

Malmesbury Town Wall



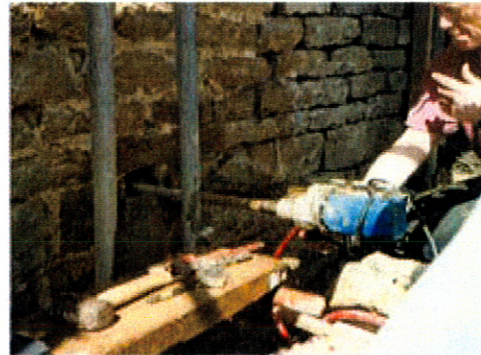
The 12th Century Town Wall at Malmesbury in Wiltshire is being restored as part of an ongoing conservation project involving the Conservation Department of North Wiltshire District Council in conjunction with English Heritage.

The random rubble wall is constructed from locally quarried limestone up to 1.50 metres in thickness, however erosion of adjoining earth and the effects of time had taken their toll resulting in localised delamination and rotation

In order to maintain the structural integrity of the wall, English Heritage advised the specification of Cintec ground anchors for a number of phases for the work.

Stability was returned to the wall by inserting Cintec ground anchors through the thickness of the wall and into the clay and limestone behind.

Diamond drilling (right) and anchor insertion (below).



The anchors were installed through the joints of the stonework following the completion of gravity grouting of extensive voids within. To facilitate this process, clay was used to seal the open joints between the stones in order to retain the original historic grouting. This was later removed and the wall pointed with lime mortar to match the original material. The Cintec ground anchors were tested to a working load of 15kN. Other, smaller Cintec anchors were also used for wall consolidation.

Load - Start	Time Held	Load - End	Extension	Extension	CINTEC	
2	2 Mins.	2			TEST CERTIFICATE	
4	2 Mins.	3.75				
6	2 Mins.	6				
8	2 Mins.	8				
10	2 Mins.	10				
12	5 Mins.	12				
14	2 Mins.	14			TEST CERTIFICATE	
Company Name:		Engineers Name:		Anchor Location		Test Date: 20/08/97
Quicksons		John Avent		Top Right Section		Install date: 06/08/97
Company Address:		Engineers Address:		Comments		Type of Test: Tensile loading
Unit 1 Whiteway Court Cirencester Gloucestershire		Mann Williams 4 Palace Yard Mews Bath BA1 2N11		Initial drop in load due to bedding in' against a clay embankment		Anchor Type 20 x 20 x 4000mm
Persons Present		Company		Position		Embedment Depth 1000mm
Dennis Lee		Cintec International Limited		Technical Advisor		Bore Hole Diameter 40mm
John Brooks		Cintec International Limited		Area Sales Manager		Base Material Clay/Rubble
Andy		Minerva Stone Conservation		Foreman		Required Load 12 Kn
						Grout Type Presstec standard
						Anchor Material Stainless Steel