

### MAGEE COLLEGE UNIVERSITY OF ULSTER, DERRY, N. IRELAND

## RETAINING STRUCTURES

### Product: MacWall

#### Problem

The Magee campus is a thriving centre of the University of Ulster with rapidly growing student numbers. There was a need to optimise the use of available space during development on the steeply sloping Strand Road site.

Because the layout of the proposed new building included a permanent access road, incorporating curves into the retaining wall using the MacWall retaining wall was identified as an ideal solution.

However, there was also a need to consider additional factors that would complicate the construction of conventional types of retaining walls. These included a steep crest slope above the proposed wall, carrying a road which would have to remain open during the works. There were also many existing mature trees on the crest slope which should be preserved.

#### Solution

In this project, it was decided to build the wall as a mass gravity structure using no-fines concrete as a backfill material. By doing this, the cut slope could be quickly covered and stabilised. Additionally, because the overall depth of cut could be kept to a minimum, the roots of existing trees and shrubs were relatively undisturbed and could all be retained.

Pedestrian fencing was required at the crest of the slope. Plastic 'void-forming' pipes were installed vertically behind the wall face and were concreted into position. Fence posts were grouted into these pipes.

The near vertical, 7 deg. face provided by the system maximised land gain behind, and minimised land loss in front of the wall and the 'dry-build' nature of the MacWall system along with its unique system of locator lugs on the top of each block enabled it to be built

Architect:

SAMUEL STEVENSON & SONS

Main contractor name:

MCLAUGHLIN & HARVEY

Designer:

MACCAFERRI LTD

Wall Subcontractor

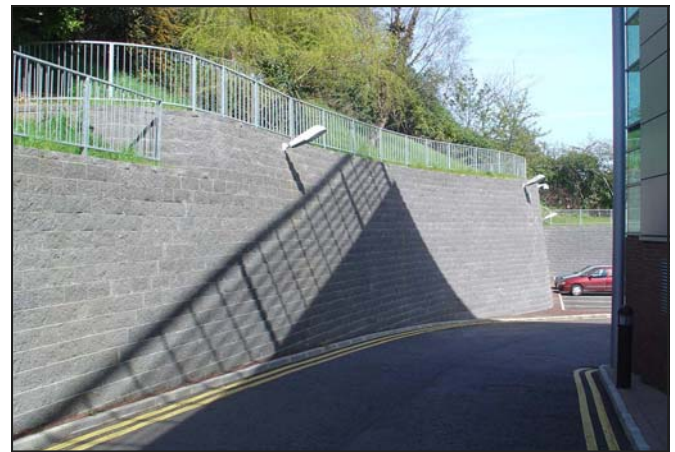
JOE LERLIN SITE SERVICES

Product used:

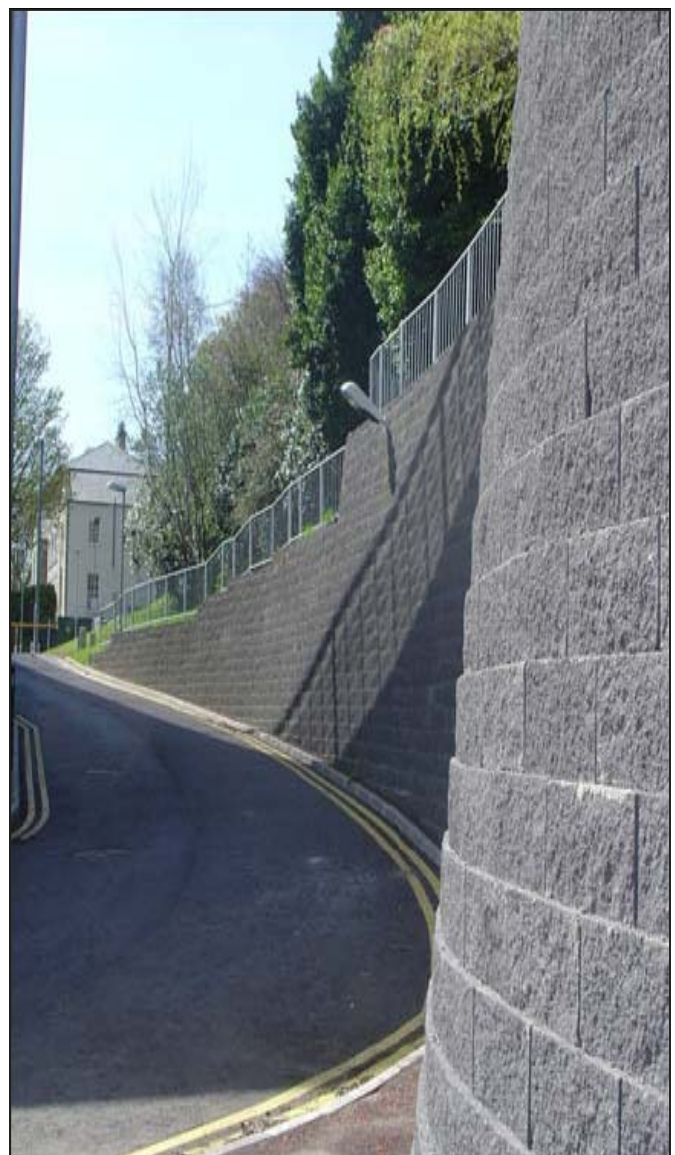
MACWALL "VERTICA", PARAGRID

Construction date:

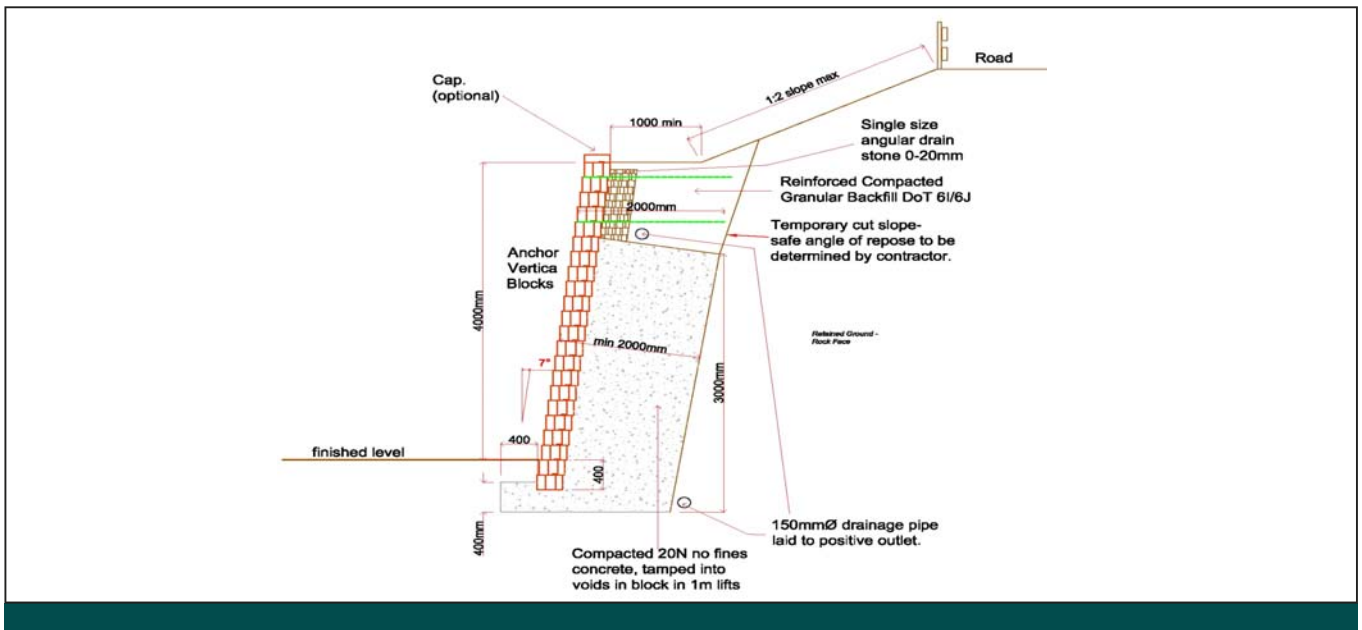
2007



Post construction



Post construction



Post construction



Post construction

quickly and accurately. The high quality “split face” concrete block finish can be supplied in a range of colours and in this case, in a colour that integrated well with existing masonry walls nearby on the site.

Contracts manager for the site Liam Clarke McLaughlin & Harvey representative, stated “One of the main concerns where that the retaining wall would be supporting a busy access road through the university campus. Closing the road was not an option so the solution had to be flexible and fast to construct. Anchor gave us the ideal solution.”

Steven Wright, the architect’s representative on this project commented, “We were familiar with the MacWall system but realised that for a lot of reasons, this site could be challenging. This solution gave us a great looking wall which could be built quickly and efficiently and we are delighted with the result”

**Maccaferri Ltd - Head Office**  
 7600 The Quorum,  
 Oxford Business Park, North,  
 Garsington Road, Oxford, OX4 2JZ  
 Tel: 01865 770555  
 Fax: 01865 774550  
 Email: oxford@maccaferri.co.uk  
 Web: www.maccaferri.co.uk

**Area offices**  
**Perth:**  
 T: 01738 621317 F: 01738 442283 E: perth@maccaferri.co.uk  
**Belfast:**  
 T: 028 9026 2830 F: 028 9026 2849 E: belfast@maccaferri.co.uk  
**Dublin:**  
 T: 01 885 1662 F: 01 885 1601 E: dublin@maccaferri.ie  
 Web: www.maccaferri.ie



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