
Re : Swanage Seafront Gun Emplacement - Geotechnical Review by WSP

From Martin Kennedy [REDACTED]

Date Fri 21-Aug-26 1:41 PM

To [REDACTED]

Cc [REDACTED]

Good afternoon [REDACTED]

Thank you for forwarding the sketch and photographs from Samuel Horner of WSP following his recent visit to inspect the Gun Emplacement and the surrounding ground. The Plan View and the two Sections are particularly helpful in showing the movement that has occurred, with the photograph along the tunnel connecting the front of the Gun emplacement to room 1 clearly showing significant movement along the northern Wall A.

The tunnel is obviously in a very poor condition, with one or both of the walls potentially liable to collapse further with little or no warning, particularly when the wet weather returns and water enters the ground, leading to further movement of the soil behind the walls, as described by Samuel.

My inspection in July 2025 mistakenly concentrated on what appeared to be an unsupported edge of a concrete slab, but which was clearly now the northern edge of the slab above the tunnel, left unsupported due to the significant overturning of Wall A of the tunnel (as the WSP sketch shows). When I probed across beneath this slab, my photos showed a brickwork wall about 450mm in from the edge of the slab, this actually being the top of the overturning tunnel Wall A that Samuel refers to.

The question now is whether there is an alternative to the fencing-off of the area of ground above the tunnel and that adjacent to Room 2, as proposed by Samuel, particularly as some ongoing movement is likely to occur. Having read through Samuel's email and considering the movement illustrated by the sketches and the photographs, I do not consider that there is really a practical alternative.

If there becomes a need to just preserve the external visual appearance of the Gun Emplacement, then it might be possible to consider infilling the whole with lightweight aerated concrete, which should remove the ability of the tunnel walls to move and for the slab and ground levels to drop further, but this would probably be at the cost of also infilling Rooms 1 & 2, removing the possibility of future access to these parts of the emplacement without significant opening-up, removal of the aerated concrete, and some rebuilding. (For information - Dorset Council used aerated concrete to infill a disused swimming pool, before placing a lightweight modular building over it.)

I trust that this email brings my brief visual inspection in July 2025 into line with the findings of Samuel's recent inspection.

If you wish to discuss this further, please feel free to ring or email me.

Kind regards

Martin

Consultant Structural Engineer for Roger Locke Consulting Ltd.



Roger Locke Consulting Ltd
10 Kempston Road
Weymouth DT4 8XB
Tel 01305 766556
e-mail office@rogerlocke.co.uk
Company no. 3893727

Disclaimer & Confidentiality Notice

This message, together with any attachments, is intended solely for the use of the individual or organisation to which it is addressed. It may contain privileged or confidential information. Email transmission cannot be guaranteed to be secure, timely, or error free. If you received this message in error, please notify the originator immediately. If you are not the intended recipient, you should not use, copy, alter, or disclose the contents of this message and delete the material from any computer media on which it exists. Roger Locke Consulting Ltd accepts no responsibility for loss or damage arising from its use, including damage from viruses.

From: martinkenned [REDACTED]
Sent: 01 July 2025 08:44
To: [REDACTED]
Cc: [REDACTED]
Subject: RE : 3912 / 009 - WWII Gun emplacement - Sandpit Field, Swanage

Good morning [REDACTED]

I confirm our visit to Sandpit Field on Friday 30 May to look at the WWII Gun emplacement on the southern side of the field, and in particular at a section of concrete slab adjacent to the main access pathway that allows visitors to step up onto the top of the gun emplacement (see photo below). That platform area is then used by a large number of members of the public as a viewing point for most of the events held on Swanage Seafront throughout the year, particularly in the summer months.



As highlighted in your email below, and as can be seen in the second photo above, there is a brick wall that may have previously provided some support near to the edge of the concrete slab, but which has now moved and tilted inwards, thereby dropping away from the underside of the slab and leaving the edge unsupported. The slab is likely to have been poured on the profiled sheeting that spanned between the brickwork and an inner wall - measured on site as about 780mm in from the outer edge of the slab. You said that the inner support is likely to be the side wall of the passageway that runs from the front of the gun emplacement to a room beneath the mound of earth behind the gun emplacement. The short edge of the concrete slab looks to have just been poured up against the rear face of the gun emplacement and may currently be held in place due to the friction between the two surfaces, despite the movement of the brick wall.

However, this leads to a small risk that, when fully loaded with people watching an event from behind the viewing platform, the slab could move downwards until it 'settles' back onto the brick wall, a drop of about 40mm.

You commented that following the current Swanage Green Seafront Consultation, and as part of the works that are planned to commence in autumn 2026, the gun emplacement will be removed, together with the concrete slab that we were inspecting. Any works to support the slab will therefore only be needed in the short term. For this reason, I proposed that the subsoil beneath the corner of the slab be levelled off, parallel to the underside of the slab, so that the corner of the slab can be 'propped' using a stack of three or four concrete blocks laid flat set out to enable some slate packing to then be wedged in tight along the top of the blocks to provide a continuous support to the corner of the slab. Any loose and soft topsoil material should be dug out and then the new excavation can be levelled off with an almost dry bed of sand and cement onto which the three or four concrete blocks can be dry laid, finishing with the slate packing. If the depth does not accommodate dry laid 100mm thick blocks, then a row of offcuts from a 65mm thick x 100mm wide PC lintel could be combined with the blockwork to suit the height required.

Following this 'propping' of the outer corner of the concrete slab, it should be fairly easy to monitor the level of the top of the slab against the white paint to the rear of the gun emplacement, so that the board covering over the current gap beneath the slab need not be regularly removed - perhaps annually in September as visitor numbers and events reduce.

I trust that this email is a sufficient response to your email and our visit, but if there are any questions or you require more detailed information, then please let me know.

Thank you

Martin Kennedy

Consultant Structural Engineer for Roger Locke Consulting



Roger Locke Consulting Ltd
10 Kempston Road
Weymouth DT4 8XB
Tel 01305 766556
e-mail office@rogerlocke.co.uk
Company no. 3893727

Disclaimer & Confidentiality Notice

This message, together with any attachments, is intended solely for the use of the individual or organisation to which it is addressed. It may contain privileged or confidential information. Email transmission cannot be guaranteed to be secure, timely, or error free. If you received this message in error, please notify the originator immediately. If you are not the intended recipient, you should not use, copy, alter, or disclose the contents of this message and delete the material from any computer media on which it exists. Roger Locke Consulting Ltd accepts no responsibility for loss or damage arising from its use, including damage from viruses.