

JOHNSONVILLE RAILWAY CAR PARK WELLINGTON

RETAINING WALLS

Product: Polyester Geogrid

Problem

The designers of the new Park & Ride adjacent to the Johnsonville Railway Station had to provide up to 35 parking bays along a busy narrow road in the built up area of Johnsonville, Wellington. The selection of a near vertical Segmental Block retaining wall gained the extra space required for the parking bays and at the same time provided a very aesthetically pleasing wall for railway commuters.

Solution

Maccaferri NZ Ltd were engaged by the contractor to offer an alternative Segmental Block solution that incorporated our Polyester geogrid, a flexible, light and easily handled geogrid, ideally suited for use in these types of walls. A comprehensive design suggestion, that incorporated Diamond Pro Segmental Blocks, manufactured by Firth Industries and Polyester geogrids from Maccaferri NZ was put forward to the engineers for the contract for their review and acceptance.

The design methodology used followed the approach from the National Concrete Masonry Association and included checks against both the traffic loads from the parked vehicles and road traffic as well as seismic loads.

Overall the use of Segmental Block walls incorporating Polyester geogrids are ideally suited for built up areas where space is at a premium, aesthetics and low maintenance are key requirements. In addition their proven performance in shaking table seismic tests and in recent earthquakes makes them well suited for use in the Wellington region.



Wall during construction

Date: August 2002



Wall view from station

Date: August 2002



Completed wall

Date: October 2002

Client name:

WELLINGTON CITY COUNCIL

Main contractor name:

N FORSYTH LTD

Consultant:

SINCLAIR KNIGHT METZ LTD

Product used:

POLYESTER GEOGRIDS

Construction date:

AUGUST 2002

Maccaferri NZ Ltd.

14 Goodman Place, P.O. BOX 12536, Penrose, Auckland, New Zealand
Tel. (+64) 9 6346495 - Fax (+64) 9 6346492, FREEPHONE 0800 60 60 20
E-mail: sales@maccaferri.co.nz - Web site: www.maccaferri.co.nz
Quality System AS/NZS ISO 9001:2000

The information presented herein is, to the best of our knowledge and belief, correct and is subject to periodic review and revision. The validity of the information relative to the subsoil, hydraulic and other engineering conditions must be ascertained by a suitably qualified person. No warranty is either expressed or implied. Unauthorised reproduction or distribution is prohibited. Copyright is vested in Maccaferri or Maccaferri's Principal where applicable.