`	Proforma Title:	**Construction Environmental Management Plan ("CEMP")**	
Site:	Stena, Salt Island	**Contract No:**	JE 729
Compiled By:	Rhys Rowlands	**Date:**	20/01/2026
Approved By		**Date:**	

Contents

Section 1 – Introduction, Project Information, Construction Methods

Objective

The Construction Environmental Management Plan (CEMP) is intended to provide a site-specific statement on how the effects of construction on the surrounding environmental and community will be mitigated or minimised. The plan provides specific detail on the control of environmental impacts based upon the relevant guidance documents.

As this document is intended to be a construction phase CEMP, it should be considered a live document with data added as appropriate. The controls recommended within the CEMP should be considered mandatory with mitigation measures comprising common on-site practice.

This report has been prepared for the purpose of satisfying the risks highlighted in the site and works information. Jennings will amend this document in the light of further information which may become available.

Project Location

Holyhead Port, Holyhead, LL65 1DJ

Salt Island bridge replacement.

Construction Method

Mobilisation and site security

Site Security at Holyhead Port is critical to both the security of the port itself, and to segregate / protect the public from the construction site.

All Jennings personnel shall carry an ISPS permit obtained from the client after undertaking the necessary induction.

Jennings will erect a solid hoarding around the perimeter of the site which will replace the existing security fence that requires removal under the contract. The solid hoarding will act as the Port security fence and will give robust segregation between the site and the port traffic.

There will be a secondary fence within the site to secure the coastal boundary from unauthorised persons entering from this direction. This will be a mobile fence that can be easily relocated as work progresses. Access / Egress to site will be via 2 sets of security gates located on the North East and North West side of the proposed bridge.

Contractor access to the beach level will be via a set of steps installed within the site area. The steps will have a locked gate to avoid unauthorised entry.

Public access beneath the bridge on foot at low tide or by boat at high tide will be forbidden. The method to restrict access will be agreed between Jennings and Stena Line. Options will be a scaffold tube fence driven into the sea bed or cast into concrete blocks. Any potential hazards in the sea, such as fencing, will be clearly marked using the relevant coloured buoy.

All fence lines will have a documented daily inspection. The site compound will be established in an area agreed with Stena Line. The compound will be of suitable size to accommodate the site welfare, parking and minor materials storage. Please see CPP. The site accommodation will consist of 2nr 12m long site

offices, 1nr 9m canteen, 1nr 9m drying room, 1nr 6m toilet block. If mains services are not available, then temporary services will be provided, namely a generator, water tank and waste tank. The welfare units will be services twice weekly and will be subject to the relevant tests and inspections for temporary units.
Life rings will be located along the line of the coastal perimeter. For certain activities, it may be necessary to have a safety boat in attendance for the unlikely event that workers enter the sea.

Service location and protection

The client is responsible for carrying out all service diversions prior to commencement of the main contract. The service diversions consist of:

1 x 11kv HV cable
2 x Water Mains
1 x Gas Main
1 x BT Cable

During the pre-construction period, Jennings will hold a series of meetings to discuss the utilities with particular regard to the protection requirements. We envisage that the new diverted services and the Cyclamen monitoring system and Smart-gate vehicle monitoring system will require protection provisions. These provisions will be established and put into place before any construction works commence – amendments will be made to this document accordingly. A GPR survey, marked up with stat positions provided by the relevant parties has been provided to clearly identify the location of all known services on site. The protection measures and services in general will be inspected weekly and discussed at each project meeting.

Bridge demolition

Once the site welfare has been established and the perimeter fence is in place, the demolition and site clearance can commence.

A detailed demolition method statement will be produced during the pre-construction period. This shall detail the sequence of demolition, associated plant and control measures. It is understood that the existing gantries and associated above ground fixtures will be removed by Stena Line prior to the main contract.

The remaining above and below ground structures and the bridge itself will be demolished using a number of large hydraulic excavators.

During the demolition process, there will be a banksman at beach to stop and access from below.
An exclusion zone will be established around the demolition to stop any person from entering the demolition area. The excavators will be positioned on road level and will have a selection of attachments (rotating steel shears, rotating muncher, breaker, bucket etc

High level demolition sequence:

Remove all remaining above ground metal work and fencing.
Demolish parapet wall.
Remove carriageway surface.
Remove brick arches from East section leaving the steel structure.
Remove pre cast concrete beams from West section leaving the steel structure.
Using the rotating shears, remove each steel member in reverse order of estimated installation.

When the demolition is progressing towards the live South bridge, this could be carried out between vessel loading /off loading periods to eliminate the public interface. Referring to the Sailing schedule, there are periods of up to 1hour15mins between vessels. This would give sufficient time over several days to safely demolish the bridge adjacent to the South bridge.

Any resultant material that has dropped onto the beach level will be collected by the excavators and by the banksman below. If the material is out of reach, the a small excavator will be lowered on to the beach to load the material into the large excavator bucket.

Piling

When the bridge demolition is complete, the CFA piling preparation will begin. The piling mat will be designed by our temporary works designer, RDG. This will be in conjunction with our piling sub-contractor, M&D Foundations. We will be using a 32t Soilmec piling rig so we envisage the pile mat to be in the region of 1m deep and possibly incorporating some geogrid reinforcement. The ground level will need to be reduce in areas to accommodate the pile matt. The excavated material will be disposed to a licenced facility off site.

Imported 6F5 fill will be used to construct the pile mat. This shall be installed and compacted in layers in accordance with the Specification for Highway Works. CBR tests shall be carried out on the finished pile matt to ensure that it will withstand the imposed loads from the pile rig. The piling equipment will consist of a concrete agitator, pump and hydraulic rotary rig with a 14m mast.

Jennings outline design consists of 4nr piles per abutment, to a depth of approx. 14m. 4m of which will be bored through the underlying rock. The pile locations will be set out by the Jennings engineer, and shall be thoroughly checked throughout the installation period.

The CFA activity will commence in accordance with detailed RAMS produced by M&D Foundations.
The excavated material will be withdrawn from the ground by the auger. This material shall be loaded onto road wagons for disposal off site.

The rig shall then pump concrete into the pile under strict quality control procedures. Once the concrete is to the correct level, a reinforcement cage will be lifted into the pile by the pile rig. This process will be repeated for the 4nr piles on the West abutment, before the rig is relocated to repeat the process on the East abutment.

Abutments

The abutment design is an in-situ reinforced concrete solution.

The ground and piles will need to be prepared before the RC works can commence.

The surrounding ground shall be reduced to underside of blinding level. This will leave the CFA pile protruding from the excavation level by approx. 1m. This length of pile will be reduced to pile cut off level that will be approx. 100mm above blinding level. The pile will be cropped using a pile cropping attachment to avoid damage to the pile. The pile reinforcement will have been deboneded so the concrete will detach from the pile without damaging the reinforcement. The file 200mm will be trimmed using hand tools, again to avoid pile damage.

Steel reinforcement will then be installed on the clean building laying. The rebar will be fixed strictly in accordance with the engineers reinforcement drawings and schedules, and tied to British Standards and maintaining the required lap lengths. The reinforcement shall be kept clean and free form oils, grease etc at all times. On completion of the rebar installation, the cages will be thoroughly checked by a Jennings engineer before being offered for inspection by RBA and Royal Haskoning (if required). Any defects will be rectified and re-inspected.

The formwork will then be placed to retain the concrete. The formwork will be designed by a TW designer. The finish will be high quality to suit the marine environment. The formwork will receive soap oil to the face to ease the striking process. The formwork will be installed to the correct line and level as indicated on the drawings.

Once the rebar and formwork are in place and complete, a pre-pour inspection will be carried out by Jennings and RBA. Once approved the pour date shall be confirmed.

The concrete will be supplied by Dependable Concrete who are located in Gaerwen, Anglesey, approx. 20minutes from site, which is an ideal plant location for this project. The forecast shall be checked regularly to establish the best day for concrete placement. The concrete shall be called out at load intervals of 30mins to avoid cold joints. The concrete shall be placed using an excavator and concrete skip, and compacted using vibrating pokers. When the concrete has been placed to the correct level and floated, a curing agent shall be applied to eliminate the risk of early stage plastic shrinkage cracking. Depending on the weather, the formwork will remain in place until the concrete has cured enough to allow the formwork to be struck. The abutments shall be cast in 2 pours, the base slab and upstand.

Bridge beams and deck

Jennings have chosen pre cast beams and planks for the bridge deck. The precast planks give a substantial programme saving along with other safety, quality and environmental benefits. The only in-situ concrete on the deck will be the plank stitching that does not require formwork as they are cast against the precast members.

The bridge beam supplier will be either Shay Murtagh or Banagher, both based in Ireland. The final decision will be based on the beam design and programme. Jennings have been in dialogue with both suppliers during the tender period and are absolutely satisfied that either would be an excellent supply chain partner for this project. The design and procurement will commence immediately after contract award.

Jennings have worked with both suppliers on previous projects but will still carry out the same due diligence for the Salt Island Bridge project, and will undertake many quality control checks during the design and manufacturing stage.

The planning for the bridge beam installation will commence during the pre-construction stage, due to the amount of preparation work required to carry out such a large sequence of crane lifts.

Before the beams can be placed, the concrete will have reached the required strength and the bridge bearings will have been installed. No further details on the bearing installation can be given at this stage until the detailed design has been carried out.

Jennings will employ Ainscough Heavy Lifting to carry out a contract lift, whereby Ainscough's Appointed Person will produce a detailed Lift Plan and provide the Lift Supervisor and Slinger Signallers. The client has indicated that the crane could be located within the public car park to the North West of the site. We have assumed that this will be the case and sized the crane accordingly to suit this distance.

A swept path analysis will be carried out at an early stage, to establish any enabling works that may be required to allow the safe access / egress of the crane and articulated wagons.

A temporary works design will be carried out on the crane pad. As this is located on existing tarmac, several surveys will be required to establish the locations of utilities, drains and the strength of the underlying ground. Ainscough have indicated that a 650t crane would be required to lift the beams from the car park to the bridge, along with 175t of ballast.

The crane rigging would take 1 to 2 days prior to the lift. The PC beams weigh up to 31tonne each, and will be delivered one per articulated wagon, direct from the ferry to the site. In advance, Jennings will identify several parking areas for the wagons to avoid local traffic congestion and delays to the installation. The wagons will enter site under the instruction of the lift supervisor, and park until the lift is complete. This will be repeated until all of the bridge beams have been placed. We envisage this activity to take approx. 3 days.

The installation will be supervised by a Lift Supervisor, who will be assisted by several slinger signallers and installation operatives who will use guide ropes either side of the beam to accurately position it to the setting out on the abutment. There will be an engineer present throughout the installation activity to check the line and level of the beams.

East and West wing walls

Subject to detailed design (vertical and horizontal alignment), it appears that the new bridge will extend further North than the existing bridge, as the proposed bridge is 2m wider than the existing bridge. Therefore the abutment will extend beyond the existing parapet wall and through the rock revetment.
This will require a wing wall either side of the bridge to taper in from the new bridge to the existing carriageway. These wing walls will be founded oU' the existing revetment and will be of reinforced concrete construction. The wing wall will also be required for the new pedestrian barrier on the parapet.

Armco and Pedestrian barrier

Our chosen Armco installer is Martin Safety Fencing whom hold the relevant certification for safety barriers. The barrier will meet N2 standard for the Armco vehicle barrier and will be fixed using resin anchors to the concrete upstand that will be incorporated into the precast beam. The barrier will have the relevant testing to confirm that it will withstand the potential collision forces.

The pedestrian barrier will be of key klamp construction and again will be resin anchored to the bridge beam and wing wall where applicable.

Carriageway construction

On completion of the bridge installation, the bridge deck water proofing will be installed by our specialist contractor, BridgeCare. The waterproofing shall be approved by our Designer, RBA, and installed strictly in accordance with the BBA certification and manufacturers recommendations.

The carriageway asphalt will then be installed using traditional methods including a paving machine and road rollers.

Existing abutment remedials

The existing abutment remedial works have not been designed yet, so it is difficult to detail the methodology. However, Jennings will have a proactive involvement in planning and designing the works to ensure that the correct remedial work is undertaken, whether that is masonry repairs or pressure grouting. It is envisaged that this work could be carried out from pontoons.

Waste management

Activity	Description	Materials	Waste disposal
Fencing removal	Removal of existing palisade and chain link fencing	Metal fencing and concrete foundation	Stored in compound. Concrete separated from metal posts. Metal posts placed in skips and concrete in stockpile for removal. All transferred to licenced facilities by licenced waste carriers.
Site clearance and demolition	Removal of existing bridge surfacing, bridge beams, planks and associated elements	Brick, concrete, metal and tarmacadam.	Stored in compound. Concrete and tarmacadam kept separate. Metal beams placed in skips. All transferred to licenced facilities by licenced waste carriers.
Excavations	Excavation for bridge abutments	Mortar bound rubble and granular	Licenced tip.
Concreting works to new bridge abutments.	Surplus concrete from pours and washout	Concrete and washout water	Blue rinse washout skips to be used for concrete wagons to wash out. Surplus concrete to be allowed to harden, then broken up for removal to licenced tip.
Surfacing works to bridge.	Any surplus tarmacadam and plaining arisings for surfacing works.	Tarmacadam	Licenced tip.

The waste hierarchy will be adopted on the project :-

- Prevention
- Preparing for re-use
- Recycling
- Other recovery
- Disposal

Waste will be kept to an absolute minimum by using accurate methods of ‘taking-off’, to ensure the correct amount of materials are delivered to site.

Damage can also produce waste. Off loading will be carried out by a designated person responsible for the activity.

Skips shall be provided in compound.

The following principles will be employed:
Pollution from waste will be minimised by using the correct and safe storage of the waste:

- Segregation different types of waste as they are generated.
- Disposing of different wastes in the correct skip.
- Preventing damage to materials during storage.

Prior to removal of any waste from site Jennings will carry out the following checks:

- Check that the carrier's licence is valid.
- Check that a copy of the carrier's licence is recorded within the site documentation on-site.
- Ensure the waste carrier is authorised to carry the type of waste for disposal.
- Check that the receiving site is appropriately licenced.

Once the checks are completed and in place Jennings will:

- Complete transfer notes accurately and in full.
- Keep copies of all transfer notes of waste sent off-site.
- Check that the waste is going to the correct disposal centre as documented on the transfer notes
- Ensure skips are covered when leaving site to prevent debris on road

It is a requirement of the waste carrier to ensure that waste containers are safe and covered prior leaving the site
to prevent deposit of debris on public highways. The Jennings site team will monitor to ensure that skips are covered.
prior to removal.

Section 2 – General Site Management

Welfare Facilities/Security

The site welfare facilities will include site offices, meeting room, canteen and a toilet block. Water supply will be taken from tanks. Electrical supply will be provided by a generator. Foul waste will be discharged into a holding tank beneath the WC, which will be disposed of at regular intervals to a permitted facility, by a registered waste carrier.

Site will have a solid perimeter fencing comprising of a mixture of existing palisade and chain-link fencing. Jennings will use herras fencing to complete the site perimeter.

Site Parking and Access

Site parking will be within the CDM compound (please see CPP). Access to site is strictly through the Stena security and following the access road through to Salt Island bridge.

Section 3 – Control of nuisance

Timing of Construction Activities

All construction activities at the site will be limited to between 07:00 to 18:00 Monday to Friday. Any weekend working will be avoided where possible, if deemed necessary, permission to be obtained from relevant parties.

General

All works will be carried out in a manner that minimises impact on the environment and in accordance with all applicable legislation.

Comprehensive records will be maintained throughout the project.

The records will include correspondence with NRW & other third parties if applicable, environmental monitoring, photographs, collation of all site investigation reports, operational method statements & risk assessments and the construction phase plan.

Noise

The noisiest operations will be taking place as part of the demolition at an early stage of the project. This will be over a short period of time and noise will be monitored. Jennings will ensure this operation will be undertaken at a time that takes into account the nearby resident.
Control measures will be in place to minimise the effect of noise on the work force and visitors by means of PPE and suitable equipment. This will be detailed on a risk assessment.

Vibration

It is not envisaged that vibration will be an issue on site for the general public and local residents. Control measures will be in place to minimise the effect of vibration on the work force and visitors by means of HAVS monitoring and suitable equipment. This will be detailed on a risk assessment.

Dust

It is not envisaged that dust will be an issue on site for the general public and residents. Control measures will be in place to minimise the effect of dust on the work force and visitors by means of PPE and dust suppression. This will be detailed on a risk assessment.

Section 4 - Traffic Management

Traffic Management & deliveries

An access route has been agreed and will be distributed to all relevant parties.

Measures to Prevent Dirt on the Highway

It is not envisaged that dirt on the highway will be an issue as there will be no trafficking of non-hardstanding areas.

Health & Safety

All site personnel will undergo a site-specific health and safety induction prior to commencement of the construction works.
Prior to works commencing the following protocols will be adopted:

- Induction of all operatives that will be involved with the proposed works to include a brief outline of works within the site area, with specific reference to the PPE requirements as well as the control measures that are in place on site;
- Tool box talks will be undertaken to highlight risks on site and working methods will be designed to mitigate risks. Toolbox talks will be undertaken regularly to re-communicate the procedures to all operatives;
- All operatives on site will received the relevant Instruction, Information, Training and Supervision;

Control and monitoring of Health and Safety measures are covered in depth in the Construction Phase Plan.

Section 5 – Pollution Prevention

Mitigation measures to be taken:

Jennings will implement several measures ensuring best practice are followed to reduce the risk of pollution. To achieve this, GPP best guidance will be followed.
Below are measures to be taken on site which have been highlighted as part of the Habitat Regulations Assessment (HRA)

- All materials stored on site shall be located more than 10m away from the intertidal zone at all times.
- Ensure that any fuels or chemicals required for machinery/equipment are safely stored in an appropriately bunded compound/container, at least 10m from the intertidal zone;
- All concrete works will only be undertaken when there is no chance of heavy rain before the concrete has set;
- When undertaking any demolition/removal operation precautions shall be adopted to ensure that any debris is prevented from entering any internal or marine habitat. Contractor shall submit a method statement which will be subject to approval from the site supervisor/engineer;
- Pollution spill kits to be readily available on site and in plant/machinery at all times, with staff suitably trained in how to deploy.
- Contractor to adhere to pollution prevention best practice guidelines, including;
  - o GPG1: Understanding your environmental responsibilities.
  - o GPP5: Works and maintenance in or near water.
  - o GPG6: Working at construction and demolition sites.
  - o GPP21: Pollution response planning.
  - o GPP22: Dealing with spills.
- Plant machinery shall use a biodegradable hydraulic oil;
- No dewatering water from on-site excavations shall be discharged directly to the intertidal zone and should receive sufficient settlement to settle out all solids before being discharged.
- Tracking of vehicles / machinery within the intertidal habitat must be minimised.
- All works to be supervised by an Environmental Manager or Environmental Clerk of Works, as appropriate.
- Site personnel to follow good practice guidelines and be briefed with a toolbox talk on the ecological issues relevant to the site to ensure they comply with environmental protocols.
- Works to be completed at or around low tide, with all works within the intertidal area taking place within 3 hours either side of low tide to minimise the risk of pollution entering the marine environment.
- Best practice biosecurity measures (check, clean, dry protocol) must be applied during the operations, including cleaning of equipment and footwear before deployment to site and following entering water.

Emergency spill procedure and incident response

Environmental incidents will be reported to the NRW immediately by calling the Incident Hotline on 0300 065 3000.

Incidents could include spillages (e.g. from fuel, oil, chemicals, cement etc), contaminated surface water run-off or flooding.

Incident response shall be briefed to all site personnel during the site induction.

All environmental incidents will be reported to Jennings Site Manager.

The Site Manager is trained on the use of spill kits and spill procedures. The following procedure shall be implemented:

- Make the area safe.
- Contain the spill / contamination at source or as close as possible to minimise contamination.
- Stop any further source that may affect the spill.
- Use the spill kit to clean up and dispose accordingly.
- Review risk assessments to reflect the incident.
- Report the incident to the relevant persons, depending on the severity.
- Monitor control measures that have been put in place.

The Site Manager shall report the incident to the HSEQ Manager who shall carry out a thorough investigation. The NRW shall be informed, depending on the severity.

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Unexpected Contamination

Section 6 – Contact details		
Principal Contractor contacts – Jennings Building and Civil Engineering Limited		
Rhys Rowlands	Site Manager (Site based)	07824 804055
Donovan Jones	Contracts Director	07809 742783
Beatrice Holt	HSEQ Coordinator	07958 114587
Danny Jones	Managing Director	07764 687513

Section 7 – Ecology

YGC have carried out a Habitats Regulations Assessment (HRA) on the site in Salt Island, and identified, due to its proximity to a vulnerable European Site that a full report was required and certain measures require implementing during the project. These measures will be met below and included in the writing of projects method statements and risk assessments.
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Natural Resources Wales have granted a Marine Licence which will also require a bio security risk assessment and compliance.

1. **Tracking on intertidal habitat**

Jenings will endeavour to eliminate the need to track on the intertidal habitat by introducing larger excavators at bridge level. Should this be unavoidable, minimal trafficking to be carried out.

2. **Biodegradable fuels should be used.**

Biodegradable hydraulic oil will be used wherever possible.

3. **All vehicles, machinery and PPE should be checked for damage or issues, cleaned and disinfected before use on site.**

Vehicles will be thoroughly checked for damage or issues, cleaned and disinfected prior to delivery and following working on the intertidal zone.
Spill kits to be provided on site and in every item of plant.
PPE to be clean prior to commencing work on site. Boots to be cleaned before and after entering intertidal habitat.

4. **Site compounds and material storage should be situated on hardstanding.**

Site compound to be set up so any COSHH materials are stored as far as possible away from water courses, minimum 10m.

5. **GPP5: Working in or near water should always be adhered to when working near or over water.**

GPP5 will be adhered to at all times. The high-risk activities are refuelling, demolishing and concreting. These will be carried out with strict control measures including drip trays, ground covers and spill kits. Working 3 hrs either side of low tide will also help reduce any risk of pollution.

6. **Concrete should not be allowed to enter any water courses.**

As detailed above, control measures will be in place to avoid concrete / grout from entering the watercourse.

To eliminate the risk, as advised in the HRA, concrete to only be poured when weather accommodates- no rain forecast before concrete has cured sufficiently.

7. **Marine Licence**

Natural Resources Wales (NRW) have granted a Marine Licence (ML) for the project. Project will require to adhere to all licence requirements and notify all required parties as outlined in the ML.
The advice given by the Marine Licensing Team at application consultation phase was
"*Due to the proximity of Holyhead Harbour, where the non-native invasive sea squirt Didemnum vexillum has been found, we do advise that the applicant undertakes a Biosecurity Risk Assessment (BRA) to be submitted for approval post-consent. Care will need to be undertaken during the removal of any debris / structures and all materials should be disposed of appropriately. In addition, we recommend that all equipment, machinery, PPE etc are in a clean condition prior to arrival onsite."*
All personnel on site will need to comply with the biosecurity risk assessment produced and approved.
Method Statements to comply with he requirement for the careful removal of debris and structures.
All materials to be disposed as per this CEMP.
Equipment and PPE to be clean when arriving on site, as specified in this CEMP.
Any further guidance or information can be obtained from the NRW website
https://naturalresources.wales/?lang=en
or by emailing marine.advice@cyfoethnaturiolcymru.gov.uk

Section 8 – Complaints Procedure	
Complaints Procedure Complaints should initially be directed to the site team. If an issue cannot be resolved at site level it will be escalated to Contracts Manager and/or Director level as appropriate. Records will be maintained and the Client informed as appropriate.	
Approval / Received by	
Site Manager:	
Signature:	
Date:	
Contracts Manager/Director:	
Signature:	
Date:	