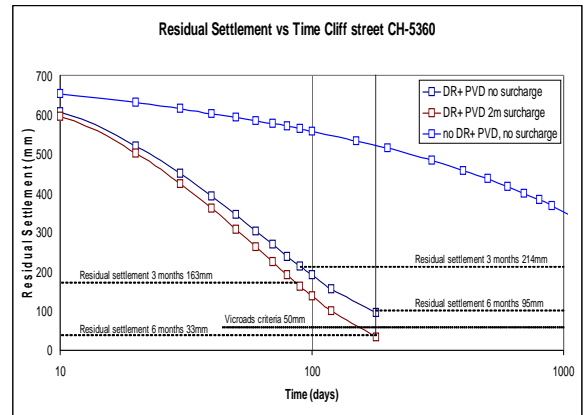
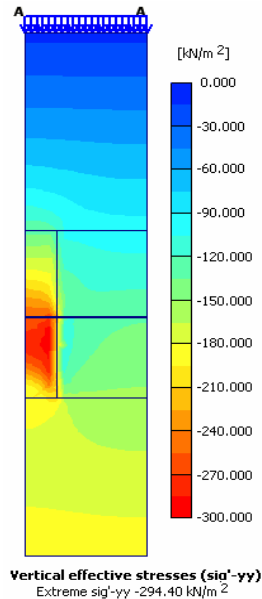


# CLIFF STREET OVERPASS

## SOIL IMPROVEMENT WITH DYNAMIC REPLACEMENT



Sustainable Technology



Client: Vicroads

Specialist Contractor: Austress Menard Pty Ltd

### THE PROJECT

Vic roads had undertaken significant infrastructure improvements in the city of Portland, Victoria. Early Geotechnical investigation revealed the need for soil improvement under the 4 to 8m high embankments at the site for the Cliff Street Overpass.

Vic roads solution specified Stone Columns as the method for treating the top 4 meters of soil. Austress Menard proposed an alternative method with economical and technical improvements involving Dynamic Replacement. Austress Menard during its design review considered the following criterias:

- Settlement of uncontrolled fills
- Construction of the road pavement over the in-situ materials
- Stability of the embankment slopes

### AUSTRESS MENARD'S ROLE

Austress Menard provided Vicroads with the following:

- Technical review and assessment of the available geotechnical information
- Proposal of an alternative design through in house expertise and applying numerical modelling
- Environmental impact control (with in particular provision of vibration and noise monitoring)
- Provision of plant and personnel to perform the Dynamic Replacement works as per the approved design
- Provision of Geotechnical investigation using Pressuremeter Tests in combination with independent Geotechnical investigation provided to Vicroads by Geopave (CPT, SPT)

### RESULTS

- Successful completion of the Dynamic Replacement work with respect to the initial budget and program
- Provision of a fully documented technical report
- Execution of the works to the satisfaction of all stakeholders