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Method Statement for works to the Menai Bridge 2022

for

UK Highways

03 March 2022

ECO_800

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1. INTRODUCTION

1.1 Description of brief

1.1.1 Ecoscope Ltd were commissioned to provide a method statement for proposed works to the Menai Bridge in 2022.

1.1.2 The project will include:

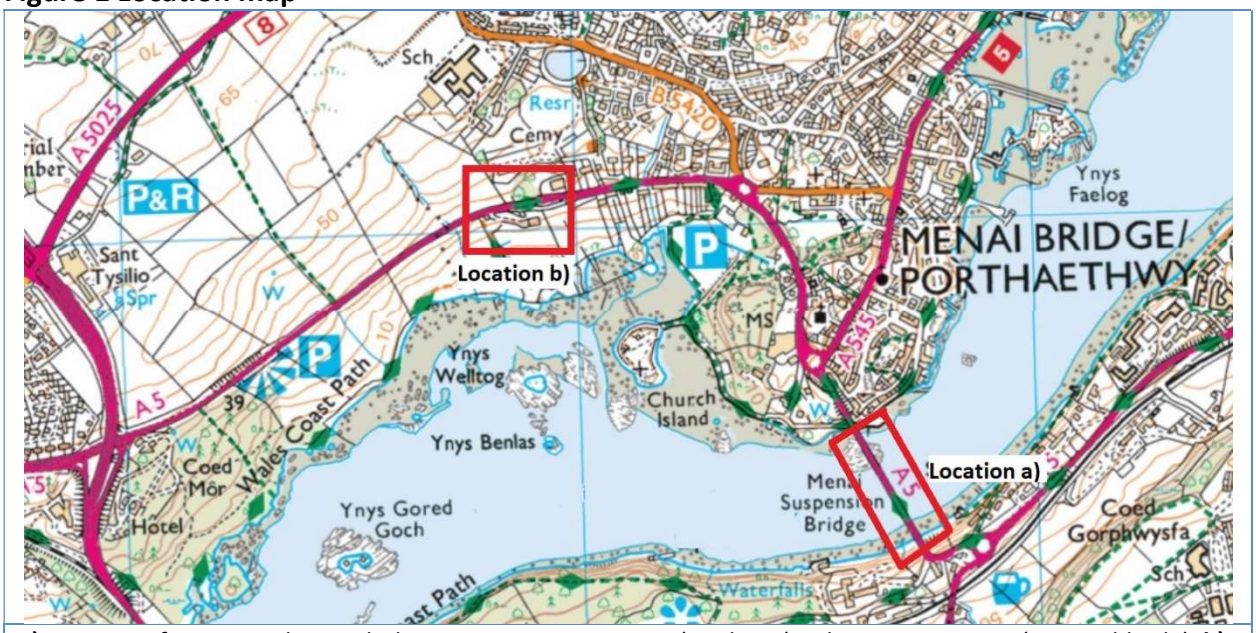
- an ecological desktop survey;
- an assessment of the environmental mitigation measures;
- Marine Licensing application.

1.1.3 On-site works begin in March 2022 and are anticipated to last up to 6 months.

1.2 Location of works

1.1.1 The proposed works to the Menai Bridge will be undertaken at the location shown in Figure 1a, with the proposed location for off-site works in Figure 1b.

Figure 1 Location map



a) Location of Menai Bridge works between SH 55584 71574 (Anglesey)and SH 55757 71254 (Gwynedd side). **b)** Location of works and welfare facilities on the A5 Menai loop (Anglesey) at SH 54960 72059.

2. METHOD STATEMENT

2.1 Desk study

2.1.1 The proposed works will have the potential to directly affect the protected sites listed in Table 1.

Table 1 Protected Sites and their Qualifying Features

NAME	CLASSIFICATION	SUMMARY OF QUALIFYING FEATURES	AREA
GLANNAU PORTHAETHWY	SSSI	• Sandbanks which are slightly covered by sea water all the time; • Mudflats and sandflats not covered by seawater at low tide; • Reefs; • Large shallow inlets and bays; • Submerged or partially submerged sea caves; • Additional marine features included in designation but not reason for it.	26,501 Ha
FENAI A BAE CONWY/ MENAI STRAIT AND CONWY BAY	SAC	• Tideswept rocky shore community; • Lichen communities above tideline; • Tideswept oarweed communities (with ascidians); • Overhanging rock communities; • Sheltered muddy gravel communities; • Diving and wading birds; • Otter	67 Ha

2.2 Scope of works and mitigation

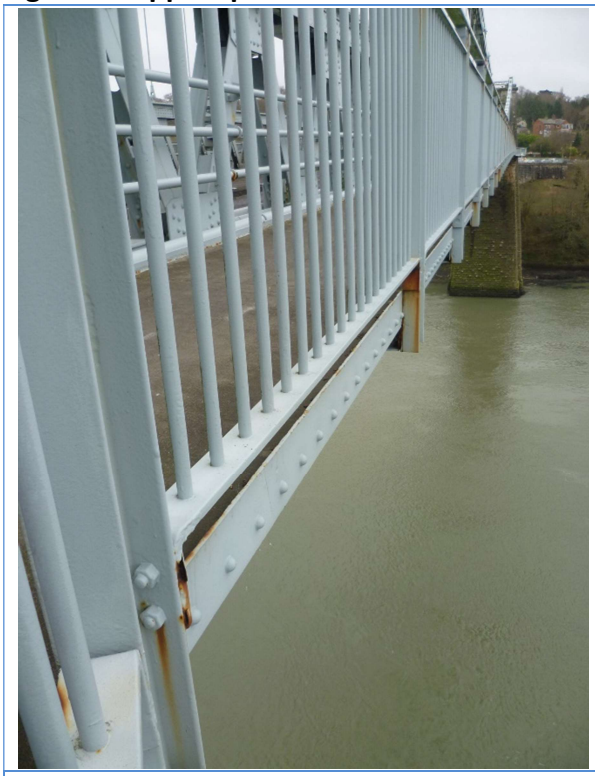
2.2.1 There are three aspects to the works covered by the Method Statement:

<u>Parapet Strengthening</u>

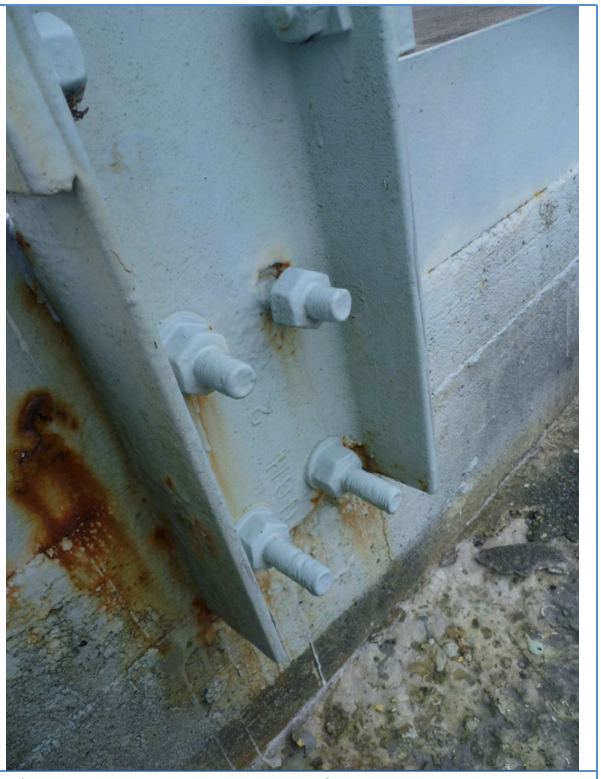
2.2.2 Essential structural work required to strengthen the existing corbels on the North and South approach viaducts, including the metal posts supporting the guard rail (Figure 2a).

2.2.3 Additional external reinforcement, including brackets bolted onto the sides of the supporting posts, may be required if the bolts cannot be removed intact. (Figure 2b).

Figure 2 Support posts



a) Railing support posts bolted onto metal support joist on the parapet.



b) Support posts retained by four bolts which may need to be removed.

2.2.4 The works will be completed using rope access trained operatives and practical measures implemented to safeguard against falls of tools, materials and equipment into the watercourse.

2.2.5 For drilling the corbels, the works will be completed from side-on using a drill with dust extraction fitting, which removes the dust as it is created by vacuum.

2.2.6 As an additional measure, a trug will be suspended immediately below the work area to capture any larger particulates released by the drilling works. 2 persons on ropes will do the drilling: one will drill whilst the other supports the trug.

2.2.7 All man-made dust and debris will be captured at location and removed from site as waste. No material or waste will be discarded into the watercourse or the surrounding environment and the localised use of debris nets will be employed to facilitate this.

Hanger Refurbishment

2.2.8 Essential structural work is required to inspect and paint the existing hangers on the North and South approach viaducts.

2.2.9 The inspection will assess condition of the drop-links and turn buckles (Figure 3a/b) on the bridge hangars. The inspection will follow a 'traffic light' system, where:

Green – where the hangar is in good condition;

Amber – where minor works may be required;

Red – where the hangar will need comprehensive refurbishment.

Figure 3 Hangar replacement



a) Drop-link and turn buckle on the base of the supporting hangars.



b) Drop-link on the top of the hangar, connecting to the overhead tensioning changes.

2.2.10 Where the condition is assessed as **Amber** or **Red**, the work will require temporary removal of some hangers from the Bridge, pending structural assessment of this action. Refurbishment will then be undertaken offsite (maintenance works will be undertaken at the location shown in Figure 1b, p. 3).

2.2.11 If the condition assessment for the hangar is **Green** and refurbishment can be undertaken without deposition of material into the SAC, then it will be undertaken *in situ* with suitable precautions implemented to prevent deposition into the SAC.

2.2.12 The paint will comply with NG 1900 of the standards for Protection of Steelworks against Corrosion and its Environmental appendices (1/23). The preferred method of applicationm would be by brush, particularly for areas of local painting on the stanchions. Any spray-painted items will be completed off-site.

Lighting service and replacement

2.2.13 Lighting on the bridge towers and viaduct piers will be serviced and replaced. Those on the pillars nearest the banks are accessible at low tide.

2.2.14 The works will be completed from suitable working platforms, or by rope access trained operatives where the work locations are otherwise inaccessible. However, to facilitate access to all lighting gantries, a rib will be employed for transport and safety purposes. Gantries over water will require access to the rock bed at low tide, for which the rib will be essential to land personnel on the rock base.

Additional actions, access and permissions

2.2.15 Any vehicles and plant will be re-fuelled away from the bridge in the location shown in Figure 1b, p. 3. Full spill kit response will be provided by the contractor in line with Netregs guidance.

2.2.16 The following Band 1 requirements will also be complied with:

- All equipment, temporary structures, access tracks, waste and/or debris associated with the works will be removed on completion of the works.
- Bunding, storage facilities and spill kits will be employed to contain and prevent the release of fuel, oils and chemicals associated with the plant, refuelling and construction equipment into the marine environment.
- Plant, vehicles and machinery will not be refuelled on the foreshore.
- Coatings and treatments will be suitable for use in the marine environment and are used in accordance with best environmental practice.
- All equipment, materials, machinery and PPE used will be in a clean condition prior to their arrival on site, and upon removal from site, to minimise risk of introducing non-native species into the marine environment.

- In the event of removal of any sensitive species or habitat designated by NRW under Schedule 7 of the Environment (Wales) Act 2016, no further removals will occur at that location or within 20m of that location.

2.2.17 Single lane traffic management will be implemented across the bridge for the duration of the works (March-December 2022).