

Contract: A4119 Coedely**Contract no. 5459****Client: Alun Griffiths Limited**

	Name:	Signature:	Date:
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TASKS

Refurb ALCAN parapet for SN2W2

Install Combisafe edge protection

Drill and Fix anchorages at new post centers

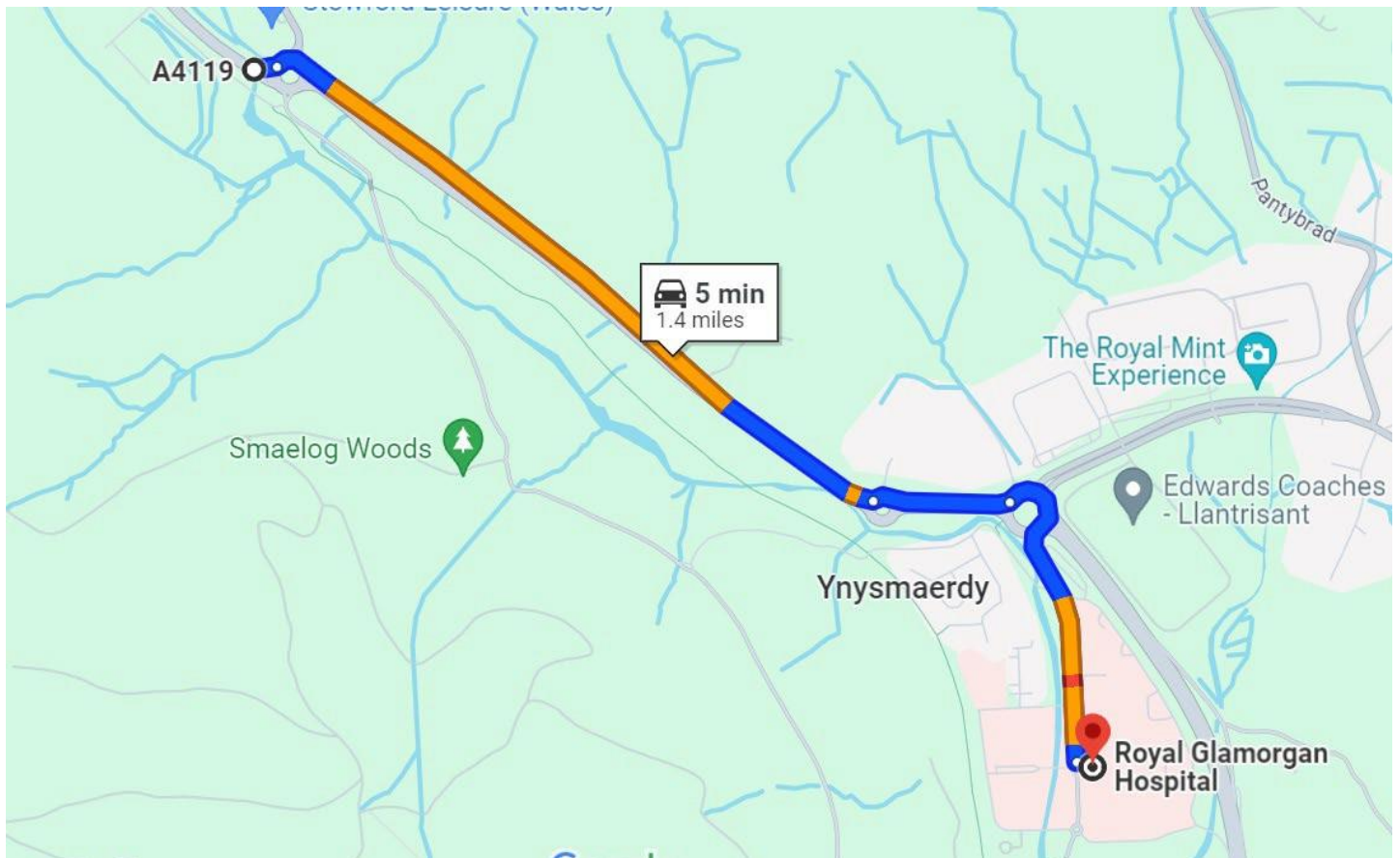
Grout base plates

Repair redundant anchorages with grout pads

Work Locations

North Parapet – w3w:///journals.gazed.grove
South Parapet – w3w:///demotion.workshop.gripes

Local Hospital – Royal Glamorgan Hospital, Ynysmaerdy, Pontyclun, **CF72 8XR**



Labour/Plant/Tool Requirements

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

Welfare

Shared welfare will be provided by Main Contractor

Hazards/Precautions

Working at Height

Combisafe edge protection shall be installed prior to the removal of the redundant parapet. Lead operative shall be trained and competent to install Combisafe and shall check at the start of every shift. Operatives will not tamper with the panel/posts and will not gain access to the rear of the structure.

Working Adjacent to Live Traffic

Before the parapets can be removed a Varioguard system (or similar concrete/steel) **MUST** be in place, covering the entirety of the works. Operatives **MUST** access and egress through access and egress points within the site layout, ensuring beacon is visible.

Public Safety

Where public interaction will occur traffic management as described below will be supplied by Main Contractor. If any members of the public enter site either on foot or in a vehicle TSCO representative will be immediately notified. If the public enter your working area work will stop and not recommenced until they are taken to a place of safety.

Loading and Unloading Materials

Materials will be unloaded by hand from site van at each location where possible. Where required the lorry loader crane will be used, Lorry loader crane to have an approved lift plan and all the operatives involved in the lifting operation will be briefed and signed onto the lift plan.

An in-date certificate of thorough examination **MUST** be available within the lift for the lorry loader crane and all the lifting accessories, if these are not available then the lifting operation **MUST** not take place.

All lifting accessories must be visually inspected for signs of damage before each lifting operation and removed from service if excessive wear is noted.

Materials will be stored in designated areas. At end of each shift, loose materials will be removed from the work area.

Manual Handling

Operatives undertaking manual handling tasks are to be trained in manual handling. Operatives are to assess each load before attempting to lift. Operatives are only to lift what they are comfortable with, Loads are to be broken down in size and weight as far as possible, if this is not possible then a team lift **MUST** be used with one person taking control and issuing instructions to others. When undertaking manual handling task operatives are to ensure that the works location is free from debris to reduce the risk of Slips, Trips & Falls.

Working Area

Each Saferoad working area will be segregated to prevent unauthorised access to the workplace, An agreed barrier will be erected at the approach and departure ends of each work area and access controlled by Saferoad personnel, in accordance with the site procedures. Access will be restricted to personnel involved in the works only, should anyone enter the area then works will cease immediately and will not recommence until the area is clear of all non-essential personnel.

Good housekeeping policy to be maintained at all times, keeping the working area clear of parts, fixings and debris.

Hot Works

If there is a requirement to carry out any cutting or grinding works, there **MUST** be a Hot Works permit in place. If the main contractor does not have a requirement for a hot work permit, then Saferoad's hot work permit **MUST** be used. Operatives must install suitable protection to screen operatives, public and assets from sparks generated whilst undertaking the hot works. Personnel must ensure an in-date fire extinguisher is present and be aware of the project procedures for incidents. All works are to cease by the time stipulated on the hot works permit, and a 1-hour fire check must be completed before the permit is signed off.

For all hot works additional PPE above the standard is required, this includes flame retardant overalls, hearing protection, Impact resistant goggles or full-face shield. When cutting painted or Cementous materials then a face fitted dust mask is required as a minimum this must be P3 rated.

Special requirements

Main Contractor is to make Saferoad aware of any special requirements required for the contract for example environmental, Health and Safety and archaeological issues. Saferoad personnel will ensure they comply with any special requirements at all times whilst working on site.

Environmental

Mobile plant refuelling to be away from watercourses and drainage, If there is a risk that any spilled substances may enter a watercourse inform Main Contractor prior to commencing work.

Saferoad Site Supervisor and Main Contractors Management and Environmental Team to be notified of any spillage immediately.

Plant leakage is to be cleaned up immediately using Spill kits, these will be maintained in all SafeRoad site vehicles.

Absorbent Nappy Matts will be placed under generators to ensure any leaks of liquid are contained.

All used spill kits will be disposed of in spill kit bins in Main Contractors compound in line with COSHH requirements.

Safety

RAMS will be submitted for approval by the main contractor prior to any works commencing. All personnel will receive a site-specific safety induction by the Main Contractor. Saferoad manager or Supervisor will brief all personnel on the agreed and approved Safe System Of Works, all operatives will then sign the Method Statement and Risk Assessment to confirm their understanding and acceptance of the safe system of work. All operatives are to be briefed by the Saferoad manager or supervisor to highlight the work activities to be undertaken. Additionally, a Point of Works Risk Assessment shall be completed at the work face to identify any residual hazards and identify the required controls.

All personnel will be trained and competent to carry out the works required.

All operatives **MUST** have appropriate certification such as CSCS, CPCS and IPAF cards. These must be always carried on their person whilst on site and produced for inspection when requested by either Saferoad or the main contractor.

Daily pre use checks for all plant including site vehicles are to be completed and recorded using the EasyBOP smart form or the relevant inspection book.

COSHH Assessments for all substances that may be used shall be present onsite at all times within the RAMS package. Operatives will be briefed on their use and will sign this method statement to confirm they have copies of the relevant assessments and their understanding of them.

The site will be kept clean and tidy at all times to minimize the risk of slips and trip hazards

Personal Protective Equipment (PPE)

PPE to be worn as a minimum on site is

Hard hat with chin strap fastened that complies with BSEN12492 and BSEN 397

Hi-visibility long sleeve vest or jacket and trousers in the correct colour specified by the site

Safety boots with metatarsal, mid sole and ankle protection which will be laced up correctly at all times

Gloves consummate with task

Safety glasses

If site rules demand more than this, then they will be complied with.

Additional task specific PPE to be worn as and when required i.e. fall restraint harness and lanyard systems, full face shields, Impact goggles, hearing protection, P3 face fitted dust masks and fire-retardant overalls.

All PPE must be kept in good condition, fit for purpose, fall restraint equipment must have a current in date examination certificate on site at all times and only used by trained personnel.

First Aid/Accident Reporting

First aiders are identified on the daily Point of Works Risk Assessment

First Aid boxes will be maintained in each site vehicle and will be available at all times. Emergency information including the location of the nearest hospital, the Main Contractor first aiders, site medical facilities and emergency procedures will be covered during the site induction.

All accidents and incidents will be reported to the site management team and Saferoad within 12 hours for minor incidents i.e. small cuts and grazes.

Serious incidents must be reported immediately.

In the event of an emergency, stop works immediately, ensure that you are not in immediate danger and follow the site emergency procedure as detailed at the site induction.

Disposal Requirement

Scrap metal will be taken by either an external licensed waste carrier or by Saferoad vehicle to either the Saferoad warehouse facility or an Authorised merchant and receipt obtained. All waste collected from site must be accompanied by a waste transfer note and a copy retained by Saferoad.

If there is a requirement to dispose of COSHH waste, the above will apply and a consignment note must be retained by Saferoad.

General waste, packaging etc will be taken to Main Contractors compound and disposed of using the correct skips.

Install 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. Note, stop drill when fully to depth, 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 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 panels 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 parapet rails either side of posts, neatly stack in piles ready for collection.
Note: the disc cutter is only to be used for vertical cuts.
2. Using $\frac{3}{4}$ " ratchet handle and 30mm socket remove 4no holding down fixings per post in turn, until all bolts have been removed.
3. Rock the parapet post loose from the grout pad.
4. Place parapet post on pallet.
5. Continue across structure until all posts have been removed.
6. Stack in piles ready for collection by Saferoad, to take to a scrap metal merchant.
7. Remove existing grout pads with hammer and chisel, sweep up and bag all debris. Place at end of structure not causing an obstruction, along with all other scrap parapet materials.
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 will be loaded on next delivery wagon for return to Saferoad yard and disposal at licensed tip.

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 at all times 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, 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: 1no test every 4no 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 marked on fabrication drawing for as built records. and a copy is handed over to Client.
15. Should any anchor fail it will require over coring and retesting.

Installation of SN2W2 parapet

1. Parapet materials will be delivered to the structure and unloaded in the required positions IAW the Lift Plan.
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 onsite 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 and surplus materials, seek main contractors approval of line and level prior to grouting.

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 2hr 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 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, 70nm. Tidy working area. Place all debris and surplus materials in van for return to Saferoad warehouse facility or Main Contractors skips.

TAKE CARE! AND IF IN DOUBT ASK!

I have read or had explained to me the above method statement, I understand and agree to abide by it.

Name and Date

Signature

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Subcontractor (if applicable):	Document no. 5459	Issue no. Issue 1	Date: 3/6/2023
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