Date · Dyddiad 16 June 2025
Your ref · Eich cyfeirnod
My ref · Fy nghyfeirnod
Telephone · Ffôn 01437 776153
Email · Ebost neil.morgan@pembrokeshire.gov.uk
www.pembrokeshire.gov.uk / www.sir-benfro.gov.uk

Pembrokeshire County Council
Cyngor Sir Penfro

WILL BRAMBLE CBE.
Chief Executive / Prif Weithredwr

DARREN THOMAS
Head of Infrastructure and Environment
Pennaeth Seilwaith a Gwasanaethau Amgylcheddol

Pembrokeshire County Council,
County Hall, HAVERFORDWEST,
Pembrokeshire, SA61 1TP

Cyngor Sir Penfro,
Neuadd y Sir, HWLFFORDD,
Sir Benfro, SA61 1TP

Telephone / Ffôn 01437 764551

Please ask for
Os gwelwch yn dda gofynnwch am

Neil Morgan, Bridge Engineer
Highway Infrastructure

Jack Thompson
Senior Marine Licensing Officer
Evidence, Policy & Permitting Directorate
Llys Afon
Haverford West
Pembrokeshire
SA61 2BQ

BY EMAIL

Dear Jack,

Amended Method Statement for Westfield Pill Bridge works in support of Band 2 Marine Licence

Further to recent communications with Natural Resources Wales in relation to the application for a Band 2 Marine Licence for the Westfield Pill Bridge in Pembrokeshire, we are providing you with further information on the mitigation measures that will be expected to be used as part of the Method Statements and methodologies for the three main aspects of the works involved, namely: the bridge parapet replacement; the expansion joint replacement and the resurfacing of the carriageway.

Specifically, we confirm that:

- for any work that does take place in hours of darkness, lighting will be limited and directional; and
- hoods will be used to focus necessary illumination onto the carriageway, within the confines of the bridge, and avoid any spill beyond that.

The works to replace the expansion joint are expected to be the only element for which working at night is required and this is primarily a mitigation measure to avoid disturbance to roosting Lesser horseshoe bats. When the specialist sub-contractor is appointed for these works, we will ensure that their Method Statement includes the two points noted above in relation to lighting measures/

We trust that this information will be sufficient for NRW's Marine Licensing Team to complete their assessments and to progress the determination of our application for a Band 2 Marine Licence.

Yours sincerely,

Neil Morgan
Bridge Engineer / Peiriannydd Pont

Pembrokeshire County Council / Cyngor Sir Benfro
Highway Infrastructure / Priffyrdd Isadeiledd
01437 776153
neil.morgan@pembrokeshire.gov.uk

Pembrokeshire County Council
Cyngor Sir Penfro
WILL BRAMBLE CBE.
Chief Executive / Prif Weithredwr
DARREN THOMAS
Head of Infrastructure and Environment
Pennaeth Seilwaith a Gwasanaethau Amgylcheddol
Pembrokeshire County Council,
County Hall, HAVERFORDWEST,
Pembrokeshire, SA61 1TP

METHOD STATEMENT FOR BRIDGE PARAPET REPLACEMENT

This Method Statement covers all activities for Pembrokeshire County Council, associated with the removal of the existing bridge parapet from the Westfield Pill Bridge facility and its replacement including the installation of Combisafe edge protection, the drilling and fixing of anchorages at new post centres, the grouting of base places and the repairing of redundant anchorages with grout pads.

Please note that we have been unable to find another specialist sub-contractor to undertake the works associated with the modified base plate design. Therefore, the references to Saferoad in this Method Statement are appropriate, as we anticipate that they will provide the services for this part of the project.

Equipment

- Petrol Disc cutter
- 3-5Kva Generator with Nappy matt
- 110v Paddle mixer and mixing tub
- 110v drill
- 110v angle grinder
- Battery operated small tools
- Small hand tools
- Diamond drill
- Water vessel
- 35mm coring bit

Materials needed

- Parapet components as per contract specification
- Fastenings
- Sundry items
- Silicone sealant (COSHH Sheet 054 Supplied)
- Nufins Nugrout reinstatement to baseplate pads (COSHH Sheet 002 Supplied) High creep resistant grease (copper grease) (COSHH Sheet 080 Supplied)
- 25-40mm deep Timber Baseplate shutter
- Water

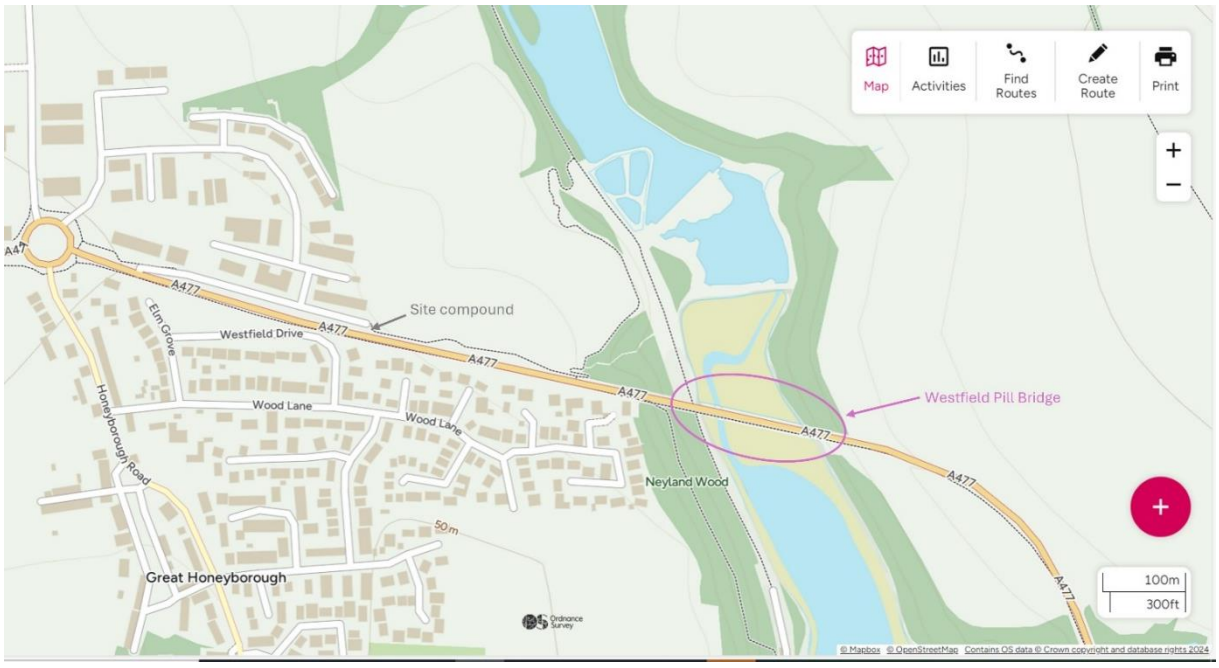

Figure MS1: Location of Westfield Pill Bridge works, Pembrokeshire.

Installation of edge protection

1. Refer to edge protection layout drawings for drilling positions of edge protection anchors.
2. Starting at one end of structure, with the aid of chalk, template and tape measure, mark drilling positions of edge protection anchors at a maximum of 2.4m centres.
3. Set up Hilti Drill with a 18mm drill bit. To achieve drilling and fixing of the anchors, operatives will be required to pass the drill over the existing parapet rails.
4. Commence drilling hole until a depth of 125mm is achieved. If steel is encountered, drilling will be stopped and drilling positions adjusted slightly to one side.
5. Continue across structure until all holes are drilled to depth. All abandoned holes will be cleaned and grout filled.
6. Clean holes of dust etc with 110v vac or Hilti puffer bottle.
7. M16 st/steel anchor bars will be delivered in sealed bags, degreased at source.
8. At first location insert 1no VDP M16 glass capsule into drilled hole.
9. Set up 110v drill complete with setting tool.
10. Sit anchor on top of glass capsule. Using drill (secured on capture cord) and setting tool drive anchor into hole, until fully to depth. Stop drill when fully to depth as over-spinning of anchor will cause loss of resin.
11. Repeat above operations to install all other anchors. Allow resin to cure; refer to data sheet provided with resin to confirm curing times in relation to temperature.
12. Tidy works area.
13. Layout KGuard extension plates c/w with post sockets at each anchor location. KGuard is to be anchored to the parapet when lifted into position.
14. Sit plates onto threaded bar anchors, securing with M16 st/steel nuts and washers. Adjust plates to correct position on slot. Tighten nuts.
15. Place posts into sockets, ensuring fully home.
16. Starting at one end of the parapet, lift edge protection panels into position onto posts. Continue across the parapet until all panels have been installed and each panel's locking clips fitted/secured.
17. Drape the edge protection panels with debris netting and secure with tie wraps.

Remove existing steel parapet

1. With a Disc cutter, cut through the parallel rails either side of the posts. Neatly stack in piles ready for collection.
2. Using ¾ ratchet handle and 30mm socket, remove 4no holding down fixings per post in turn, until all the bolts have been removed.
3. Rock the parapet post loose from the grout pad.
4. Place the parapet post on pallet.
5. Continue across structure until all posts have been removed.
6. Stack in piles ready for collection by Saferoad and removal to a scrap metal merchant.
7. Remove existing grout pads with hammer and chisel; sweep up and remove all debris before placing at the end of the structure along with all other scrap parapet materials, ensuring no obstruction is caused.
8. Using wet vac and screwdriver, remove detritus from existing anchor sockets.
9. Cap off existing anchor sockets with stainless steel dome head bolts and silicon sealant.
10. Scrap materials and debris to be loaded to the next delivery wagon for return to the Saferoad yard and disposal at a licensed waste disposal facility.

Install resin bonded anchorages

1. Refer to replacement parapet layout drawing for fixing positions of new anchors.
2. Using a tape measure and chalk, mark out post centres on concrete plinth.
3. Using a wooden anchor template and marker spray, mark each individual anchor position.
4. Set up diamond drilling rig with 35mm bit, connect to water vessel and 110v site generator.

5. Place dam behind drilling position to prevent drilling residue running down rear face of concrete up stand and 2nd operative used to operate wet vac ensuring all residue is removed instantly from wet drilling operation.
6. At first anchor position, commence drilling ensuring the drill is kept vertically upright until a depth of 225mm is reached.
7. Extract drill, complete with concrete core.
8. Continue across structure until all holes have been drilled to depth and cleared of cores. Bag up all debris.
9. Clean drilled holes with clean water and bottle brushes, then dry out with compressed air.
10. New anchors will be delivered in sealed bags. Anchors have been degreased at source.
11. Assemble 4no anchorages on wooden setting template.
12. Mix CM25 anchor grout in accordance with data sheets provided.
13. Half fill drilled holes with CM25 anchor grout.
14. Force anchorages secure to template into grout filled holes until fully to depth.
15. Repeat above operations to install all other anchors. Allow grout to cure.
16. Fit temporary caps in anchor sockets to prevent ingress of water or debris
17. Tidy works area.

Test newly cast anchors (note: one test every four posts will be carried out)

1. Ensure Client's Representative is present to witness testing.
2. Select anchor to be tested at first post location, ensure concrete is clear of debris. Test anchor to be marked on fabrication drawing for as built records.
3. Set up rig above anchor, level rig with adjustable screwed legs.
4. Insert stainless steel bolt through test adaptor into parapet anchor.
5. Pump jack to take up slack in rig.
6. Place finger gauge onto head of bolt, set gauge to zero.
7. Load anchor @ 10kn for 30 seconds and record reading on DTI.
8. Repeat this procedure @ 20, 30, 40, 50, 60 and 70kn, record readings.
9. At 80kn lock of the hydraulic jack and hold the pressure for 5 minutes, record the reading.
10. During this last test monitor the reading on the force gauge; should it drop below 80kn, pump up as required.
11. If the anchor moves more than 1mm it has failed.
12. Slowly release pump pressure and record the return reading on the DTI.
13. Remove test rig and advance to next anchor to be tested.
14. Ensure a test record sheet is completed for each anchor and test post is marked on the fabrication drawing for 'as built' records. Ensure a copy is handed over to the Client.
15. Should any anchor fail it will require over-coring and retesting.

Installation of new SN2W2 parapet

1. Parapet materials will be delivered to the structure and unloaded in the required positions in accordance with the Lift Plan that will be created for the job in hand.
2. When moving materials to the bridge, all materials are to be stacked neatly and safely on timber bearers.
3. Remove all M20 temporary bolts from newly cast cradles, bag up and dispose of in the correct on-site skips.
4. Assemble holding down bolts complete with washers and isolation top hats. Coat holding down bolt threads with high creep resistant grease.
5. The posts are placed at the anchor positions on a central packer of 25mm and bolted down plumb with fixings identified on the parts list.
6. Fit hanging brackets to posts using fixings identified on parts list and tighten.
7. Refer to parapet layout drawing to identify fixing positions of parapet rails.
8. Layout parapet rails in front of posts relevant to their fixing positions.

9. Starting at one end of the parapet offer the first lower rail up to posts.
10. Secure rail to post brackets with M16 fixings ensuring restrictor plates are fitted.
11. Fit other rails of the same set in the same manner
12. Insert rail joints into open end of rails and secure with relevant fixings.
13. Lift next set of rails into place sliding onto joints of previous rails; adjust to achieve correct joint gaps.
14. Continue along structure in the same manner until all rails are erected.
15. Once all rails are erected, tighten all the fixings along the whole structure and double check.
16. Line and level the parapet by inserting and removing shims from under the base plates, as required, with a pry bar. Check the bolt engagement into anchor sockets, min 21mm.
17. Clear site of all debris.

Grout posts/ repair anchorages

1. Ensure string course is clean and free of dust.
2. Fit shutters around post base plates/ redundant anchor clusters. Shutter oversized by 40mm on highest side of post base plate to allow grout installation.
3. Seal to concrete with a bead of clear silicon
4. Fill shutter with clean water and allow to soak for 2 hours
5. Remove excess water after the 2 hour soaking period using a 110v wet vac.
6. Mix Nufins grout to specification in accordance with provided material data and COSHH sheets. Eye protection, gloves and face fitted masks will be worn whilst mixing.
7. Decant into watering can.
8. Fill shutters from highest side of posts until level of grout is just above bottom of the base plate.
9. Allow grout to cure, in accordance with periods on material data sheet. Protect from elements with polythene and hessian, as required.
10. Once grout has cured carefully remove shutters and inspect pads, remove sealant and grout from concrete and bag up all debris
11. Final tighten of all holding-down fixings. Tidy working area. Place all debris and surplus materials in van for return to Saferoad warehouse facility or main Contractor’s skips.

Pembrokeshire County Council
Cyngor Sir Penfro
WILL BRAMBLE CBE.
Chief Executive / Prif Weithredwr

DARREN THOMAS
Head of Infrastructure and Environment
Pennaeth Seilwaith a Gwasanaethau Amgylcheddol

Pembrokeshire County Council,
County Hall, HAVERFORDWEST,
Pembrokeshire, SA61 1TP

METHOD STATEMENT FOR EXPANSION JOINT REPLACEMENT

This Method Statement covers the sequence of events and method of works for the installation of the TR 230/270 Expansion Joint System on the Westfield Pill Bridge on behalf of Pembrokeshire County Council.

It will be updated to include specific measures relating to the use of directional lighting and hoods as mitigation and light-limiting actions when the specialist subcontractors who will undertake the works are appointed.

Installation of the TR 230/270 Expansion Joint Systems.

1. BridgeCare vehicle access and egress will be by the previously authorised routes
2. Erect exclusion zone - burning screen to isolate joint installation area
3. Mark out and saw cut the road surfacing using a motorised floor saw with water fed dust suppression/wet vac.
4. The joint media consisting of the existing joint material shall then be removed. Insitu finger type joint Units are to be lifted by mechanical means in accordance with the lifting plan and removed from joint area for disposal off site.

Hold Point 1 - On media removal the joint shall be visually inspected by the BridgeCare Supervisor/Foreman/Chargehand for any defects which may prevent the task proceeding. If all is OK then the decision to proceed with the task will be passed onto the works force.

Hold Point 2 – If any defects are detected during the visual inspection, they need to be brought to the attention of the Client or the Principal Contractor's Engineer/Supervisor. Confirmation to proceed with the task needs to be delivered/agreed by the Client or the Principal Contractor's Engineer/Supervisor.

5. Excavated materials shall be placed to one side. All waste materials shall be totally removed, daily, from works zone.
6. Inspection of the levelling screed is undertaken if rectification works are required polystyrene shuttering shall be placed to the correct line and level for the modules.
7. Lay polymer modified levelling screed observing the product specification.
8. Existing holding down bolts shall be removed.
9. The joint shall then be swept by hand to remove construction particles.
10. Install the securing /holding down bolts in accordance with the manufacture's specifications.
11. Spread the Uniflex epoxy adhesive evenly over the polymer modified levelling screed.
12. The Uniflex secondary membrane is then rolled out and even pressure applied to ensure that there are trapped air pockets.
13. The sink outlet shall be installed through the Uniflex membrane with the outlet pipe discharging into the bearing shelf drain.
14. All exposed surfaces shall be thoroughly dried and visually inspected prior to continuing.
15. A one-part polysulphide sealant is placed around each bolt and bolt hole and in a continuous ribbon between the bolt's holes.
16. Utilising mechanical lifting aids operatives shall re-locate the bridge joint modules, then by undertaking manual handling techniques, shall with pinch bars and levers, position and align the module ready for securing.
17. The Transflex joint module shall be placed back into its final position, lined, levelled and secured by the two fixed bolts.
18. The securing nuts at either end of the unit are then finger tightened onto the clipped plate washer.
19. A check is undertaken on the line and level prior to tightening the securing nuts to the required torque setting.

20. The installation of the transition strips shall commence using the Britflex Polyureide resin mortar in accordance with the product specification.
21. Operative wearing standard PPE including safety goggles, Kevlar gloves with lower arm protection and respiratory protection shall then mix the Britflex Polyureide resin using a pistol drill with gate paddle, consisting of two resin components, in a dedicated oil jacketed LPG resin heater to form the primer coat. Operatives are to place a lid over the top of the mixing tin as far as reasonably practicable to mitigate any potential splashes of the resin caused by the mixing. The resin mortar is transferred to the joint, where an operative shall then pour it into the transition area between the module and road surfacing level with finished road surfacing.
22. The fixing sockets shall be sealed utilising bold hole sealant, in accordance with the product specification and data sheet, to 3mm below finished surfacing level.
23. The joint is then allowed to totally cure.

Pembrokeshire County Council
Cyngor Sir Penfro
WILL BRAMBLE CBE.
Chief Executive / Prif Weithredwr
DARREN THOMAS
Head of Infrastructure and Environment
Pennaeth Seilwaith a Gwasanaethau Amgylcheddol
Pembrokeshire County Council,
County Hall, HAVERFORDWEST,
Pembrokeshire, SA61 1TP

METHOD STATEMENT FOR CARRIAGEWAY PLANING & RESURFACING

This Method Statement covers all activities associated with the resurfacing of a carriageway, cold milling and application of tack coat, for the highway resurfacing works for Pembrokeshire County Council.

Labour

- Planer gang: sweeper driver, lorry driver and 5 planer operatives.
- Ironwork gang: 4 operatives
- Paving gang: 13 operatives – 6 Blaw Knox operatives, 2 roller operatives and 5 chipping spreader Operatives (likely to be subcontracted)

Plant and equipment

- Tarmac paver
- Planer (generally 1m width)
- Planer lorries
- Road haulage vehicles (max. 16 tonnes)
- Rollers (various sizes)
- Tack coat sprayer
- Pitch boiler
- Chipping spreader (sub-contracted)

Planing works

- Mark out locations of any overhead services and iron works; fill water tank from bowser or designated hydrant;
- Planing depths to be controlled by Depth Control Boxes operated by a planer operative and all arisings gathered into suitable vehicle for removal offsite;
- Road to be kept clean using a road sweeper;
- All moving plant to be fitted with a reversing camera and audible reversing alarms; when full, vehicles will enter traffic flow in direction of traffic travel.

Iron works

- Raising or lowering operations for iron works will take place in an appropriate window during planing;
- Iron work will be loosened by pneumatic tools, complying with Hand Arm Vibration Syndrome (HAVS) information; once loosened, working area will be cleaned and raised to the correct level, either with resin or cement-based product;
- Road to be swept with mechanical sweeper;
- All raised iron work to be ramped off to avoid danger to pedestrians and road users.

Bituminous works

- Hot bituminous materials shall be delivered to the required location in clean, insulated vehicles – controlled by a nominated banksman - and will remain covered while in transit or awaiting tipping;
- As soon as possible after delivery, the material will be supplied to the self-propelling paving machine and spread, levelled and tamped. The rate of travel of the paper shall be maintained to ensure the material is laid to keep an even, uniform flow across the beam of the road and to avoid segregation and dragging, resulting in an uneven road surface;
- The layer thickness shall be in accordance with the recommendations of BS4987 Part 2, as appropriate, or normally the full layer thickness.
- Hand laying/raking to adjust the level shall only be permitted around gullies/manholes for regulating, if required, and in areas where the paver cannot operate.
- All joints shall be offset by at least 30mm from the parallel joint of the previous layer, with the surface course joint being under the proposed white line. Centre joint to be cut and pitched in accordance with Pembrokeshire County Council's requirements.
- K1-70 tack coat at 0.5l/m^2 shall be applied where new surfacing is to be laid over existing surfacing, new surfacing has been subject to traffic use for more than three days and for the thin surface course, as required.