model to be calibrated. The effects of the proposed scheme on the noise environment adjacent to the route has been assessed using the model and has been used to inform the development of specific noise mitigation measures to be provided as part of the proposed scheme.

Transport Scotland has set out its strategy for mitigating noise impacts in a Noise and Vibration Policy which also forms part of the Environmental Statement. The strategy has been used to determine where specific noise mitigation measures are to be provided and these are also described in the Environmental Statement. Mitigation measures which have been considered include, for example, the use of screening measures such as noise barriers or earth bunds, and low noise road surfacing where appropriate.

**Ref No. SE6****Comment:**

**The new bridge provides an opportunity to show how 21st century technology can significantly reduce the environmental impact of such a large project.**

**Response:**

Environmental impact assessment has influenced the design of the proposed scheme and has been undertaken to enable appropriate mitigation to be developed to reduce the environmental impact of the proposed scheme. The environmental impact assessment and design of mitigation has been undertaken taking cognisance of current guidance and best practice. The measures proposed to mitigate the effect of the proposed scheme are described in the Environmental Statement submitted with the Forth Crossing Bill.

Intelligent Transport Systems such as variable speed limits will also be provided to manage and improve the flow of traffic on the network with associated emissions and air quality benefits. The managed crossing scheme will provide dedicated public transport links and increased public transport usage would also reduce the potential for air quality impacts to increase.



**Ref No. SE7****Comment:**

**The future influence of the structure on the local community should be minimised and the surrounding area enhanced.**

**Response:**

The design of the replacement crossing has been undertaken with input from architectural advisers, landscape architects and structural engineers to create a structure which fulfils the required objectives in terms of providing for future cross-Forth travel whilst being sympathetic to the surrounding landscape in which it will be built. Transport Scotland has consulted with organisations including Architecture + Design Scotland regarding the design of the proposed bridge crossing.

## A.1.2 Ecology

**Ref No. SE8****Comment:**

**As part of the proposals the planting of new woodland areas, including hedgerows, hedgerow trees and scrub is outlined. We welcome the spirit of the current proposals, which appear to go beyond restricted ribbon planting along road verge.**

**Response:**

Further environmental impact assessment and development of mitigation measures has been undertaken since the public information exhibitions in January 2009 and this is described in the Environmental Statement submitted with the Forth Crossing Bill. Areas of proposed planting are shown on Figures 12.4a-n of the Environmental Statement and this includes areas of scrub and mixed woodland planting in addition to linear mitigation such as hedgerows, hedgerow trees and standard trees.

**Ref No. SE9****Comment:**

**Mitigation screening measures such as the planting of shrubs and small trees should be provided adjacent to the west side of Springfield estates down to Hopetoun House Road.**

**Response:**

Assessments relating to landscape and visual impacts have been undertaken and appropriate mitigation has been developed taking consideration of the proposed scheme design and potential environmental impacts. The assessment and mitigation measures proposed are described in Chapter 12 (Landscape) and Chapter 13 (Visual) of the Environmental Statement submitted with the Forth Crossing Bill. Measures proposed to reduce impacts and provide screening adjacent to Springfield estates include false cuttings adjacent to the proposed scheme, mixed woodland planting, hedgerow and hedgerow trees, as shown on Figure 12.4e of the Environmental Statement submitted with the Forth Crossing Bill.

**Ref No. SE10****Comment:**

**Trees should be provided alongside the road to absorb CO2 emissions and reduce visual impact**

**Response:**

Assessments relating to landscape and visual impacts have been undertaken and appropriate mitigation has been developed taking consideration of the proposed scheme design and potential environmental impacts. The assessment and mitigation measures proposed, which include areas of woodland planting, are described in Chapter 12 (Landscape) of the Environmental Statement submitted with the Forth Crossing Bill. Whilst planting may provide some benefits in reducing the effects of emissions, the assessment methodologies used as defined in the Design Manual for Roads and Bridges do not consider planting to be a mitigation measure for air quality in the environmental impact assessment. The results of the air quality assessment are described in Chapter 15 (Air Quality) of the Environmental Statement.

**Ref No. SE11****Comment:**

**What action will be taken to screen the proposed schemes if the A90 at Rosyth is widened as a result of the new crossing?**

**Response:**

The A90 will be improved between Ferrytoll Junction and Admiralty Junction to provide a dual three lane road with a discontinuous hard shoulder added to the northbound carriageway. This will result in some limited widening of the A90. Assessments relating to landscape and visual impacts have been undertaken and appropriate mitigation has been developed taking consideration of the proposed scheme design and potential environmental impacts. The assessment and mitigation measures proposed are described in Chapter 12 (landscape) and Chapter 13 (Visual) in the Environmental Statement submitted with the Forth Crossing Bill. The mitigation measures proposed are illustrated in the Environmental Statement Figure 12.4b and include areas of woodland planting, where appropriate, to reduce landscape impacts and provide screening.

**Ref No. SE12****Comment:**

**Planting should be done as early as possible during the construction phase to ensure adequate screening by project completion. Concern that there is no screening for the M9 spur.**

**Response:**

A Code of Construction Practice has been prepared which forms part of the Environmental Statement submitted with the Forth Crossing Bill. Section 13 of the Code of Construction Practice describes mitigation measures to be put in place during construction of the scheme and includes a requirement to provide planting and other landscape mitigation measures as early as reasonably practicable to reduce the effects of construction works.

Assessments relating to traffic noise, landscape and visual impacts have been undertaken and appropriate mitigation has been developed taking consideration of the proposed scheme design and potential environmental impacts. The assessment and mitigation measures proposed are described in Chapters 12 (Landscape), 13 (Visual) and 16 (Noise) of the Environmental Statement submitted with the Forth Crossing Bill. Planting is proposed at the southern end of the M9 Spur and adjacent to Junction 1a to mitigate landscape impacts, replace lost woodland and provide screening. Noise mitigation will include low noise road surfacing where appropriate.

**Ref No. SE13****Comment:**

**A significant reduction in noise has been noticed since the M9 was planted with a mixture of evergreen and deciduous trees along the embankment. Please consider replanting any trees which are removed during construction and extend planting westwards from Junction 1a.**

**Response:**

Assessments relating to traffic noise, landscape and visual impacts have been undertaken and appropriate mitigation has been developed taking consideration of the proposed scheme design and potential environmental impacts. The assessment and mitigation measures proposed are described in Chapters 12 (Landscape), 13 (Visual) and 16 (Noise) of the Environmental Statement submitted with the Forth Crossing Bill. Planting is proposed at the southern end of the M9 Spur and adjacent to Junction 1a to mitigate landscape impacts, replace lost woodland and provide screening. Noise mitigation will include low noise road surfacing where appropriate.

**Ref No. SE14****Comment:**

**There will be significant pollution and noise disruption adjacent to Bo'ness Road if the road is used to access the bridge.**

**Response:**

Access from South Queensferry to the new bridge will be provided at the new junction with the A904 to the west of the town and traffic in South Queensferry may use the B924 Bo'ness Road or the A904 Buillyeon Road to access the new junction. An assessment of potential air quality and noise impacts has been undertaken and appropriate mitigation measures have been developed. The assessment indicates that potential impacts at the B924 Bo'ness Road are due more to traffic levels on the main carriageway of the proposed scheme than changes to traffic patterns in and around South Queensferry. Mitigation measures have been developed based on the assessments undertaken and these are described in Chapters 15 (Air Quality) and 16 (Noise) of the Environmental Statement submitted with the Forth Crossing Bill. This includes low noise road surfacing, earth bunds and barriers where appropriate adjacent to the proposed scheme.

## A.1.5 Visual Impact

**Ref No. SE15****Comment:**

**Concern regarding the visual impact of an embankment situated north of Buillyeon Road on the visual amenity of Echline View.**

**Response:**

The proposed scheme is in cutting passing below the A904 and continues northwards in cutting rather than being on embankment. Bunds are also proposed which will provide screening. Landscape and visual impact assessments of the proposed scheme have been undertaken to inform the design of appropriate mitigation measures. Measures to reduce the visual impact on surrounding communities in this area include planting and false cuttings. The assessment and mitigation measures proposed are described and illustrated in the Environmental Statement Chapters 12 (Landscape) and 13 (Visual) and Figure 12.4f-g submitted with the Forth Crossing Bill.

**Ref No. SE16****Comment:**

**Lighting on the project would increase the visual impact of the bridge and accompanying road layout.**

**Response:**

It has been assumed in the environmental impact assessment that the whole of the proposed scheme would be lit at night. However, the detailed design is likely to result in less extensive lighting along the proposed scheme. It is anticipated that, as a minimum, the main carriageway will be lit in the south between Scotstoun Interchange at the M9 Spur and the replacement crossing, as will the section between the replacement crossing and Admiralty Junction in the north. The new or improved side roads in the vicinity of Ferrytoll and South Queensferry Junctions are also expected to be lit.

The effect of road lighting has been considered in the landscape and visual impact assessments undertaken for the project. Whilst road lighting will increase visibility of the proposed scheme at night, it is not anticipated to significantly increase the overall visual impacts due to the proposed scheme. The landscape and visual impact assessments and mitigation measures proposed are described in Chapters 12 (Landscape) and 13 (Visual) of the Environmental Statement submitted with the Forth Crossing Bill.

**Ref No. SE17****Comment:**

**Concern regarding visual impacts caused by the project on views across Dundas Estate from Builyeon Road and the wider rural landscape.**

**Response:**

Further development of the connecting road strategy for the proposed scheme was undertaken as a result of feedback from the January 2009 public information exhibitions and further design development which helps reduce the impact on South Queensferry (refer to Chapter 7 of the Feedback & Outcomes Report). This is also covered in Repeated Comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report.

The proposed junction at South Queensferry has been moved further west to connect directly to the A904. Moving the junction to the west has allowed a solution to be engineered which substantially lowers the height of the road as it passes south of South Queensferry. The embankment carrying the road has been capable of being lowered by up to 6m in this area, substantially reducing the visual impact of the road on the landscape and properties.

Assessments relating to landscape and visual impacts have been undertaken and appropriate mitigation has been developed taking consideration of the proposed scheme design and potential environmental impacts. The assessment and mitigation measures proposed are described in the Environmental Statement submitted with the Forth Crossing Bill. Mitigation measures proposed to reduce landscape and visual impacts between Builyeon Road and the proposed scheme include hedgerow planting. Areas of existing woodland will be retained where possible.

**Ref No. SE18****Comment:**

**Noise barriers will increase the visual impact of the proposed scheme.**

**Response:**

Mitigation measures are proposed to reduce noise impacts associated with the proposed scheme, including low noise road surfacing, earth bunds and barriers where appropriate. These measures are described Chapter 16 of the Environmental Statement submitted with the Forth Crossing Bill. The environmental impact assessment undertaken for the project also considered landscape and visual impacts associated with the proposed scheme, including the potential visual impact of noise barriers. The landscape and visual impact assessments are described in Chapters 12 and 13 of the Environmental Statement. The use of a combination of bunds and sensitively designed barriers has been considered where appropriate to provide landscape and visual integration more effectively than a single, solid noise barrier structure.

## A.2 Accessibility Comments

### A.2.1 Junctions

**Ref No. SA1****Comment:**

**Ferrytoll Junction is oversized for its needs.**

**Response:**

The design of the proposed scheme has been undertaken in accordance with the Design Manual for Roads and Bridges. The proposed layout of Ferrytoll Junction is considered to be appropriate taking account of the traffic anticipated to use the junction, the need to provide access to the replacement crossing and the Forth Road Bridge and cater for access to Ferrytoll park and ride and other local access. The design has been informed by operational assessments to ensure that the junctions operate satisfactorily.

**Ref No. SA2****Comment:**

**The Brae, a section of Ferryhills Road, is impassable for lorries and emergency vehicles and the B981 at Ferrytoll Roundabout is the only method of access for such vehicles. Continued access along both roads is vital to North Queensferry.**

**Response:**

The B981 will be realigned to pass to the west of the Dunfermline Waste Water Treatment Works to connect to Ferry Toll Road to the west of Ferrytoll Junction. In conjunction with other changes to the design at Ferrytoll Junction this will provide more reliable, simpler and safer access for local traffic travelling to and from North Queensferry both during and after construction of the crossing. Ferryhills Road will not be affected by the proposed scheme.

**Ref No. SA3****Comment:**

**Concern that there will not be sufficient junctions.**

**Response:**

The proposed scheme will provide new and improved junctions at South Queensferry and Ferrytoll where the route intersects the adjacent road network. Dedicated public transport links will also be provided at South Queensferry to provide improved public transport linkages between the Forth Road Bridge, South Queensferry and the A90. The junction provision is considered to be appropriate for the proposed scheme taking account of the requirements to provide for access between the proposed scheme and the local road network.

**Ref No. SA4****Comment:**

**There should be better access to the road north from the new bridge.**

**Response:**

The proposed scheme will connect directly to the M90 providing a continuous route to the north. The junction layout at Ferrytoll has also been designed to ensure that access is maintained to the M90 to the north.

**Ref No. SA5****Comment:**

**Motorway specification connections are required.**

**Response:**

The main carriageway of the proposed scheme will be designed to motorway standards with dual carriageway roads including hard shoulders to be provided. The slip roads on the proposed scheme will also be designed to motorway standards.

**Ref No. SA6****Comment:**

**Will there be provision at Ferrytoll to divert traffic onto the existing bridge in the event of an accident or maintenance on the new bridge.**

**Response:**

The existing bridge will become a dedicated public transport corridor following completion of the replacement crossing. If emergency or abnormal conditions arise that prevent use of the replacement crossing it is possible, depending on the condition of the existing bridge, that the police may direct traffic to use the existing bridge. Such use would only be as directed by the police under extreme conditions.

**Ref No. SA7****Comment:**

**Improved junctions are not being provided in West Lothian.**

**Response:**

The M9 Spur will be the main sign-posted route for traffic travelling between the replacement crossing and the M9. The proposed scheme provides improved accessibility to West Lothian through the addition of west-facing slip roads at Junction 1a on the M9. The A904 will remain an important regional road connection to the crossing and a new junction will be provided to the west of South Queensferry to connect to the A904 to cater for access between the local road network and replacement crossing at this location.

**Ref No. SA8****Comment:**

**Concern regarding congestion on the M9 between Junction 1a and Newbridge.**

**Response:**

The slip road from the M9 Kirkliston Spur to the eastbound M9 at Junction 1a will be improved such that it will be two lanes wide. In conjunction with this improvement, the M9 will be widened to the east of Junction 1a to ensure that traffic flow will not be adversely affected along this section of the M9 due to the proposed scheme. Intelligent Transport Systems including variable speed limits will be used to improve the flow of traffic on the proposed scheme, including the M9 and it is anticipated that this will result in some improvement to the operation of Newbridge roundabout by managing the flow of traffic towards the junction.

**Ref No. SA9****Comment:**

**The nearside lane between the M9 Spur and South Queensferry Junction should be designated a slip lane exit only.**

**Response:**

It is proposed that the nearside lane between the M9 Spur and South Queensferry Junction will be for traffic exiting the route only.

**Ref No. SA10****Comment:**

**Removal of one of the new stretches of the A90 between the M9 Spur and the existing bridge will force traffic from the existing bridge to go up the slip road round the Echline roundabout, along what will become an extremely busy A904, through a new roundabout.**

**Response:**

Further development of the proposed scheme at South Queensferry was undertaken following the public information exhibitions in January 2009 and this is covered in the response to comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report. The proposed junction at South Queensferry has been moved further west to connect directly to the A904. As part of the managed crossing scheme the Forth Road Bridge will continue to operate, carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists. In conjunction with this change to the design of the proposed scheme, new public transport links will be provided at Echline to provide improved public transport linkages between the Forth Road Bridge, South Queensferry and the A90. These measures remove the need for public transport to travel along the A904 to access the A90 as shown at the public information exhibitions in January 2009.

General road traffic will use the replacement crossing instead of the existing bridge. Traffic modelling indicates that the majority of traffic currently using the A904 travels from the west towards the existing A90 at Echline Junction and vice versa, thus locating the new South Queensferry Junction to the west of South Queensferry removes traffic from Builyeon Road. This reduction will be partly offset by traffic from South Queensferry travelling along Builyeon Road to access the junction and vice versa, but less traffic is predicted to travel in this direction. Therefore an overall reduction in traffic on Builyeon Road between Echline roundabout and the new South Queensferry Junction is anticipated to occur.

**Ref No. SA11****Comment:**

**The new west facing slip roads at Junction 1a should not be provided. A more efficient journey can be made via Junction 2 and the A904.**

**Response:**

The M9 Spur will be the main sign-posted route for traffic travelling between the replacement crossing and the M9. The proposed scheme provides improved accessibility to West Lothian through the addition of west-facing slip roads at Junction 1a on the M9. The A904 will remain an important regional road connection to the crossing and a new junction will be provided to the west of South Queensferry to connect to the A904 to cater for access between the local road network and replacement crossing at this location.

**Ref No. SA12****Comment:**

**How will local residents from South Queensferry gain access to new bridge?**

**Response:**

Access from South Queensferry to the new bridge will be provided at the new junction with the A904 to the west of the town.

**Ref No. SA13****Comment:**

**The strategy does not provide the ability to switch traffic between crossings under abnormal conditions.**

**Response:**

The existing bridge will become a dedicated public transport corridor following completion of the replacement crossing. If emergency or abnormal conditions arise that prevent use of the replacement crossing it is possible, depending on the condition of the existing bridge, that the police may direct traffic to use the existing bridge. Such use would only be as directed by the police under extreme conditions.

**Ref No. SA14****Comment:**

**The northbound on slip at South Queensferry should be constructed with additional length to ensure that peak time queuing is contained on the slip road and does not back up to the roundabout. Ramp metering should be provided.**

**Response:**

The slip roads will be designed to motorway standards providing high quality merge and diverge layouts at the junctions to improve the flow of traffic onto and off the main carriageway. Ramp metering will be provided to manage the flow of traffic onto the main carriageway.

**Ref No. SA15****Comment:**

**The nearside lane on the A90 northbound between Scotstoun and South Queensferry Junction should be designated as a slip road exit only.**

**Response:**

It is proposed that the nearside lane between the M9 Spur and South Queensferry Junction will be for traffic exiting the route only.

**Ref No. SA16****Comment:**

**Traffic signals should be removed from South Queensferry Junction, the Builyleon Road roundabout and Echline roundabout.**

**Response:**

Further development of the proposed scheme at South Queensferry was undertaken following the public information exhibitions in January 2009 and this is covered in the response to comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report. The proposed junction at South Queensferry has been moved further west to connect directly to the A904. In conjunction with this change to the design of the proposed scheme, new public transport links will be provided at Echline to provide improved public transport linkages between the Forth Road Bridge, South Queensferry and the A90. These measures have enabled the roundabout on the A904 and link road to South Queensferry Junction shown at the public information exhibitions to be removed.

South Queensferry Junction is proposed to be traffic signal controlled which will be necessary to cater for traffic at this location. Traffic signals to cater for improved use of the junction by buses will be provided at Echline roundabout.

**Ref No. SA17****Comment:**

**An assurance is required that ramp metering will not give rise to additional congestion on the Fife local road network. Should congestion increase, Transport Scotland will be expected to fund any further works required after opening of the bridge.**

**Response:**

Ramp metering is proposed at the southbound merge slip road at Ferrytoll Junction with ramp metering on the northbound merge slip road being considered for implementation in future years should this be required. Ramp metering is proposed to improve accessibility to the proposed scheme and to improve safety, reliability and mitigate congestion effects on the road network.

**Ref No. SA18****Comment:**

**The Paramics model is only considering traffic levels at 2017. This is unique and cannot be justified.**

**Response:**

The Government has committed that the Forth Replacement Crossing project will replace but not increase the road provision for general traffic on the Forth Road Bridge. It is not Government policy to provide for unconstrained growth in vehicular traffic. The use of Intelligent Transport Systems, improvements to junctions and the inclusion of hard shoulders and wind shielding on the Forth Replacement Crossing will improve operational efficiency and improve traffic flow. The managed crossing scheme provides for additional travel demand through the provision of a dedicated public transport corridor, including the option for introduction of Light Rapid Transit, such as guided bus or tram based light rail, designed to increase public transport availability. The Strategic Transport Projects Review (STPR) has identified a number of other complementary measures in the Forth area to allow for growth in travel through public transport initiatives such as park and ride.

The junctions have been designed to accommodate the anticipated traffic flows, having regard to the capacity of the adjacent network using a computerised traffic model to ensure that the junctions operate satisfactorily. Implementation of Intelligent Transport Systems described above will manage the flow of traffic towards the junctions to optimise performance of the junctions.



**Ref No. SA19****Comment:**

**The roundabout on the north side of the new bridge will not cater for current or future traffic levels. A small incident on any of the roads feeding this roundabout will bring the whole network to a halt.**

**Response:**

The design of the proposed scheme has been undertaken in accordance with the Design Manual for Roads and Bridges. The proposed layout of Ferrytoll Junction is appropriate taking consideration of the traffic anticipated to use the junction, the need to provide access to the replacement crossing and the Forth Road Bridge and cater for access to Ferrytoll park and ride and other local access. The design has been informed by operational assessments to optimise performance of the junction.

Other comments regarding the design of the junctions are covered in the responses to comments RA3 and RA6 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report.

**Ref No. SA20****Comment:**

**Is it possible to dedicate lanes in/out of North Queensferry at Ferrytoll Junction?**

**Response:**

The junction layout at Ferrytoll has been designed to ensure that access can be provided to the M90 to the north, the replacement crossing and the Forth Road Bridge to the south and also cater for local access. Further development of the design has been undertaken at this location since the public information exhibitions in January 2009. The B981 will be realigned to pass to the west of the Dunfermline Waste Water Treatment Works to connect to Ferry Toll Road to the west of Ferrytoll Junction. In conjunction with other changes to the design at Ferrytoll Junction this will provide more reliable, simpler and safer access for local traffic travelling to and from North Queensferry both during and after construction of the crossing.

## A.2.2 Local Roads

**Ref No. SA21****Comment:**

**Pedestrian/cycle/car access needs maintained to the minor road southbound from Echline corner**

**Response:**

The U221 Builyeon Road which runs south from the A904 at Echline corner will be realigned to the west of the new junction at South Queensferry and access for pedestrians, cyclists and other vehicles will be maintained along the A904 Builyeon Road to the realigned road.

**Ref No. SA22****Comment:**

**Concern regarding safety associated with the impact of increased traffic on peripheral roads within South Queensferry.**

**Response:**

Further development of the proposed scheme at South Queensferry was undertaken following the public information exhibitions and this is covered in Repeated Comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report. The proposed junction at South Queensferry has been moved further west to connect directly to the A904.

Traffic modelling indicates that the majority of traffic currently using the A904 travels from the west towards the existing A90 at Echline Junction and vice versa, thus locating the new South Queensferry Junction to the west of South Queensferry removes traffic from Builyeon Road. This reduction will be partly offset by traffic from South Queensferry travelling along Builyeon Road to access the junction and vice versa, but less traffic is predicted to travel in this direction. Therefore an overall reduction in traffic on Builyeon Road between Echline roundabout and the new South Queensferry Junction is anticipated to occur.

In addition, the provision of direct bus links onto the A90 at Echline will remove the need for public transport to travel from Echline roundabout along Builyeon Road compared to the layout shown at the public information exhibitions in January 2009. The traffic reductions on the A904 Builyeon Road will improve safety on this section of road.

**Ref No. SA23****Comment:**

**Please confirm that the local road west of Junction 1a will remain open for normal use as at present.**

**Response:**

The local road to the west of Junction 1a which travels south from the B9080 will not be closed under the scheme proposals although there may be limited disruption and traffic management in place at times during construction.

**Ref No. SA24****Comment:**

**Will the surface of Builyeon Road be improved as part of the project?**

**Response:**

Builyeon Road will be realigned over part of its length to connect to the new junction at South Queensferry. Where Builyeon Road is realigned or improved, a new road surface will also be provided.

**Ref No. SA25****Comment:**

**The underpass at the A90 at North Queensferry needs to be maintained.**

**Response:**

The existing underpasses below the A90 at North Queensferry will be maintained.

**Ref No. SA26****Comment:**

**Please consider what can be done to reduce accidents on the A904.**

**Response:**

Traffic modelling indicates that the majority of traffic currently using the A904 travels from the west towards the existing A90 at Echline Junction and vice versa, thus locating the new South Queensferry Junction to the west of South Queensferry removes traffic from Builyeon Road. This reduction will be partly offset by traffic from South Queensferry travelling along Builyeon Road to access the junction, and vice versa, but less traffic is predicted to travel in this direction. Therefore an overall reduction in traffic on Builyeon Road between Echline roundabout and the new South Queensferry Junction is anticipated to occur. In addition, the provision of direct bus links onto the A90 at Echline will remove the need for public transport to travel from Echline roundabout along Builyeon Road compared to the layout shown at the public information exhibitions in January 2009. The traffic reductions on the A904 Builyeon Road will improve safety on this section of road.

**Ref No. SA27****Comment:**

**The construction of the M9 Spur Extension provided congestion relief to Kirkliston. Concern that the construction of houses at Scotmalt and Newmains will replicate past congestion problems on the A8000 should no restrictions be placed on its use.**

**Response:**

Housing development and any conditions associated with development as part of the planning process are a matter for the local planning authority.

**Ref No. SA28****Comment:**

**The A904 should be upgraded and include a short bypass for Newton as it is the most direct and cheapest route.**

**Response:**

The M9 Spur will be the main sign-posted route for traffic travelling between the replacement crossing and the M9. The proposed scheme provides improved accessibility to West Lothian through the addition of west-facing slip roads at Junction 1a on the M9. The A904 will remain an important regional road connection to the crossing and a new junction will be provided to the west of South Queensferry to connect to the A904 to cater for access between the local road network and replacement crossing at this location. The A904 will be improved between Headrig Road to the west of the route and the new junction at South Queensferry. There are no plans for a Newton bypass.

**Ref No. SA29****Comment:**

**Query regarding what the access road through Echline Field is for.**

**Response:**

The access road at Echline field will provide access for bridge maintenance vehicles following construction of the proposed scheme.

**Ref No. SA30****Comment:**

**Will the A904 pass over or under the route?**

**Response:**

It is intended that the A904 will remain close to its current level with the main carriageway of the proposed scheme passing below.

**Ref No. SA31****Comment:**

**Upgrade Builyleon Road to four lanes to allow for increased traffic should the park and ride go ahead.**

**Response:**

Park and ride facilities at South Queensferry are not part of the Forth Replacement Crossing project.

**Ref No. SA32****Comment:**

**What will happen to the A904 as it passes Echline estates?**

**Response:**

It is intended that the A904 will remain close to its current level with the main carriageway of the proposed scheme passing below. The A904 will be realigned over part of its length to connect to the new junction at South Queensferry. The B924 Bo'ness Road will be realigned to connect to the new section of Builyleon Road. The junction at South Queensferry will be traffic signal controlled.

**Ref No. SA33****Comment:**

**As a part of the project for early delivery, new shared paths, bus priority measures, park and ride sites, traffic calming and pedestrian crossings should be installed, the latter items in Newton. The A904 should be upgraded between Newton and South Queensferry.**

**Response:**

Consideration has been given to the needs of pedestrians and other non-motorised users during the development of the proposed scheme. This has included undertaking an environmental impact assessment which has informed the design of the proposed scheme and mitigation measures. The outcomes of the assessment and measures proposed to be provided as part of the proposed scheme are described in Chapter 17 (Pedestrians, Cyclists, Equestrians and Community Effects) of the Environmental Statement submitted with the Forth Crossing Bill. Measures provided for non-motorised users include crossing facilities at junctions and footpaths/cycle tracks to replace those which are affected due to the proposed scheme.

Direct access for public transport to the A90 will be provided from the eastbound A90 slip road at Echline Junction. Public transport travelling from Edinburgh will be able to access South Queensferry and the Forth Road Bridge via a direct public transport link which will connect to the A8000.

Park and ride facilities are not being specifically promoted as part of the Forth Replacement Crossing project. However, a wider public transport strategy to maximise the opportunities presented by the Forth Replacement Crossing is being developed in parallel with the proposed scheme. Discussions and consultations on these future opportunities, including the park and ride, are ongoing with the community, bus companies, local authorities and SEStran.

The A904 will be improved between Headrig Road to the west of the route and the new junction at South Queensferry.

**Ref No. SA34****Comment:**

**Will the Deep Sea World car park be re-sited? This causes congestion into village in summer.**

**Response:**

It is anticipated that the owners and operators of Deep Sea World will look for a suitable replacement for the current overspill car park.

## A.2.3 Traffic Generation

**Ref No. SA35**

**Comment:**

**The Paramics model should include the latest proposals contained within the Fife Development Plan.**

**Response:**

Paramics model forecasts of traffic growth are derived from the Transport Model for Scotland (TMfS). TMfS includes anticipated development in each local authority area, based on information provided by the local planning authorities.

## A.2.4 Route Capacity

**Ref No. SA36**

**Comment:**

**Road lanes and access should not be restricted if roadworks are not being carried out.**

**Response:**

The contractor will be responsible for placing and removing traffic management as required to enable the proposed scheme to be constructed safely and to also to protect the works being constructed. Requirements are included in the Code of Construction Practice that traffic management measures are not left in place unnecessarily. The contractor must also plan traffic management schemes in consultation with stakeholders including the trunk and local roads authorities and the emergency services.

**Ref No. SA37**

**Comment:**

**What happens if the new bridge is closed for any reason and can the road network cope with the temporary increase in traffic resulting?**

**Response:**

The existing bridge will become a dedicated public transport corridor following completion of the replacement crossing. If emergency or abnormal conditions arise that prevent use of the replacement crossing it is possible, depending on the condition of the existing bridge, that the police may direct traffic to use the existing bridge. Such use would only be as directed by the police under extreme conditions.

The ability of the existing road network to cope with the effects of incidents depends on the severity of each incident and the length of time over which disruption occurs. More significant incidents would disrupt the road network for longer periods than minor incidents, which may not have any adverse effect on the movement of traffic.

**Ref No. SA38**

**Comment:**

**Use of hard shoulders by buses will cause serious disruption during vehicle breakdowns.**

**Response:**

Hard shoulders on the replacement crossing will only be used by buses diverted from the existing bridge, for example due to high wind conditions. This will be managed using measures such as CCTV, variable message signs and other traffic information and control measures to maintain effective operation of the system and safe operation of the road.

**Ref No. SA39****Comment:**

**The new bridge needs to have at least five running lanes with tidal flow and moveable median barrier.**

**Response:**

The Government has committed that the Forth Replacement Crossing project will replace but not increase the road provision for general traffic on the Forth Road Bridge. It is not Government policy to provide for unconstrained growth in vehicular traffic. The use of Intelligent Transport Systems, improvements to junctions and the inclusion of hard shoulders and wind shielding on the Forth Replacement Crossing will improve operational efficiency and improve traffic flow. The managed crossing scheme provides for additional travel demand through the provision of a dedicated public transport corridor, including the option for introduction of Light Rapid Transit, such as guided bus or tram based light rail, designed to increase public transport availability. The Strategic Transport Projects Review (STPR) has identified a number of other complementary measures in the Forth area to allow for growth in travel through public transport initiatives such as park and ride.

**Ref No. SA40****Comment:**

**The mainline between the new bridge and the South Queensferry Junction should be three lanes wide in each direction.**

**Response:**

The Government has committed that the Forth Replacement Crossing project will replace but not increase the road provision for general traffic on the Forth Road Bridge. The replacement crossing will provide two lanes plus a hard shoulder in each direction and this will continue southwards from the replacement crossing to South Queensferry Junction. Three lanes plus hard shoulder will be provided between the South Queensferry Junction and the junction with the M9 Spur due to the proximity of these junctions.

**Ref No. SA41****Comment:**

**The section of road between South Queensferry Junction and Scotstoun Junction should be 4 lanes wide in each direction.**

**Response:**

The Government has committed that the Forth Replacement Crossing project will replace but not increase the road provision for general traffic on the Forth Road Bridge. The replacement crossing will provide two lanes plus a hard shoulder in each direction and this will continue southwards from the replacement crossing to South Queensferry Junction. Three lanes plus hard shoulder will be provided between the South Queensferry Junction and the junction with the M9 Spur due to the proximity of these junctions.

## A.2.5 Traffic Routing

**Ref No. SA42****Comment:**

**Concern about traffic at the A90/M9 Spur.**

**Response:**

The proposed junctions have been designed to accommodate the anticipated traffic flows, having regard to the capacity of the adjacent network using a computerised traffic model to ensure that the junctions operate satisfactorily.

Three lanes plus a hard shoulder are being provided in each direction between the junction at South Queensferry and the A90/M9 Spur interchange due to the proximity of the junctions and the volume of traffic anticipated to use this section of the route. This will improve the operation of this section of road where traffic will be joining and exiting from the main carriageway.

Implementation of Intelligent Transport Systems will manage the flow of traffic towards the junctions to ensure that the performance of the junctions is optimised.

**Ref No. SA43****Comment:**

**A link from the M9 west direct to the new bridge would be a more direct access than existing M9 Spur.**

**Response:**

A number of alternative options for the road network connections were considered as part of the work undertaken during 2008 and these included options providing a more direct link between the replacement crossing and the M9. These options were discounted in favour of the proposed scheme which demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. SA44****Comment:**

**Will the A90 from Edinburgh still give direct access to the new bridge?**

**Response:**

Direct access will be maintained between the A90 and the replacement crossing.

**Ref No. SA45****Comment:**

**As with the previous bridge, the southern approach to the new bridge has a definite bias towards the east.**

**Response:**

A number of alternative options for the road network connections were considered as part of the work undertaken during 2008 and these included options providing a more direct link between the replacement crossing and the M9. These options were discounted in favour of the proposed scheme which demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

The M9 Spur will be the main sign-posted route for traffic travelling between the replacement crossing and the M9. The proposed scheme provides improved accessibility to West Lothian through the addition of west-facing slip roads at Junction 1a on the M9. The A904 will remain an important regional road connection to the crossing and a new junction will be provided to the west of South Queensferry to connect to the A904 to cater for access between the local road network and replacement crossing at this location.

**Ref No. SA46****Comment:**

**The proposed plan has not attended to the issues regarding the removal of traffic in and around South Queensferry.**

**Response:**

Further development of the proposed scheme at South Queensferry was undertaken following the public information exhibitions in January 2009 and this is covered in the response to comment RO14 in the Public Information Exhibitions: Feedback & Outcomes Report. The proposed junction at South Queensferry has been moved further west to connect directly to the A904. Traffic modelling indicates that the majority of traffic currently using the A904 travels from the west towards the existing A90 at Echline Junction and vice versa, thus locating the new South Queensferry Junction to the west of South Queensferry removes traffic from Builyeon Road. This reduction will be partly offset by traffic from South Queensferry travelling along Builyeon Road to access the junction and vice versa, but less traffic is predicted to travel in this direction. Therefore an overall reduction in traffic on Builyeon Road between Echline roundabout and the new South Queensferry Junction is anticipated to occur.

**Ref No. SA47****Comment:**

**Concerned regarding South Queensferry being used as a rat run when the new crossing is affected by an accident or weather conditions.**

**Response:**

The ability of the existing road network to cope with the effects of incidents depends on the severity of each incident and the length of time over which disruption occurs. Hard shoulders will be provided on the replacement crossing which will improve the ability of the road network to cope with the effects of incidents. More significant incidents would disrupt the road network for longer periods than minor incidents, which may not have any adverse effect on the movement of traffic.

Wind shielding will be provided on the replacement crossing. The wind shielding will be designed specifically for the bridge taking account of local conditions and will improve operation of the bridge compared to the Forth Road Bridge which experiences restrictions under certain weather conditions.

With the junction at South Queensferry located to the west of the town, any traffic wishing to travel to cross the Forth further west would be able to travel in this direction without passing through South Queensferry.

## A.2.6 Non-Motorised User Access

**Ref No. SA48****Comment:**

**Will the cycle paths will be made safer on the existing bridge, for example by providing wind shielding?**

**Response:**

The Forth Road Bridge is currently the responsibility of the Forth Estuary Transport Authority (FETA). There are no plans to alter the current shared-use pedestrian and cycle path on the existing bridge as part of the proposed scheme.

**Ref No. SA49****Comment:**

**Any scheme must look to reduce traffic on the A8000 with improved local cycle paths and footpaths.**

**Response:**

Traffic flows are predicted to decrease slightly on the A8000 with the proposed scheme and this will improve, where practicable, conditions for non-motorised users. The proposed scheme design incorporates provision for maintaining and improving existing pedestrian and cycle routes along the improved sections of the A8000.

**Ref No. SA50****Comment:**

**Is there a problem with the path between the former paper mill and the Rosyth dockyard railway rejoining the Cruickness Road?**

**Response:**

The path between the former paper mill and the Rosyth dockyard railway rejoining the road at Cruickness Road is being promoted by Fife Council as a proposed core path. Improvements to the path are not being considered as part of the project and will remain the responsibility of Fife Council.



**Ref No. SA51****Comment:**

**Concern regarding health and safety risk with pedestrians and cyclists having to cross busy roads.**

**Response:**

The proposed scheme design incorporates provision for maintaining existing pedestrian and cycle routes. The proposed scheme will provide segregated footpaths and cycleways and crossing points for pedestrians and cyclists where appropriate. The design has been undertaken in accordance with relevant guidance including the Design Manual for Roads and Bridges and Cycling by Design.

**Ref No. SA52****Comment:**

**Non-motorised user routes should be planned to ensure safe crossings considering current and future developments. Non-motorised user routes between Edinburgh and the Forth Road Bridge should also be lit and traffic free.**

**Response:**

The proposed scheme design incorporates provision for maintaining existing pedestrian and cycle routes. The proposed scheme will provide segregated footpaths and cycleways and crossing points for pedestrians and cyclists where appropriate. Where crossings for non-motorised users are required, safe crossing points will be provided. The design has been undertaken in accordance with relevant guidance including the Design Manual for Roads and Bridges and Cycling by Design.

It has been assumed in the environmental impact assessment that the whole of the proposed scheme would be lit at night. However, the detailed design is likely to result in less extensive lighting along the proposed scheme. It is anticipated that, as a minimum, the main carriageway will be lit in the south between the Scotstoun Junction and the replacement crossing, as will the section between the replacement crossing and Admiralty Junction in the north. The side roads in the vicinity of Ferrytoll and South Queensferry Junctions are also expected to be lit.

## A.3 Public transport

### A.3.1 General Public Transport Comments

**Ref No. SP1****Comment:**

**Greater public transport links between the bridge and West Lothian would be welcomed.**

**Response:**

The managed crossing scheme will provide dedicated public transport routes across the Firth of Forth and this will facilitate provision of improved public transport although this will not be provided as part of the project. Public transport wishing to travel to West Lothian from existing bridge will be able to travel along the A904.

The M9 Spur will be the main sign-posted route for traffic travelling between the replacement crossing and the M9. The proposed scheme provides improved accessibility to West Lothian through the addition of west-facing slip roads at Junction 1a on the M9. The A904 will remain an important regional road connection to the crossing and a new junction will be provided to the west of South Queensferry to connect to the A904 to cater for access between the local road network and replacement crossing at this location.

**Ref No. SP2****Comment:**

**The Edinburgh Tram network should be extended from Newbridge across the proposed bridge to Dunfermline.**

**Response:**

The managed crossing scheme will provide dedicated public transport routes across the Firth of Forth and this will facilitate provision of improved public transport although this will not be provided as part of the project. Use of the dedicated public transport corridor includes the option for introduction of Light Rapid Transit, such as guided bus or tram based light rail, designed to increase public transport availability. This is the responsibility of organisations such as the relevant local authorities working together with bus operators and SEStran and the strategy for the project presents a significant opportunity for these organisations to improve public transport facilities and services to increase use of public transport.

Light rapid transit connections between Fife and Edinburgh which could improve connections between Dunfermline, Rosyth and Edinburgh is one of a number of public transport measures which were recommended in the Strategic Transport Projects Review (STPR). The project is dependent on the Forth Replacement Crossing and the STPR recommendations will be considered in future Government spending reviews and a programme for delivering the measures will develop from this.

Further information regarding the STPR is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

**Ref No. SP3****Comment:**

**Is the A90 south of the existing bridge to be abandoned or used by public transport?**

**Response:**

The existing bridge will become a dedicated public transport corridor following completion of the replacement crossing.

Public transport which uses the Forth Road Bridge will use Echline roundabout to access new public transport links which are proposed at Echline. If emergency or abnormal conditions arise that prevent use of the replacement crossing it is possible, depending on the condition of the existing bridge, that the police may direct traffic to use the existing bridge. Such use would only be as directed by the police under extreme conditions and the section of the A90 between Echline roundabout and the proposed scheme will be retained to provide this access should it be required.

**Ref No. SP4****Comment:**

**The layout at South Queensferry puts public transport at a disadvantage and has a clear bias towards private motorists.**

**Response:**

Further development of the proposed scheme at South Queensferry was undertaken following the public information exhibitions in January 2009 and this is covered in the response to comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report. The proposed junction at South Queensferry has been moved further west to connect directly to the A904. As part of the managed crossing scheme the Forth Road Bridge will continue to operate, carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists. In conjunction with this change to the design of the proposed scheme, new public transport links will be provided at Echline to provide improved public transport linkages between the Forth Road Bridge, South Queensferry and the A90. These measures remove the need for public transport to travel along the A904 to access the A90 as shown at the public information exhibitions in January 2009.

**Ref No. SP5****Comment:**

**The new crossing needs to be accessible to all modes but give priority to sustainable modes of transport via the Forth Road Bridge.**

**Response:**

The replacement crossing will be a motorway and will cater for all motorway traffic. As part of the managed crossing scheme the Forth Road Bridge will continue to operate, carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists. Public transport and taxis will be able to use the replacement crossing and in the event that the Forth Road Bridge is closed, buses will be permitted to use the hard shoulders on the replacement crossing. This will be managed using measures such as CCTV, variable message signs and other traffic information and control measures to maintain effective operation of the system and safe operation of the road

## A.3.2 Bus

**Ref No. SP6****Comment:**

**Bus routes will be affected by traffic build up on Builyeon Road. It is suggested that Builyeon Road remains as it is with and an outer parallel road added.**

**Response:**

Further development of the proposed scheme at South Queensferry was undertaken following the public information exhibitions in January 2009 and this is covered in the response to comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report. The proposed junction at South Queensferry has been moved further west to connect directly to the A904. In conjunction with this change to the design of the proposed scheme, new public transport links will be provided at Echline to provide improved public transport linkages between the Forth Road Bridge, South Queensferry and the A90. These measures remove the need for public transport to travel along the A904 to access the A90 as shown at the public information exhibitions in January 2009.

**Ref No. SP7****Comment:**

**Will bus stops on the A904 be maintained?**

**Response:**

Bus stops on the A904 will be maintained.

**Ref No. SP8****Comment:**

**The priority at Echline roundabout should be changed to give priority to northbound buses.**

**Response:**

Further development of the proposed scheme at South Queensferry was undertaken following the public information exhibitions in January 2009 and this is covered in the response to comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report. The proposed junction at South Queensferry has been moved further west to connect directly to the A904. In conjunction with this change to the design of the proposed scheme, new public transport links will be provided at Echline to provide improved public transport linkages between the Forth Road Bridge, South Queensferry and the A90.

Direct access for public transport to the A90 will be provided from the eastbound A90 sliproad at Echline Junction. Public transport travelling from Edinburgh will be able to access South Queensferry and the Forth Road Bridge via a direct public transport link which will connect to the A8000. This will provide access for public transport wishing to travel north on the Forth Road Bridge via Echline Junction. The traffic priorities at Echline Junction will cater for public transport, through measures such as traffic signals and bus-gates. In addition there will be less traffic using Echline Junction which will also improve accessibility for public transport.

**Ref No. SP9****Comment:**

**Alternative bus stops should be provided to mitigate the problem occurring when buses are excluded from the existing bridge due to high winds. Suggested that these could be provided on Builyeon Road between South Queensferry Junction and Echline roundabout. Transport Scotland should consult with the relevant bus operators to ensure Queensferry is not disadvantaged.**

**Response:**

The existing bus stops to the south of the Forth Road Bridge will still be accessible from Echline Junction if the Forth Road Bridge is closed. There are also existing bus stops on the A904 between Echline Junction and the new junction to the west of South Queensferry that will remain in place. Transport Scotland is continuing to consult with relevant authorities in relation to public transport, including local authorities and bus operators to ensure that the strategy for the proposed scheme maintains effective use of public transport.

**Ref No. SP10****Comment:**

**South Queensferry Forth Road Bridge bus stop should be relocated to the edge of the southbound A90 next to the Echline off slip so buses do not have to leave the A90 and operate via Echline roundabout to serve this stop.**

**Response:**

The existing bus stop at the south end of the Forth Road Bridge will be able to continue to operate in its current manner when the Forth Road Bridge becomes a dedicated public transport corridor as part of the managed crossing scheme. The southbound public transport link will be accessed directly from Echline roundabout.

**Ref No. SP11****Comment:**

**Bus lanes should be provided on the M9 through Junction 1a and Newbridge**

**Response:**

There are no plans to introduce bus lanes on the M9 between Junction 1a and Newbridge as part of the proposed scheme. The M9 will be widened to the east of Junction 1a to ensure that traffic flow will not be adversely affected along this section of the M9 due to the proposed scheme. Intelligent Transport Systems including variable speed limits will be used to improve the flow of traffic, including the M9 and it is anticipated that this will result in some improvement to the operation of Newbridge roundabout by managing the flow of traffic towards the junction.

**Ref No. SP12****Comment:**

**The Park and Ride proposals at Echline will suffer from the inability to provide an efficient public transport service given its use of already congested roads.**

**Response:**

Park and ride facilities at South Queensferry are not part of the Forth Replacement Crossing project.

**Ref No. SP13****Comment:**

**It would be more beneficial to have an upgraded and increased park and ride system at Inverkeithing.**

**Response:**

New park and ride facilities are not being provided as part of the project, but the managed crossing scheme and Intelligent Transport Systems proposed will create favourable conditions for additional park and ride sites which may be provided in the future.

As a result of the impact of the work to improve the capacity and operation of the Ferrytoll Junction, the access arrangements at Ferrytoll park and ride site will be altered with bus and car access segregated, and the bus circulation system improved and extended to facilitate bus loading and waiting for passengers moving between services.

**Ref No. SP14****Comment:**

**The access road to Ferrytoll park and ride could be improved.**

**Response:**

As a result of the impact of the work to improve the capacity and operation of the Ferrytoll Junction, the access arrangements at Ferrytoll park and ride site will be altered with bus and car access segregated, and the bus circulation system improved and extended to facilitate bus loading and waiting for passengers moving between services.

**Ref No. SP15****Comment:**

**Park and ride at Ferrytoll encourages too many people to use cars.**

**Response:**

Park and ride is recognised as reducing vehicle numbers travelling into major towns or cities.

**Ref No. SP16****Comment:**

**Growth in traffic and use of park and ride sites around Edinburgh indicates that extra capacity is already required if demand is to be met in future years.**

**Response:**

New park and ride facilities are not being provided as part of the project, but the managed crossing scheme and Intelligent Transport Systems proposed will create favourable conditions for additional park and ride sites which may be provided in the future.

The managed crossing scheme will create a dedicated public transport corridor on the Forth Road Bridge. Together with the new public transport links at Echline, the managed crossing scheme will contribute to an enhanced level of service for public transport and increase the attractiveness of existing or additional park and ride facilities.

The Minister for Transport, Infrastructure and Climate Change set out on 10 December 2008 the outcomes of the Strategic Transport Projects Review (STPR) which cover the future investment programme for transport in Scotland over the next 20 years. Additional park and ride sites are proposed as one of the measures contained in the STPR, including potential locations at Halbeath, Pitreavie, Linlithgow and other locations around Edinburgh. Further information regarding the STPR is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

**Ref No. SP17**

**Comment:**

**Will local access will be provided to the proposed park and ride scheme at South Queensferry.**

**Response:**

Park and ride facilities at South Queensferry are not part of the Forth Replacement Crossing project.

**Ref No. SP18**

**Comment:**

**Park and ride would be better located on the north side of the Forth or/and in West Lothian.**

**Response:**

New park and ride facilities are not being provided as part of the project, but the managed crossing scheme and Intelligent Transport Systems proposed will create favourable conditions for additional park and ride sites which may be provided in the future.

As a result of the impact of the work to improve the capacity and operation of the Ferrytoll Junction, the access arrangements at Ferrytoll park and ride site will be altered with bus and car access segregated, and the bus circulation system improved and extended to facilitate bus loading and waiting for passengers moving between services.

The Minister for Transport, Infrastructure and Climate Change set out on 10 December 2008 outcomes of the Strategic Transport Projects Review (STPR) which cover the future investment programme for transport in Scotland over the next 20 years. Additional park and ride sites are proposed as one of the measures contained in the STPR, including potential locations at Halbeath, Pitreavie, Linlithgow and other locations around Edinburgh. Further information regarding the STPR is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

**Ref No. SP19**

**Comment:**

**Good access to and from Ferrytoll park and ride is crucial.**

**Response:**

As a result of the impact of the work to improve the capacity and operation of the Ferrytoll Junction, the access arrangements at Ferrytoll park and ride site will be altered with bus and car access segregated, and the bus circulation system improved and extended to facilitate bus loading and waiting for passengers moving between services.

**Ref No. SP20**

**Comment:**

**Direct access to Ferrytoll park and ride must be maintained from the A90/M90 corridor.**

**Response:**

As a result of the impact of the work to improve the capacity and operation of the Ferrytoll Junction, the access arrangements at Ferrytoll park and ride site will be altered with bus and car access segregated, and the bus circulation system improved and extended to facilitate bus loading and waiting for passengers moving between services. The improved access to the park and ride will be from the B981 Hope Street immediately adjacent to the upgraded Ferrytoll Junction.

**Ref No. SP21**

**Comment:**

**What studies support the park and ride initiative at South Queensferry and where will the car parks south of the bridge be located?**

**Response:**

Park and ride facilities at South Queensferry are not part of the Forth Replacement Crossing project.

## A.4 Other Comments

### A.4.1 Route Choice

**Ref No. SO1**

**Comment:**

**The previous location for the scheme did not affect nearly as many people.**

**Response:**

Public information exhibitions were held in August 2007 as part of the Forth Replacement Crossing Study which presented alternative options being considered for the replacement crossing including the corridor and form of crossing. The plans on display also showed an indicative line for the road network connections with each option. The lines shown were purely illustrative and alternative options have been considered as part of the ongoing development of the proposed scheme, in line with the normal procedures contained in the Design Manual for Roads and Bridges.

A number of alternative options for the network connections were considered as part of the work undertaken during 2008. The preferred corridor for the network connections was selected as it would provide engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. SO2**

**Comment:**

**A Rosyth bypass is required.**

**Response:**

The Minister for Transport, Infrastructure and Climate Change set out on 10 December 2008 the outcomes of the Strategic Transport Projects Review (STPR) which cover the future investment programme for transport in Scotland over the next 20 years. The STPR focuses on identifying those interventions that most effectively contribute towards the Government's Purpose of increasing sustainable economic growth. A bypass of Rosyth is not amongst the interventions identified. Further information regarding the STPR is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

**Ref No. SO3****Comment:**

**South Queensferry will be surrounded by trunk roads to its significant detriment.**

**Response:**

A number of alternative options for the road network connections were considered as part of the work undertaken during 2008. The corridor for the proposed scheme was selected as it demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

One of the main objectives of the Forth Replacement Crossing is to minimise, where possible, the impact on people and the natural and cultural heritage of the Forth area. One of the main concerns expressed regarding the overall impact on South Queensferry was related to the line and elevation of the proposed scheme to the south of the town. Further development of the connecting road strategy for the proposed scheme was undertaken as a result of feedback from the January 2009 public information exhibitions and further design development which helps reduce the impact on South Queensferry (refer to Chapter 7 of the Feedback & Outcomes Report). This is also covered in Repeated Comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report.

Consideration of potential impacts on South Queensferry has been given through refinement of the design and environmental impact assessment. The assessment criteria cover potential impacts on the human, natural and built environment and therefore cover assessments relevant to potential impacts on South Queensferry. The assessments have informed the design of mitigation measures to reduce potential impacts where necessary and these mitigation measures, together with any residual impacts, are described in the Environmental Statement submitted with the Forth Crossing Bill.

Consultation has been undertaken with groups including Queensferry and District Community Council and communities adjacent to the proposed scheme, and this has been used in the development of the proposed scheme. Consultation undertaken as part of the environmental impact assessment is described in Chapter 6 of the Environmental Statement.

## A.4.2 Bridge Design

**Ref No. SO4****Comment:**

**The scheme will reach capacity quickly. The design should be slightly modified to allow for future addition of heavy rail below the road deck.**

**Response:**

Rail crossings were included in the options considered for the project in the Forth Replacement Crossing Study (FRCS). This is described further in FRCS Report 3 which is available on Transport Scotland's website [www.transportscotland.gov.uk/projects/forth-replacement-crossing-study-report-3](http://www.transportscotland.gov.uk/projects/forth-replacement-crossing-study-report-3). FRCS Report 3 explains that current and future improvements in rail infrastructure can be accommodated using the Forth Bridge and that as a result any future crossing of the Forth should not allow for further heavy rail and thus options considering heavy rail were discarded from further consideration. The report describes further that heavy rail has an important role to play in any future cross Forth Transport Strategy and that further capacity and reliability enhancements will be examined as part of the Strategic Transport Projects Review.



**Ref No. SO5****Comment:**

**Request for information on what were the determining factors for the material for the cables on the new bridge, cost, strength etc. Could stainless steel wire be used?**

**Response:**

The cables on the replacement bridge will be steel. The design of the cables will be based on design requirements set out in the contract documents for the proposed scheme. Stainless steel cables are not considered necessary. The bridge form facilitates maintenance activities associated with the cables, should this be necessary in the future, as these can be individually replaced without affecting the load carrying capacity of the bridge.

**Ref No. SO6****Comment:**

**Concern over a possible shipping accident with one of the proposed bridge towers.**

**Response:**

The possibility of shipping accidents has been considered during the development of the replacement crossing design and has informed the design of the towers and foundations. Consultation has also been undertaken with Forth Ports and the Forth Estuary Transport Authority to enable information regarding shipping and measures provided on the Forth Road Bridge to mitigate the risk of shipping accidents to be provided which has also been considered in the design of the replacement crossing.

**Ref No. SO7****Comment:**

**Is there a possibility of a bridge walk like Sydney Harbour Bridge?**

**Response:**

The structural form and road classification for the replacement crossing prevent the possibility of a bridge walk or climb such as that possible on the Sydney Harbour Bridge. The bridge is to be a cable stayed bridge with cables fixed to three towers supporting the deck. It will not be possible to walk along the cables. It is not possible to allow public access to the towers as the replacement crossing will be classified as a motorway and pedestrians are not permitted on this class of road.

**Ref No. SO8****Comment:**

**Preference for the mono-tower option with different colour lights for the new bridge to be used as a feature at night.**

**Response:**

The options selected for the replacement crossing is a mono-tower option. Architectural lighting is also proposed for the replacement crossing.

**Ref No. SO9****Comment:**

**All three bridges should be illuminated.**

**Response:**

The Forth Bridge and Forth Road Bridge currently have architectural bridge lighting. Architectural lighting is also proposed for the replacement crossing.

**Ref No. SO10****Comment:**

**Could wind power devices be installed somewhere in the new crossing?**

**Response:**

The efficiency of wind turbines depends on the size of the turbine. Small turbines are not very efficient and it is not possible to accommodate large scale wind turbines on the bridge. It is not, therefore, proposed to provide wind turbines on the replacement crossing.

**Ref No. SO11****Comment:**

**Is there a possibility of a viewing gallery in one or all of the towers?**

**Response:**

The replacement crossing will be classified as a motorway and pedestrians are not permitted on this class of road. It will not, therefore be possible to provide viewing galleries in the towers.

**Ref No. SO12****Comment:**

Concerned that the new bridge is so unique. How will it stay up?

**Response:**

Cable stayed bridges are a relatively common form of structure for long bridge crossings. This type of bridge comprises one or more towers with cables, which are fixed to the towers, supporting the bridge deck. There are many examples of cable stayed bridges, including the Stonecutters Bridge (Hong Kong), Pont de Normandie (France), Øresund Crossing (Denmark/Sweden) and Millau Viaduct (France). The design and construction of the bridge will be undertaken by experienced consultants and contractors. The design process will also include detailed checking in accordance with current design standards for major bridges.

**Ref No. SO13****Comment:**

**Suggests an observation tower be provided at the top of one of the towers.**

**Response:**

The replacement crossing will be classified as a motorway and pedestrians are not permitted on this class of road. It will not, therefore, be possible to provide viewing galleries in the towers.

**Ref No. SO14****Comment:**

**Concern regarding risk of suicides associated with new crossing.**

**Response:**

Windshields will be included on the replacement crossing and will be designed such that they are difficult to climb over. Further information regarding windshields is provided in the Replacement crossing (Bridge) Scheme Assessment Report which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info). Public access to the bridge will be prohibited as the replacement crossing will be classified as a motorway. CCTV will also be used to monitor the bridge.

**Ref No. SO15****Comment:**

**Concern that wind shielding will restrict views from the new crossing.**

**Response:**

Inevitably the presence of wind shields on the replacement crossing will cause some restriction to the views from the replacement crossing. The design of the wind shields is primarily driven by the need to ensure the reliability of the crossing in strong winds, however efforts will be made to keep the views as unrestricted as practicable.

### A.4.3 General Design Comments

**Ref No. SO16**

**Comment:**

**Concerned regarding access to fields at Dundas Estate.**

**Response:**

Access will be maintained to Dundas Home Farm and Dundas Estate along the existing Dundas Home Farm Road from the A8000 and the U221 Buiileyon Road which will be realigned to connect to the A904 to the west of the proposed scheme.

A Code of Construction Practice has been submitted with the Forth Crossing Bill. Section 3 of the Code of Construction Practice sets out requirements relating to management of the construction site. Section 4 of the Code of Construction Practice sets out requirements relating to traffic control and access, including measures to reduce potential impacts associated with construction traffic. One of the requirements of the Code of Construction Practice is to maintain access during construction works in line with the requirements set out in the Forth Crossing Bill.

**Ref No. SO17**

**Comment:**

**Upgrades to the road network around Admiralty and Masterton should be included within the scheme proposal.**

**Response:**

Improvements to the M90 north of Admiralty Junction undertaken as part of the proposed scheme will be related to the provision of Intelligent Transport Systems. Major road improvements at Admiralty Junction and Masterton interchange are not proposed as part of the proposed scheme. Options which would have resulted in improvements at Masterton interchange were considered during development of the corridor options for the road network connections. These options were discounted in favour of the proposed scheme which demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the Route Corridors Options Review, DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. SO18**

**Comment:**

**Please impose a speed limit onto the M9.**

**Response:**

The speed limit on the proposed scheme, including the M9, will generally be the national speed limit. Intelligent Transport Systems will have the facility to impose mandatory variable speed limits on the eastbound M9, with speed limits reducing as traffic volumes increase during busier periods. This will enable speed limits on the proposed scheme and on the wider strategic road network adjacent to the proposed scheme, to be controlled as part of measures to manage and improve the flow of traffic on the road network and reduce congestion.

**Ref No. SO19**

**Comment:**

**The new bridge should be fitted with safety cameras (average speed cameras).**

**Response:**

Cameras to support enforcement of speed limits and promote safety will be provided as part of the design of the Intelligent Transport Systems.

**Ref No. SO20****Comment:**

**The existing length of A90 becoming redundant should be protected from any future building development to permit future re-connection (if needed) when the two bridges reach their combined capacity and a direct connection to the Forth Road Bridge is desirable**

**Response:**

The existing bridge will become a dedicated public transport corridor following completion of the replacement crossing. If emergency or abnormal conditions arise that prevent use of the replacement crossing it is possible, depending on the condition of the existing bridge, that the police may direct traffic to use the existing bridge. Such use would only be as directed by the police under extreme conditions and the section of the A90 between Echline roundabout and the proposed scheme will be retained to provide this access should it be required.

**Ref No. SO21****Comment:**

**A public car park for bridge visitors would be useful as those using the attraction currently park at the Queensferry Hotel**

**Response:**

There are no plans to provide a car park or visitor centre for the replacement crossing as part of the Forth Crossing Bill to be considered by the Scottish Parliament, although a facility will be provided during the construction period.

**Ref No. SO22****Comment:**

**The M9 Spur is too long and does not provide a direct connection to the M9.**

**Response:**

A number of alternative options for the road network connections were considered as part of the work undertaken during 2008 and these included options providing a more direct link between the replacement crossing and the M9. These options were discounted in favour of the proposed scheme which demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. SO23****Comment:**

**Current traffic management systems must be improved to prevent gridlock in the near future**

**Response:**

Intelligent Transport Systems will be provided on the existing road network and on the proposed scheme. Measures such as variable speed limits, variable message signs and other traffic information and control measures will be provided as part of the proposed scheme to control the speed of traffic on the main carriageways, the flow of traffic merging from the slip roads and provide information to road users. The Intelligent Transport Systems proposals will manage and improve the flow of traffic on the network and reduce congestion, improving the operation of the existing and proposed roads.

**Ref No. SO24****Comment:**

**The existing route signage on the southern part of the bridge is unclear and should be improved to ensure non-locals can use the proposed network easily and effectively.**

**Response:**

The design of traffic signs associated with the project will be undertaken in accordance with current guidance including the Traffic Signs Manual and the Traffic Signs Regulations and General Directions 2002, as amended. A key aim in traffic sign design is that clear and unambiguous information and messages are provided to road users.

**Ref No. SO25****Comment:**

**The proposals have less impact on the surrounding area than expected.**

**Response:**

Environmental impact assessment has influenced the design of the proposed scheme and has been undertaken to enable appropriate mitigation to be developed to reduce the environmental impact of the proposed scheme. The environmental impact assessment and design of mitigation has been undertaken taking cognisance of current guidance and best practice. The measures proposed to mitigate the effect of the proposed scheme are described in the Environmental Statement submitted with the Forth Crossing Bill.

**Ref No. SO26****Comment:**

**Make the scheme as palatable as possible for those of us with no choice in the matter.**

**Response:**

The location of the replacement crossing was selected following work undertaken for the Forth Replacement Crossing Study which led to the Ministerial announcement in December 2007. Public information exhibitions were held in August 2007 as part of the study.

A number of alternative options for the road network connections were considered as part of the work undertaken during 2008. The corridor for the proposed scheme was selected as it demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

One of the main objectives of the Forth Replacement Crossing is to minimise, where possible, the impact on people and the natural and cultural heritage of the Forth area. Further development of the connecting road strategy for the proposed scheme was undertaken as a result of feedback from the January 2009 public information exhibitions and further design development which helps reduce the impact of the design on communities such as South Queensferry (refer to Chapter 7 of the Feedback & Outcomes Report).

An environmental impact assessment has been undertaken and the assessment criteria cover potential impacts on the human, natural and built environment and therefore cover assessments relevant to potential impacts on communities. The assessments have influenced the design of the proposed scheme and have been undertaken to enable appropriate mitigation to be developed to reduce the environmental impact of the proposed scheme. The environmental impact assessment and design of mitigation has been undertaken taking cognisance of current guidance and best practice. The measures proposed to mitigate the effect of the proposed scheme are described in the Environmental Statement submitted with the Forth Crossing Bill.

**Ref No. SO27****Comment:**

**The new bridge access road is too close to South Queensferry and will obliterate any green area.**

**Response:**

A number of alternative options for the road network connections were considered as part of the work undertaken during 2008. The corridor for the proposed scheme was selected as it demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

One of the main objectives of the Forth Replacement Crossing is to minimise, where possible, the impact on people and the natural and cultural heritage of the Forth area. One of the main concerns expressed regarding the overall impact on South Queensferry was related to the line and elevation of the proposed scheme to the south of the town. Further development of the connecting road strategy for the proposed scheme was undertaken as a result of feedback from the January 2009 public information exhibitions and further design development which helps reduce the impact on South Queensferry (refer to Chapter 7 of the Feedback & Outcomes Report). This is also covered in Repeated Comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report.

Assessments relating to landscape and visual impacts have been undertaken and appropriate mitigation has been developed taking consideration of the proposed scheme design and potential environmental impacts. The assessment and mitigation measures proposed are described in the Environmental Statement submitted with the Forth Crossing Bill. Mitigation measures include woodland planting. The landscape and visual impact assessments are described in Chapter 12 (Landscape) and 13 (Visual) of the Environmental Statement. The mitigation measures proposed at South Queensferry are shown on Figures 12.4g and h of the Environmental Statement.

**Ref No. SO28****Comment:**

**Requirement for VMS to be kept updated with relevant information for the travelling public.**

**Response:**

Intelligent Transport Systems will be provided on the existing road network and on the proposed scheme. Measures such as variable speed limits, variable message signs and other traffic information and control measures will be provided as part of the proposed scheme to control the speed of traffic on the main carriageways, the flow of traffic merging from the slip roads and provide information to road users. Variable message signs will provide up to date and relevant information to benefit road users. The Intelligent Transport Systems proposals will manage and improve the flow of traffic on the network and reduce congestion, improving the operation of the existing and proposed roads.

**Ref No. SO29****Comment:**

**The M90 improvements must be integrated with the Halbeath to Inverkeithing rail link.**

**Response:**

The Halbeath to Inverkeithing rail link is one of a number of public transport measures which were recommended in the Strategic Transport Projects Review (STPR). It is proposed as a long term intervention for completion beyond the completion date for the Forth Replacement Crossing. Further information regarding the STPR is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

**Ref No. SO30****Comment:**

**Would like to see the roadworks design radically revised and improved.**

**Response:**

The corridor for the proposed scheme was selected as it demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

Further development of the proposed scheme has been undertaken since the public information exhibitions in January 2009 taking account of the feedback provided during and after the exhibitions which was considered alongside issues of operational performance, environmental impact, traffic, economics and cost. These developments include refinements to the design of the proposed scheme at South Queensferry and Ferrytoll Junction. Further information regarding changes made to the proposed scheme design is provided in Section 7 of the Public Information Exhibitions: Feedback & Outcomes Report.

**Ref No. SO31****Comment:**

**The nearside lane on the retained A90 between the A8000 and Echline Junction should be designed as a slip road exit lane only**

**Response:**

It is proposed that the nearside lane between the M9 Spur and South Queensferry Junction will be for traffic exiting the route only.

**Ref No. SO32****Comment:**

**The new crossing is a fair compromise although not as good as a multi-deck structure in the same position as the Forth Road Bridge.**

**Response:**

Provision of a replacement crossing in place of the Forth Road Bridge would cause significant and prolonged disruption to cross-Forth travel as the existing bridge would need to be demolished prior to construction of the replacement crossing. It would be a significantly more costly scheme than that proposed and would prevent the provision of the managed crossing scheme, including the dedicated public transport corridor proposed, within the same timescale.

**Ref No. SO33****Comment:**

**What will be done in terms of road safety and to make local roads safer?**

**Response:**

The proposed scheme is being designed in accordance with current guidance, including the Design Manual for Roads and Bridges. As part of the design process measures are included to address any potential safety risks. The use of Intelligent Transport Systems, improvements to junctions and the inclusion of hard shoulders and wind shielding on the Forth Replacement Crossing will improve operational efficiency, safety and traffic flow. Where local roads are affected by the proposed scheme, these will be realigned, with the designs being undertaken with the relevant standards including the Design Manual for Roads and Bridges and local authority standards. The layouts of local roads beyond the extents of the proposed scheme and safety issues associated with those roads are a matter for the relevant local authority.

**Ref No. SO34****Comment:**

**Can the empty space between Queensferry and Newton not be used?**

**Response:**

A number of alternative options for the road network connections were considered as part of the development of the project and these included options providing a more direct link between the replacement crossing and the M9 which would have passed through the area to the west of Dundas Castle. The preferred corridor for the network connections was selected as it would provide engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. SO35****Comment:**

**A northbound diversion route to the existing bridge should be provided by retaining the existing A90 between the A8000 and Echline roundabout.**

**Response:**

The existing bridge will become a dedicated public transport corridor following completion of the replacement crossing. If emergency or abnormal conditions arise that prevent use of the replacement crossing it is possible, depending on the condition of the existing bridge, that the police may direct traffic to use the existing bridge. Such use would only be as directed by the police under extreme conditions and the section of the A90 between Echline roundabout and the proposed scheme will be retained to provide this access should it be required.

**Ref No. SO36****Comment:**

**If the current route is used, the junction should be moved west to the A904, the embankment lowered, direct links provided to the existing bridge, planting provided to the north of the route at the west end and to the south of the route to screen Dundas Home Farm to replace the lost tree belt and reduce noise and dedicated traffic free connection provided to the countryside.**

**Response:**

Further development of the connecting road strategy for the proposed scheme was undertaken as a result of feedback from the January 2009 public information exhibitions and further design development which helps reduce the impact on South Queensferry (refer to Chapter 7 of the Feedback & Outcomes Report). This is also covered in Repeated Comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report.

The proposed junction at South Queensferry has been moved further west to connect directly to the A904. Moving the junction to the west has allowed a solution to be engineered which substantially lowers the height of the road as it passes south of South Queensferry. The embankment carrying the road has been capable of being lowered by up to 6m in this area, substantially reducing the visual impact of the road on the landscape and properties.

Assessments relating to landscape and visual impacts have been undertaken and appropriate mitigation has been developed taking consideration of the proposed scheme design and potential environmental impacts. The assessment and mitigation measures proposed are described in the Environmental Statement submitted with the Forth Crossing Bill. Mitigation measures proposed to reduce landscape and visual impacts between Builteon Road and the proposed scheme include hedgerow planting. Areas of existing woodland will be retained where possible. Screening is also proposed between the proposed scheme and Dundas Home Farm including an earth bund, noise barrier and woodland planting. The landscape and visual impact assessments are described in Chapter 12 (Landscape) and 13 (Visual) of the Environmental Statement. The mitigation measures proposed are shown on Figures 12.4g and h of the Environmental Statement.



**Ref No. SO37****Comment:**

**The road layout raises safety concerns.**

**Response:**

The proposed scheme is being designed in accordance with current guidance, including the Design Manual for Roads and Bridges. As part of the design process measures are included to address any potential safety risks. The use of Intelligent Transport Systems, improvements to junctions and the inclusion of hard shoulders and wind shielding on the Forth Replacement Crossing will improve operational efficiency, safety and traffic flow. Where local roads are affected by the proposed scheme, these will be realigned, with the designs being undertaken with relevant standards including the Design Manual for Roads and Bridges and local authority standards.

**Ref No. SO38****Comment:**

**Why is the road intended to take the route it does and not be closer to the A90 and A904?**

**Response:**

The road has been designed in accordance with current guidance, including the Design Manual for Roads and Bridges. This sets minimum standards for roads including the horizontal curvature of the road. The proposed scheme design takes account of these standards to provide a layout which meets the safety requirements for trunk road projects and this results in the route alignment for the main carriageway being further from the existing A90 and A904.

**Ref No. SO39****Comment:**

**What is the reason for designing a three lane road between the junction with the A90 and the bridge itself which are both two lanes?**

**Response:**

The proposed scheme will provide three lanes plus a hard shoulder in each direction between the junction at South Queensferry and the A90/M9 Spur interchange. Only two lanes plus a hard shoulder will be provided in each direction between the junction at South Queensferry and the replacement crossing.

Three lanes plus a hard shoulder are being provided in each direction between the junction at South Queensferry and the A90/M9 Spur interchange due to the proximity of the junctions and the volume of traffic anticipated to use this section of the route. This will improve the operation of this section of road where traffic will be joining and exiting from the main carriageway.

The A90/M9 Spur Junction is a free-flow interchange and the layout proposed for the scheme will maintain the effective operation of this interchange.

**Ref No. SO40****Comment:**

**The current round of exhibitions contradicts the earlier exhibition which favoured a solution that contained public transport and pedestrian traffic on the new bridge.**

**Response:**

The managed crossing scheme will fulfil the objectives of the project, catering for general road traffic, public transport and non-motorised users using both the replacement crossing and Forth Road Bridge. As part of the managed crossing scheme the Forth Road Bridge will continue to operate, carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists. Further information regarding the managed crossing scheme is contained in the Scheme Definition Report which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. SO41****Comment:**

**Has consideration been given to using local or recycled materials?**

**Response:**

The proposed scheme is being taken forward in accordance with a sustainable development policy which has been published and is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info). Sustainable development principles that embrace sustainable economic growth, equality and social inclusion, environmental quality, climate change and protection of natural and cultural heritage are placed at the centre of the management, planning and delivery of the project. Objectives have been set for the project and are described in the policy. Use of resources, carbon management, sustainable communities and environmental management are some of the key aspects of the sustainability policy.

A sustainability assessment is being undertaken and will be available as an additional document to support the Parliamentary Bill process. This will describe the sustainability measures being implemented as part of the proposed scheme and will also assess whether the project sustainability objectives for the development of the proposed scheme have been met.

The choice of materials used in the construction of the project will be a matter for the contractor; however requirements of the design and construction of the proposed scheme in relation to sustainability are set out in the Code of Construction Practice. This includes taking a proactive approach to sustainable design and construction to maximise resource efficiency through reducing the amount of waste generated, minimising water consumption and making the most efficient use of energy. There will also be a requirement for the contractor to reduce the carbon footprint of the proposed scheme during construction by reducing CO2 emissions where possible through, for example, promoting the use of materials from renewable resources and keeping construction vehicle movements to the minimum necessary.

#### A.4.4 Scheme Cost

**Ref No. SO42****Comment:**

**Could all of the land between the route and Dundas Home Farm be acquired and used for screening and what would this cost?**

**Response:**

Assessments relating to landscape and visual impacts have been undertaken and appropriate mitigation has been developed taking consideration of the proposed scheme design and potential environmental impacts. The assessment and mitigation measures proposed are described in the Environmental Statement submitted with the Forth Crossing Bill. Mitigation measures proposed to reduce landscape and visual impacts between Builyeon Road and the proposed scheme include hedgerow planting. Areas of existing woodland will be retained where possible. Screening is also proposed between the proposed scheme and Dundas Home Farm including an earth bund, noise barrier and woodland planting. The landscape and visual impact assessments are described in Chapter 12 (Landscape) and 13 (Visual) of the Environmental Statement. The mitigation measures proposed are shown on Figures 12.4g and h of the Environmental Statement.

The land to be compulsorily acquired for measures to reduce the effects of the proposed scheme only includes that which is necessary to mitigate impacts as described in the Environmental Statement. The extent of land to be acquired is shown on the maps which accompany the Forth Crossing Bill and this covers the mitigation proposed as set out in the Environmental Statement. If the owner of this land wishes additional screening to be provided this would be discussed with them on an individual basis.

## A.4.5 Existing Bridge

### **Ref No. SO43**

#### **Comment:**

**The existing bridge can be upgraded to 7 lanes by plating over the central grill and by using the two carriageways external to the towers.**

#### **Response:**

The decision to progress development of the proposed scheme was announced by the Cabinet Secretary for Finance and Sustainable Growth on 19 December 2007 when he advised that the effects of traffic and the impact of the Scottish climate have taken their toll on the Forth Road Bridge and that despite significant investment and maintenance over its lifetime, including recent dehumidification works, there remains uncertainty regarding the future condition of the Forth Road Bridge and its suitability as the long-term crossing of the Firth of Forth.

Although recent inspections have indicated that with the assessed rate of deterioration weight restrictions might now more likely be considered at a later date, between 2017 and 2021 within an overall window of 2014 to 2021, it is clear that the Forth Road Bridge cannot be guaranteed to continue to provide the levels of service needed to support social and economic traffic on the important transport corridor across the Forth into the future and that the replacement crossing is required.

A number of different options and corridors were considered for the project as part of the Forth Replacement Crossing Study (FRCS). These are described in FRCS Report 3 and FRCS Report 4 which are available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info). The FRCS recommended that a cable-stayed bridge located east of Rosyth and west of South Queensferry be taken forward, on the basis of being the best overall performing option assessed, as the preferred option.

### **Ref No. SO44**

#### **Comment:**

**Comments that the existing bridge will look tattered compared with the new bridge. Should possibly give the existing bridge a make over.**

#### **Response:**

The Forth Road Bridge is currently the responsibility of the Forth Estuary Transport Authority who operate and maintain the bridge. Maintenance work includes painting the towers and other works in line with a maintenance programme for the bridge. There are no plans to undertake a cosmetic refurbishment of the bridge as part of the proposed scheme.

## A.4.6 Other Miscellaneous Comments

### **Ref No. SO45**

#### **Comment:**

**Has human suicide had been considered in bridge design?**

#### **Response:**

Windshields will be included on the replacement crossing and will be designed such that they are difficult to climb over. Further information regarding windshields is provided in the Replacement crossing (Bridge) Scheme Assessment Report which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info). Public access to the bridge will be prohibited as the replacement crossing will be classified as a motorway. CCTV will also be used to monitor the bridge.

**Ref No. SO46****Comment:**

**The new bridge should create a connection between Edinburgh (east) and A1 links.**

**Response:**

Corridors for the crossing further east such as between Leith or Portobello and Kirkcaldy or Burntisland were considered and discarded in the initial sifting options described in Forth Replacement Crossing Study Report 3: Option Generation and Sifting. These options were discarded early in the assessment process as they would be uneconomic or beyond practical engineering limits. The study report is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. SO47****Comment:**

**Designate the new crossing as motorway which could begin at M9 Junction 1a with the existing bridge used by non-motorway traffic.**

**Response:**

The proposed scheme will be a motorway from South Queensferry Junction to Admiralty Junction on the north side of the Firth of Forth. The M9 Spur between Scotstoun and Junction 1a on the M9 will also be motorway. The section of road between the A90 at Scotstoun and the junction at South Queensferry will not be a motorway, although pedestrians and cyclists will not be permitted to use this road. This is because the A90 to the east is not a motorway. The restriction on pedestrians and cyclists is consistent with the current restrictions on the A90.

As part of the managed crossing scheme the Forth Road Bridge will continue to carry public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists. Other non-motorway traffic such as learner drivers will not have access over the Forth at Queensferry and trips would need to be completed by the attending qualified driver, or by other routes. It is not considered that the estuarial crossing is an essential part of learner drivers' training experience.

**Ref No. SO48****Comment:**

**The proposed system should make best use of current technology.**

**Response:**

The proposed scheme will make use of current technology including the design of the replacement crossing, the road network connections and Intelligent Transport Systems. Intelligent Transport Systems will be provided on the existing road network and on the proposed scheme. Measures such as variable speed limits, variable message signs and other traffic information and control measures will be provided as part of the proposed scheme to control the speed of traffic on the main carriageways, the flow of traffic merging from the slip roads and provide information to road users. The Intelligent Transport Systems proposals will manage and improve the flow of traffic on the network and reduce congestion, improving the operation of the existing and proposed roads.

**Ref No. SO49****Comment:**

**M9 Junction 3 (Linlithgow) needs to be multi-access to relieve the town of congestion at the fraction of the cost of a new crossing.**

**Response:**

Junctions 3 and 4 on the M9 provide for all east-west traffic movements along the M9 to/from Linlithgow. There are no plans to upgrade M9 Junction 3 as part of the proposed scheme.

**Ref No. SO50****Comment:**

**Concerned regarding provision of bridge to service cars only when peak oil capacity will result in people having to stop using cars.**

**Response:**

The need to maintain a crossing of the Forth to provide cater for long term transport demands at this location is recognised by the Government and the Scottish Parliament. It is vital to the economy of Fife, an essential link for the East Coast Corridor and crucial to the connectivity of Fife and beyond.

The critical importance of the Forth Replacement Crossing is recognised by its inclusion within the current National Planning Framework for Scotland (NPF2), which is used to designate certain projects as national developments. Designation is the mechanism for confirming the need for these developments in Scotland's national interest.

The need for the project is described in NPF2, which states that 'The Forth Road Bridge has been an essential part of the national road infrastructure for over 40 years. It is vital to the economy of Fife, an essential link for the East Coast Corridor and crucial to the connectivity of Perth and the Highlands and Islands. The main suspension cables of the bridge are showing significant signs of deterioration as a result of corrosion. While a programme of works has been identified to dry out the cables and thus prolong the life of the bridge, there is a considerable risk that this work will not be successful. If that proves to be the case, restrictions to heavy goods vehicles may be needed as early as 2013, with the bridge closing to all traffic by 2019. Complete loss of the road crossing would have very significant adverse economic impacts, both nationally and regionally'. Therefore the proposed scheme is identified as 'an essential element of national infrastructure'.

Although recent inspections have indicated that with the assessed rate of deterioration weight restrictions might now more likely be considered at a later date, between 2017 and 2021 within an overall window of 2014 to 2021, it is clear that the Forth Road Bridge cannot be guaranteed to continue to provide the levels of service needed to support social and economic traffic on the important transport corridor across the Forth into the future and that the replacement crossing is required.

**Ref No. SO51****Comment:**

**Speed restrictions should be applied.**

**Response:**

The speed limit on the proposed scheme will generally be the national speed limit. Intelligent Transport Systems will have the facility to impose mandatory variable speed limits, with speed limits reducing as traffic volumes increase during busier periods. This will enable speed limits on the slip roads and main roads of the proposed scheme, and on the wider strategic road network adjacent to the proposed scheme, to be controlled as part of measures to manage and improve the flow of traffic on the network and reduce congestion.

**Ref No. SO52****Comment:**

**The way to increase transport across the Forth is to convert the rail bridge to road rendering the replacement crossing unnecessary.**

**Response:**

The Forth Bridge is an important rail connection for Scotland providing a sustainable alternative to road travel for cross-Forth trips. The Government has committed that the Forth Replacement Crossing project will replace but not increase the road provision for general traffic on the Forth Road Bridge. It is not Government policy to provide for unconstrained growth in vehicular traffic. The use of Intelligent Transport Systems, improvements to junctions and the inclusion of hard shoulders and wind shielding on the Forth Replacement Crossing will improve operational efficiency and improve traffic flow. The managed crossing scheme provides for additional travel demand through the provision of a dedicated public transport corridor, including the option for introduction of Light Rapid Transit, such as guided bus or tram based light rail, designed to increase public transport availability. The Strategic Transport Projects Review (STPR) has identified a number of other complementary measures in the Forth area to allow for growth in travel through public transport initiatives such as park and ride.

**Ref No. SO53****Comment:**

**If a control tower or building is provided at South Queensferry, placing the route on the east side of it should hopefully reduce the eyesore of such a building.**

**Response:**

A small facility will be provided at the south abutment of the replacement crossing for storage of vehicles required for the maintenance of the replacement crossing together with some accommodation facilities for maintenance workers which will be housed within the south abutment itself. An electricity substation will also be provided. The facilities will be significantly smaller than those used by FETA at the existing bridge.

Assessments relating to landscape and visual impacts have been undertaken and appropriate mitigation has been developed taking consideration of the proposed scheme design and potential environmental impacts. The assessment and mitigation measures proposed are described in Chapter 12 (Landscape) and Chapter 13 (Visual) of the Environmental Statement submitted with the Forth Crossing Bill. Measures proposed to provide screening of the bridge abutments include mixed woodland planting, hedgerows and trees and these are shown on Figure 12.4e of the Environmental Statement.

**Ref No. SO54****Comment:**

**Is there any plan for a visitor centre for the bridge?**

**Response:**

There are no plans to provide a car park or visitor centre for the replacement crossing as part of the project being promoted in the Parliamentary Bill, although a facility will be provided during the construction period.

## B – RESPONSES TO RELATED COMMENTS

The number of individual comments received which related to the construction of the proposed scheme is provided below.

Category	Sub category	No. of construction related comments
Construction	Construction Impacts general	21
	Construction noise	4
	Blasting Impacts	1
	Construction traffic/disruption	11
	<b>Total</b>	<b>37</b>

Details of the individual comments made and responses to these comments are provided in Sections B1.1 to B1.4 overleaf.

### B.1 Construction

#### B.1.1 General Construction Impacts

**Ref No. SC1**

**Comment:**

**Query regarding the amount of disruption likely to be caused by the realignment of the A8000 over the A90.**

**Response:**

Construction of the A8000 will include realigning and raising the level of the road, demolition of the existing bridge over the A90 and construction of a new bridge. The method of construction employed will be a matter for the contractor; however it is anticipated that the new bridge and as much as possible of the realigned road will be constructed before connecting to the existing road under traffic management so that disruption to road users is minimised. Demolition of the existing bridge and construction of the new bridge over the A90 will be undertaken at times when the impact of disruption to the traffic on the A90 would be less significant. Requirements for traffic management, control and safety are set out in the Code of Construction Practice submitted with the Forth Crossing Bill.

**Ref No. SC2**

**Comment:**

**Construction impacts will occur during realignment of roads.**

**Response:**

Construction works which involve realignment or connection to existing roads have the potential to cause disruption to road users and traffic management works will be necessary to reduce the effect of any impacts. Requirements for traffic management, control and safety are set out in the Code of Construction Practice submitted with the Forth Crossing Bill and this includes the requirement to prepare and implement a Traffic Management Plan to set out the measures to be implemented to reduce the effects of construction works on traffic movements. A Traffic Management Working Group has also been formed comprising the trunk and local road authorities and the emergency services. The contractor will have to comply with the requirements of the Code of Construction Practice to mitigate potential impacts on road users including taking appropriate measures to reduce the likelihood of traffic diverting on to alternative routes, mitigate potential impacts on the local community and keep delays and disruptions to traffic to a reasonably practicable minimum.

**Ref No. SC3****Comment:**

**Travel should be restricted on the existing bridge to Fife residents only with all other traffic using the Kincardine crossing during the construction phase. This would be in conjunction with widening the current bridge rather than constructing a new crossing.**

**Response:**

An option to build additional capacity into the existing bridge was considered during the Forth Replacement Crossing Study as Option 29. This is described in Report 3: Option Generation and Sifting prepared for the Forth Replacement Crossing Study which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info). This option was discarded due to it being highly unlikely that the bridge could be strengthened without significant disruption to the public. The Forth Road Bridge will remain open to all traffic during construction of the project and it is not considered necessary to restrict its use to only Fife traffic.

Use of the Kincardine crossings during construction would not be desirable as it represent a significant detour for traffic both in terms of distance and time.

**Ref No. SC4****Comment:**

**There needs to be clear programme linkage between the Edinburgh Glasgow Improvement Programme and the Forth Replacement Crossing. The Dalmeny Chord may be completed prior to the construction of the Forth Replacement Crossing but the projects may be considered as continued blight by local residents.**

**Response:**

Both the Forth Replacement Crossing and Edinburgh to Glasgow (Rail) Improvements Programme are important infrastructure projects and whilst disruption to local residents during construction will occur due to both schemes, measures will be in place, including those set out in the Code of Construction Practice submitted with the Forth Crossing Bill, to keep disruption to reasonably practicable minimum levels. This includes measures relating to the management and operation of the construction site, traffic management, construction noise and vibration and dust and air quality.

**Ref No. SC5****Comment:**

**Full consultation with local representative bodies on how the construction work will be sited and arranged and how economic benefits to Queensferry will be maximised and negative impact minimised is required.**

**Response:**

Site compound locations have been identified in the Environmental Statement submitted with the Forth Crossing Bill and it is intended that site compounds will be located adjacent to Junction 1A at the M9/M9 Spur, to the west of the proposed scheme at South Queensferry and adjacent to Ferrytoll Junction. Land has been included in the maps, plans and sections which accompany the Forth Crossing Bill for this purpose.

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Transport Scotland consulted with a number of organisations during preparation of the Code of Construction Practice, including community councils and the views of those organisations have been taken account of in the Code of Construction Practice, where appropriate. The Code of Construction Practice sets out requirements in relation to liaison and community engagement to be implemented during the construction period. Engagement with local representative bodies will continue during construction of the project with the aim of providing information regarding the construction including works which may affect the public, in a timely manner and to facilitate constructive engagement with local communities during the construction.



**Ref No. SC6****Comment:**

**Concern regarding the possible location of the construction/maintenance yard, the noise resulting and restrictions on working hours.**

**Response:**

Site compound locations have been identified in the Environmental Statement submitted with the Forth Crossing Bill and it is intended that site compounds will be located adjacent to Junction 1a at the M9/M9 Spur, to the west of the proposed scheme at South Queensferry and adjacent to Ferrytoll Junction. Land has been included in the maps, plans and sections which accompany the Forth Crossing Bill for this purpose. The location of the site compound at South Queensferry has been determined following consultation with local representatives and communities. Though the Scottish Ministers own a substantial parcel of land at Echline Fields, South Queensferry the decision has been taken to seek to acquire land, subject to Parliamentary authority, further away from the neighbouring domestic properties, within the Dundas Estate. The new location still offers proximity to the major works, albeit less ideal, but importantly provides a reduced impact on the local community.

An environmental impact assessment has been undertaken which has considered potential impacts due to construction of the proposed scheme. The assessment has been used to inform the development of appropriate mitigation to reduce impacts where necessary. The assessment and mitigation measures are described in Chapter 19 (Disruption due to Construction) of the Environmental Statement submitted with the Forth Crossing Bill.

Measures to control and limit environmental impacts during construction are also described in a Code of Construction Practice submitted with the Forth Crossing Bill. The Code of Construction describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works. Section 5 of the Code of Construction Practice sets out the measures to be put in place to minimise noise during construction of the project and mitigation measures to be implemented. This includes measures relating to plant and machinery in addition to use of screening or other noise barriers, where appropriate.

Information regarding management of the site and working hours is contained in Section 3 of the Code of Construction Practice. The majority of works associated with construction of the road network connections will be undertaken during normal working hours although it will be necessary for marine works associated with the replacement crossing to be undertaken at night. This is described in the Code of Construction Practice and is also considered in the assessments reported in the Environmental Statement. The Code of Construction Practice also includes a requirement that the contractor will limit construction activities which could cause disturbance outside normal working hours to a reasonably practicable minimum.

**Ref No. SC7****Comment:**

**Average speed cameras should be used during construction.**

**Response:**

The Code of Construction Practice submitted with the Forth Crossing Bill sets out requirements in relation to traffic management, safety and control to be implemented during construction of the project and includes the requirement that the contractor will consult with relevant authorities regarding speed detection cameras and that these will be provided where required.

**Ref No. SC8****Comment:**

**Concern that construction is programmed and completed in a thoughtful manner with minimal disruption.**

**Response:**

An environmental impact assessment has been undertaken which has considered potential impacts due to construction of the proposed scheme. The assessment has been used to inform the development of appropriate mitigation to reduce impacts where necessary. The assessment and mitigation measures are described in Chapter 19 (Disruption due to Construction) of the Environmental Statement submitted with the Forth Crossing Bill.

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works. The contractor will be required to comply with the Code of Construction Practice during construction of the project.

**Ref No. SC9****Comment:**

**Concern regarding health impacts which might be experienced during the construction of the scheme.**

**Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works. The contractor will be required to comply with the Code of Construction Practice during construction of the project.

The Code of Construction Practice sets out requirements in relation to dust, air quality and noise, and the contractor will be required to prepare and implement management plans and appropriate mitigation to control and limit impacts due to these factors where necessary.

A health impact assessment has also been undertaken which considered potential impacts during construction of the scheme.

**Ref No. SC10****Comment:**

**Concern regarding how construction work will proceed.**

**Response:**

The construction methods and programme will be a matter for the contractor although particular requirements and restrictions will be set out in the contract documents for the construction of the project where appropriate.

An environmental impact assessment has been undertaken which has considered potential impacts due to construction of the proposed scheme. The assessment has been used to inform the development of appropriate mitigation to reduce impacts where necessary. The assessment and mitigation measures are described in Chapter 19 (Disruption due to Construction) of the Environmental Statement submitted with the Forth Crossing Bill.

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works. The contractor will be required to comply with the Code of Construction Practice during construction of the project.

**Ref No. SC11****Comment:****Concern regarding risk of polluted run-off during construction.****Response:**

Potential impacts associated with polluted run-off during construction have been considered in the environmental impact assessment undertaken for the project and have informed the development of proposed mitigation measures to control surface water run-off on the construction site and limit risk associated with polluted run-off. The assessment and mitigation measures are described in Chapter 9 (Water Environment) of the Environmental Statement submitted with the Forth Crossing Bill.

In addition, a Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works. The contractor will be required to comply with the Code of Construction Practice during construction of the project.

Section 9 of the Code of Construction Practice sets out requirements relating to protecting the water environment including limiting and controlling run-off from the construction site. Mitigation measures include adherence to relevant SEPA Pollution Prevention Guidelines Requirements and compliance with the Water Environment (Controlled Activities) (Scotland) Regulations 2005. Measures in relation to pollution incident control and response planning are also set out in Section 14 of the Code of Construction Practice.

**Ref No. SC12****Comment:****Concern regarding landscape and visual impacts during construction.****Response:**

Potential landscape and visual impacts during construction have been considered in the environmental impact assessment undertaken for the project and have informed the development of proposed mitigation measures to be implemented, where necessary, to limit disturbance to the landscape and visual impacts. Mitigation measures include the detailed consideration of the layout of construction compounds and the storage of materials in order to minimise potential disruption to sensitive receptors, for example through directional lighting or construction traffic movements. Where possible, existing trees will be retained, and screening and bunds will be used to reduce potential visual impacts. The assessment and mitigation measures are described in Chapter 19 (Disruption due to Construction) of the Environmental Statement submitted with the Forth Crossing Bill.

In addition, a Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works. The contractor will be required to comply with the Code of Construction Practice during construction of the project.

Section 13 of the Code of Construction Practice sets out requirements relating to landscape and visual impacts, including management of the construction site, use of lighting and providing appropriate mitigation such as screening.

**Ref No. SC13****Comment:**

**Concern regarding loss of privacy due to construction works and vehicles on the road.**

**Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works. The contractor will be required to comply with the Code of Construction Practice during construction of the project.

Section 3 of the Code of Construction Practice sets out requirements relating to management of the construction site, use of lighting and security cameras to mitigate potential impacts, including measures to ensure that the privacy of local residents is not unduly affected. Section 4 of the Code of Construction Practice sets out requirements relating to traffic management, control and safety, including measures to reduce potential impacts associated with construction traffic. A particular requirement included in the Code of Construction Practice is that adequate car parking facilities will be provided at site compounds and that construction staff travelling to the site do not park their private vehicles on public roads near the site.

**Ref No. SC14****Comment:**

**Will there be any impact (e.g. vibration, subsidence) on property due to the works.**

**Response:**

An assessment of potential impacts during construction of the project has been undertaken and has enabled appropriate mitigation to be developed, where necessary, to reduce the effects of construction of the project. The assessment and mitigation measures are described in Chapter 19 (Disruption due to Construction) of the Environmental Statement submitted with the Forth Crossing Bill.

The assessment has identified that limited vibration impacts may occur causing disturbance to occupiers of properties at Inchgarvie Lodge and St Margaret's Hope Lodge, but no other vibration impacts are forecast as the activities that are likely to generate appreciable levels of vibration are expected to be located a substantial distance from vibration sensitive receptors. No impacts relating to subsidence have been identified.

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works. The contractor will be required to comply with the Code of Construction Practice during construction of the project.

Section 5 of the Code of Construction Practice sets out requirements relating to noise and vibration, including undertaking risk assessments and surveys of buildings to inform the development of appropriate construction methods and mitigation measures. Section 7 of the Code of Construction Practice sets out similar requirements relating to construction works, such as excavation in soils and rock to mitigate risks associated with settlement or other ground movements.

**Ref No. SC15****Comment:**

**Studies around the world have demonstrated the negative impact of big construction projects on adjacent communities. The impact of the bridge and its southern approaches will be apparent throughout its design life.**

**Response:**

An assessment of potential impacts during construction of the project has been undertaken and is described in the Environmental Statement submitted with the Forth Crossing Bill. The assessment has enabled appropriate mitigation measures to be developed and these are also described in the Environmental Statement (Chapter 19 – Disruption due to Construction).

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Transport Scotland consulted with a number of organisations during preparation of the Code of Construction Practice, including community councils and local authorities and the views of those organisations have been taken account of in the Code of Construction Practice, where appropriate. The Code of Construction Practice sets out requirements in relation to liaison and community engagement to be implemented during the construction period. Engagement with local representative bodies will continue during construction of the project with the aim of providing information regarding the construction including works which may affect the public, in a timely manner and to facilitate constructive engagement with local communities during the construction.

An environmental impact assessment has been undertaken to assess the impact of the proposed scheme on the environment. The assessment has informed the development of mitigation measures to reduce the environmental impact of the proposed scheme. The results of the environmental impact assessment and the mitigation measures proposed are presented in the Environmental Statement submitted with the Forth Crossing Bill. In addition to the consultations undertaken for the Code of Construction Practice, Transport Scotland consulted with a wide array of organisations during the design and assessment of the proposed scheme. Consultations undertaken as part of the environmental impact assessment are described in Chapter 6 of the Environmental Statement.

**Ref No. SC16****Comment:**

**Mitigation must be in place to protect vulnerable people during construction.**

**Response:**

An assessment of potential impacts during construction of the project has been undertaken and is described in the Environmental Statement submitted with the Forth Crossing Bill. The assessment has enabled appropriate mitigation measures to be developed and these are also described in the Environmental Statement (Chapter 19 – Disruption due to Construction).

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

The Code of Construction Practice sets out requirements in relation to the management of the site (Section 3), traffic safety and control, including access for non-vehicular traffic (Section 4), noise and vibration (Section 5), dust and air pollution (Section 6), agricultural land (Section 11) and landscape and visual (Section 13). In particular, in Section 4 concerning public access, there is a requirement for traffic management measures to accommodate the safe travel of pedestrians and other non-motorised users and be in accordance with Transport Scotland's publication Roads for All: The Trunk Road Network Disability Equality Scheme and Action Plan, as appropriate. The contractor will be required to comply with the Code of Construction Practice during construction of the project in addition to relevant legislation, such as the Disability Discrimination Act 1995 and Disability Discrimination Act 2005, as appropriate.

**Ref No. SC17****Comment:**

**Transparent safeguards and controls to ensure safe considerate working practices must be in place. This could include a Code of Construction Practice, traffic management agreements, liaison meetings, agreed methods of identifying and quantifying problems including taking remedial measures.**

**Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit disruption due to construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Measures included in the Code of Construction Practice include those relating to safety and management of the site (Section 3) and traffic management, control and safety (Section 4). A Traffic Management Working Group has also been formed comprising the trunk and local road authorities and the emergency services. This group will continue to meet and be involved during construction of the project, as set out in the Code of Construction Practice.

Transport Scotland consulted with a number of organisations during preparation of the Code of Construction Practice, including community councils and local authorities and the views of those organisations have been taken account of in the Code of Construction Practice, where appropriate. The Code of Construction Practice sets out requirements in relation to liaison and community engagement to be implemented during the construction period. Engagement with local representative bodies will continue during construction of the project with the aim of providing information regarding the construction including works which may affect the public, in a timely manner and to facilitate constructive engagement with local communities during the construction.

The Scottish Ministers will ensure compliance with the Code of Construction Practice through the construction contracts and will provide appropriately qualified staff to monitor the contractor's compliance with the contract and the Code. Liaison and engagement with relevant organisations throughout the construction period on matters relating to the construction works will also be undertaken.

**Ref No. SC18****Comment:**

**The appointment of planning monitoring officers would be beneficial to the project as it enters the construction phase.**

**Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

The Scottish Ministers will ensure compliance with the Code of Construction Practice through the construction contracts and will provide appropriately qualified staff to monitor the contractor's compliance with the contract and the Code. Notwithstanding this, the Code of Construction Practice sets out requirements in relation to appropriate consultation with local authorities during construction on a number of matters, including preparation of the Environmental Management Plan; community engagement; traffic control and safety, including consultation with the Traffic Management Working Group which includes representatives from the trunk and local road authorities and the emergency services; noise and vibration; dust and air quality; land affected by contamination; waste management; ecology; landscape; and pollution incident response planning.

**Ref No. SC19****Comment:**

**What does the Code of Construction Practice cover? Concern regarding working hours.**

**Response:**

The Code of Construction Practice describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Information regarding management of the site and working hours is contained in Section 3 of the Code of Construction Practice. The majority of works associated with construction of the road network connections will be undertaken during normal working hours although it will be necessary for marine works associated with the replacement crossing to be undertaken at night. This is described in the Code of Construction Practice and is also considered in the assessments reported in the Environmental Statement. The Code of Construction Practice also includes a requirement that the contractor will limit construction activities which could cause disturbance outside normal working hours to a reasonably practicable minimum.

**Ref No. SC20****Comment:**

**Concerned regarding length of construction programme and when peaks of activity will be.**

**Response:**

Construction works are due to commence in 2011 and be completed by the end of 2016. Particular requirements and restrictions will be set out in the contract documents for the construction of the project where appropriate, although the construction methods and programme will be a matter for the contractor.

**Ref No. SC21****Comment:**

**Is there a project plan for the construction stage?**

**Response:**

Construction works are due to commence in 2011 and be completed by the end of 2016. Particular requirements and restrictions will be set out in the contract documents for the construction of the project where appropriate, although the construction methods and programme will be a matter for the contractor.

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works. The contractor will be required to comply with the Code of Construction Practice in the development of the construction methods to be adopted and during construction of the project.

## B.1.2 Construction Noise

### **Ref No. SC22**

#### **Comment:**

**Communities should be advised regarding noisy construction activities.**

#### **Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

The Code of Construction Practice sets out requirements in relation to liaison and community engagement to be implemented during the construction period. As part of the community engagement requirements, information will be provided regarding areas that will be affected by construction works; traffic management that will be in place affecting existing roads and footpaths; and details of the enquiries and complaints procedure. Occupiers of nearby properties will also be advised in advance of the nature and anticipated duration of planned construction works that may affect them. Section 5 of the Code of Construction Practice sets out requirements in relation to the control of noise and vibration during construction works.

### **Ref No. SC23**

#### **Comment:**

**Has Transport Scotland considered how the Noise Insulation (Scotland) Regulations 1975 could be used to minimise noise impacts during construction?**

#### **Response:**

An environmental impact assessment has been undertaken which has considered potential impacts due to construction of the proposed scheme. The assessment has been used to inform the development of appropriate mitigation to reduce impacts where necessary. The assessment and mitigation measures are described in Chapter 19 (Disruption due to Construction) of the Environmental Statement submitted with the Forth Crossing Bill and includes an assessment of the number of properties that may qualify for noise insulation in accordance with the Noise (Insulation) Scotland Regulations 1975.

Measures to control and limit environmental impacts during construction are also described in a Code of Construction Practice submitted with the Forth Crossing Bill.

The Noise Insulation (Scotland) Regulations 1975 include provisions relating to noise generated by construction works and the mitigation framework developed for the project as set out in the Code of Construction Practice includes an explanation of how this and other legislation concerning noise will be implemented.

### **Ref No. SC24**

#### **Comment:**

**Noise monitoring is recommended during construction.**

#### **Response:**

Measures to control and limit environmental impacts during construction are described in a Code of Construction Practice submitted with the Forth Crossing Bill. Noise monitoring requirements are also set out in Section 5 of the Code of Construction Practice and this will be undertaken during construction to facilitate compliance with the requirements of the Code and during activities for which consent has been provided in accordance with Section 61 of the Control of Pollution Act 1974.



**Ref No. SC25****Comment:**

**Special regard to access and noise at North Queensferry during construction is necessary. Regular meetings with the community council during construction are requested.**

**Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Measures included in the Code of Construction Practice include those relating to traffic management, control and safety (Section 4). A Traffic Management Working Group has also been formed comprising the trunk and local road authorities and the emergency services. This group will continue to meet and be involved during construction of the project, as set out in the Code of Construction Practice. The contractor will be required to maintain access in accordance with the Code.

The Code of Construction Practice sets out requirements in relation to liaison and community engagement to be implemented during the construction period. Engagement with local representative bodies will continue during construction of the project with the aim of providing information regarding the construction including works which may affect the public, in a timely manner and to facilitate constructive engagement with local communities during the construction.

## B.1.3 Blasting Impacts

**Ref No. SC26****Comment:**

**All blasting must be effectively controlled, including the resulting dust from such events. All residents must also be notified of these works.**

**Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Measures included in the Code of Construction Practice include those relating to blasting such as noise and vibration (Section 5) and dust and air pollution (Section 6). The contractor will be required to develop and implement a Noise and Vibration Management Plan and a Dust and Air Pollution Management Plan as part of the measures to mitigate construction impacts. The Code of Construction Practice also requires that blasting works are kept to the minimum practicable taking consideration of the requirements of the design and programme requirements for construction of the Project and that the contractor limits construction activities which could cause disturbance outside normal working hours to a reasonably practicable minimum.

As part of the community engagement requirements (refer to Section 2 of the Code of Construction Practice), information will be provided regarding areas that will be affected by construction works; traffic management that will be in place affecting existing roads and footpaths; and details of the enquiries and complaints procedure. Occupiers of nearby properties will also be advised in advance of the nature and anticipated duration of planned construction works that may affect them.

## B.1.4 Construction Traffic/Disruption

### **Ref No. SC27**

#### **Comment:**

**Concern regarding the use of Castlandhill Road to access the bridge at Ferrytoll by HGVs and large volumes of traffic during peak hours. Such traffic, including that using Rosyth Port, could be diverted to the Kincardine Crossing.**

#### **Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Measures included in the Code of Construction Practice include those relating to traffic management, control and safety (Section 4). The Code of Construction Practice sets out requirements in relation to access routes for construction traffic, which will be limited, as far as reasonably practicable, to the trunk road network and main roads on the local road network.

### **Ref No. SC28**

#### **Comment:**

**Query regarding the duration of disruption to local bus services and park and ride schemes caused by the project.**

#### **Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Measures included in the Code of Construction Practice include those relating to traffic management, control and safety (Section 4). Particular requirements relating to consultation with local authorities and public transport operators are set out in the Code of Construction Practice, including the requirement to limit disruption to bus services and provide information to the public regarding works that may affect these services in line with the community engagement strategy which is also set out in the Code of Construction Practice.

As a result of the impact of the work to improve the capacity and operation of the Ferrytoll Junction, the access arrangements at Ferrytoll park and ride site will be altered with bus and car access segregated, and bus circulation system improved and extended to facilitate bus loading and waiting for passengers moving between services.

### **Ref No. SC29**

#### **Comment:**

**River barges should be used as much as possible during the bridge construction to minimise disruption during construction.**

#### **Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

The Code of Construction Practice includes requirements to make appropriate use of the Firth of Forth as a transport corridor for materials for construction of the replacement crossing to minimise disruption to road users.

**Ref No. SC30****Comment:**

**Work at North Queensferry will be very inconvenient for a very long time.**

**Response:**

An assessment of potential impacts during construction of the project has been undertaken and is described in the Environmental Statement submitted with the Forth Crossing Bill. The assessment has enabled appropriate mitigation measures to be developed and these are also described in the Environmental Statement (Chapter 19 – Disruption due to Construction).

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

**Ref No. SC31****Comment:**

**Diversions during construction should be well signposted and speed limits accompanied by average speed cameras.**

**Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Measures included in the Code of Construction Practice include those relating to traffic management, control and safety (Section 4). The Code of Construction Practice sets out the requirements including the appropriate design and installation of traffic management schemes to reduce the likelihood of traffic diverting on to alternative routes, to mitigate potential impacts on the local community and keep delays and disruptions to traffic to a reasonably practicable minimum.

The Code of Construction Practice also includes the requirement that the contractor will consult with relevant authorities regarding speed detection cameras and that these will be provided where required. Signing associated with traffic management schemes will be designed in accordance with current guidance including Chapter 8 of the Traffic Signs Manual: Roadworks and Temporary Situations.

**Ref No. SC32****Comment:**

**Public transport and business access across the existing bridge should be maintained at a normal level during the construction phase of this project.**

**Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Measures included in the Code of Construction Practice include those relating to traffic management, control and safety (Section 4). Particular requirements relating to consultation with local authorities and public transport operators are also set out in the Code of Construction Practice, including the requirement to limit disruption to bus services and provide information to the public regarding works that may affect these services in line with the community engagement strategy which is also set out in the Code of Construction Practice.

The Forth Road Bridge will remain open to all traffic during construction of the project.

**Ref No. SC33****Comment:**

**Concern that A985 will not be able to sustain the increase of traffic during construction.**

**Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Measures included in the Code of Construction Practice include those relating to traffic management, control and safety (Section 4). The Code of Construction Practice sets out the requirements including the appropriate design and installation of traffic management schemes to reduce the likelihood of traffic diverting on to alternative routes, to mitigate potential impacts on the local community and keep delays and disruptions to traffic to a reasonably practicable minimum.

The Code of Construction Practice sets out requirements in relation to access routes for construction traffic, which will be limited, as far as reasonably practicable, to the trunk road network and main roads on the local road network.

**Ref No. SC34****Comment:**

**There will be substantial disruption during construction evidenced by existing issues experienced in the operation of the Forth Road Bridge and the road network issues which prevail in times of operational restriction and closure.**

**Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Measures included in the Code of Construction Practice include those relating to traffic management, control and safety (Section 4). A Traffic Management Working Group has also been formed comprising the trunk and local road authorities and the emergency services. This group will continue to meet and be involved during construction of the project, as set out in the Code of Construction Practice.

The contractor will have to comply with the requirements of the Code of Construction Practice to mitigate potential impacts on road users including taking appropriate measures to reduce the likelihood of traffic diverting on to alternative routes, mitigate potential impacts on the local community and keep delays and disruptions to traffic to a reasonably practicable minimum.

**Ref No. SC35****Comment:**

**Unhindered access between Admiralty Interchange and Rosyth needs to be maintained for motorists, cyclists and pedestrians during construction.**

**Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Specific measures included in the Code of Construction Practice relating to non-vehicular traffic includes measures relating to public transport; maintaining access for the public on footpaths, footways, cycle tracks, bridleways, public rights of way; the requirement for traffic management measures to accommodate the safe travel of pedestrians and other non-motorised users; and the requirement to have due regard of the Land Reform (Scotland) Act 2003.

The contractor will have to comply with the requirements of the Code of Construction Practice to mitigate potential impacts on road users including taking appropriate measures to reduce the likelihood of traffic diverting on to alternative routes, mitigate potential impacts on the local community and keep delays and disruptions to traffic to a reasonably practicable minimum.

**Ref No. SC36****Comment:**

**Access to Rosyth ferry terminal needs to be unhindered for vehicles and ferries during construction**

**Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Measures included in the Code of Construction Practice include those relating to traffic management, control and safety (Section 4). The Code of Construction Practice sets out the requirements including the appropriate design and installation of traffic management schemes to reduce the likelihood of traffic diverting on to alternative routes, to mitigate potential impacts on the local community and keep delays and disruptions to traffic to a reasonably practicable minimum.

A particular requirement set out in the Code of Construction Practice is that the contractor will consult with the operator of Rosyth ferry terminal regarding traffic management and control measures to be implemented to accommodate abnormal traffic or unusually high traffic demands. The contractor will also be required to consult with relevant navigation and harbour authorities, and liaise with the operators of any ferry terminals or marinas adjacent to the site during construction of the replacement crossing.

**Ref No. SC37**

**Comment:**

**Future access for rail freight must be safeguarded for Grangemouth and Rosyth ports, especially with regard to minimising disruption during construction.**

**Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Measures included in the Code of Construction Practice include those relating to traffic management, control and safety (Section 4). The Code of Construction Practice sets out the requirements including the appropriate design and installation of traffic management schemes to reduce the likelihood of traffic diverting on to alternative routes, to mitigate potential impacts on the local community and keep delays and disruptions to traffic to a reasonably practicable minimum.

The contractor will have to comply with the requirements of the Code of Construction Practice to mitigate potential impacts on road users including taking appropriate measures to reduce the likelihood of traffic diverting on to alternative routes, mitigate potential impacts on the local community and keep delays and disruptions to traffic to a reasonably practicable minimum.

A particular requirement set out in the Code of Construction Practice is that the contractor will consult with relevant navigation and harbour authorities, liaise with the operators of any ferry terminals or marinas adjacent to the site during construction of the replacement crossing and consult with the operators of railways regarding construction works on, over or adjacent to railways or other works which may affect railways.

## C – RESPONSES TO OTHER GENERAL COMMENTS

The number of individual comments received which were of a more general nature is provided below.

Category	Sub category	No. of scheme development comments
Environment	General environmental Impacts	24
	Air Quality	4
	Ecology	4
	Landscape	1
	Noise	1
	Visual Impact	2
	<b>Total</b>	<b>36</b>
Accessibility	Junctions	6
	Local roads	9
	Traffic generation	6
	Route capacity	1
	Traffic routing	7
	Non-motorised user access	4
	<b>Total</b>	<b>33</b>
Public Transport	Public transport general	16
	Rail	6
	Park and ride	7
	<b>Total</b>	<b>29</b>
Other	Need for the Scheme	3
	Corridor/Tunnel Decision	8
	Route Choice	7
	Bridge Design	6
	General Design Comments	13
	Scheme Cost	7
	Funding	5
	Existing Bridge	10
	Tolls	1
	Compensation	6
	Quality of Exhibition/ Consultation Process	19
	Other Miscellaneous	66
<b>Total</b>	<b>151</b>	
<b>Overall Total</b>		<b>259</b>

A summary of the individual comments made and responses to these comments are provided in Sections C1 to C4 overleaf. Where appropriate comments have been grouped together depending on the topic covered to avoid duplication of responses.

## C.1 General Environmental Comments

### C.1.1 General Environmental Impacts

**Ref No. GE1**

**Comment:**

**Concern regarding the environmental impact of the project, commonly associated with traffic related impacts such as air and noise pollution and compliance with noise and air quality standards.**

**Response:**

The Scottish Government has set air quality standards to protect sensitive members of the population. These standards, which are set out in The Air Quality Standards (Scotland) Regulations 2007, are based on the best scientific evidence available. An air quality assessment has been undertaken for the proposed scheme in accordance with the Design Manual for Roads and Bridges and the assessment is described in the Environmental Statement submitted with the Forth Crossing Bill. As part of the assessment, air quality monitoring has been undertaken and a computerised model used to predict the changes in air quality, both beneficial and adverse. The model takes into account factors such as emissions from traffic that may occur due to the introduction of the proposed scheme. The results of the air quality assessment describe the potential impacts of the proposed scheme in relation to relevant air quality standards.

In addition to assessing the potential effects of the proposed scheme in relation to local air quality pollutants, the air quality assessment also considers wider effects in relation to CO2 emissions and climate change targets in line with the requirements of the Design Manual for Roads and Bridges.

The predicted impacts of the proposed scheme in relation to air quality are generally very small and as a result no specific mitigation measures are proposed. Further information regarding the air quality assessment is provided in Chapter 15 (Air Quality) of the Environmental Statement submitted with the Forth Crossing Bill.

There are no statutory standards for noise. The World Health Organisation published Guidelines for Community Noise in 1999 and the Noise Insulation (Scotland) Regulations 1975 define the scenarios under which dwellings are eligible for noise insulation to control internal noise levels relating to new or improved roads. These guidelines and regulations have been considered in the environmental impact assessment. Transport Scotland has set out its strategy for mitigating noise impacts in a Noise and Vibration Policy which also forms part of the Environmental Statement. The strategy has been used to determine where specific noise mitigation measures are to be provided and these are also described in the Environmental Statement. Mitigation measures which have been considered include, for example, the use of screening measures such as noise barriers or earth bunds, and low noise road surfacing where appropriate.

Further information regarding the air quality and noise assessments is provided in Chapter 15 (Air Quality) and Chapter 16 (Noise and Vibration) of the Environmental Statement submitted with the Forth Crossing Bill.

**Ref No. GE2**

**Comment:**

**Concern that the environmental impact assessment covers predominantly flora and fauna with less regard for impacts on the human population.**

**Response:**

The environmental impact assessment has been undertaken in accordance with relevant guidance and legislation including the Design Manual for Roads and Bridges and the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended). The matters to be assessed are set out in these documents and cover potential impacts on the biological, physical and historical environment, as well as on members of the public and on current or planned future use of the environment. The environmental impact assessment is reported in the Environmental Statement submitted with the Forth Crossing Bill.



**Ref No. GE3****Comment:**

**Implications for local planning associated with the scheme such as increased development pressure which would result in additional environmental impacts.**

**Response:**

An environmental impact assessment has been undertaken which has considered compliance of the proposed scheme with national, regional and local planning policy and potential impacts on planning. Chapter 20 (Policies and Plans) of the Environmental Statement submitted with the Forth Crossing Bill presents the assessment. The assessment has determined that the proposed scheme is largely compliant with national, regional and local planning policy. The principle of development of the proposed scheme is established and generally supported in national, regional and local planning policy. Other developments which may occur in line with relevant development plans may also require environmental impact assessments to be undertaken and appropriate mitigation measures included in any proposals. Planning policy and land allocations for future development are a matter for the local authorities.

**Ref No. GE4****Comment:**

**What are the costs associated with environmental mitigation?**

**Response:**

An environmental impact assessment has been undertaken to assess the impact of the proposed scheme on the environment. The assessment has informed the development of mitigation measures to reduce the environmental impact of the proposed scheme. The results of the environmental impact assessment and the mitigation measures proposed are presented in the Environmental Statement submitted with the Forth Crossing Bill.

A Financial Memorandum has been prepared which sets out the estimated cost of the proposed scheme and has been submitted with the Forth Crossing Bill. The estimates include for the provision and maintenance of the environmental mitigation considered to be necessary for the proposed scheme, however the actual cost of the proposed scheme and the environmental mitigation provided will not be known until the proposed scheme is constructed.

## C.1.2 Air Quality

**Ref No. GE5****Comment:**

**General concern regarding air quality impacts.**

**Response:**

An air quality assessment has been undertaken for the proposed scheme in accordance with the Design Manual for Roads and Bridges and the assessment is described in the Environmental Statement submitted with the Forth Crossing Bill. As part of the assessment, air quality monitoring has been undertaken and a computerised model used to predict the changes in air quality, both beneficial and adverse. The model takes into account factors such as emissions from traffic that may occur due to the introduction of the proposed scheme. The results of the air quality assessment describe the potential impacts of the proposed scheme in relation to the relevant air quality standards.

In addition to assessing the potential effects of the proposed scheme in relation to local air quality pollutants, the air quality assessment also considers wider effects in relation to CO<sub>2</sub> emissions and climate change targets in line with the requirements of the Design Manual for Roads and Bridges.

The predicted impacts of the proposed scheme in relation to air quality are generally very small and as a result no specific mitigation measures are proposed. Further information regarding the air quality assessment is provided in Chapter 15 (Air Quality) of the Environmental Statement submitted with the Forth Crossing Bill.

**Ref No. GE6****Comment:**

**Air pollution could be more effectively controlled if the route was in a tunnel.**

**Response:**

An air quality assessment has been undertaken for the proposed scheme in accordance with the Design Manual for Roads and Bridges and the assessment is described in the Environmental Statement submitted with the Forth Crossing Bill. The predicted impacts of the proposed scheme in relation to air quality are generally very small and as a result no specific mitigation measures are proposed. Further information regarding the air quality assessment is provided in Chapter 15 (Air Quality) of the Environmental Statement.

Tunnel options were considered as part of the Forth Replacement Crossing Study. The cable stayed bridge in "Corridor D", the currently proposed corridor, was selected following consideration of the options in this study for the reasons stated by the Cabinet Secretary for Finance and Sustainable Growth in his statement on 19 December 2007. The news release relating to the announcement is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info) and the full announcement can be viewed on the internet at <http://www.scottish.parliament.uk/business/officialReports/meetingsParliament/or-07/sor1219-02.htm#Col4548>.

**Ref No. GE7****Comment:**

**Concerns regarding increased air quality impacts due to the prevailing wind.**

**Response:**

An air quality assessment has been undertaken for the proposed scheme in accordance with the Design Manual for Roads and Bridges and the assessment is described in the Environmental Statement submitted with the Forth Crossing Bill. As part of the assessment, air quality monitoring has been undertaken and a computerised model used to predict the changes in air quality, both beneficial and adverse. The model was developed for the project using a number of different parameters including background pollutant levels and meteorological conditions. Information on meteorological conditions which was collected included data for wind speed, wind direction, temperature, rainfall, relative humidity and cloud cover.

The predicted impacts of the proposed scheme in relation to air quality are generally very small and as a result no specific mitigation measures are proposed. Further information regarding the air quality assessment is provided in Chapter 15 (Air Quality) of the Environmental Statement submitted with the Forth Crossing Bill.

**Ref No. GE8****Comment:**

**Concern that pollution will be greater on the proposed scheme than if a more direct route to the M9 was followed.**

**Response:**

An air quality assessment has been undertaken for the proposed scheme in accordance with the Design Manual for Roads and Bridges and the assessment is described in the Environmental Statement submitted with the Forth Crossing Bill.

The predicted impacts of the proposed scheme in relation to air quality are generally very small and as a result no specific mitigation measures are proposed. Further information regarding the air quality assessment is provided in Chapter 15 (Air Quality) of the Environmental Statement.

A number of alternative options for the road network connections were considered as part of the work undertaken during 2008 and these included options providing a more direct link between the replacement crossing and the M9. These options were discounted in favour of the proposed scheme which demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

## C.1.3 Ecology

**Ref No. GE9**

**Comment:**

**Concern regarding impact on wildlife and on designated sites.**

**Response:**

An environmental impact assessment has been undertaken to assess the impact of the proposed scheme on the environment. Ecological surveys have been undertaken over an extensive corridor covering a wide array of species and habitats to inform the assessments undertaken. The surveys and impact assessment have been undertaken in accordance with ecological best practice standards as endorsed by the Institute of Ecology and Environmental Management and in line with the Environmental Impact Assessment (Scotland) Regulations 1999, as amended.

The results of the environmental impact assessment and the mitigation measures proposed are presented in the Environmental Statement submitted with the Forth Crossing Bill. The assessment includes consideration potential impacts on the water environment (Chapter 9), terrestrial and freshwater ecology (Chapter 10) and estuarine ecology (Chapter 11). Additional consideration also has been given to the potential for impacts on designated ecological sites such as the Special Protection Areas and Special Areas of Conservation at or adjacent to the Forth. Reports to Inform an Appropriate Assessment of the potential for impacts on the Firth of Forth Special Protection Area (SPA), the Forth Islands SPA, The Imperial Dock Lock, Leith SPA (Leith Docks SPA), and the River Teith Special Area of Conservation (SAC) have been prepared in accordance with the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994. The reports will assist the Scottish Government complete an Appropriate Assessment of potential impacts on these sites due to the proposed scheme.

Consultation has been undertaken with various organisations regarding the ecology assessment and the proposed mitigation measures to reduce the effects of the proposed scheme. These organisations include Scottish Natural Heritage who is the statutory body with responsibility to advise the Scottish Ministers on matters relating to ecology.

**Ref No. GE10**

**Comment:**

**Concern regarding potential for impacts on red squirrels.**

**Response:**

Red squirrel surveys were undertaken to inform the environmental impact assessment undertaken for the project. Visual and hair-tube surveys were carried out in habitat identified to be potentially suitable for red squirrels, however, no evidence of red squirrels was found. Further information regarding these, and other ecological surveys undertaken, are provided in Chapter 10 (Terrestrial and Freshwater Ecology) and 11 (Estuarine Ecology) of the Environmental Statement submitted with the Forth Crossing Bill.

## C.1.4 Landscape

**Ref No. GE11**

**Comment:**

**Content that the correct steps will be taken to prevent disturbance to the landscape.**

**Response:**

An environmental impact assessment has been undertaken to assess the impact of the proposed scheme on the environment. The assessment has informed the development of mitigation measures to reduce the environmental impact of the proposed scheme. The results of the environmental impact assessment and the mitigation measures proposed are presented in the Environmental Statement submitted with the Forth Crossing Bill. Chapter 12 of the Environmental Statement describes the assessment of impacts on the landscape and the mitigation measures proposed.

## C.1.5 Noise

**Ref No. GE12**

**Comment:**

**Clarification sought regarding noise and pollution levels normally associated with a road of this nature.**

**Response:**

Noise and pollution levels associated with roads vary considerably and are dependent on the volume of traffic using a road and the design of the road, including mitigation measures. It is not, therefore, possible to comment on noise levels associated with road projects in general.

An environmental impact assessment has been undertaken to assess the impact of the proposed scheme on the environment. The results of the environmental impact assessment are presented in the Environmental Statement submitted with the Forth Crossing Bill. Chapter 16 of the Environmental Statement describes the assessment of noise and vibration impacts and the mitigation measures proposed.

## C.1.6 Visual Impact

**Ref No. GE13**

**Comment:**

**Concern regarding impact on wildlife and on designated sites.**

**Response:**

An environmental impact assessment has been undertaken to assess the impact of the proposed scheme on the environment. The results of the environmental impact assessment are presented in the Environmental Statement submitted with the Forth Crossing Bill. Chapter 13 of the Environmental Statement describes the assessment of visual impacts and the mitigation measures proposed.

The assessment included taking consideration of night-time impacts due to road lighting, lighting on the replacement crossing and car headlights. Maps showing the zone of theoretical visibility of the proposed scheme which take account of lighting are shown on Figures 3.9 to 3.12 of the Environmental Statement and receptors likely to be affected by the proposed scheme are shown on Figures 13.2 to 13.8 of the Environmental Statement. The assessments undertaken have informed the design of appropriate mitigation measures where necessary and mitigation proposed is shown on Figure 12.4 of the Environmental Statement.

**Ref No. GE14**

**Comment:**

**Concerned regarding lack of views and sunlight.**

**Response:**

An environmental impact assessment has been undertaken to assess the impact of the proposed scheme on the environment. The results of the environmental impact assessment are presented in the Environmental Statement submitted with the Forth Crossing Bill. Chapters 12 and 13 of the Environmental Statement describe the assessment of landscape and visual impacts due to the proposed scheme and the mitigation measures proposed.

The assessments undertaken have informed the design of appropriate mitigation measures where necessary and mitigation proposed is shown on Figure 12.4 of the Environmental Statement. Measures proposed include integration of the road alignment and earthworks with the surrounding topography, where possible, and other measures such as planting and earth bunds to provide screening. It is recognised that changes to views will occur due to the proposed scheme and where practicable, the design of mitigation measures reflects the existing landscape to reduce adverse effects associated with the proposed scheme.

The assessment has not identified any significant impacts associated with a lack of sunlight occurring due to the proposed scheme.

## C.2 General Accessibility Comments

### C.2.1 Junctions

**Ref No. GA1****Comment:**

**More detailed information should be published regarding road layouts.**

**Response:**

Updated information regarding the road layouts was published in the April 2009 newsletter and in reports also published in April 2009, including the DMRB Stage 2 Corridor Report and Scheme Definition Report. The newsletter was distributed to individuals who have signed up to receive updates from the project or who have corresponded with the project team at any point during its development. An electronic newsletter (ezine) was also used to provide additional information to users who had subscribed to the service to alert them to, for example, new developments on the project, the publication of new reports or findings. The reports are available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

Further information regarding the design of the proposed scheme was provided at community information displays staged during August 2009. In addition to plans of the proposed scheme which also incorporated the landscaping and mitigation proposals, information on the construction compounds and Code of Construction Practice, information on compulsory purchase, compensation and the parliamentary process and the findings of the Feedback & Outcomes Report were also provided.

The DMRB Stage 3 Report will be published at the same time the Forth Crossing Bill is introduced in to the Scottish Parliament which will provide further information regarding the design of the proposed scheme.

**Ref No. GA2****Comment:**

**South Queensferry Junction should incorporate an underpass instead of an overbridge**

**Response:**

Further development of the proposed scheme at South Queensferry was undertaken following the public information exhibitions in January 2009 and this is covered in the response to comment RO14 in the Public Information Exhibitions: Feedback & Outcomes Report. The proposed junction at South Queensferry has been moved further west to connect directly to the A904. Whilst the proposed scheme layout shown at the public information exhibitions in January 2009 included the junction at South Queensferry raised above the main carriageway, the scheme now proposed retains the A904 at approximately its current level with the main carriageway passing below in a cutting.

**Ref No. GA3****Comment:**

**Positive comments regarding the proposed design of Junction 1a.**

**Response:**

The design of the junction at Junction 1a on the M9 seeks to utilise as much of the existing junction as possible avoiding unnecessary costs and environmental impacts, while still providing for the traffic anticipated to use the junction. The proposed scheme also provides improved accessibility to West Lothian through the addition of west-facing slip roads at Junction 1a on the M9.

**Ref No. GA4****Comment:**

**The A904/B924 Junction should be improved.**

**Response:**

Further development of the proposed scheme at South Queensferry was undertaken following the public information exhibitions in January 2009 and this is covered in the response to comment RO14 in the Public Information Exhibitions: Feedback & Outcomes Report. The proposed junction at South Queensferry has been moved further west to connect directly to the A904.

The A904/B924 Junction has been redesigned in conjunction with the relocation of South Queensferry Junction. A slight realignment of the B924 Bo'ness Road is proposed and the junction between the A904/B924 will be upgraded to accommodate this realignment to improve access to the A904 and provide access to the new grade separated junction at South Queensferry.

**Ref No. GA5****Comment:**

**Satisfactory access should be maintained at Ferrytoll Park and Ride.**

**Response:**

The junction layout at Ferrytoll has been designed to ensure that access is maintained to Ferrytoll Park and Ride. As a result of the impact of the work to improve the capacity and operation of the Ferrytoll Junction, the access arrangements at Ferrytoll park and ride site will be altered with bus and car access segregated, and the bus circulation system improved and extended to facilitate bus loading and waiting for passengers moving between services.

## C.2.2 Local Roads

**Ref No. GA6****Comment:**

**Is a new link being considered for the housing development site at Port Edgar?**

**Response:**

The proposed scheme only contains realignments or improvements to local roads which are necessary for the project. Any new roads which are necessary for housing or other private developments will be a matter for the developer.

**Ref No. GA7****Comment:**

**Concern regarding the impact of the A8000 realignment.**

**Response:**

The realignment of the A8000 is necessary to accommodate the improvements and widening of the A90 at this location. Construction of the A8000 will therefore include will include realigning and raising the level of the road, demolition of the existing bridge over the A90 and construction of a new bridge. Where existing accesses are affected by the realignment of the A8000 these will be replaced. The method of construction employed will be a matter for the contractor; however it is anticipated that the new bridge and as much as possible of the realigned road will be constructed before connecting to the existing road under traffic management so that disruption to road users is minimised. Demolition of the existing bridge and construction of the new bridge over the A90 will be undertaken at times when the impact of disruption to the traffic on the A90 would be less significant. Requirements for traffic management, control and safety are set out in the Code of Construction Practice submitted with the Forth Crossing Bill.

An environmental impact assessment has been undertaken to assess the impact of the proposed scheme on the environment. The assessment has informed the development of mitigation measures to reduce the environmental impact of the proposed scheme. The results of the environmental impact assessment and the mitigation measures proposed are presented in the Environmental Statement submitted with the Forth Crossing Bill. Mitigation measures proposed at the A8000 are shown on Figures 12.4g and 12.4h of the Environmental Statement and include mixed woodland planting to provide screening and standard trees to replace those lost due to the proposed scheme.

**Ref No. GA8**

**Comment:**

**Dunfermline Wynd should remain open.**

**Response:**

The proposed scheme maintains the existing bridge at Dunfermline Wynd and this road will remain open under the scheme proposals.

**Ref No. GA9**

**Comment:**

**Concern regarding impact on the Fife Coastal Route.**

**Response:**

The Fife Coastal Route is accessed from Admiralty Junction and the proposed scheme will maintain this junction and access to the Fife Coastal Route.

**Ref No. GA10**

**Comment:**

**Concern that Kirkliston will remain a rat-run for traffic travelling to Edinburgh Airport and Edinburgh Park.**

**Response:**

The slip road from the M9 Kirkliston Spur to the eastbound M9 at Junction 1a will be improved such that it will be two lanes wide and in conjunction with this improvement, the M9 will be widened to the east of Junction 1a to ensure that traffic flow will not be adversely affected along this section of the M9 due to the proposed scheme. Intelligent Transport Systems including variable speed limits, variable message signs and other traffic information and control measures will be provided as part of the proposed scheme to improve the flow of traffic on the proposed scheme, including the M9 and it is anticipated that this will result in some improvement to the operation of Newbridge roundabout by managing the flow of traffic towards the junction. The Intelligent Transport Systems proposals will manage and improve the flow of traffic on the network and reduce congestion, improving the operation of the existing and proposed roads.

The improvements to the road network proposed as part of the proposed scheme are predicted to result in a slight reduction in traffic levels on the A8000 which suggest that rat-running on this route and through Kirkliston will reduce.

**Ref No. GA11**

**Comment:**

**Concern that Clufflat road will be extended into Echline Field.**

**Response:**

There are no plans to extend Clufflat road into Echline Field. Access from the construction site compound area to the west of the proposed scheme at South Queensferry will be via a new access which will connect to Society Road to the west of Clufflat.

**Ref No. GA12****Comment:**

**Concern regarding traffic diverting through South Queensferry.**

**Response:**

Further development of the proposed scheme at South Queensferry was undertaken following the public information exhibitions in January 2009 and this is covered in the response to comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report. The proposed junction at South Queensferry has been moved further west to connect directly to the A904. Traffic modelling indicates that the majority of traffic currently using the A904 travels from the west towards the existing A90 at Echline Junction and vice versa, thus locating the new South Queensferry Junction to the west of South Queensferry removes traffic from Builyeon Road. This reduction will be partly offset by traffic from South Queensferry travelling along Builyeon Road to access the junction and vice versa, but less traffic is predicted to travel in this direction. Therefore an overall reduction in traffic on Builyeon Road between Echline roundabout and the new South Queensferry Junction is anticipated to occur.

The proposed scheme will also improve accessibility through use of Intelligent Transport Systems which will be provided on the existing road network and on the proposed scheme. Measures such as variable speed limits, variable message signs and other traffic information and control measures will be provided as part of the proposed scheme to control the speed of traffic on the main carriageways, the flow of traffic merging from the slip roads and provide information to road users. The Intelligent Transport Systems proposals will manage and improve the flow of traffic on the network and reduce congestion, improving the operation of the existing and proposed roads.

**Ref No. GA13****Comment:**

**Early construction of the A801 Avon Gorge as part of the STPR is suggested which would be an alternative route during construction**

**Response:**

The Minister for Transport, Infrastructure and Climate Change set out on 10 December 2008 the outcomes of the Strategic Transport Projects Review (STPR) which cover the future investment programme for transport in Scotland over the next 20 years. The STPR focuses on identifying those interventions that most effectively contribute towards the Government's Purpose of increasing sustainable economic growth. The STPR recommendations include Grangemouth road and rail access upgrades (Intervention 20). This includes a possible new crossing on Avon Gorge, although it is noted in the study that the environmental impacts of crossing the Avon Gorge must be fully considered before any intervention is progressed. Further information regarding the STPR is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

## C.2.3 Traffic Generation

**Ref No. GA14****Comment:**

**Concern that no efforts are being made to reduce traffic flows.**

**Response:**

The Government has committed that the Forth Replacement Crossing project will replace but not increase the road provision for general traffic on the Forth Road Bridge. It is not Government policy to provide for unconstrained growth in vehicular traffic. The use of Intelligent Transport Systems, improvements to junctions and the inclusion of hard shoulders and wind shielding on the Forth Replacement Crossing will improve operational efficiency and improve traffic flow. The managed crossing scheme provides for additional travel demand through the provision of a dedicated public transport corridor, including the option for introduction of Light Rapid Transit, such as guided bus or tram based light rail, designed to increase public transport availability. The Strategic Transport Projects Review (STPR) has identified a number of other complementary measures in the Forth area to allow for growth in travel through public transport initiatives such as park and ride.



**Ref No. GA15****Comment:**

**Concern there will be no improvement in traffic flow.**

**Response:**

The Government has committed that the Forth Replacement Crossing project will replace but not increase the road provision for general traffic on the Forth Road Bridge. It is not Government policy to provide for unconstrained growth in vehicular traffic.

The proposed scheme will improve accessibility through use of Intelligent Transport Systems which will be provided on the existing road network and on the proposed scheme. Measures such as variable speed limits, variable message signs and other traffic information and control measures will be provided as part of the proposed scheme to control the speed of traffic on the main carriageways, the flow of traffic merging from the slip roads and provide information to road users. The Intelligent Transport Systems proposals will manage and improve the flow of traffic on the network and reduce congestion, improving the operation of the existing and proposed roads.

**Ref No. GA16****Comment:**

**Clarification sought that traffic from the proposed Winchburgh development has been considered.**

**Response:**

Traffic modelling undertaken to inform the design of the proposed scheme has been based on the Transport Model for Scotland (TMfS). TMfS includes anticipated development in each local authority area, based on information provided by the local planning authorities. Traffic forecasts include traffic associated with anticipated developments including consideration of traffic which may be generated by the Winchburgh development.

**Ref No. GA17****Comment:**

**Concern regarding bus traffic on the A904 and congestion at South Queensferry Junction.**

**Response:**

Further development of the proposed scheme at South Queensferry was undertaken following the public information exhibitions in January 2009 and this is covered in the response to comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report. The proposed junction at South Queensferry has been moved further west to connect directly to the A904. As part of the managed crossing scheme the Forth Road Bridge will continue to operate, carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists. In conjunction with this change to the design of the proposed scheme, new public transport links will be provided at Echline to provide improved public transport linkages between the Forth Road Bridge, South Queensferry and the A90. These measures remove the need for public transport to travel along the A904 to access the A90 as shown at the public information exhibitions in January 2009.

The junctions have been designed to accommodate the anticipated traffic flows, having regard to the capacity of the adjacent network using a computerised traffic model to ensure that the junctions operate satisfactorily.

## C.2.4 Route Capacity

**Ref No. GA18****Comment:**

**Concern that hard shoulders cannot be relied upon due to their dual use.**

**Response:**

Hard shoulders on the replacement crossing will only be used by buses diverted from the existing bridge, for example due to high wind conditions. This will be managed using measures such as CCTV, variable message signs and other traffic information and control measures to maintain effective operation of the system and safe operation of the road.

## C.2.5 Traffic Routing

### **Ref No. GA19**

#### **Comment:**

**The majority of people in South Queensferry do not travel to Fife.**

#### **Response:**

The proposed scheme will provide a new junction at South Queensferry where the route intersects the adjacent road network catering for all traffic movements at this location.

### **Ref No. GA20**

#### **Comment:**

**Concern regarding use of Castlandhill Road by traffic during construction.**

#### **Response:**

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

Measures included in the Code of Construction Practice include those relating to traffic management, control and safety (Section 4). A Traffic Management Working Group has also been formed comprising the trunk and local road authorities and the emergency services. This group will continue to meet and be involved during construction of the project, as set out in the Code of Construction Practice.

The Code of Construction Practice sets out requirements in relation to access routes for construction traffic, which will be limited, as far as reasonably practicable, to the trunk road network and main roads on the local road network.

### **Ref No. GA21**

#### **Comment:**

**Concern regarding traffic diverting through South Queensferry and travelling south on the A8000.**

#### **Response:**

The slip road from the M9 Kirkliston Spur to the eastbound M9 at Junction 1a will be improved such that it will be two lanes wide and in conjunction with this improvement, the M9 will be widened to the east of Junction 1a to ensure that traffic flow will not be adversely affected along this section of the M9 due to the proposed scheme. Intelligent Transport Systems including variable speed limits, variable message signs and other traffic information and control measures will be provided as part of the proposed scheme to improve the flow of traffic on the proposed scheme, including the M9 and it is anticipated that this will result in some improvement to the operation of Newbridge roundabout by managing the flow of traffic towards the junction. The Intelligent Transport Systems proposals will manage and improve the flow of traffic on the network and reduce congestion, improving the operation of the existing and proposed roads.

The improvements to the road network proposed as part of the proposed scheme are predicted to result in a slight reduction in traffic levels on the A8000 which suggest that rat-running on this route will reduce.

### **Ref No. GA22**

#### **Comment:**

**Local traffic or light vehicles should continue to use the Forth Road Bridge.**

#### **Response:**

The managed crossing scheme includes use of the Forth Road Bridge which will carry public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists. Further information regarding the managed crossing scheme is contained in the Scheme Definition Report which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. GA23****Comment:**

**Traffic survey information should be made available to the public.**

**Response:**

Traffic survey information has been provided in response to a request made under the Freedom of Information (Scotland) Act 2002. Requests for and provision of information such as this is dealt with through the procedures covered by the Freedom of Information (Scotland) Act 2002.

## C.2.6 Non-Motorised User Access

**Ref No. GA24****Comment:**

**Concern that an existing cycle route runs through Inverkeithing town centre.**

**Response:**

The routing of existing cycle paths is a matter for the local authority. The cycle route passing through Inverkeithing town centre is shown on Figures 17.2a and 17.3a of the Environmental Statement submitted with the Forth Crossing Bill. The assessment of the impact of the proposed scheme on cyclists is described in Chapter 17 (Pedestrians, Cyclists, Equestrians and Community Effects) of the Environmental Statement.

The proposed scheme will maintain a combined cycle track/footway alongside the B981 to the Ferrytoll Junction and the Forth Road Bridge. Specific pedestrian and cyclist crossing facilities will be included at the gyratory at Ferry Toll Junction.

**Ref No. GA25****Comment:**

**There is no improvement in integration for cyclists, walking, trains or bus timetabling mentioned in the proposals.**

**Response:**

As part of the managed crossing scheme the Forth Road Bridge will continue to operate, carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists. The proposed scheme incorporates provision for pedestrians, cyclists and equestrians, however where conflicts remain, mitigation measures have been proposed to reduce impacts. The assessment of the impact of the proposed scheme on cyclists is described in Chapter 17 (Pedestrians, Cyclists, Equestrians and Community Effects) of the Environmental Statement submitted with the Forth Crossing Bill.

The managed crossing scheme will facilitate provision of improved public transport although this will not be provided as part of the project. Improving public transport services is the responsibility of organisations such as rail operators, bus companies, local authorities and SEStran and the managed crossing scheme presents a significant opportunity for these organisations to improve public transport facilities and services to increase use of public transport.

**Ref No. GA26****Comment:**

**Supportive of crossing, particularly in the light of providing facilities for cyclists.**

**Response:**

As part of the managed crossing scheme the Forth Road Bridge will continue to operate, carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists. The proposed scheme incorporates provision for pedestrians, cyclists and equestrians, however where conflicts remain, mitigation measures have been proposed to reduce impacts. The assessment of the impact of the proposed scheme on cyclists is described in Chapter 17 (Pedestrians, Cyclists, Equestrians and Community Effects) of the Environmental Statement submitted with the Forth Crossing Bill

**Ref No. GA27**

**Comment:**

**Query regarding what happens to pedestrians and cyclists if existing bridge is closed.**

**Response:**

The existing procedures on the Forth Road Bridge will operate in the event that the bridge is closed periodically to pedestrians and cyclists. The replacement crossing will be a motorway and will cater for all motorway traffic. As part of the managed crossing scheme the Forth Road Bridge will continue to operate, carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists. Public transport and taxis will be able to use the replacement crossing and in the event that the Forth Road Bridge is closed, buses will be permitted to use the hard shoulders on the replacement crossing. This will be managed using measures such as CCTV, variable message signs and other traffic information and control measures to maintain effective operation of the system and safe operation of the road. No provisions for pedestrians and cyclists are included in the replacement crossing, except in emergency situations when pedestrians may access along the central reserve.

## C.3 Public Transport

### C.3.1 General Public Transport Comments

**Ref No. GP1**

**Comment:**

**Concern that use of Forth Road Bridge by light rail, trams or guided bus will only be temporary until the bridge can no longer carry this traffic.**

**Response:**

A technical assessment of the capability of the Forth Road Bridge to work alongside the Forth Replacement Crossing was undertaken. The assessment found that with the new bridge being designed to carry general permitted traffic and all heavy goods vehicles, a range of options for rail based light rapid transit public transport together with reduced road loadings could be considered for the existing Forth Road Bridge. The technical assessment of the capability of the Forth Road Bridge concluded that it could support future public transport requirements and accommodate non-motorised users (pedestrians and cyclists). The opportunity to use the Forth Road Bridge in this way led to the development of the managed crossing scheme with the Forth Road Bridge carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists and provision of an operationally flexible, narrower, replacement bridge of high quality and significantly reduced cost.

Given the age and nature of the existing bridge, an element of unforeseeable risk cannot be ignored. The Forth Replacement Crossing will be designed such that light rapid transit could be accommodated in place of the hard shoulders if a future unforeseen circumstance means that the Forth Road Bridge is not be suitable to carry all potential light rapid transit systems. Further information regarding the managed crossing scheme is provided in the Scheme Definition Report which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

The Forth Estuary Transport Authority is continuing to monitor the condition of the cables and if, following opening of the Forth Replacement Crossing, the cables on the existing bridge require to be replaced then they will be. If this is the case, the significant disruption that would occur if the cables were replaced without the replacement crossing being in place will be avoided.

**Ref No. GP2****Comment:**

**Concern that improvement to local public transport services should be put in place before the new crossing is in place.**

**Response:**

As part of the managed crossing scheme the Forth Road Bridge will continue to operate, carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists. The managed crossing scheme will facilitate provision of improved public transport although this will not be provided as part of the project. Improving public transport services is the responsibility of organisations such as rail operators, bus companies, local authorities and SEStran and the strategy for the project presents a significant opportunity for these organisations to improve public transport facilities and services to increase use of public transport.

The Minister for Transport, Infrastructure and Climate Change set out on 10 December 2008 the outcomes of the Strategic Transport Projects Review (STPR) which cover the future investment programme for transport in Scotland over the next 20 years. The STPR recommendations include measures relating to public transport in the Forth area. Additional park and ride sites are proposed as one of the measures contained in the STPR, including potential locations at Halbeath, Pitreavie, Linlithgow and other locations around Edinburgh. Light rapid transit connections between Fife and Edinburgh which would improve connections between Dunfermline, Rosyth and Edinburgh is one of a number of public transport measures which were recommended. The project is dependent on the Forth Replacement Crossing and the STPR recommendations will be considered in future Government spending reviews and a programme for delivering the measures will develop from this.

Further information regarding the STPR is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

**Ref No. GP3****Comment:**

**Clarification sought regarding future light rail.**

**Response:**

A light rapid transit system between Edinburgh and Fife is one of the 29 projects being proposed as part of the Strategic Transport Projects Review which has identified projects for the period 2012 onwards. The STPR recommendations will be considered in future Government spending reviews and a programme for delivering the measures will develop from this.

Further information regarding the STPR is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

**Ref No. GP4****Comment:**

**Clarification sought regarding the number of taxis that will use the new crossing.**

**Response:**

Traffic survey information does not distinguish between taxis and other cars and as such information regarding the number of taxis that may use the replacement crossing or the Forth Road Bridge is not available.

**Ref No. GP5****Comment:**

**It is not cost effective to maintain the existing bridge as a public transport corridor.**

**Response:**

A technical assessment of the capability of the Forth Road Bridge to work alongside the Forth Replacement Crossing was undertaken and informed development of the managed crossing scheme. The assessment found that with the new bridge being designed to carry general permitted traffic and all heavy goods vehicles, a range of options for rail based light rapid transit public transport together with reduced road loadings could be considered for the existing Forth Road Bridge. The technical assessment of the capability of the Forth Road Bridge concluded that it could support future public transport requirements and accommodate non-motorised users (pedestrians and cyclists). The opportunity to use the Forth Road Bridge in this way led to the development of the managed crossing scheme with the Forth Road Bridge carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists and provision of an operationally flexible, narrower, replacement bridge of high quality and significantly reduced cost.

The estimated cost of the proposed scheme at the time of public information exhibitions held in August 2007 as part of the Forth Replacement Crossing Study was £3.25 billion to £4.22 billion at 2016 outturn prices. The estimated cost of the proposed scheme is currently £1.7 billion to £2.3 billion at 2016 outturn prices, a saving of over £1.5 billion.

**Ref No. GP6****Comment:**

**In future the M9 Spur should be used for public transport only.**

**Response:**

The M9 Spur is an important part of the strategic road network and will become a trunk road under the proposed scheme. It is not proposed to restrict use of the road to public transport.

## C.3.2 Rail

**Ref No. GP7****Comment:**

**An additional rail bridge should be provided instead of a road crossing**

**Response:**

Rail crossings were included in the options considered for the project in the Forth Replacement Crossing Study (FRCS). This is described further in FRCS Report 3 which is available on Transport Scotland's website [www.transportscotland.gov.uk/projects/forth-replacement-crossing-study-report-3](http://www.transportscotland.gov.uk/projects/forth-replacement-crossing-study-report-3)). FRCS Report 3 explains that current and future improvements in rail infrastructure can be accommodated using the Forth Bridge and that as a result any future crossing of the Forth should not allow for further heavy rail and thus options considering heavy rail were discarded from further consideration. The report describes further that heavy rail has an important role to play in any future cross Forth Transport Strategy and that further capacity and reliability enhancements will be examined as part of the Strategic Transport Projects Review.

**Ref No. GP8****Comment:**

**Concern regarding the existing railway lines through Dunfermline, Rosyth and between Halbeath and Inverkeithing.**

**Response:**

The Halbeath to Inverkeithing rail link is one of a number of public transport measures which were recommended in the Strategic Transport Projects Review (STPR). It is proposed as a long term intervention for completion beyond the completion date for the Forth Replacement Crossing.

The STPR interventions also included light rapid transit connections between Fife and Edinburgh which could improve connections between Dunfermline, Rosyth and Edinburgh. The project is dependent on the Forth Replacement Crossing and the STPR recommendations will be considered in future Government spending reviews and a programme for delivering the measures will develop from this.

Further information regarding the STPR is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

**Ref No. GP9****Comment:**

**There should be an increased level of rail use by travellers from Fife.**

**Response:**

The Halbeath to Inverkeithing rail link is one of a number of public transport measures which were recommended in the Strategic Transport Projects Review (STPR). It is proposed as a long term intervention for completion beyond 2022 and the timescale for this project is beyond the completion date for the Forth Replacement Crossing.

The STPR interventions also included light rapid transit connections between Fife and Edinburgh which could improve connections between Dunfermline, Rosyth and Edinburgh. The project is dependent on the Forth Replacement Crossing and the STPR recommendations will be considered in future Government spending reviews and a programme for delivering the measures will develop from this.

Further information regarding the STPR is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

**Ref No. GP10****Comment:**

**Concern regarding improvements to rail transport and the benefits this would achieve.**

**Response:**

Public transport improvements are recognised in studies such as the Strategic Transport Projects Review (STPR) to be of benefit in meeting travel demand.

Interventions recommended in the STPR include light rapid transit connections between Fife and Edinburgh which could improve connections between Dunfermline, Rosyth and Edinburgh. The project is dependent on the Forth Replacement Crossing and the STPR recommendations will be considered in future Government spending reviews and a programme for delivering the measures will develop from this.

The Halbeath to Inverkeithing rail link is one of a number of public transport measures which were recommended in the STPR. It is proposed as a long term intervention for completion beyond the completion date for the Forth Replacement Crossing.

Other rail improvements are included in STPR and further information regarding these is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

### C.3.3 Park and Ride

**Ref No. GP11**

**Comment:**

**Park and ride should be encouraged and there must be a clear commitment to park and ride.**

**Response:**

The public transport strategy for the Forth builds upon a range of measures including those forming part of the managed crossing scheme, those recommended within the Strategic Transport Projects Review (STPR) and those which have and are being promoted/developed by adjacent local authorities and SEStran. This includes park and ride improvements.

Although new park and ride facilities are not being provided as part of the project, the managed crossing scheme and Intelligent Transport Systems proposed on the scheme will create favourable conditions for additional park and ride sites which may be provided in the future.

**Ref No. GP12**

**Comment:**

**Clarification sought regarding the size of a future park and ride site at Rosyth.**

**Response:**

The Minister for Transport, Infrastructure and Climate Change set out on 10 December 2008 the outcomes of the Strategic Transport Projects Review (STPR) which cover the future investment programme for transport in Scotland over the next 20 years. The STPR focuses on identifying those interventions that most effectively contribute towards the Government's Purpose of increasing sustainable economic growth. Park and ride at Rosyth is envisaged as one of the interventions which could be implemented by 2016. A 500 space facility was considered in the STPR study. Further information regarding the STPR is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

**Ref No. GP13**

**Comment:**

**Concern regarding lack of knowledge regarding the operation of Ferrytoll park and ride.**

**Response:**

The project team is aware of the layout and operation of the site gained from consultation with the operators of Ferrytoll park and ride and the local authority during development of the project.

The junction layout at Ferrytoll has been designed to ensure that access can be provided to the strategic and local road networks, including the park and ride. As a result of the impact of the work to improve the capacity and operation of the Ferrytoll Junction, the access arrangements at Ferrytoll park and ride site will be altered with bus and car access segregated, and the bus circulation system improved and extended to facilitate bus loading and waiting for passengers moving between services.

**Ref No. GP14**

**Comment:**

**The current solution is dependent on bus and park and ride and to cope with the increases in demand.**

**Response:**

The Government has committed that the Forth Replacement Crossing project will replace but not increase the road provision for general traffic on the Forth Road Bridge. It is not Government policy to provide for unconstrained growth in vehicular traffic. The use of Intelligent Transport Systems, improvements to junctions and the inclusion of hard shoulders and wind shielding on the Forth Replacement Crossing will improve operational efficiency and improve traffic flow. The managed crossing scheme provides for additional travel demand through the provision of a dedicated public transport corridor, including the option for introduction of Light Rapid Transit, such as guided bus or tram based light rail, designed to increase public transport availability. The Strategic Transport Projects Review (STPR) has identified a number of other complementary measures in the Forth area to allow for growth in travel through public transport initiatives such as park and ride.



## C.4 Other Comments

### C.4.1 Need for the Scheme

**Ref No. GO1**

**Comment:**

**Why provide a scheme that needs two bridges?**

**Response:**

A technical assessment of the capability of the Forth Road Bridge to work alongside the Forth Replacement Crossing was undertaken and this informed development of the managed crossing scheme. The assessment found that with the new bridge being designed to carry general permitted traffic and all heavy goods vehicles, a range of options for rail based light rapid transit public transport together with reduced road loadings could be considered for the existing Forth Road Bridge. The technical assessment of the capability of the Forth Road Bridge concluded that it could support future public transport requirements and accommodate non-motorised users (pedestrians and cyclists). The opportunity to use the Forth Road Bridge in this way led to the development of the managed crossing scheme with the Forth Road Bridge carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists and provision of an operationally flexible, narrower, replacement bridge of high quality and significantly reduced cost.

Further information regarding the managed crossing scheme is contained in the Scheme Definition Report which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. GO2**

**Comment:**

**The project fails to fulfil two of the three strategic outcomes set out in the National Transport Strategy – it fails to reduce emissions and fails to improve the quality of public transport.**

**Response:**

The managed crossing scheme will provide dedicated public transport routes across the Firth of Forth and this will facilitate provision of improved public transport although this will not be provided as part of the project. Improving public transport services is the responsibility of organisations such as rail operators, bus companies, local authorities and SEStran and the strategy for the project presents a significant opportunity for these organisations to improve public transport facilities and services to increase use of public transport.

An air quality assessment has been undertaken for the proposed scheme in accordance with the Design Manual for Roads and Bridges and the assessment is described in the Environmental Statement submitted with the Forth Crossing Bill. As part of the assessment, air quality monitoring has been undertaken and a computerised model used to predict the changes in air quality, both beneficial and adverse. The model takes into account factors such as emissions from traffic that may occur due to the introduction of the proposed scheme. The results of the air quality assessment describe the potential impacts of the proposed scheme in relation to relevant air quality standards.

In addition to assessing the potential effects of the proposed scheme in relation to local air quality pollutants, the air quality assessment also considers wider effects in relation to CO2 emissions and climate change targets in line with the requirements of the Design Manual for Roads and Bridges.

The predicted impacts of the proposed scheme in relation to air quality are generally very small and as a result no specific mitigation measures are proposed. Further information regarding the air quality assessment is provided in Chapter 15 (Air Quality) of the Environmental Statement submitted with the Forth Crossing Bill.

**Ref No. GO3**

**Comment:**

**Does not dispute the need for a new Forth crossing**

**Response:**

In the Ministerial announcement on 19 December 2007, the Cabinet Secretary for Finance and Sustainable Growth advised that the effects of traffic and the impact of the Scottish climate have taken their toll on the Forth Road Bridge and that despite significant investment and maintenance over its lifetime, including recent dehumidification works, there remains uncertainty regarding the future condition of the Forth Road Bridge and its suitability as the long-term crossing of the Firth of Forth. The effectiveness or otherwise of the dehumidification works will not be known until at least 2012. The Cabinet Secretary for Finance and Sustainable Growth stated on 19 December 2007 that "Doing nothing is not an option. Work is required now to protect this crucial link in Scotland's transport network and to minimise the risk from the existing bridge not being available". The project is being taken forward against this background of uncertainty and in line with the statement made by the Cabinet Secretary.

## C.4.2 Corridor/Tunnel Decision

**Ref No. GO4**

**Comment:**

**The corridor for the crossing should be further west.**

**Response:**

A number of different options and corridors were considered for the project as part of the Forth Replacement Crossing Study (FRCS). These are described in FRCS Report 3: Option Generating and Sifting which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info). The options which were taken forward for further consideration are described and assessed in FRCS Report 4: Appraisal Report which is also available on the project website. Five corridor options were considered in this report, including three corridors further west of the proposed crossing corridor.

The FRCS recommended that a cable-stayed bridge located east of Rosyth and west of South Queensferry be taken forward, on the basis of being the best overall performing option assessed, as the preferred option. Further information regarding the options considered for the crossing and the selection of the proposed crossing location and bridge is provided in the above reports and in the statement made by the Cabinet Secretary for Finance and Sustainable Growth in his statement on 19 December 2007. The news release relating to the announcement is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info) and the full announcement can be viewed on the internet at <http://www.scottish.parliament.uk/business/officialReports/meetingsParliament/or-07/sor1219-02.htm#Col4548>.

**Ref No. GO5****Comment:**

**Environmental impacts would be less significant if the route was in a tunnel.**

**Response:**

A number of different options and corridors were considered for the project as part of the Forth Replacement Crossing Study (FRCS). These are described in FRCS Report 3: Option Generating and Sifting which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info). The options which were taken forward for further consideration are described and assessed in FRCS Report 4: Appraisal Report which is also available on the project website. Five corridor options were considered in this report, including three corridors further west of the proposed crossing corridor. Both tunnel and bridge options were considered in this study.

The FRCS recommended that a cable-stayed bridge located east of Rosyth and west of South Queensferry be taken forward, on the basis of being the best overall performing option assessed, as the preferred option. Further information regarding the options considered for the crossing and the selection of the proposed crossing location and bridge is provided in the above reports and in the statement made by the Cabinet Secretary for Finance and Sustainable Growth in his statement on 19 December 2007. The news release relating to the announcement is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info) and the full announcement can be viewed on the internet at <http://www.scottish.parliament.uk/business/officialReports/meetingsParliament/or-07/sor1219-02.htm#Col4548>.

**Ref No. GO6****Comment:**

**A tidal barrage rather than a road bridge would be a more suitable option for a new Forth crossing**

**Response:**

A number of different options and corridors were considered for the project as part of the Forth Replacement Crossing Study (FRCS). These are described in FRCS Report 3: Option Generating and Sifting which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

Various options incorporating a tidal barrage were considered for the crossing but were discarded as they would result in high costs and environmental impacts. Further information regarding this option is provided in Forth Replacement Crossing Study Report 3: Option Generation and Sifting which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info). Options 10 and 41 as described in this report incorporate a tidal barrage.

The FRCS recommended that a cable-stayed bridge located east of Rosyth and west of South Queensferry be taken forward, on the basis of being the best overall performing option assessed, as the preferred option. Further information regarding the options considered for the crossing and the selection of the proposed crossing location and bridge is provided in the above reports and in the statement made by the Cabinet Secretary for Finance and Sustainable Growth in his statement on 19 December 2007. The news release relating to the announcement is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info) and the full announcement can be viewed on the internet at <http://www.scottish.parliament.uk/business/officialReports/meetingsParliament/or-07/sor1219-02.htm#Col4548>.

**Ref No. G07****Comment:**

**Having two road bridges situated beside each other will create overcrowding.**

**Response:**

A number of different options and corridors were considered for the project as part of the Forth Replacement Crossing Study (FRCS). These are described in FRCS Report 3: Option Generating and Sifting which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info). The options which were taken forward for further consideration are described and assessed in FRCS Report 4: Appraisal Report which is also available on the project website. Five corridor options were considered in this report, including three corridors further west of the proposed crossing corridor and one to the east.

The FRCS recommended that a cable-stayed bridge located east of Rosyth and west of South Queensferry be taken forward, on the basis of being the best overall performing option assessed, as the preferred option. Further information regarding the options considered for the crossing and the selection of the proposed crossing location and bridge is provided in the above reports and in the statement made by the Cabinet Secretary for Finance and Sustainable Growth in his statement on 19 December 2007. The news release relating to the announcement is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info) and the full announcement can be viewed on the internet at <http://www.scottish.parliament.uk/business/officialReports/meetingsParliament/or-07/sor1219-02.htm#Col4548>.

The design of the replacement crossing has involved consideration of a range of bridge deck and tower options which were considered against aesthetic, technical ease of construction and cost criteria. The replacement crossing is proposed to be a twin road corridor deck with a central mono-tower from which the cables would extend into a central corridor. The development of the replacement crossing has included consultation with Architecture + Design Scotland and factors contributing to the selection of the crossing form concluded that the crossing form was aesthetically the most pleasing design complementary to the setting of the existing road and rail bridge.

### C.4.3 Route Choice

**Ref No. G08****Comment:**

**Impacts on the community at South Queensferry have been discounted.**

**Response:**

A number of alternative options for the road network connections were considered as part of the work undertaken during 2008. The corridor for the proposed scheme was selected as it demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

One of the main objectives of the Forth Replacement Crossing is to minimise, where possible, the impact on people and the natural and cultural heritage of the Forth area. One of the main concerns expressed regarding the overall impact on South Queensferry was related to the line and elevation of the proposed scheme to the south of the town. Further development of the connecting road strategy for the proposed scheme was undertaken as a result of feedback from the January 2009 public information exhibitions and further design development which helps reduce the impact on South Queensferry (refer to Chapter 7 of the Feedback & Outcomes Report). This is also covered in Repeated Comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report.

Consideration of potential impacts on South Queensferry has been given through refinement of the design and environmental impact assessment. The assessment criteria cover potential impacts on the human, natural and built environment and therefore cover assessments relevant to potential impacts on South Queensferry. The assessments have informed the design of mitigation measures to reduce potential impacts where necessary and these mitigation measures, together with any residual impacts, are described in the Environmental Statement.

**Ref No. GO9****Comment:**

**Elimination of routes has been undertaken on a largely fiscal basis.**

**Response:**

A number of alternative options for the road network connections were considered as part of the work undertaken during 2008. These options were discounted in favour of the proposed scheme which demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. GO10****Comment:**

**The current preferred route will cause longer journey times, greater emissions, increased rat running in South Queensferry, greater human impacts and greater concentration of traffic on fewer approach roads.**

**Response:**

A number of alternative options for the road network connections were considered as part of the work undertaken during 2008. These options were discounted in favour of the proposed scheme which demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

One of the main objectives of the Forth Replacement Crossing is to minimise, where possible, the impact on people and the natural and cultural heritage of the Forth area. One of the main concerns expressed regarding the overall impact on South Queensferry was related to the line and elevation of the proposed scheme to the south of the town. Further development of the connecting road strategy for the proposed scheme was undertaken as a result of feedback from the January 2009 public information exhibitions and further design development which helps reduce the impact on South Queensferry (refer to Chapter 7 of the Feedback & Outcomes Report). This is also covered in Repeated Comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report.

Consideration of potential impacts on South Queensferry has been given through refinement of the design and environmental impact assessment. The assessment criteria cover potential impacts on the human, natural and built environment and therefore cover assessments relevant to potential impacts on South Queensferry. The assessments have informed the design of mitigation measures to reduce potential impacts where necessary and these mitigation measures, together with any residual impacts, are described in the Environmental Statement.

**Ref No. GO11****Comment:**

**What is the construction cost saving arising from the decision to place the scheme on its current route rather than the route indicated on the web from June 2007.**

**Response:**

Public information exhibitions were held in August 2007 as part of the Forth Replacement Crossing Study. The estimated cost of the proposed scheme at the time of these exhibitions was £3.25 billion to £4.22 billion at 2016 outturn prices. The estimated cost of the proposed scheme is currently £1.7 billion to £2.3 billion at 2016 outturn prices, a saving of over £1.5 billion.

**Ref No. GO12****Comment:**

**There is considerable doubt as to what the solution is and what the eventual impact will be.**

**Response:**

Updated information regarding the road layouts was published in the April 2009 newsletter and in reports also published in April 2009, including the DMRB Stage 2 Corridor Report and Scheme Definition Report. The newsletter was distributed to individuals who have signed up to receive updates from the project or who have corresponded with the project team at any point during its development. An electronic newsletter (ezine) was also used to provide additional information to users who had subscribed to the service to alert them to, for example, new developments on the project, the publication of new reports or findings. The reports are available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

Further information regarding the design of the proposed scheme was provided at community information displays staged during August 2009. In addition to plans of the proposed scheme which also incorporated the landscaping and mitigation proposals, information on the construction compounds and Code of Construction Practice, information on compulsory purchase, compensation and the parliamentary process and the findings of the Feedback & Outcomes Report were also provided.

The DMRB Stage 3 Report will be published at the same time the Forth Crossing Bill is introduced in to the Scottish Parliament which will provide further information regarding the design of the proposed scheme.

An environmental impact assessment has been undertaken to assess the impact of the proposed scheme on the environment. The assessment has informed the development of mitigation measures to reduce the environmental impact of the proposed scheme. The results of the environmental impact assessment and the mitigation measures proposed are presented in the Environmental Statement submitted with the Forth Crossing Bill.

## C.4.4 Bridge Design

**Ref No. GO13****Comment:**

**The replacement crossing should have a reserved area for the storage of plant and materials.**

**Response:**

A small facility will be provided at the south abutment of the replacement crossing for storage of vehicles required for the maintenance of the replacement crossing together with some accommodation facilities for maintenance workers which will be housed within the south abutment itself.

**Ref No. GO14****Comment:**

**What are the recent trends in closures due to high winds on the Forth Rail and Road Bridges and what degree of improvement is expected on the new crossing?**

**Response:**

Strong winds signs are erected on the Forth Road Bridge when the wind gust speed is between 35 and 50 mph and a speed limit of 40mph is normally imposed. A traffic diversion sign is erected when vehicles are diverted from the Forth Road Bridge when the wind speed is predicted to rise above 50mph. Information from the Forth Estuary Transport Authority indicates that yearly averages are 778 hours for speed restriction and warning signs and 116 hours for diversion of traffic. In the financial year 2007-2008 restrictions applied for a total of 207 hours and the bridge was closed to all traffic for nearly 18 hours. Similar information is not available for the Forth Bridge.

The replacement crossing will incorporate wind shields which will protect the crossing from the effects of wind and provide a more reliable corridor for wind sensitive vehicles.

Strong winds can affect driving conditions on various parts of the road network – and one of the aims in providing wind shielding is that if it is possible to use the general road network surrounding the replacement crossing it should be possible to cross the new bridge.

**Ref No. GO15****Comment:**

**There will be significant disruption during maintenance of the bridge and maintenance costs will rise due to there being two road bridges.**

**Response:**

The bridge form facilitates maintenance activities associated with the cables, should this be necessary in the future, as these can be individually replaced without affecting the load carrying capacity of the bridge.

The replacement crossing will have hard shoulders which will improve the operational efficiency of the bridge compared to the Forth Road Bridge which has no hard shoulders. The hard shoulders on the new bridge will ensure that breakdowns, incidents and any maintenance works do not cause the congestion which is currently experienced on the Forth Road Bridge. They also provide the flexibility to carry public transport should it be required in the future, carry traffic during maintenance activities and carry buses relocated from the existing Forth Road Bridge during the periods of high winds.

**Ref No. GO16****Comment:**

**The Severn Bridge was closed due to ice breaking off the cables. This would not happen with a tunnel.**

**Response:**

A number of different options and corridors were considered for the project as part of the Forth Replacement Crossing Study (FRCS). These are described in FRCS Report 3: Option Generating and Sifting which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info). The options which were taken forward for further consideration are described and assessed in FRCS Report 4: Appraisal Report which is also available on the project website. Five corridor options were considered in this report, including three corridors further west of the proposed crossing corridor. Both tunnel and bridge options were considered in this study.

The FRCS recommended that a cable-stayed bridge located east of Rosyth and west of South Queensferry be taken forward, on the basis of being the best overall performing option assessed, as the preferred option. Further information regarding the options considered for the crossing and the selection of the proposed crossing location and bridge is provided in the above reports and in the statement made by the Cabinet Secretary for Finance and Sustainable Growth in his statement on 19 December 2007. The news release relating to the announcement is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info) and the full announcement can be viewed on the internet at <http://www.scottish.parliament.uk/business/officialReports/meetingsParliament/or-07/sor1219-02.htm#Col4548>.

Any cable supported bridge in a cold climate may be prone to issues of icing of the cables. Incidents of ice falling from cables at the Severn Crossing occurred in early 2009; however problems with ice falling from cables and affecting the safety of traffic are extremely rare, particularly where the cables do not cross the carriageways on the bridge. At the Severn Crossing, high winds at the time caused ice from the cables to fall over the carriageways. As the bridge cables do not cross over the carriageway on the Forth Replacement Crossing it is not considered necessary to provide shielding to protect traffic on the bridge.

**Ref No. GO17****Comment:**

**Please clarify that resurfacing works on the bridge will not be undertaken by hand.**

**Response:**

Modern surfacing and resurfacing systems are designed to be machine-laid, and this type of system is intended for the replacement crossing.

## C.4.5 General Design Comments

### **Ref No. GO18**

#### **Comment:**

**Pleased that the route is in cutting to the west of South Queensferry.**

#### **Response:**

Further development of the proposed scheme at South Queensferry was undertaken following the public information exhibitions in January 2009 and this is covered in the response to comment RO14 in the Public Information Exhibitions: Feedback & Outcomes Report. The proposed junction at South Queensferry has been moved further west to connect directly to the A904. Whilst the proposed scheme layout shown at the public information exhibitions in January 2009 included the junction at South Queensferry raised above the main carriageway to the south of South Queensferry, the scheme now proposed retains the A904 at approximately its current level with the main carriageway passing below in a cutting.

### **Ref No. GO19**

#### **Comment:**

**The scheme will improve transport links on the east coast.**

#### **Response:**

The main purpose of the scheme is to maintain cross Forth travel given the uncertainty regarding the ability of the Forth Road Bridge to cater for the long term needs of cross-Forth travel. The replacement crossing will be a new cable-stayed structure with wind shielding and a single deck carrying a motorway of two general lanes and hard shoulders in each direction. Wind shielding on the new bridge will protect the crossing from the effects of wind and provide a more reliable corridor for wind sensitive vehicles. The hard shoulders on the new bridge will ensure that breakdowns, incidents and any maintenance works do not cause the congestion which is currently experienced on the Forth Road Bridge, which has no hard shoulder. They also provide the flexibility to carry public transport should it be required in the future, carry traffic during maintenance activities and carry buses relocated from the existing Forth Road Bridge during the periods of high winds.

Intelligent Transport Systems will be provided on the existing road network and on the proposed scheme. Measures such as variable speed limits, variable message signs and other traffic information and control measures will be provided as part of the proposed scheme to control the speed of traffic on the main carriageways, the flow of traffic merging from the slip roads and provide information to road users. Variable message signs will provide up to date and relevant information to benefit road users. The Intelligent Transport Systems proposals will manage and improve the flow of traffic on the network and reduce congestion, improving the operation of the existing and proposed roads.

### **Ref No. GO20**

#### **Comment:**

**A good design could be of economic and social benefit to South Queensferry and the surrounding area.**

#### **Response:**

It is anticipated that the replacement crossing will result in wider economic benefits following completion. The economic assessment for the proposed scheme considers a number of factors including transport costs and benefits, and construction and maintenance costs. In addition to this, an assessment of wider economic benefits that may arise has been undertaken using the Scottish Transport Appraisal Guidance. The wider economic benefits include agglomeration benefits, such as providing firms better access to markets and additional benefits relating to competition. These are estimated to be approximately £200 million. Further information regarding the economic assessment is contained in the Policy Memorandum which was submitted with the Forth Crossing Bill.



**Ref No. GO21****Comment:**

**Benefits associated with Intelligent Transport Systems appear overstated and unproven.**

**Response:**

Intelligent Transport Systems will be provided on the existing road network and on the proposed scheme. Measures such as variable speed limits, variable message signs and other traffic information and control measures will be provided as part of the proposed scheme to control the speed of traffic on the main carriageways, the flow of traffic merging from the slip roads and provide information to road users. Variable message signs will provide up to date and relevant information to benefit road users. The Intelligent Transport Systems proposals will manage and improve the flow of traffic on the network and reduce congestion, improving the operation of the existing and proposed roads.

Intelligent Transport Systems are recognised as being an appropriate and effective measure to improve traffic flow and road safety. A recent example in the UK is the M42 Active Traffic Management Scheme implemented by the Highways Agency.

The ability of Intelligent Transport Systems to improve the operation of the roads is recognised through the Strategic Transport Projects Review (STPR) with one of the recommendations to be taken forward being provision of Intelligent Transport Systems to enhance capacity and operation of the road network. Further information regarding the STPR is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

**Ref No. GO22****Comment:**

**Concern regarding road safety.**

**Response:**

The proposed scheme is being designed in accordance with current guidance, including the Design Manual for Roads and Bridges. As part of the design process measures are included to address any potential safety risks. The use of Intelligent Transport Systems, improvements to junctions and the inclusion of hard shoulders and wind shielding on the Forth Replacement Crossing will improve operational efficiency, safety and traffic flow. Where local roads are affected by the proposed scheme, these will be realigned, with the designs being undertaken with the relevant standards including the Design Manual for Roads and Bridges and local authority standards. The layouts of local roads beyond the extents of the proposed scheme and safety issues associated with those roads are a matter for the relevant local authority.

**Ref No. GO23****Comment:**

**The design of the road on embankment is presumably to save costs associated with the A904 Junction**

**Response:**

The road is necessarily on embankment to the south of South Queensferry for engineering reasons and this is not due to costs. Information regarding the design of the scheme is contained in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

However, further development of the proposed scheme at South Queensferry was undertaken following the public information exhibitions in January 2009 and this is covered in the response to comment RO14 in the Public Information Exhibitions: Feedback & Outcomes Report. The proposed junction at South Queensferry has been moved further west to connect directly to the A904. Whilst the proposed scheme layout shown at the public information exhibitions in January 2009 included the junction at South Queensferry raised above the main carriageway, the scheme now proposed retains the A904 at approximately its current level with the main carriageway passing below in a cutting.

Moving the junction to the west has also allowed a solution to be engineered which substantially lowers the height of the road as it passes south of South Queensferry. The embankment carrying the road has been capable of being lowered by up to 6m in this area, substantially reducing the visual impact of the road on the landscape and properties.

**Ref No. GO24****Comment:**

**The project must be to develop a crossing of greater permanence than the current bridge and of the least damage to the local community and the local environment.**

**Response:**

The replacement crossing will have a 120 year design life in line with current standards. During this period, maintenance of the bridge will be undertaken to maintain the operational performance of the bridge. The bridge form facilitates maintenance activities associated with the cables, should this be necessary in the future, as these can be individually replaced without affecting the load carrying capacity of the bridge.

The environmental impact assessment has been undertaken in accordance with relevant guidance and legislation including the Design Manual for Roads and Bridges and the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended). The matters to be assessed are set out in these documents and cover potential impacts on the biological, physical and historical environment, as well as on members of the public and on current or planned future use of the environment. The results of the environmental impact assessment and the mitigation measures proposed are presented in the Environmental Statement submitted with the Forth Crossing Bill.

In terms of bridge aesthetics, careful consideration has been given to the shape and form of the replacement crossing in order that it complements the existing bridges. Consultation has been undertaken with Architecture + Design Scotland who are supportive of the design.

**Ref No. GO25****Comment:**

**Meeting the needs of South Queensferry will also satisfy those of the individuals who reside here and nearby.**

**Response:**

The proposed scheme will provide a new junction at South Queensferry where the route intersects the adjacent road network catering for all traffic movements at this location. The operational efficiency of the route will be improved compared to the A90 and Forth Road bridge with wind shielding and hard shoulders provided.

One of the main objectives of the proposed scheme is to minimise, where possible, the impact on people and the natural and cultural heritage of the Forth area. One of the main concerns expressed regarding the overall impact on South Queensferry was related to the line and elevation of the proposed scheme to the south of the town. Further development of the connecting road strategy for the proposed scheme was undertaken as a result of feedback from the January 2009 public information exhibitions and further design development which helps reduce the impact on South Queensferry (refer to Chapter 7 of the Feedback & Outcomes Report) was undertaken. This is also covered in Repeated Comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report.

Consideration of potential impacts on South Queensferry has been given through refinement of the design and environmental impact assessment. The assessment criteria cover potential impacts on the human, natural and built environment and therefore cover assessments relevant to potential impacts on South Queensferry. The assessments have informed the design of mitigation measures to reduce potential impacts where necessary and these mitigation measures, together with any residual impacts, are described in the Environmental Statement submitted with the Forth Crossing Bill.

## C.4.6 Scheme Cost

### **Ref No. GO26**

#### **Comment:**

**Concern made over the existing public funds assigned to the health and safety aspects of large construction projects.**

#### **Response:**

Safety is an extremely important factor in all construction projects, influencing the design, and thereby future use of the infrastructure provided, and also the construction process. This covers health, safety and welfare of construction workers and road users alike. Requirements in relation to health and safety are set out in legislation and other construction industry standards and following these is a mandatory requirement, in line with the importance that should be given to these matters.

In relation to operational safety associated with the proposed scheme, the design is being undertaken in accordance with current guidance, including the Design Manual for Roads and Bridges. As part of the design process measures are included to address any potential safety risks. The use of Intelligent Transport Systems, improvements to junctions and the inclusion of hard shoulders and wind shielding on the Forth Replacement Crossing will improve operational efficiency, safety and traffic flow. Where local roads are affected by the proposed scheme, these will be realigned, with the designs being undertaken with the relevant standards including the Design Manual for Roads and Bridges and local authority standards. The layouts of local roads beyond the extents of the proposed scheme and safety issues associated with those roads are a matter for the relevant local authority.

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works. Safety is covered in Section 3 of the Code of Construction Practice, including the obligations to comply with relevant legislation and other standards.

### **Ref No. GO27**

#### **Comment:**

**Concern that the scheme will not be delivered on budget.**

#### **Response:**

The estimated costs have been prepared in accordance with Treasury guidance and include allowances for risk, optimism bias, VAT and inflation. Transport Scotland is confident that the final cost of the proposed scheme will lie within the current estimate of £1.7 billion to £2.3 billion at 2016 outturn prices.

### **Ref No. GO28**

#### **Comment:**

**What is the cost of noise mitigation that is considered acceptable per 100m of road?**

#### **Response:**

The extent of mitigation provided is specific to individual schemes and is based on the extent and significance of environmental impacts.

An environmental impact assessment has been undertaken to assess the impact of the proposed scheme on the environment. The results of the environmental impact assessment are presented in the Environmental Statement submitted with the Forth Crossing Bill. Chapter 16 of the Environmental Statement describes the assessment of noise and vibration impacts and the mitigation measures proposed.

Transport Scotland has set out its strategy for mitigating noise impacts in a Noise and Vibration Policy which also forms part of the Environmental Statement. The strategy has been used to determine where specific noise mitigation measures are to be provided and, as indicated above, these are also described in the Environmental Statement. Mitigation measures which have been considered include, for example, the use of screening measures such as noise barriers or earth bunds, and low noise road surfacing where appropriate.

**Ref No. GO29****Comment:**

**Cost cutting initiatives are the key driver of this scheme.**

**Response:**

A number of alternative options for the road network connections were considered as part of the work undertaken during 2008. These options were discounted in favour of the proposed scheme which demonstrated engineering, cost, environmental and sustainability benefits associated with maximising the use of existing road infrastructure. Further information is provided in the DMRB Stage 2 Corridor Report and the Managed Crossing Scheme – Scheme Definition Report which are available on the Studies & Reports section on the project website, [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. GO30****Comment:**

**In the inception report the costing of the previous solution contains an error which prevents comparison with the figures in FRCS Reports 1 to 5. The 3.5% levy imposed by the Treasury has been applied incorrectly.**

**Response:**

Taxation allowances on the project have been applied in line with Treasury guidance. The estimated cost of the proposed scheme at the time of public information exhibitions held in August 2007 as part of the Forth Replacement Crossing Study was £3.25 billion to £4.22 billion at 2016 outturn prices. The estimated cost of the proposed scheme is currently £1.7 billion to £2.3 billion at 2016 outturn prices, a saving of over £1.5 billion.

**Ref No. GO31****Comment:**

**There are no costs included in the current estimate for the maintenance of the existing bridge.**

**Response:**

The estimated costs for the maintenance of the existing bridge have been taken into account in the economic assessment of the project.

## C.4.7 Funding

**Ref No. GO32**

**Comment:**

**Funding for such a major project should have been in place beforehand.**

**Response:**

The Scottish Government has stated that funding for the Forth Replacement Crossing is in place.

**Ref No. GO33**

**Comment:**

**Documents relating to the Forth Crossing and the Strategic Transport Projects Review both omit detailed economic and environmental appraisal of the favoured crossing against alternative uses for the required funding.**

**Response:**

The Forth Replacement Crossing is listed in the National Planning Framework (NPF2) as a national development. The need for the project is described in NPF2, which states that 'The Forth Road Bridge has been an essential part of the national road infrastructure for over 40 years. It is vital to the economy of Fife, an essential link for the East Coast Corridor and crucial to the connectivity of Perth and the Highlands and Islands. The main suspension cables of the bridge are showing significant signs of deterioration as a result of corrosion. While a programme of works has been identified to dry out the cables and thus prolong the life of the bridge, there is a considerable risk that this work will not be successful. If that proves to be the case, restrictions to heavy goods vehicles may be needed as early as 2013, with the bridge closing to all traffic by 2019. Complete loss of the road crossing would have very significant adverse economic impacts, both nationally and regionally'. Therefore the proposed scheme is identified as 'an essential element of national infrastructure'.

In the Ministerial announcement on 19 December 2007, the Cabinet Secretary for Finance and Sustainable Growth advised that the effects of traffic and the impact of the Scottish climate have taken their toll on the Forth Road Bridge and that despite significant investment and maintenance over its lifetime, including recent dehumidification works, there remains uncertainty regarding the future condition of the Forth Road Bridge and its suitability as the long-term crossing of the Firth of Forth. The effectiveness or otherwise of the dehumidification works will not be known until at least 2012. The Cabinet Secretary for Finance and Sustainable Growth stated on 19 December 2007 that "Doing nothing is not an option. Work is required now to protect this crucial link in Scotland's transport network and to minimise the risk from the existing bridge not being available". The project is being taken forward against this background of uncertainty and in line with the statement made by the Cabinet Secretary.

**Ref No. GO34****Comment:**

**The Scottish Association for Public Transport would support early action on a replacement crossing if engineering evidence existed indicating that the Forth Road Bridge was at risk of full closure within the next decade, subject to it being funded by borrowing related to specific additional streams of income and minimising the need for cuts in other public spending.**

**Response:**

In 2004, the Forth Estuary Transport Authority became the first major suspension bridge operator to implement new industry guidelines for internal inspection of parallel wire suspension cables. This inspection revealed serious corrosion resulting in a loss of strength of about 8% and the possibility that Heavy Goods Vehicle (HGV) restrictions might need to be introduced as soon as 2013, with further restrictions within five years to extend the life of the bridge. In order to monitor the rate of deterioration acoustic detection equipment has been installed capable of identifying individual wires breaking.

The consequences of this assessment were considered by the Scottish Ministers who commissioned, first, a check of the findings, and subsequently, a study into how the loss of the Forth Road Bridge could be compensated by a replacement crossing. The seriousness of the loss also led to the inclusion of the replacement crossing as a National Development within the National Planning Framework (NPF2), which has been subsequently endorsed by the Parliament.

Since 2006, acoustic monitoring of the cables on the Forth Road Bridge has detected further new wire breaks within the individual wires that make up each cable and has confirmed that the problem is ongoing. A second inspection carried out in February and March 2008 indicated that the cables had lost about 10% of their strength, but may be deteriorating more slowly than previously feared. The inspection indicated that with the assessed rate of deterioration weight restrictions might now more likely be considered at a later date, between 2017 and 2021 within an overall window of 2014 to 2021. However, it is clear from studies and work currently being undertaken that the Forth Road Bridge cannot be guaranteed to continue to provide the levels of service needed to support social and economic traffic on the important transport corridor across the Forth into the future.

The Scottish Ministers have considered funding and procurement options for the project taking cognisance of the public accounting regime and value for money assessments. This is described in more detail in the Policy Memorandum submitted with the Forth Crossing Bill. The funding and procurement option chosen (direct funding from Central Government and a conventional design and build contract) was selected as it presents the least risk process with the greatest guarantee of provision of the proposed scheme by 2016. The Scottish Government has stated that funding for the Forth Replacement Crossing is in place.

**Ref No. GO35****Comment:**

**Concern regarding the political in fighting over funding.**

**Response:**

The Scottish Government has stated that funding for the Forth Replacement Crossing is in place.

## C.4.8 Existing Bridge

**Ref No. GO36**

**Comment:**

**Will public transport vehicles be diverted to the proposed bridge in times of high winds?**

**Response:**

As part of the managed crossing scheme the Forth Road Bridge will continue to operate, carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists. Public transport and taxis will be able to use the replacement crossing and in the event that the Forth Road Bridge is closed, buses will be permitted to use the hard shoulders on the replacement crossing. This will be managed using measures such as CCTV, variable message signs and other traffic information and control measures to maintain effective operation of the system and safe operation of the road.

**Ref No. GO37**

**Comment:**

**Cabling on the existing bridge should be replaced as well.**

**Response:**

The Forth Estuary Transport Authority is continuing to monitor the condition of the cables and following opening of the Forth Replacement Crossing, if the cables on the existing bridge require to be replaced then they will be. If this is the case, the significant disruption that would occur if the cables were replaced without the replacement crossing being in place will be avoided.

**Ref No. GO38**

**Comment:**

**Will it be possible for disabled drivers or drivers over 60 years old to use existing bridge?**

**Response:**

It will not be possible for disabled drivers or drivers over 60 years old to use existing bridge. As part of the managed crossing scheme the Forth Road Bridge will continue to operate, carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists. The drivers in question will be able to use the replacement crossing.

**Ref No. GO39****Comment:**

**Can the current bridge and road network remain with greater emphasis to remove heavy goods vehicles from the bridge?**

**Response:**

In 2004, the Forth Estuary Transport Authority became the first major suspension bridge operator to implement new industry guidelines for internal inspection of parallel wire suspension cables. This inspection revealed serious corrosion resulting in a loss of strength of about 8% and the possibility that Heavy Goods Vehicle (HGV) restrictions might need to be introduced as soon as 2013, with further restrictions within five years to extend the life of the bridge. In order to monitor the rate of deterioration acoustic detection equipment has been installed capable of identifying individual wires breaking.

Since 2006, acoustic monitoring of the cables on the Forth Road Bridge has detected further new wire breaks within the individual wires that make up each cable and has confirmed that the problem is ongoing. A second inspection carried out in February and March 2008 indicated that the cables had lost about 10% of their strength, but may be deteriorating more slowly than previously feared. The inspection indicated that with the assessed rate of deterioration weight restrictions might now more likely be considered at a later date, between 2017 and 2021 within an overall window of 2014 to 2021. However, it is clear from studies and work currently being undertaken that the Forth Road Bridge cannot be guaranteed to continue to provide the levels of service needed to support social and economic traffic on the important transport corridor across the Forth into the future.

The potential restrictions on traffic would commence with heavy goods vehicles as these impose a greater loading on the Forth Road Bridge. However, as 86 % of the loading in the cables is due to the weight of the structure itself, restricting the number of heavy goods vehicles on the bridge may not, in itself, prevent full closure of the bridge in the future.

**Ref No. GO40****Comment:**

**The Forth Estuary Transport Authority report estimates that disruption during cable replacement will cost £212 - £335 million.**

**Response:**

The Forth Estuary Transport Authority (FETA) assessed the technical feasibility of augmenting or replacing the main cables on the Forth Road Bridge. The assessment identified that the works would cause sustained and significant disruption to traffic over a period of 7 to 9 years with notional travel time delay costs of the order of £650,000 per day, if a carriageway were to be closed on the bridge on a weekday. Without an alternative crossing in place FETA has indicated from an assessment of existing businesses that during this work, economic output is likely to fall by around £1 billion, a drop in turnover in excess of £1.3 billion and a loss of around 3,200 jobs, some of which may be permanent. The economic effects would impact widely, but be most strongly felt in Fife where some parts have 20-40% of residents working in Edinburgh.

**Ref No. GO41****Comment:**

**It is difficult to believe the programme of 7 - 9 years to replace the cables as the bridge only took 7 years to construct.**

**Response:**

The outline work methods and programme developed by the Forth Estuary Transport Authority (FETA) have been prepared by structural engineers with experience in major bridge design, construction and maintenance. In addition to replacement of the main cables, works to the main towers, side towers, footways and anchorages would be necessary, with the work having to be undertaken whilst maintaining traffic flow on the bridge. The work is recognised as being extremely complex and has very little precedent at the scale necessary on the Forth Road Bridge. Further information regarding the work necessary is included in the 'Feasibility Study into Replacement/Augmentation of Main Cable - Stage 2 Optioneering Report' prepared by FETA. Appendix F of the report provides outline programmes which indicate the tasks necessary as part of the cable augmentation/replacement work and anticipated timescales associated with this work.



**Ref No. GO42****Comment:**

**There is double counting between the travel disruption costs and wider economic costs.**

**Response:**

The Forth Estuary Transport Authority (FETA) assessed the technical feasibility of augmenting or replacing the main cables on the Forth Road Bridge. The assessment identified that the works would cause sustained and significant disruption to traffic over a period of 7 to 9 years with notional travel time delay costs of the order of £650,000 per day, if a carriageway were to be closed on the bridge on a weekday. Without an alternative crossing in place FETA has indicated from an assessment of existing businesses that during this work, economic output is likely to fall by around £1 billion, a drop in turnover in excess of £1.3 billion and a loss of around 3,200 jobs, some of which may be permanent. The economic effects would impact widely, but be most strongly felt in Fife where some parts have 20-40% of residents working in Edinburgh. The travel disruption and wider economic costs are both significant.

**Ref No. GO43****Comment:**

**It is difficult to believe anything more than peak closures of the existing bridge would be required to replace the cables.**

**Response:**

The outline work methods and programme developed by the Forth Estuary Transport Authority (FETA) have been prepared by structural engineers with experience in major bridge design, construction and maintenance. In addition to replacement of the main cables, works to the main towers, side towers, footways and anchorages would be necessary, with the work having to be undertaken whilst maintaining traffic flow on the bridge.

FETA considered a number of different options and traffic management scenarios for undertaking the works and these are described in the 'Feasibility Study into Replacement/Augmentation of Main Cable - Stage 2 Optioneering Report'. Options considered included full closure of the bridge, carriageway or lane closures and tidal flow or no peak period closures. Key differences between the options are when work can be undertaken due to the proximity of traffic.

The main cables are located alongside the carriageways on the bridge and the work to augment or replace the cables will involve working adjacent to and above the carriageways. This presents a significant hazard, particularly if there is live traffic on the carriageway immediately adjacent to the work location. FETA indicated in the 'Feasibility Study into Replacement/Augmentation of Main Cable - Stage 2 Optioneering Report' that if the work had to be undertaken that it would clearly be preferable from a safety perspective to undertake the work with the bridge fully closed. However, it is recognised that bridge closures would result in the greatest disruption to road users and impact on the economy.

**Ref No. GO44****Comment:**

**The possible upgrading of the Forth Road Bridge has been made to appear as expensive as possible. An independent appraisal by experts not beholden to the UK is needed.**

**Response:**

The Forth Estuary Transport Authority (FETA) assessed the technical feasibility of augmenting or replacing the main cables on the Forth Road Bridge. The assessment identified replacement of the main cables is technically possible at a cost of £122 million for the engineering works and that the works would cause sustained and significant disruption to traffic over a period of 7 to 9 years with notional travel time delay costs of the order of £650,000 per day, if a carriageway were to be closed on the bridge on a weekday. Without an alternative crossing in place FETA has indicated from an assessment of existing businesses that during this work, economic output is likely to fall by around £1 billion, a drop in turnover in excess of £1.3 billion and a loss of around 3,200 jobs, some of which may be permanent. The economic effects would impact widely, but be most strongly felt in Fife where some parts have 20-40% of residents working in Edinburgh.

A detailed assessment has been independently carried out for Transport Scotland which has confirmed the figures as being indicative of the costs of carrying out the work.

**Ref No. GO45****Comment:**

**Conflicting statements on the longevity of the existing bridge raises questions about the future proofing for public transport.**

**Response:**

A technical assessment of the capability of the Forth Road Bridge to work alongside the Forth Replacement Crossing was undertaken. The assessment found that with the new bridge being designed to carry general permitted traffic and all heavy goods vehicles, a range of options for rail based light rapid transit public transport together with reduced road loadings could be considered for the existing Forth Road Bridge. The technical assessment of the capability of the Forth Road Bridge concluded that it could support future public transport requirements and accommodate non-motorised users (pedestrians and cyclists). The opportunity to use the Forth Road Bridge in this way led to the development of the managed crossing scheme with the Forth Road Bridge carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists and provision of an operationally flexible, narrower, replacement bridge of high quality and significantly reduced cost.

Given the age and nature of the existing bridge, an element of unforeseeable risk cannot be ignored. The Forth Replacement Crossing will be designed such that light rapid transit could be accommodated in place of the hard shoulders if a future unforeseen circumstance means that the Forth Road Bridge is not suitable to carry all potential light rapid transit systems. Further information regarding the managed crossing scheme is provided in the Scheme Definition Report which is available on the project web-site [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

The Forth Estuary Transport Authority is continuing to monitor the condition of the cables and if, following opening of the Forth Replacement Crossing the cables on the existing bridge require to be replaced then they will be. If this is the case, the significant disruption that would occur if the cables were replaced without the replacement crossing being in place will be avoided.

## C.4.9 Tolls

**Ref No. GO46****Comment:**

**Abandoning tolls is irresponsible. It offers a powerful traffic management tool and has curbed growth on the Severn bridges.**

**Response:**

The Scottish Government has removed tolls from the Forth Road Bridge in line with Government policy on 11 February 2008. This policy was implemented by the Scottish Parliament in its approval of the Abolition of Bridge Tolls (Scotland) Act 2008. The Minister for Transport, Infrastructure and Climate Change set out on 10 December 2008 the outcomes of the Strategic Transport Projects Review (STPR) which cover the future investment programme for transport in Scotland over the next 20 years. In this announcement, the Minister advised the Scottish Parliament that the Forth Replacement Crossing will be toll-free.

## C.4.10 Compensation

**Ref No. GO47****Comment:**

**Requests for clarification regarding what is covered in compensation.**

**Response:**

Transport Scotland published Guidance on the Parliamentary Process, Compulsory Purchase Process and Compensation in July 2009. This document provided information on the parliamentary and objection process, compulsory purchase arrangements and compensation for those who may be affected by the scheme, such as landowners of property, farms or businesses which are directly affected by the proposed scheme.

## C.4.11 Quality of Exhibition/Consultation Process

**Ref No. GO48**

**Comment:**

**Scale models should be provided at exhibitions.**

**Response:**

It is not intended to create a scale model although a 3D computer simulation of the proposed scheme, including the replacement crossing will be created.

**Ref No. GO49**

**Comment:**

**Comment made that the exhibition video stated that public consultation had already taken place yet no prior notification of this was received.**

**Response:**

A video was on display at the public information exhibitions in January 2009 which provided information regarding the Forth Replacement Crossing project. Previous exhibitions took place through a series of public information exhibitions held in 12 locations over 21 days in August 2007 as part of the Forth Replacement Crossing Study. The public information exhibitions were held at locations which were deemed to have an interest in the selection of a crossing corridor and crossing type. Some 4,465 people registered their attendance at the public information exhibitions and 756 feedback forms were received from the consultation. Feedback was analysed and a report published in November 2007 which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

The public information exhibitions were widely publicised through a variety of means including press adverts, a two-week radio advertising campaign, distribution of publicity postcards, press releases and on the project website.

**Ref No. GO50**

**Comment:**

**Concerns regarding advertising for the exhibitions held in January 2009.**

**Response:**

The public information exhibitions held in January 2009 were widely publicised through a variety of means including press adverts, a two-week radio advertising campaign, distribution of publicity postcards, press releases and on the project website.

**Ref No. GO51**

**Comment:**

**I have been advised that almost £1m had been spent on the Forth Replacement Crossing Study and the Government had selected a bridge crossing without knowing if the ground it was to be built on could support it.**

**Response:**

Preliminary ground investigations were carried out during the Forth Replacement Crossing Study to inform development of the project alongside other information available regarding existing ground conditions. The appraisal of options, including reference to information gathered during preliminary ground investigations, is described in the Forth Replacement Crossing Study Report 4: Appraisal Report. The reports are available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. GO52****Comment:**

**Concern regarding the level of detail shown in the images at the exhibitions.**

**Response:**

The plans and photomontages on display at the public information exhibitions were the most up to date plans that were available. These were indicative designs as development was continuing at a rapid pace at that time.

Updated information regarding the road layouts was published in the April 2009 newsletter and in reports also published in April 2009, including the DMRB Stage 2 Corridor Report and Scheme Definition Report. The newsletter was distributed to individuals who have signed up to receive updates from the project or who have corresponded with the project team at any point during its development. An electronic newsletter (ezine) was also used to provide additional information to users who had subscribed to the service to alert them to, for example, new developments on the project, the publication of new reports or findings. The reports are available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. GO53****Comment:**

**The time to comment on the proposals was inadequate given the size of the scheme.**

**Response:**

Public information exhibitions were held from 20 to 31 January 2009 to facilitate consultation with the public and to provide the opportunity for feedback on the developing proposals announced by the Scottish Government in December 2008. The deadline for providing feedback was 23 February 2009. The period during which feedback was requested was five weeks from the commencement of the public information exhibitions and was considered an appropriate length of time for comments to be made. A number of responses were received shortly after this date and these were also considered in the analysis described in the Public Information Exhibitions: Feedback & Outcomes Report published in June 2009.

**Ref No. GO54****Comment:**

**Transport Scotland stated that affected parties will be consulted but the only communication I have received is the booklet regarding surveys.**

**Response:**

Consultations with landowners have been ongoing since early 2008 and initially focussed on gathering information to inform the development of the proposed scheme. Following the selection of the preferred corridor in late 2008, continuing consultation aided the development of the scheme proposals. The main strands of consultation include landowner identification, arranging of site access for survey works, including environmental surveys and ground investigation and consultation regarding the design of the proposed scheme.

Following the selection of the preferred corridor for the connecting roads in late 2008, land plans showing the approximate extent of the route corridor were prepared. Individual plans were distributed to potentially affected landowners in December 2008. This marked the start of a programme of one-to-one meetings and dialogue with potentially affected landowners and occupiers.

Matters discussed during consultations with landowners have included a review of land ownership details, the ongoing design of the proposed scheme, environmental issues, land requirements and accommodation works to be provided as part of the proposed scheme.

Consultation with landowners and affected parties will continue up to and during the construction stage of the project.

**Ref No. GO55****Comment:**

**I understand that some residents were invited to preview the exhibitions although I was not included in this group.**

**Response:**

Previews of the public information exhibitions were offered to key stakeholder groups the day prior to the public opening. Previews were arranged for MSPs, local councillors and other elected representatives, business and industry groups, statutory bodies, community councils and community groups and the media. Individual landowners and the public were invited to attend the public information exhibitions from their formal commencement on 20 January 2009

**Ref No. GO56****Comment:**

**I am unaware of being represented by third parties such as Queensferry and District Community Council or a residents association.**

**Response:**

Community councils are established under Part IV of the Local Government (Scotland) Act 1973. The general purpose of a community council, as defined in the Act, is to ascertain, co-ordinate and express to the local authorities for its area, and to public authorities, the views of the community which it represents, in relation to matters for which those authorities are responsible, and to take such action in the interests of that community as appears to it to be expedient and practicable. Queensferry and District Community Council operate a website [www.queensferrycommunitycouncil.org](http://www.queensferrycommunitycouncil.org) and provide information regarding the council and matters relevant to the community it represents.

Transport Scotland cannot comment in relation to the extent of representation provided by the community council or other organisations.

**Ref No. GO57****Comment:**

**Request to be kept up to date and be involved in all relevant meetings.**

**Response:**

Information continues to be made available through various means including electronic and printed newsletters, community information points and the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

Information such as newsletters is made available electronically to those who subscribe to the service. Any requests to receive email updates should be submitted to the project team at [frcenquiries@transportscotland.gsi.gov.uk](mailto:frcenquiries@transportscotland.gsi.gov.uk).

Consultation meetings have continued to be held with local representative groups such as community councils. Further information regarding consultations held is provided in the Policy Memorandum submitted with the Forth Crossing Bill.

**Ref No. GO58****Comment:**

**The exhibition feedback form is not up to the standard I would normally create.**

**Response:**

The public information exhibition feedback form was designed to facilitate provision of information and feedback to be taken into consideration in the further development of the project. Sections were accordingly allocated for feedback covering the environment, accessibility, public transport, construction or other projects. In addition to the forms, feedback was also provided by correspondence such as letter and emails. All feedback was considered, irrespective of the method used to provide information to the project team.

**Ref No. GO59**

**Comment:**

**Requests for specific responses.**

**Response:**

As indicated on the public information exhibition feedback forms, Transport Scotland could not provide personal responses to the exhibition feedback, however each response received has been included in the analysis and each comment within the individual responses has been identified and considered in the Public Information Exhibitions: Feedback & Outcomes Report published in June 2009 or in this Appendix to the June 2009 report.

## C.4.12 Other Miscellaneous Comments

**Ref No. GO60**

**Comment:**

**Request for acknowledgement that feedback form has been considered.**

**Response:**

As indicated on the public information exhibition feedback forms, Transport Scotland could not provide personal responses to the exhibition feedback, however each response received has been included in the analysis and each comment within the individual responses has been identified and considered. Information regarding how feedback has been considered was provided in the Public Information Exhibitions: Feedback & Outcomes Report published in June 2009 and this Appendix to the June 2009 report.

**Ref No. GO61**

**Comment:**

**What planning gain is envisaged for Queensferry for the loss of greenbelt?**

**Response:**

No consideration of planning gain is given in assessments relating to infrastructure projects such as the Forth Replacement Crossing. Planning matters are the responsibility of the relevant local authority.

Environmental impact assessment has influenced the design of the proposed scheme and has been undertaken to enable appropriate mitigation to be developed to reduce the environmental impact of the proposed scheme. Assessments relating to landscape impacts have been undertaken and appropriate mitigation has been developed taking consideration of the proposed scheme design and potential environmental impacts. The assessment and mitigation measures proposed are described in Chapter 12 (Landscape) of the Environmental Statement submitted with the Forth Crossing Bill.

The assessments also consider potential impacts on planning designations such as greenbelt and these are described in Chapter 20 (Policies and Plans) of the Environmental Statement.

**Ref No. GO62****Comment:**

**Which crossing would heavy goods vehicles use if both bridges were closed due to high winds?**

**Response:**

The replacement crossing will incorporate wind shields which will protect it from the effects of wind and provide a more reliable corridor for wind sensitive vehicles. Strong winds can affect driving conditions on various parts of the road network and one of the aims in providing wind shielding is that if it is possible to use the general road network surrounding the replacement crossing it should be possible to cross the new bridge.

Experience of other estuarial crossings such as the second Severn Crossing shows that wind barriers provide a high degree of reliability against closure. Since the mid-1990s when the second Severn Crossing opened, it has never closed as a result of strong winds.

The existing bridge will become a dedicated public transport corridor following completion of the replacement crossing. If emergency or abnormal conditions arise that prevent use of the replacement crossing it is possible, depending on the condition of the existing bridge, that the police may direct traffic to use the existing bridge. Such use would only be as directed by the police under extreme conditions.

In the unlikely situation that both bridges are closed at the same time for any reason, all traffic will be required to use an alternative crossing point.

**Ref No. GO63****Comment:**

**Whilst work should continue on detailed design and cost estimates, no decision on construction contracts should be taken before 2012.**

**Response:**

In the Ministerial announcement on 19 December 2007, the Cabinet Secretary for Finance and Sustainable Growth advised that the effects of traffic and the impact of the Scottish climate have taken their toll on the Forth Road Bridge and that despite significant investment and maintenance over its lifetime, including recent dehumidification works, there remains uncertainty regarding the future condition of the Forth Road Bridge and its suitability as the long-term crossing of the Firth of Forth. The effectiveness or otherwise of the dehumidification works will not be known until at least 2012. The Cabinet Secretary for Finance and Sustainable Growth stated on 19 December 2007 that "Doing nothing is not an option. Work is required now to protect this crucial link in Scotland's transport network and to minimise the risk from the existing bridge not being available". The project is being taken forward against this background of uncertainty and in line with the statement made by the Cabinet Secretary.

Since 2006, acoustic monitoring of the cables on the Forth Road Bridge has detected further new wire breaks within the individual wires that make up each cable and has confirmed that the problem is ongoing. A second inspection carried out in February and March 2008 indicated that the cables had lost about 10% of their strength, but may be deteriorating more slowly than previously feared. The inspection indicated that with the assessed rate of deterioration weight restrictions might now more likely be considered at a later date, between 2017 and 2021 within an overall window of 2014 to 2021. However, it is clear from studies and work currently being undertaken that the Forth Road Bridge cannot be guaranteed to continue to provide the levels of service needed to support social and economic traffic on the important transport corridor across the Forth into the future.

In order to meet the required programme for completion of the project, construction work is due to commence in 2011 and it will not be possible to delay construction of the proposed scheme without delaying the date at which the replacement crossing would come into operation.

**Ref No. GO64****Comment:**

**What are the 2008 (or 2007) levels of movement and mode share on the Forth Crossings and the range of expected levels (and related assumptions) for 2017 and 2022?**

**Response:**

The Transport Model for Scotland has been used to forecast levels of travel demand. The base year demand (2005) over the Forth is approximately 80,000 person trips per day by car, bus or rail. Car travel accounts for 83% of these trips. In 2017 the level of demand is forecast to increase to 115,000 person trips per day, without the proposed scheme and 125,000 person trips with the proposed scheme in place. Car travel is forecast to account for 88% of trips.

The forecast levels of demand do not take into account the various public transport interventions recommended in the Strategic Transport Projects Review. In addition, although the transport and land use models include all the likely traffic impact associated with land use developments the public transport infrastructure measures associated with such developments are generally not included in the future models. As a result, the level of car based travel is likely to reduce with the introduction of the public transport measures and therefore it is considered that the estimates provide a worst-case analysis when assessing the likely future traffic levels.

**Ref No. GO65****Comment:**

**No comments to make or content that all issues will be considered.**

**Response:**

Development of the project has been, and continues to be undertaken in accordance with relevant procedures such as the Scottish Transport Appraisal Guidance, the Design Manual for Roads and Bridges and environmental legislation to ensure that all relevant issues are considered. Consultation has been undertaken to inform the development of the project and feedback from the consultations undertaken has also been taken into consideration. Information regarding the project development which describes the issues considered and key factors relevant to the design and assessment of the proposed scheme is available in reports on the project website [www.forthplacementcrossing.info](http://www.forthplacementcrossing.info) and in other documentation, such as the Environmental Statement and Policy Memorandum submitted with the Forth Crossing Bill.

**Ref No. GO66****Comment:**

**Requests for information.**

**Response:**

As indicated on the public information exhibition feedback forms, Transport Scotland could not provide personal responses to the exhibition feedback, however each response received has been included in the analysis and each comment within the individual responses has been identified and considered.

Consultation with affected parties such as landowners and occupiers has also continued since the January 2009 public information exhibitions and information regarding the ongoing design of the proposed scheme has been provided through this process.

Information continues to be made available through various means including electronic and printed newsletters, community information points and the project website.



**Ref No. GO67****Comment:**

**Clarification sought regarding the future use of Admiralty House and the woodlands surrounding it.**

**Response:**

Admiralty House and the surrounding woodlands are currently owned by the Scottish Ministers. No decisions regarding the future of the property have been made.

An environmental impact assessment has been undertaken to assess the impact of the proposed scheme on the environment. The assessment has informed the development of mitigation measures to reduce the environmental impact of the proposed scheme. The results of the environmental impact assessment and the mitigation measures proposed are presented in the Environmental Statement submitted with the Forth Crossing Bill. The assessments include those relating to landscape and this is described in Chapter 12 (Landscape) of the Environmental Statement.

The majority of the woodland at St Margaret's Hope and Admiralty House will not be affected by the proposed scheme. Mitigation measures such as mixed woodland and scrub woodland planting is proposed at this location.

**Ref No. GO68****Comment:**

**The public should be consulted regarding the type of crossing and the effect on public finances.**

**Response:**

Alternative crossing types and locations were considered as part of the Forth Replacement Crossing Study. Public information exhibitions were held in August 2007 as part of the study. Public information exhibitions were also held from 20 to 31 January 2009 to facilitate consultation with the public and to provide the opportunity for feedback on the developing proposals announced by the Scottish Government in December 2008.

The Scottish Ministers have considered funding and procurement options for the project taking cognisance of the public accounting regime and value for money assessments. This is described in more detail in the Policy Memorandum submitted with the Forth Crossing Bill. The funding and procurement option chosen (direct funding from Central Government and a conventional design and build contract) was selected as it presents the least risk process with the greatest guarantee of provision of the proposed scheme by 2016.

A Financial Memorandum has been submitted with the Forth Crossing Bill which sets out the financial implications of the project and this will be considered by the Parliament during its consideration of the Forth Crossing Bill.

The Bill process provides the public with an opportunity to make representations regarding the project to be considered during the Parliamentary process. Information regarding the parliamentary process has been published by the Scottish Parliament and is available on the Parliament website [www.scottish.parliament.uk/business/bills/billguidance/infoHybBill.htm](http://www.scottish.parliament.uk/business/bills/billguidance/infoHybBill.htm).

**Ref No. GO69****Comment:**

**Concern that I may have to move from my home by decisions of people who do not live in South Queensferry.**

**Response:**

An environmental impact assessment has been undertaken to assess the impact of the proposed scheme on the environment. It is not necessary to acquire any homes to enable construction of the proposed scheme and the environmental impact assessment has informed the development of mitigation measures to reduce the environmental impact of the proposed scheme. The results of the environmental impact assessment and the mitigation measures proposed are presented in the Environmental Statement submitted with the Forth Crossing Bill.

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works.

The Scottish Parliament will consider the proposed scheme during the parliamentary process to consider the Forth Crossing Bill. The Bill process provides the public with an opportunity to make representations regarding the project to be considered during the Parliamentary process. Transport Scotland published Guidance on the Parliamentary Process, Compulsory Purchase Process and Compensation in July 2009. This document provided information on the parliamentary and objection process, compulsory purchase arrangements and compensation for those who may be affected by the proposed scheme, such as landowners of property, farms or businesses which are directly affected by the proposed scheme. The leaflet is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info). Those people who believe that they are affected by the scheme may wish to take legal advice as to the appropriate course of action in respect of their interests.

Information regarding the parliamentary process was also published by the Scottish Parliament and is available on the Parliament website [www.scottish.parliament.uk/business/bills/billguidance/infoHybBill.htm](http://www.scottish.parliament.uk/business/bills/billguidance/infoHybBill.htm).

**Ref No. GO70****Comment:**

**I will be voting in future for a government that listens to the public.**

**Response:**

Public information exhibitions were held in August 2007 as part of the Forth Replacement Crossing Study. Public information exhibitions were also held from 20 to 31 January 2009 to facilitate consultation with the public and to provide the opportunity for feedback on the developing proposals announced by the Scottish Government in December 2008. The feedback from the public information exhibitions has been considered during the development of the project.

**Ref No. GO71****Comment:**

**Concerned regarding total closure of the new crossing.**

**Response:**

Inclusion of hard shoulders and wind shielding on the Forth Replacement Crossing will improve operational efficiency and improve traffic flow compared to that provided on the Forth Road Bridge which will become a dedicated public transport corridor following completion of the replacement crossing. If emergency or abnormal conditions arise that prevent use of the replacement crossing it is possible, depending on the condition of the existing bridge, that the police may direct traffic to use the existing bridge. Such use would only be as directed by the police under extreme conditions.

Experience of other estuarial crossings such as the second Severn Crossing shows that wind barriers provide a high degree of reliability against closure. Since the mid-1990s when the second Severn Crossing opened, it has never closed as a result of strong winds.

**Ref No. G072****Comment:**

**Concerned regarding closures due to snow and ice on the road surface.**

**Response:**

The replacement crossing will be maintained during the winter with snow clearing and de-icing undertaken as appropriate in line with winter maintenance activities undertaken on all trunk roads.

**Ref No. G073****Comment:**

**Concern regarding closures due to the ice falling from cables.**

**Response:**

Any cable supported bridge in a cold climate may be prone to issues of icing of the cables. Incidents of ice falling from cables at the Severn Crossing occurred in early 2009; however problems with ice falling from cables and affecting the safety of traffic are extremely rare, particularly where the cables do not cross the carriageways on the bridge. At the Severn Crossing, high winds at the time caused ice from the cables to fall over the carriageways. As the bridge cables on the Forth Replacement Crossing do not cross over the carriageway it is not considered necessary to provide shielding to protect traffic on the bridge.

**Ref No. G074****Comment:**

**Concern regarding the impact of accidents or maintenance works.**

**Response:**

The bridge form facilitates maintenance activities associated with the cables, should this be necessary in the future, as these can be individually replaced without affecting the load carrying capacity of the bridge.

The ability of the existing road network to cope with the effects of incidents depends on the severity of each incident and the length of time over which disruption occurs. The replacement crossing will have hard shoulders which will improve the operational efficiency of the bridge compared to the Forth Road Bridge which has no hard shoulders. The hard shoulders on the new bridge will ensure that breakdowns, incidents and any maintenance works do not cause the congestion which is currently experienced on the Forth Road Bridge, which has no hard shoulder.

If emergency or abnormal conditions arise that prevent use of the replacement crossing it is possible, depending on the condition of the existing bridge, that the police may direct traffic to use the existing bridge. Such use would only be as directed by the police under extreme conditions.

**Ref No. G075****Comment:**

**The cost of the bridge would be better spent on other important things such as schools and hospitals.**

**Response:**

The Forth Replacement Crossing is listed in the National Planning Framework (NPF2) as a national development. The need for the project is described in NPF2, which states that 'The Forth Road Bridge has been an essential part of the national road infrastructure for over 40 years. It is vital to the economy of Fife, an essential link for the East Coast Corridor and crucial to the connectivity of Perth and the Highlands and Islands. The main suspension cables of the bridge are showing significant signs of deterioration as a result of corrosion. While a programme of works has been identified to dry out the cables and thus prolong the life of the bridge, there is a considerable risk that this work will not be successful. If that proves to be the case, restrictions to heavy goods vehicles may be needed as early as 2013, with the bridge closing to all traffic by 2019. Complete loss of the road crossing would have very significant adverse economic impacts, both nationally and regionally'. Therefore the proposed scheme is identified as 'an essential element of national infrastructure'.

Since 2006, acoustic monitoring of the cables on the Forth Road Bridge has detected further new wire breaks within the individual wires that make up each cable and has confirmed that the problem is ongoing. A second inspection carried out in February and March 2008 indicated that the cables had lost about 10% of their strength, but may be deteriorating more slowly than previously feared. The inspection indicated that with the assessed rate of deterioration weight restrictions might now more likely be considered at a later date, between 2017 and 2021 within an overall window of 2014 to 2021. However, it is clear from studies and work currently being undertaken that the Forth Road Bridge cannot be guaranteed to continue to provide the levels of service needed to support social and economic traffic on the important transport corridor across the Forth into the future.

The Scottish Ministers have considered funding and procurement options for the project taking cognisance of the public accounting regime and value for money assessments. This is described in more detail in the Policy Memorandum submitted with the Forth Crossing Bill. The funding and procurement option chosen (direct funding from Central Government and a conventional design and build contract) was selected as it presents the least risk process with the greatest guarantee of provision of the proposed scheme by 2016.

A Financial Memorandum has been submitted with the Forth Crossing Bill which sets out the financial implications of the project and this will be considered by the Parliament during its consideration of the Forth Crossing Bill.

The Bill process provides the public with an opportunity to make representations regarding the project to be considered during the Parliamentary process. Information regarding the parliamentary process has been published by the Scottish Parliament and is available on the Parliament website [www.scottish.parliament.uk/business/bills/billguidance/infoHybBill.htm](http://www.scottish.parliament.uk/business/bills/billguidance/infoHybBill.htm).

**Ref No. GO76****Comment:**

**The cost of the scheme is significantly cheaper than that originally envisaged, with the belief that some of the savings have been achieved at the expense of the residents of South Queensferry.**

**Response:**

The estimated cost of the proposed scheme at the time of public information exhibitions held in August 2007 as part of the Forth Replacement Crossing Study was £3.25 billion to £4.22 billion at 2016 outturn prices. The estimated cost of the proposed scheme is currently £1.7 billion to £2.3 billion at 2016 outturn prices, a saving of over £1.5 billion.

One of the main objectives of the Forth Replacement Crossing is to minimise, where possible, the impact on people and the natural and cultural heritage of the Forth area. One of the main concerns expressed regarding the overall impact on South Queensferry was related to the line and elevation of the proposed scheme to the south of the town. Further development of the connecting road strategy for the proposed scheme was undertaken as a result of feedback from the January 2009 public information exhibitions and further design development which helps reduce the impact on South Queensferry (refer to Chapter 7 of the Feedback & Outcomes Report). This is also covered in Repeated Comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report.

Consideration of potential impacts on South Queensferry has been given through refinement of the design and environmental impact assessment. The assessment criteria cover potential impacts on the human, natural and built environment and, therefore, cover assessments relevant to potential impacts on South Queensferry. The assessments have informed the design of mitigation measures to reduce potential impacts where necessary and these mitigation measures, together with any residual impacts, are described in the Environmental Statement.

**Ref No. GO77****Comment:**

**The value of Queensferry to live in will be diminished significantly.**

**Response:**

One of the main objectives of the Forth Replacement Crossing is to minimise, where possible, the impact on people and the natural and cultural heritage of the Forth area. One of the main concerns expressed regarding the overall impact on South Queensferry was related to the line and elevation of the proposed scheme to the south of the town. Further development of the connecting road strategy for the proposed scheme was undertaken as a result of feedback from the January 2009 public information exhibitions and further design development which helps reduce the impact on South Queensferry (refer to Chapter 7 of the Feedback & Outcomes Report). This is also covered in Repeated Comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report.

Consideration of potential impacts on South Queensferry has been given through refinement of the design and environmental impact assessment. The assessment criteria cover potential impacts on the human, natural and built environment and therefore cover assessments relevant to potential impacts on South Queensferry. The assessments have informed the design of mitigation measures to reduce potential impacts where necessary and these mitigation measures, together with any residual impacts, are described in the Environmental Statement.

**Ref No. GO78****Comment:**

**We will engage with the process while reserving the right to properly scrutinise the project, something we believe the Parliament and the media have failed to do.**

**Response:**

Consultation with affected parties such as landowners and occupiers has continued since the January 2009 public information exhibitions and information regarding the ongoing design of the proposed scheme has been provided through this process. These consultations have assisted development of the project to be presented with the Forth Crossing Bill. Consultation with landowners and affected parties will continue during the procurement and construction stages of the project.

The Scottish Parliament will consider the proposed scheme during the parliamentary process to consider the Forth Crossing Bill. The Bill process provides the public with an opportunity to make representations regarding the project to be considered during the Parliamentary process. Transport Scotland published Guidance on the Parliamentary Process, Compulsory Purchase Process and Compensation in July 2009. This document provided information on the parliamentary and objection process, compulsory purchase arrangements and compensation for those who may be affected by the proposed scheme, such as landowners of property, farms or businesses which are directly affected by the proposed scheme. The leaflet is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

Information regarding the parliamentary process was also published by the Scottish Parliament and is available on the Parliament website [www.scottish.parliament.uk/business/bills/billguidance/infoHybBill.htm](http://www.scottish.parliament.uk/business/bills/billguidance/infoHybBill.htm).

**Ref No. GO79****Comment:**

**The trunk road network will not be completed as the old bridge will be disconnected.**

**Response:**

The M9 Spur, the route from the A90 across the replacement crossing and the A90 to the north of the bridge will all become trunk roads providing a continuous trunk road between the M9 and A90 to the south of the Forth and the M90 to the north of the Forth. The Forth Road Bridge will be used as a public transport corridor, connecting to Ferrytoll Junction in the north and Echline Junction in the south with additional public transport links to connect it to the A90 in the vicinity of Scotstoun Junction.

**Ref No. GO80****Comment:**

**Comments made regarding reliability are repetitive, misleading and misinforming.**

**Response:**

The use of Intelligent Transport Systems, improvements to junctions and the inclusion of hard shoulders and wind shielding on the Forth Replacement Crossing will improve operational efficiency and improve traffic flow compared to the level of service provided by the Forth Road Bridge.

Hard shoulders will be provided on the replacement crossing which will improve the ability of the road network to cope with the effects of incidents. The wind shielding will be designed specifically for the bridge taking account of local conditions and will improve operation of the bridge compared to the Forth Road Bridge which experiences restrictions under certain weather conditions.

Intelligent Transport Systems will be provided on the existing road network and on the proposed scheme. Measures such as variable speed limits, variable message signs and other traffic information and control measures will be provided as part of the proposed scheme to control the speed of traffic on the main carriageways, the flow of traffic merging from the slip roads and provide information to road users. Variable message signs will provide up to date and relevant information to benefit road users. The Intelligent Transport Systems proposals will manage and improve the flow of traffic on the network and reduce congestion, improving the operation of the existing and proposed roads.

Intelligent Transport Systems are recognised as being an appropriate and effective measure to improve traffic flow and road safety. A recent example in the UK is the M42 Active Traffic Management Scheme implemented by the Highways Agency.

The ability of Intelligent Transport Systems to improve the operation of the roads is recognised through the Strategic Transport Projects Review (STPR) with one of the recommendations to be taken forward being provision of Intelligent Transport Systems to enhance capacity and operation of the road network. Further information regarding the STPR is available on Transport Scotland's website [www.transportscotland.gov.uk/stpr](http://www.transportscotland.gov.uk/stpr).

**Ref No. GO81****Comment:**

**The scheme does not encourage sustainable transport.**

**Response:**

The Government has committed that the Forth Replacement Crossing project will replace but not increase the road provision for general traffic on the Forth Road Bridge. It is not Government policy to provide for unconstrained growth in vehicular traffic. The use of Intelligent Transport Systems, improvements to junctions and the inclusion of hard shoulders and wind shielding on the Forth Replacement Crossing will improve operational efficiency and improve traffic flow. The managed crossing scheme provides for additional travel demand through the provision of a dedicated public transport corridor, including the option for introduction of Light Rapid Transit, such as guided bus or tram based light rail, designed to increase public transport availability. The Strategic Transport Projects Review (STPR) has identified a number of other complementary measures in the Forth area to allow for growth in travel through public transport initiatives such as park and ride.

Provision of a dedicated public transport route across the Firth of Forth will facilitate provision of improved public transport although this will not be provided as part of the project. Improving public transport services is the responsibility of organisations such as rail operators, bus companies, local authorities and SEStran and the strategy for the project presents a significant opportunity for these organisations to improve public transport facilities and services to increase the use of public transport.

**Ref No. G082****Comment:**

**No mention is made of integration with other crossings and other estuary crossing methods.**

**Response:**

The managed crossing scheme will provide a replacement crossing which will operate in conjunction with the Forth Bridge and the Forth Road Bridge.

The replacement crossing will carry motorway traffic and the managed crossing scheme will provide a dedicated public transport route across the Firth of Forth which will facilitate provision of improved public transport although this will not be provided as part of the project. Improving public transport services is the responsibility of organisations such as rail operators, bus companies, local authorities and SEStran and the strategy for the project presents a significant opportunity for these organisations to improve public transport facilities and services to increase use of public transport.

The Forth Bridge will continue to carry rail transport. The Forth Replacement Crossing Study (FRCS) Report 3 provides information regarding future rail improvements and how these were considered in the development of the project. The report makes reference to the SEStran Integrated Transport Corridor Study (SITCoS) and advises that the study indicates that increases in train capacity would result in a 50% increase in southbound morning peak hour passengers by 2026 and that there are plans to introduce a further 1100 seats into Fife morning peak services. The FRCS report also indicates that increased rail use through future rail infrastructure improvements could be accommodated using the Forth Bridge. Information regarding the FRCS is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info).

**Ref No. G083****Comment:**

**The project appears to adopt a 20th rather than 21st century outlook with the needs of the car squeezing out all other considerations.**

**Response:**

The Government has committed that the Forth Replacement Crossing project will replace but not increase the road provision for general traffic on the Forth Road Bridge. It is not Government policy to provide for unconstrained growth in vehicular traffic. The use of Intelligent Transport Systems, improvements to junctions and the inclusion of hard shoulders and wind shielding on the Forth Replacement Crossing will improve operational efficiency and improve traffic flow. The managed crossing scheme provides for additional travel demand through the provision of a dedicated public transport corridor, including the option for introduction of Light Rapid Transit, such as guided bus or tram based light rail, designed to increase public transport availability. The Strategic Transport Projects Review (STPR) has identified a number of other complementary measures in the Forth area to allow for growth in travel through public transport initiatives such as park and ride.



**Ref No. G084****Comment:**

**Are the planning authorities being led by short term interests.**

**Response:**

The decision to progress with the project has been endorsed by the Scottish Parliament through inclusion of the replacement crossing as a National Development within the National Planning Framework (NPF2) and the Forth Replacement Crossing is listed in the National Planning Framework (NPF2) as a national development. The need for the project is described in NPF2, which states that 'The Forth Road Bridge has been an essential part of the national road infrastructure for over 40 years. It is vital to the economy of Fife, an essential link for the East Coast Corridor and crucial to the connectivity of Perth and the Highlands and Islands. The main suspension cables of the bridge are showing significant signs of deterioration as a result of corrosion. While a programme of works has been identified to dry out the cables and thus prolong the life of the bridge, there is a considerable risk that this work will not be successful. If that proves to be the case, restrictions to heavy goods vehicles may be needed as early as 2013, with the bridge closing to all traffic by 2019. Complete loss of the road crossing would have very significant adverse economic impacts, both nationally and regionally'. Therefore the proposed scheme is identified as 'an essential element of national infrastructure'.

In the Ministerial announcement on 19 December 2007, the Cabinet Secretary for Finance and Sustainable Growth advised that the effects of traffic and the impact of the Scottish climate have taken their toll on the Forth Road Bridge and that despite significant investment and maintenance over its lifetime, including recent dehumidification works, there remains uncertainty regarding the future condition of the Forth Road Bridge and its suitability as the long-term crossing of the Firth of Forth. The effectiveness or otherwise of the dehumidification works will not be known until at least 2012. The Cabinet Secretary for Finance and Sustainable Growth stated on 19 December 2007 that "Doing nothing is not an option. Work is required now to protect this crucial link in Scotland's transport network and to minimise the risk from the existing bridge not being available". The project is being taken forward against this background of uncertainty and in line with the statement made by the Cabinet Secretary.

The Minister for Transport, Infrastructure and Climate Change set out on 10 December 2008 the outcomes of the Strategic Transport Projects Review (STPR) which cover the future investment programme for transport in Scotland over the next 20 years. The STPR focuses on identifying those interventions that most effectively contribute towards the Government's Purpose of increasing sustainable economic growth. The Forth Replacement Crossing is one of the recommended interventions.

**Ref No. G085****Comment:**

**What plans are being made for the eventual scrapping of the bridge and who will pay for this? Is the proposed building method amenable to this?**

**Response:**

The replacement crossing will have a 120 year design life in line with current standards. During this period, maintenance of the bridge will be undertaken to maintain the operational performance of the bridge. The bridge form facilitates maintenance activities associated with the cables, should this be necessary in the future, as these can be individually replaced without affecting the load carrying capacity of the bridge.

The managed crossing scheme is proposed to provide for the long term needs of cross-Forth travel and the replacement crossing will be operated and maintained in line with this objective.

The Construction (Design and Management) Regulations 2007 apply in relation to projects such as the Forth Replacement Crossing. This requires that the infrastructure is designed and provided with due regard to its construction, operation, maintenance, de-commissioning, demolition or dismantling. The design of the replacement crossing will be undertaken in accordance with this statutory obligation.

If the replacement crossing requires to be decommissioned and dismantled in the future, the cost would be borne by the Scottish Government.

**Ref No. GO86****Comment:**

**Our children will pay for the mishandling of this crossing.**

**Response:**

The Scottish Ministers have considered funding and procurement options for the project taking cognisance of the public accounting regime and value for money assessments. This is described in more detail in the Policy Memorandum submitted with the Forth Crossing Bill. The funding and procurement option chosen (direct funding from Central Government and a conventional design and build contract) was selected as it presents the least risk process with the greatest guarantee of provision of the proposed scheme by 2016. The Scottish Government has stated that funding for the Forth Replacement Crossing is in place.

**Ref No. GO87****Comment:**

**Concern regarding the level of consultation with Queensferry residents.**

**Response:**

The location of the replacement crossing was selected following work undertaken for the Forth Replacement Crossing Study which led to the Ministerial announcement in December 2007. Public information exhibitions were held in August 2007 as part of the study. Public information exhibitions were also held from 20 to 31 January 2009 to facilitate consultation with the public and to provide the opportunity for feedback on the developing proposals announced by the Scottish Government in December 2008.

Consultation has been undertaken with groups including Queensferry and District Community Council and communities adjacent to the proposed scheme, and this has been used in the development of the proposed scheme. Consultation undertaken as part of the environmental impact assessment is described in Chapter 6 of the Environmental Statement.

**Ref No. GO88****Comment:**

**What is the Forth Replacement Crossing replacing?**

**Response:**

As part of the managed crossing scheme, the replacement crossing will replace the Forth Road Bridge in carrying general road traffic.

**Ref No. GO89****Comment:**

**Concerned that FRC will damage the possibility of a ferry/hovercraft option between Fife and Edinburgh.**

**Response:**

Fundamentally, the project will maintain the essential crossing of the Forth for road traffic and will replace but not increase the road provision for general traffic on the Forth Road Bridge. It will, however, provide a dedicated public transport corridor, which along with the rail network and initiatives such as a ferry/hovercraft (should others promote such a scheme), will cater for future increases in cross-Forth travel.

A number of different options and corridors were considered for the project as part of the Forth Replacement Crossing Study (FRCS). These are described in FRCS Report 3: Option Generating and Sifting which is available on the project website [www.forthreplacementcrossing.info](http://www.forthreplacementcrossing.info). A ferry crossing was considered and discarded in the initial sifting options described in this report. This was discarded early in the assessment process as it would not provide the capacity required for the crossing.

**Ref No. GO90****Comment:**

**An indication of the benefit South Queensferry will see needs to be included.**

**Response:**

The Forth Road Bridge has been an essential part of the national road infrastructure for over 45 years. It is vital to the economy of Fife, an essential link for the East Coast Corridor and crucial to the connectivity of Fife and beyond.

The critical importance of the Forth Replacement Crossing is recognised by its inclusion within the current National Planning Framework for Scotland, which is used to designate certain projects as national developments. Designation is the mechanism for confirming the need for these developments in Scotland's national interest.

In addition to minimising the risk to the economy due to the lack of a crossing at this location, it is anticipated that the replacement crossing will result in wider economic benefits following completion. The economic assessment for the proposed scheme considers wider economic benefits that may arise. This assessment has been undertaken using the Scottish Transport Appraisal Guidance. The wider economic benefits include agglomeration benefits, such as providing firms better access to markets and additional benefits relating to competition. These are estimated to be approximately £200 million. Further information regarding the economic assessment is contained in the Policy Memorandum which was submitted with the Forth Crossing Bill.

**Ref No. GO91****Comment:**

**The project should be a positive development but the needs of this established semi rural community should be considered.**

**Response:**

One of the main objectives of the Forth Replacement Crossing is to minimise, where possible, the impact on people and the natural and cultural heritage of the Forth area. Concerns expressed regarding the overall impact on South Queensferry have been considered in relation to line and elevation of the proposed scheme at this location. Further development of the connecting road strategy for the proposed scheme was undertaken as a result of feedback from the January 2009 public information exhibitions and further design development which helps reduce the impact on South Queensferry (refer to Chapter 7 of the Feedback & Outcomes Report). This is also covered in Repeated Comment RO14 in Annex C of the Public Information Exhibitions: Feedback & Outcomes Report.

Consideration of potential impacts on South Queensferry has been given through refinement of the design and environmental impact assessment. The assessment criteria cover potential impacts on the human, natural and built environment and therefore cover assessments relevant to potential impacts on South Queensferry. The assessments have informed the design of mitigation measures to reduce potential impacts where necessary and these mitigation measures, together with any residual impacts, are described in the Environmental Statement submitted with the Forth Crossing Bill.

**Ref No. GO92****Comment:**

**The council would be happy to coordinate activity to provide opportunities for local subcontractors in conjunction with Scottish Enterprise and Business Gateway Fife. Formal discussions on this matter could commence as soon as possible.**

**Response:**

Whilst some of the construction works associated with the replacement crossing will require specialist contractors with expertise in this field, there are significant opportunities for local subcontractors, particularly in relation to construction works associated with the connecting roads, although the choice of subcontractors will be a matter for the contractor. It should also be noted that it is normal practice for a principal contractor to use local subcontractors and this can provide benefits in terms of interaction with the local communities.

**Ref No. GO93****Comment:**

**Requests information regarding rights to information.**

**Response:**

Requests for information other than that provided as part of project communications or consultations may be made in accordance with legislation including the Freedom of Information (Scotland) Act 2002 or The Environmental Information (Scotland) Regulations 2004.

**Ref No. GO94****Comment:**

**The council is committed to working with Transport Scotland and other stakeholders.**

**Response:**

Transport Scotland welcomes the opportunities to engage with all organisations regarding the project and has consulted widely in line with the commitments given in the Engaging with Communities document published in September 2008. Consultations will continue throughout the procurement and construction stages of the project.

**Ref No. GO95****Comment:**

**The results of the bridge building activities will be permanent and irrevocable and must therefore be granted the utmost of consideration.**

**Response:**

An environmental impact assessment has been undertaken which has considered potential impacts due to construction of the proposed scheme. The assessment has been used to inform the development of appropriate mitigation to reduce impacts where necessary. The assessment and mitigation measures are described in Chapter 19 (Disruption due to Construction) of the Environmental Statement submitted with the Forth Crossing Bill.

A Code of Construction Practice has been submitted with the Forth Crossing Bill which describes how the Scottish Ministers will control and limit environmental impacts during construction; define minimum standards of construction practice; and inform and consult affected communities about how the effects of the works will be mitigated and the timetable of the works. The contractor will be required to comply with the Code of Construction Practice during construction of the project.

**Ref No. GO96****Comment:**

**Query regarding use of existing bridge by motor cycles.**

**Response:**

The replacement crossing will be a motorway and will cater for all motorway traffic. As part of the managed crossing scheme the Forth Road Bridge will continue to operate, carrying public transport, taxis, motorcycles with engine capacity less than 50cc, pedestrians and cyclists.

**Ref No. GO97****Comment:**

**Query about weighting of contractor's bids.**

**Response:**

Contractors will have to meet minimum criteria in order to be able to tender for the design and construction of the project. The contractors' proposals will have to comply with the requirements set out in the tender documents for the design of the proposed scheme in order for financial bids to be considered. The assessment therefore considers both quality and financial criteria.

**Ref No. GO98**

**Comment:**

**Query raised about how much of the construction cost will be spent in Scotland, the UK or abroad?**

**Response:**

The choice of designers, suppliers, fabricators and subcontractors will be a matter for the contractor. As such, it is not possible to state how much of the construction cost will be spent in Scotland or in other countries.