Building a creative more innovative world.

Project Specification

Location: Domestic high-rise rooftop swimming pool

Application: Pedestrian anti-slip walkway

Product: Fibreglass Grating

Overview

The original roof-top baths pedestrian walkway was installed in 2018 as a solid timber decking walkway on a steel frame structure, which provided pedestrian access to the entire floor and pool. in 2023, the Head of Estates, in consultation with the Safety Engineer, concluded that the existing walkway posed a safety hazard due to its age. The walkway should be closed immediately for repair and replacement.

Problem

The wooden walkways as well as the steel structure were outdoors especially around the pool, preventing them from drying out and prolonged weathering caused the solid wood panels and steel to corrode and fail in just 5 years. The property was originally constructed using steel, initially to minimise maintenance and extend the life of the structure. It was thought that the steel would have a life expectancy of over 100 years. This was not the case and was costly to replace and difficult to repair, as it was located on a high level and could only be accessed by stairs. We summarised the client's requirements as follows:

Corrosion resistance: Considering that the equipment is placed outdoors, the corrosion of the walkway panels by the wind and sun over the years not only affects the load bearing, but also poses a potential risk to personnel safety, so the material must be able to withstand the corrosion of daily sun and rain;

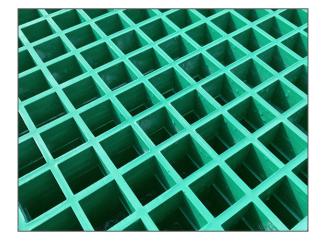
Lightweight: Easy installation is the key, no need for large equipment, greatly reducing construction time;

Low maintenance and long service life: the customer specifically requested a product that would not cause inconvenience during use.









Solution

The openwork FRP grating was designed to replace the steel structure without the need for painting. The structure is strong enough to carry the load and light enough to be handled and assembled by two workers. Resin and fibreglass FRP grating is resistant to rainwater corrosion. The non-slip surface provides better safety for pedestrians.

Tianfu New Material's FRP solution provides a very low maintenance, cost-effective solution for the property, and will provide years of safe access to this beautiful landscape for property owners.

