DM COMPOSITES

DMWALK™

SOUTH CURL CURL BOARDWALK

PROJECT OVERVIEW
A COASTAL CONNECTION REIMAGINED

The South Curl Curl Boardwalk forms part of the Northern Beaches Council's long-term commitment to enhancing accessibility, safety, and enjoyment along Sydney's iconic coastline. Stretching between South Curl Curl Beach and Fisherman's Walk, this project delivers an uninterrupted, wheelchair-accessible pathway connecting the South Curl Curl Surf Life Saving Club, the ocean pool, and the popular Brian Green Lookout above the headland.

For decades, pedestrians navigated steep, uneven tracks and vehicle zones around the surf club, limiting access for elderly visitors, parents with prams, and people with mobility challenges. This new elevated FRP boardwalk now provides a safe, smooth, and inclusive path that allows all members of the community to experience the breathtaking coastal views — without compromising the site's delicate natural and marine environment.

LOCATION:

South Curl Curl
(NSW)

CONSTRUCTION COMPLETION:

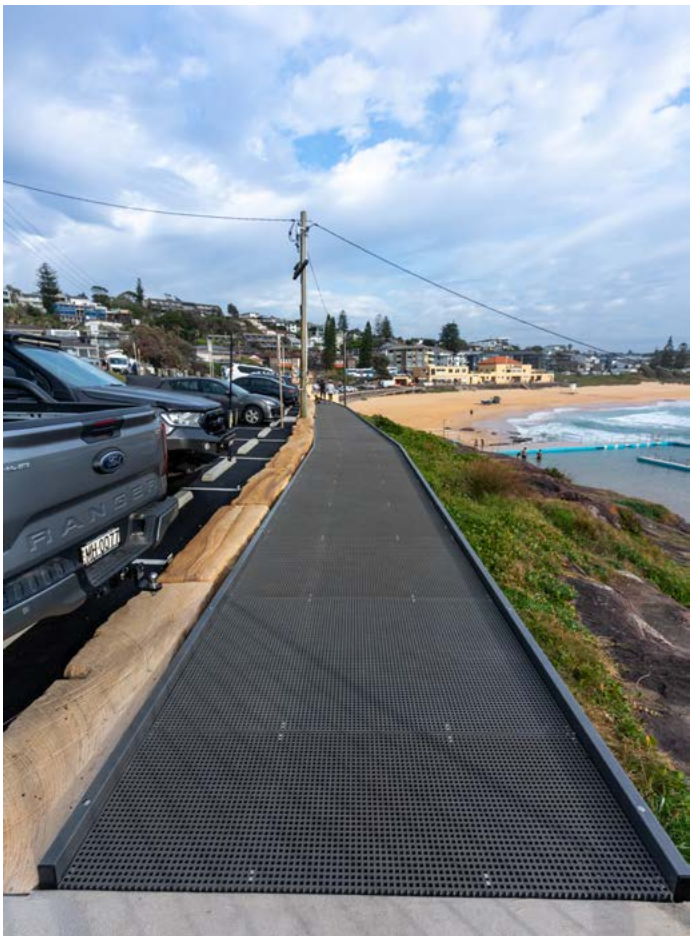
OCTOBER 2025

DM COMPOSITES' ROLE

DM Composites was engaged to design, supply, and construct a 50-m-long and 3-m-wide elevated FRP boardwalk system. A modern, corrosion-proof structure tailored to withstand the harsh marine exposure of Sydney's coastline.

Our scope included:

- **Design coordination and structural detailing of the full FRP superstructure.**
- **Supply and installation of the elevated walkway system including FRP posts, bearers, joists, and mini-mesh decking panels.**
- **Fabrication of integrated kickrails and handrails to provide safety and edge protection in accordance with AS 2156.2 (Walking Tracks – Infrastructure Design) and AS 1657 (Platforms and Walkways).**
- **Full site installation, including anchoring into sandstone substrates, interface with the existing concrete path, and alignment with coastal landscaping.**



DESIGN & TECHNICAL SOLUTION

Structural System:

- FRP Superstructure: Pultruded FRP posts, bearers, and joists configured for lightweight strength and corrosion resistance in marine exposure.
- FRP Mini-Mesh Decking: High-grit, anti-slip surface providing exceptional traction in wet conditions while allowing water and sand to pass through, reducing surface wear
- FRP Kickrails: Integrated on both sides for added safety and compliance with accessibility standards.

Design Considerations:

- Engineered to meet design loading for pedestrian pathways.
- All components designed to resist saltwater corrosion, UV degradation, and mechanical wear.
- Pigmented FRP (not painted) to maintain uniform colour and finish throughout its design life without peeling or fading.
- Fully prefabricated sections for quick, low-impact installation in sensitive coastal terrain.

ENVIRONMENTAL & COMMUNITY INTEGRATION

The site's steep gradient, proximity to the heritage-listed ocean pool, and environmentally sensitive vegetation presented major design and access challenges. DM Composites worked closely with stakeholders to ensure minimal environmental disturbance and a natural visual fit.

Low-impact construction: All FRP sections were prefabricated off-site, reducing installation time and disturbance on the fragile sandstone escarpment.

CONSTRUCTION CHALLENGES & SOLUTIONS

1. Cliffside Access & Limited Working Area:

With the boardwalk constructed directly above the rock escarpment adjacent to the ocean pool, site access was restricted. Materials and machinery were carefully sequenced to prevent encroachment on the beach below or vegetation above. Lightweight FRP sections allowed for manual handling and smaller lifting equipment compared to steel alternatives.

2. Harsh Marine Conditions:

The coastal site experiences constant salt spray and high UV exposure. All FRP elements were designed with fully impregnated pigmentation and resin systems tested for coastal applications, ensuring zero corrosion and colour stability over decades.

3. Structural Integration:

DM Composites engineered precision transitions between the concrete approach slabs and the FRP superstructure, maintaining smooth accessibility and continuity in the boardwalk system.

PROJECT OUTCOMES

The South Curl Curl Boardwalk is now a signature piece of coastal infrastructure, offering:

- A safe, inclusive connection between the surf club, ocean pool, and Fisherman's Walk.
- A corrosion-free structure capable of withstanding decades of coastal exposure with minimal maintenance.
- Improved safety and accessibility, eliminating the need for pedestrians to share vehicle zones.
- An elegant, lightweight design that enhances — rather than competes with — the natural landscape.
- The boardwalk's slim, grey FRP decking profile visually blends with the surrounding rock and sand tones, while the polished stainless-steel handrail captures sunlight, reflecting the vibrancy of Sydney's coastline.

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