

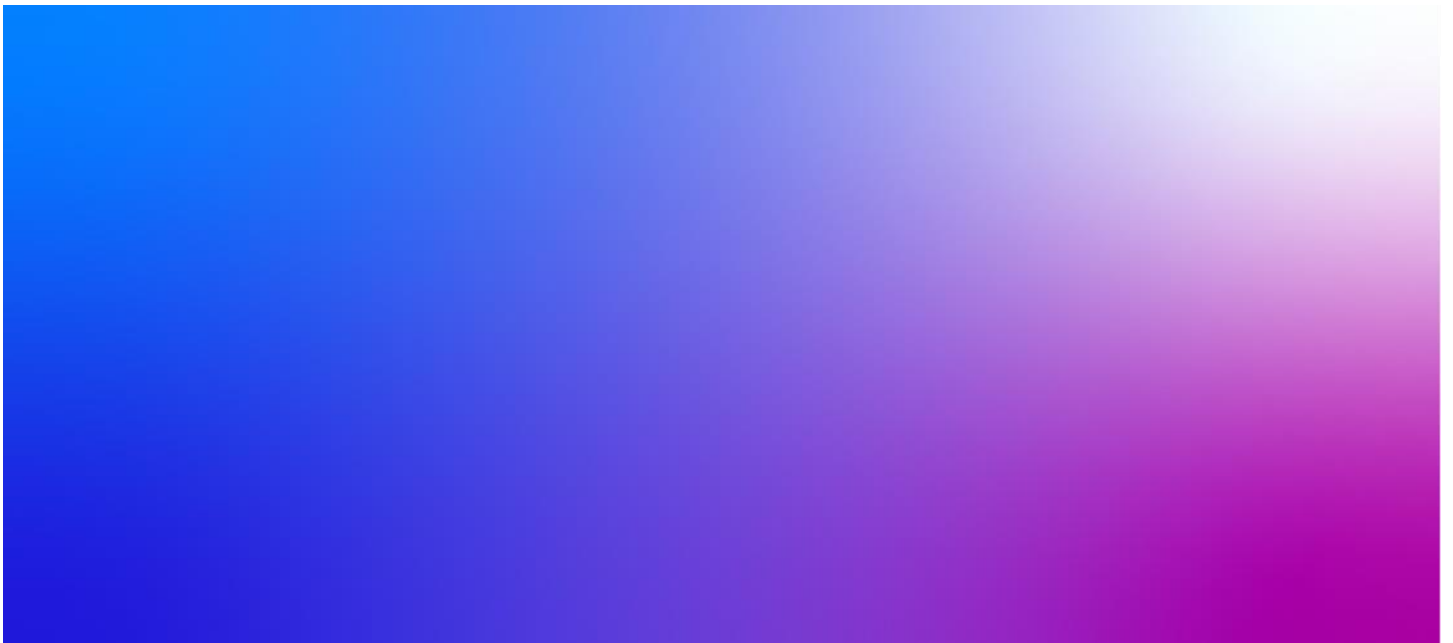


## Forth Road Bridge 5yr Marine Licence Application

Supporting Statement

V1

June 2021



## Forth Road Bridge 5yr Marine Licence Application

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# 1. Introduction

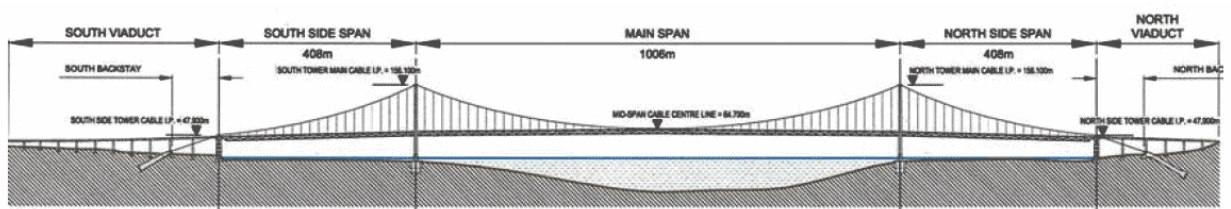
In August 2020, Transport Scotland awarded BEAR Scotland the 5th Generation Term Maintenance Contract for the South East Trunk Road Unit. The operating company contract will include the management and maintenance of the new Queensferry Crossing and the existing Forth Road Bridge as well as the Kincardine Bridge as well as trunk road assets in the South East of Scotland until at least 2028.

Fig 1: Location Plan



Photograph 1: View of the Forth Road Bridge from the north east looking towards South Queensferry, with the Queensferry Crossing visible in the background.

Fig 2:- Elevation of the Forth Road Bridge



## 2. Background

The Forth Road Bridge is a long span suspension bridge which carries the A9000 over the Firth of Forth approximately 15km west of Edinburgh. The structure supports a dual two lane carriageway without hard shoulders or strips. There is a separate footway/cycletrack on either side.

The Forth Road Bridge was opened in September 1964 and is a Category A listed structure. The bridge has a main span of 1006 metres and the side spans are each 408 metres long. The orthotropic deck on the main span is made up of a 12.7 mm stiffened steel plate overlain with a 38mm thick mastic asphalt, on a waterproofing layer.

The deck to the side spans consist of a 203mm thick reinforced concrete slab with a similar surfacing detail to the main span. The decks on both the main and side spans are supported on steel stringer beams that span between large steel cross girders spaced at 9.144 metre centres. These cross girders are supported by two longitudinal stiffening trusses which in turn are supported by the main cables.

Following completion of the Queensferry Crossing, the FRB now functions as a dedicated public transport corridor for buses, taxis, pedestrians and cyclists. As such it still requires ongoing maintenance works to keep it functional and safe.

The FRB passes directly over three European/Ramsar sites. The Firth of Forth SPA and the Firth of Forth Ramsar site cover very similar areas and are designated for internationally important overwintering populations, assemblages and passage migrant birds of wildfowl, wader and seabirds. The Forth Islands SPA covers a series of islands, one of which is Long Craig Island, and is designated for breeding bird populations. The FRB passes directly over Long Craig Island, which supports a breeding tern colony.

In 2015 a 5 year Marine Licence was granted by Marine Scotland Licensing Operations Team (MS-LOT) to cover the various different types of activity to be undertaken during that period. The 5 year licence was due to expire in October 2020 however this was subsequently extend on two occasions for a period of 6 months each.

### **3. Pre Application Screening**

#### **3.1 Pre Application Consultation**

MS-LOT were consulted on the proposals and were requested to provide a pre application consultation statement. They have advised that the works proposed requires to be subject of a Marine Licence Application but have confirmed that the works would not require to be subject to a pre application consultation.

#### **3.2 Environmental Impact Assessment**

MS-LOT provided a screening opinion on the proposals and advised that the works would not require an Environmental Impact Assessment (EIA) under the Marine Works Environmental Impact Assessment (Scotland) Regulations 2017 and The Marine Environment (EU Exit) (Scotland) (Amendment) Regulations 2019.

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## 4. Marine Licence

### 4.1 Marine Licence Application

This application for a Marine Licence Application includes the following:-

- Appendix A: Marine Licence Application Form
- Appendix B: Works Programme and Outline Methodology
- Appendix C: Habitat Regulations Appraisal
- Appendix D: Marine Policy Assessment
- Appendix E: Construction Noise Management Plan
- Appendix F: Consultation Response With Marine Scotland
- Appendix G: Application Drawings

The above supporting information addresses the requirements of the Marine (Scotland) Act 2010 and provides a comprehensive submission for works which are essential in order to support to continued viability and longevity of the Forth Road Bridge.

### 4.2 Proposed Works

Appendix B provides a description of each of the maintenance projects proposed, a programme for their development and an outline construction methodology.

A five year programme of works, including descriptions of the works is included in Appendix A. An overview of the Proposed Works is outlined in Table 1 below

Name of Works	Estimated Construction Period
Main Bridge Expansion Joint Replacement <sup>1</sup>	2021
Suspended Span Painting Contract	2021-2026
Suspended Span Strengthening Contract	2021-2026
Viaduct Span Painting Contract	2021-2026
Viaduct and North Approach Resurfacing	2021-2022
Suspended Span Resurfacing	2021-2022
Footpath Resurfacing	2021-2023
Suspended Span Under Deck Access (SSUDA)	2021-2026
Footpath Elastomeric Pads Replacement	2021-2026
Side Tower Lateral Thrust Bearing Strengthening	2022-2023
Main Tower Lateral Thrust Bearing Replacement	2022-2023
Side Tower Elastomeric Bearings Replacement	2022-2023
Main Cable Intrusive Investigation	2025/2026
Pedestrian Balustrade Strengthening	2022-2024
New Suspended Span Underdeck Access Gantry	2021-2022

<sup>1</sup> Main Bridge Expansion Joint Replacement is expected to be completed by the start of the five-year licence, however due to weather or other delays, the possibility that the works may run on into October cannot be precluded.

### **4.3 Habitat Regulations Appraisal**

Appendix C Habitat Regulations Appraisal (HRA) provides an assessment of likely significant effects upon European designated sites. The HRA concludes that Implications for the Firth of Forth SPA and Ramsar and Forth Islands SPA's conservation objectives were avoided through design of the works programme and through application of mitigation measures. It is identified that mitigation to safeguard the conservation objectives of the breeding tern qualifying interests, through prevention of significant disturbance, will also contribute to safeguarding the conservation of other species of the SPAs and Ramsar sites.

Although a precautionary approach has been taken in relation to the anticipated programme and methods for the Proposed Works included in this HRA, the Contractor may identify requirements to amend these, for example due to bad weather delaying activities, or improved methods. If Proposed Works do change in nature or timing then a no worse environmental test will be undertaken by the Contractor, and NatureScot and/or Marine Scotland (as appropriate) will be consulted to confirm the protection of European and Ramsar sites is assured and the conclusions of the HRA remain valid.

With mitigation in place it is concluded that there will be no implications for the conservation objectives of the Firth of Forth SPA and Ramsar sites and the Forth Islands SPA for the five year duration of the Proposed Works. There will therefore be no adverse effects on site integrity (AESI) for the sites, either alone or in combination with other plans and projects.

### **4.4 Construction Noise Assessment**

Jacobs, on behalf of BEAR Scotland, have undertaken a Construction Noise Management Plan (CNMP) for the Forth Road Bridge which covers the duration of the proposed Marine Licence from October 2021 for 5 years and is provided as Appendix E to this application and was used to inform the HRA which was undertaken.

The CNMP covers the methods proposed to be put in place to consider the potential impacts upon the resident Tern species that inhabit Long Craig Island SPA. This has included a baseline noise assessment in the vicinity of the SPA, and construction noise calculations for the works currently designed and programmed.

Nonetheless, mitigation in order to minimise noise and vibration impacts will be employed in order to reduce the impacts of the construction works as much as possible. Compliance measurements will be undertaken throughout the duration of the Marine Licence to ensure that the construction noise levels remain acceptable.

### **4.5 Marine Policy Assessment**

Appendix D provides a full assessment of the proposals against the relevant provisions of Scotland's National Marine Plan (SNMP). The assessment concludes that subject to the prescribed construction mitigation measures the proposed works will not result in any significant non-compliance with applicable policies of the SNMP.



## 5. Summary

In summary the proposed works represent essential maintenance works required to ensure that the Forth Road Bridge continues to function as key infrastructure in ensuring connectivity within Scotland is maintained. Given the nature of the works and the proposed mitigation outlined it is not considered that the proposed development will have significant impacts upon the marine environment or on the safe navigation of vessels using the Firth of Forth.

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## **Appendix A. Marine Licence Application Form**

## **Appendix B. Work Programme**

## **Appendix C. Habitat Regulations Appraisal**

## **Appendix D. Marine Policy Assessment**

## **Appendix E. Construction Noise Management Plan**

## **Appendix F. Consultation Response with Marine Scotland**

## **Appendix G. Application Drawings**