

PROTECTING A TREASURED COMMUNITY ASSET

Site Profile

The much-cherished memorial walkway, of the council located in South-Eastern New South Wales, is enjoyed on a regular basis by people of all ages.

The concrete path, resting on top of a solid sea wall, winds its way along the sea through beautiful parks and towns providing respite, enjoyment, and rejuvenation.

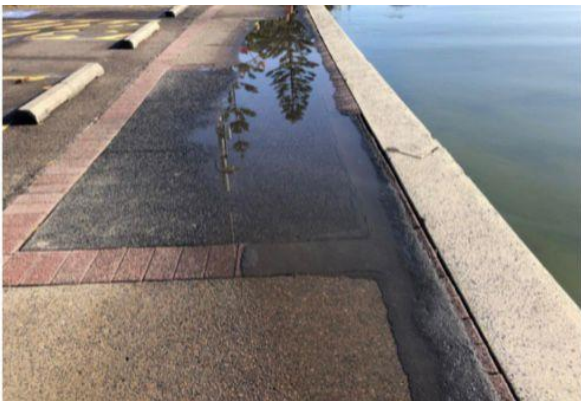


Figure 1. The sunken walkway

The Situation

Due to the erosive nature and continual movement of water, the soil beneath the sea wall was washing away thereby creating voids and holes beneath the footpath.

The voids then caused the side of the footpath closest to the sea to sink and therefore lean towards the water.

Whenever it rained or large waves washed up and over the sea wall, the water would pool in the sunken areas of the footpath creating difficulty and potential hazards to pedestrian activity.

The council undertook a short-term fix which was to pour bitumen hot mix on top of the sunken

areas of the pathway to make it level again and prevent water from pooling on the path.

This was only a short-term fix and not a solution for two reasons. Reason one being that this did not address the issue of the voidage in the ground beneath the footpath and so the footpath was continuing to experience movement. The second reason is that although bitumen hot mix does the job of levelling a surface, it is not the prettiest thing to look at, and for a pedestrian footpath that provides enjoyment for public users and is a place of recreational activity, the temporary fix was an eye sore.

The local council contacted Resinject to conduct a site inspection to provide possible solutions to their footpath situation.

Resinject's team of experts conducted a site survey. The results indicated that the ground beneath the footpath had been eroded creating voids and holes under the surface, some up to 150-200mm in measurement.

Without filling the voids, consolidating the ground beneath the sea wall and releveling the footpath, the walkway would continue to subside and water would continue to pool in the damaged areas.

Our Solution

Resinject proposed a solution of their unique slab jacking method to lift and realign the footpath. The local council agreed, and work was booked in for shortly thereafter.

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Figure 2. Walkway under repair

The Resinject team attended the site and the council safely closed off the walkway in order to protect both the public and the Resinject crew as they worked.

Resinject undertook a slab jacking method with their primary resin product, RSJ170 which fully complies with the Transport for NSW M232 quality assurance specification for injected and expanding resin/slab jacking stabilisation. RSJ170 is an expanding and fast-acting polyurethane resin solution that is injected deep into the ground through small tubes, to increase bearing capacity and re-support existing structures. The resin is engineered to lift over 90 tonnes per square metre area

The Results

After completing the proposed slab-jacking and void-filling injection solution, Resinject re-measured the levels of the slab. It was found that Resinject had achieved a perfect lift from the previous settled position and all slabs were raised and re-levelled back to their original position.

It was confirmed that the voidages beneath the footpath had been filled, the ground beneath the sea wall consolidated and the footpath carefully realigned and levelled. Therefore extending the life of the well-used public concrete walkway.

The works were completed within an eight-hour period and the footpath was able to be trafficked immediately after the Resinject crew left the site.

The local Council were delighted with the results, the efficiency of the service delivery and the quick response given the urgent nature of this special request.



Figure 3. The restored walkway

Acknowledgements

Resinject would like to thank the council for the opportunity to demonstrate our sustainable, and cost and time-effective solutions.

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