



Method Statement Template

This template is intended to be used in conjunction with a Band 1 Marine Licence application. Please complete each section below following the guidance provided (max 500 words per section). For any queries relating to this template please contact: marinelicensing@cyfoethnaturiolcymru.gov.uk

1. Summary

Please provide a brief summary of the application including location of the works (coordinates - lat/long, decimal degrees). For activities that cover a large area please provide coordinates of the approximate extent of works.

Project name:

A494 River Dee Bridge Improvement Key Stage 3-4

Location:

OSGB National Grid Reference is SJ 32325 68550

Summary of application:

This scheme involves the proposed construction of a new structure across the River Dee. To inform the design of this structure the nature of the ground where it will sit needs to be determined. To do this, a ground investigation (GI) involving boreholes drilled into the river channel has been proposed. In order to limit the impact that these exploratory holes might have on the local environment a number of factors have been considered:

- The scope of the GI has been limited to only 3 boreholes;*
- The GI is programmed to be completed by the end of February 2019;*
- Working hours controlled with due consideration for nautical movements of other vessels;*
- Methods have limited impact on site with only nominal amounts of silt/sand being disturbed by the legs of the drilling vessel and small removal of silt/sand for testing etc.*

The 3 boreholes are planned to be drilled to 40m below seabed level and will be located on the south-east side of the existing bridge; approximate coordinates shown in the table below (see general arrangement image in section 3 below). The GI will take approximately 5-7 weeks, weather dependant. The GI will be undertaken by competent contractors experienced with this type of work using best practice means to form the boreholes, restricting impact as far as is reasonably practical.

Borehole Number	Easting	Northing
BH111	332378	368552
BH112	332407	368578
BH115	332426	368593

2. Scope of works

Please provide a full description of all proposed works including:

- Sequence of works (mobilisation, marine works, site remediation (if required))
- Estimated timing of works (duration, working hours, day/night, plus contingency)
- Plant, machinery or vessel required
- Estimated quantities (removals, deposits, construction materials)

The below details the current envisaged method of working. Full details will be provided in the Contractors Construction Phase Plan prior to the commencement of the works.

Sequencing of works:

A floating jack-up vessel that will be floated from a nearby port, will be moved to the south side of the River Dee bridge, where the boreholes are to be located. Once the vessel is in position and legs lowered in, the boreholes will be drilled and samples removed as the drilling progresses to the required depth of 40m below seabed level.. These boreholes will then be backfilled with an inert cement bentonite grout by tremie through the drill string. This will create a seal in the holes, limiting groundwater migration. This grout will be prevented from escaping out of the top of the borehole.

Estimated timing of the works:

The ground investigation works (GI) is expected to commence by 21st January 2019 and will continue until the 1st March 2019 for a duration of five weeks. A two-week contingency, until the 15th March 2018, will be added in case of weather delays, and any extra movements of the vessel that may be required to allow others to pass.

Mobilisation and demobilisation works will be conducted up to 24 hours per day for limited periods. Rotary drilling would be conducted between 0700hrs and 2200hrs. Chiselling and any other percussive activity would be conducted during daytime working hours of 08:00 to 18:00hrs.

Plant, machinery or vessel required:

Jack up barge with support vessel. Fully equipped with self-contained welfare facilities.

Estimated quantities (removals, deposits, construction materials):

The surface of the river bed is sandy and mobile due to scour, disturbance due to positioning of the jack-up rig would be kept to a minimum possible. Approximately 7m³ of material per borehole is expected to be removed during the GI and taken off site.

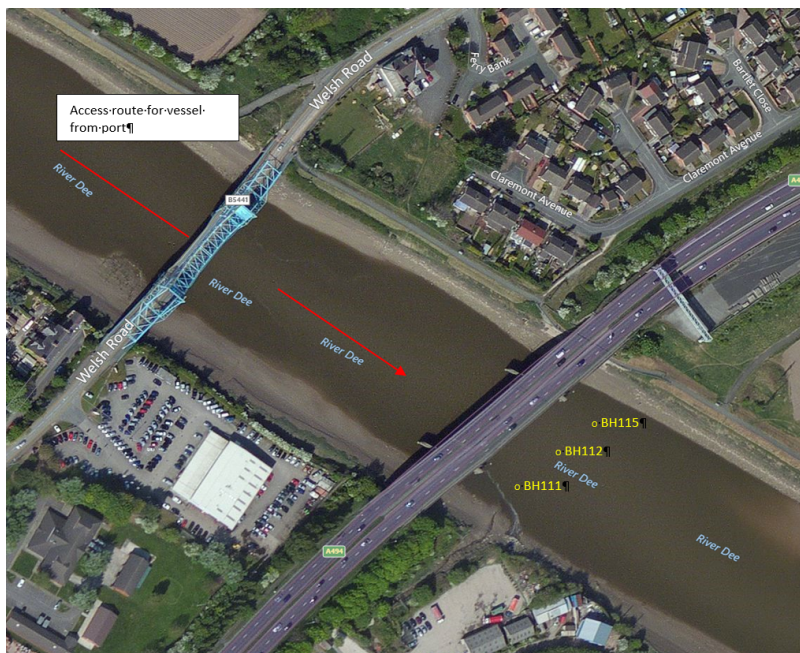
3. Access and working areas

Please provide details of access to the site and working areas. This should include:

- *Attached map of the access/egress route and working areas (annotated aerial image and/or OS map)*
- *Predicted plant/vehicle movements*
- *Storage areas for plant, equipment and materials (if required)*
- *Risks to navigation*

Attached map of the access/egress route and working areas (annotated aerial image and/or OS map):

The map below shows the potential access route for the GI. The working area within the river will be confined to each of the borehole locations, which are also shown on the map.



Predicted plant/vehicle movements:

Once the main vessel is in location at the start of the GI then support vessels and support vehicles will be used to take people and supplies on and off vessel daily. The main vessel may be moved if required to allow other marine traffic to pass. It will then be moved from the location at the end of the GI.

Storage areas for plant, equipment and materials (if required):

Vessels will have self-contained storage with the plant necessary for daily working. A support vessel will be used to bring additional material and labour to the place of work on a daily basis from a nearby dock facility. No storage area on the banks of the river is required.

Risks to navigation:

Airbus move wings past the GI location. A schedule has been provided by Airbus, and the vessel will be moved out of the way when required.

The Contractor conducting the GI will also be made aware of any previous shipping incidents in the area and adopt suitable mitigation measures to avoid similar incidents from reoccurring. The Contractor shall notify the Harbour Master of the proposed survey works at least 10 days prior to mobilisation to site such that the Notice to Mariners can be issued.

4. Environmental mitigation

Please list appropriate mitigation measures to minimise impacts on the marine environment these may include:

- *Pollution prevention and control procedure (guidance available at: <http://www.netregs.org.uk/media/1304/gpp-5-works-and-maintenance-in-or-near-water.pdf>)*
- *Spill response kits*
- *Minimise plant traffic*
- *Designated access and egress routes*
- *Storage of materials (fuel, chemicals, construction waste)*
- *Biosecurity (guidance available at <http://www.snh.gov.uk/docs/A1294630.pdf>)*

Note: To assist you, the following mitigation statements will be used as conditions within the licence. By signing this method statement you will be agreeing to adhere to these restrictions. If you are unable to do this, the application will not qualify as Band 1.

- All equipment, 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 positioned or 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.

Please list your bespoke mitigations here:

Works will be carried out over the winter months so as to avoid the migratory period for fish species, which are a feature of interest of the Designated Sites (Dee Estuary SAC and River Dee & Bala Lake SAC).

Fish runs (source – fish capture data at Chester weir):

- Sea trout: fish run commences at the end of April, reaches a peak at the end of June/early July and continues until the end of August.
- Salmon: fish run commences at the end of April, builds to June and continues steadily until mid-October. Beware smolt run in May-June: this is an especially significant period.
- Lamprey-River and Sea: Lamprey run is Mar-Apr, then adults returning upstream in autumn. Marine catches occur from mid-April to early July, with peak period being May.

Biosecurity. Chinese Mitten Crabs are known to be present in the main stem of the Dee downstream of Farndon. There have been unconfirmed reports of this species higher up the Dee catchment.

As the contractor requires a barge or vessel within the estuary to complete the GI works then marine biosecurity procedures will be followed as detailed below:

- All vessels, barges and marine machinery used on site will be of local origin and maintained to limit biofouling alternatively the equipment / vessel must be thorough inspected for biofouling by an appropriately qualified marine ecologist before arriving at the site.
- The contractor shall confirm for each vessel that the most recent cleaning and anti-fouling treatment was applied within the manufacturers recommended effective time-span for that treatment.
- If vessels have travelled outside British waters since the last treatment, the vessel must be visually inspected for biofouling by an appropriately qualified marine ecologist before arriving at the site.
- Vessels shall not discharge any water (e.g. ballast tanks, bilge water, anchor lockers from the vessel except at recognised disposal facilities.

5. Additional Information

Please list any additional information that may help with the application:

- *Consents/permissions required*
- *List of plans or drawings attached to method statement*
- *Emergency procedures*
- *Contact details*

Consents/permissions required:

Marine Licence – Band 1 low risk activity.
Crown estate consent.

List of plans or drawings attached to method statement:

TR111 Route plan. Rhif drg/Drg no. 60436462-400-420-03-0003.

6. Customer details

Signature:



Full name: Richard Griffiths

Organisation name (where appropriate): Mott MacDonald Ltd

Contact e mail: Richard.Griffiths@mottmac.com

Contact phone number: 01492 523364