



Innovative Solutions for Ryde Pier Maintenance

RYDE PIER

Overcoming Challenges in Zone 2

R yde Pier in Zone 2 is closed to Island Line services from September 2024 to May 2025 for vital maintenance and repairs:

Purpose: The work aims to extend the life of the historic pier by up to 60 years.

Scope: Includes replacing wooden sleepers with composite sleepers, installing new rail, and refurbishing the sub structure.

Transportation: A minibus shuttle will operate between Ryde Pier Head and Ryde Esplanade, and trains will run between Ryde Esplanade and Shanklin.

Our team has successfully erected scaffolding to the 20ft spans in Zones 1 and 3. This project marked our first work in Zone 2, which introduced a new challenge: the spans in this zone extend to 40ft, double the length previously encountered. This required an approach to ensure safety, efficiency, and project timelines.

The primary challenge in Zone 2 was the need to erect a 40ft x 40ft suspended

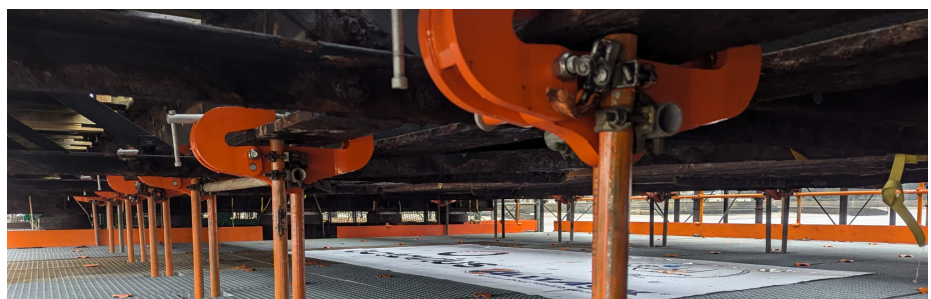
scaffold deck. Due to the increased span length, traditional methods were unsuitable due to risks posed by weather and tidal conditions at the site. A more innovative approach was necessary to overcome these constraints and ensure the project's success.

Our solution involved erecting the 40ft scaffold span off-site in the Rebel Marine's boatyard. This process was carried out in one 40ft section, which was then transported using designed modular floating pontoon to the site using a series of carefully planned steps:

1. A 40ft scaffold section was constructed in the controlled environment of the

boatyard, minimising on-site risks and delays.

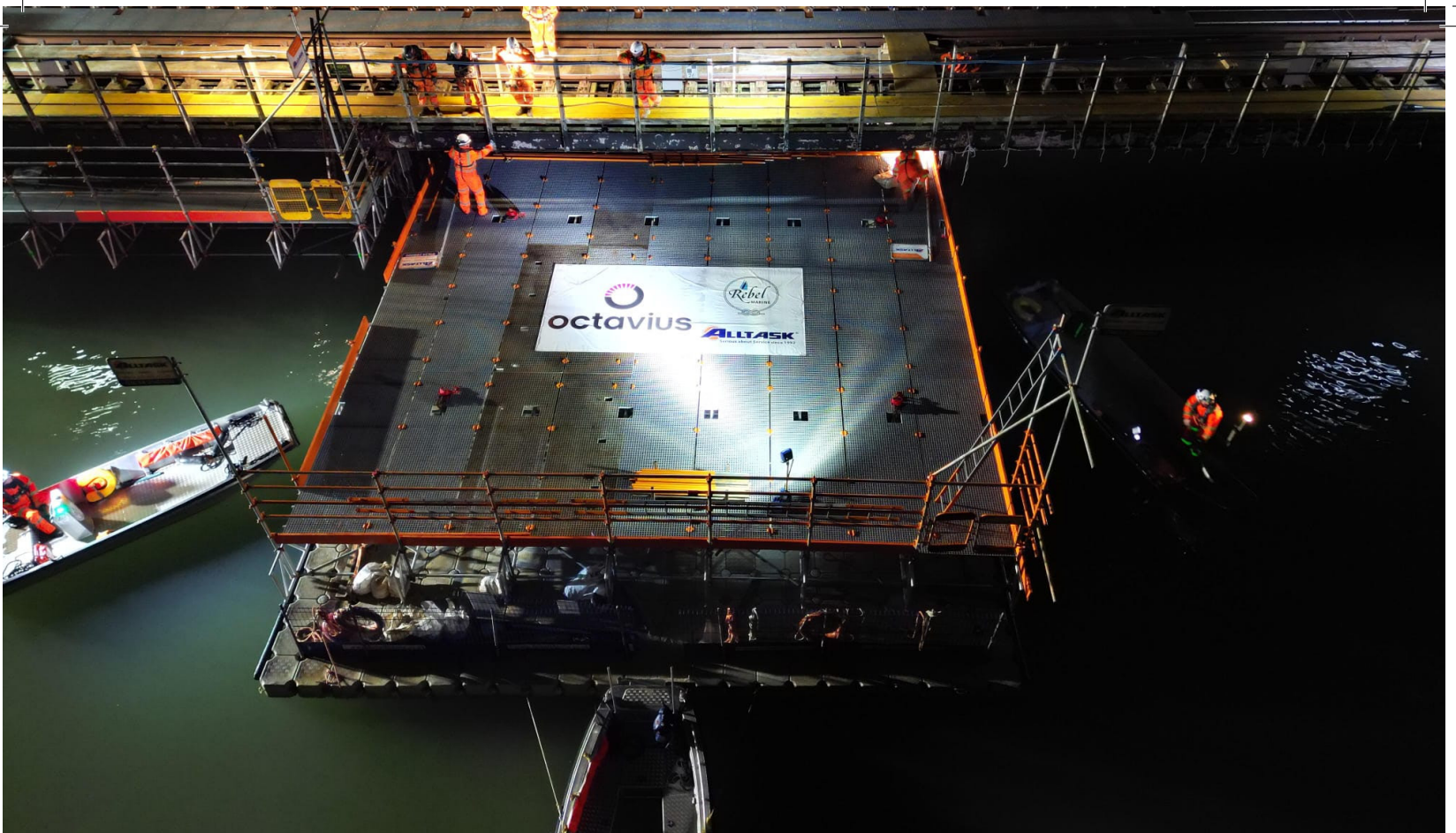
2. Once constructed, the scaffold section was floated to the site on designed modular floating pontoons supplied and operated by Rebel Marine. The timing, weather and tide forecast was meticulously planned by Rebel Marine.
3. Using block and tackle systems, the 40ft section was raised and secured in place with heavy-duty beam clamps.
4. On completion of the main permanent works, the 40ft scaffold span deck will be lowered back onto the floating pontoon below. The scaffolding will then be transported to the adjacent bay, and the installation process will be repeated all over again.



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This innovative approach provided several key advantages:

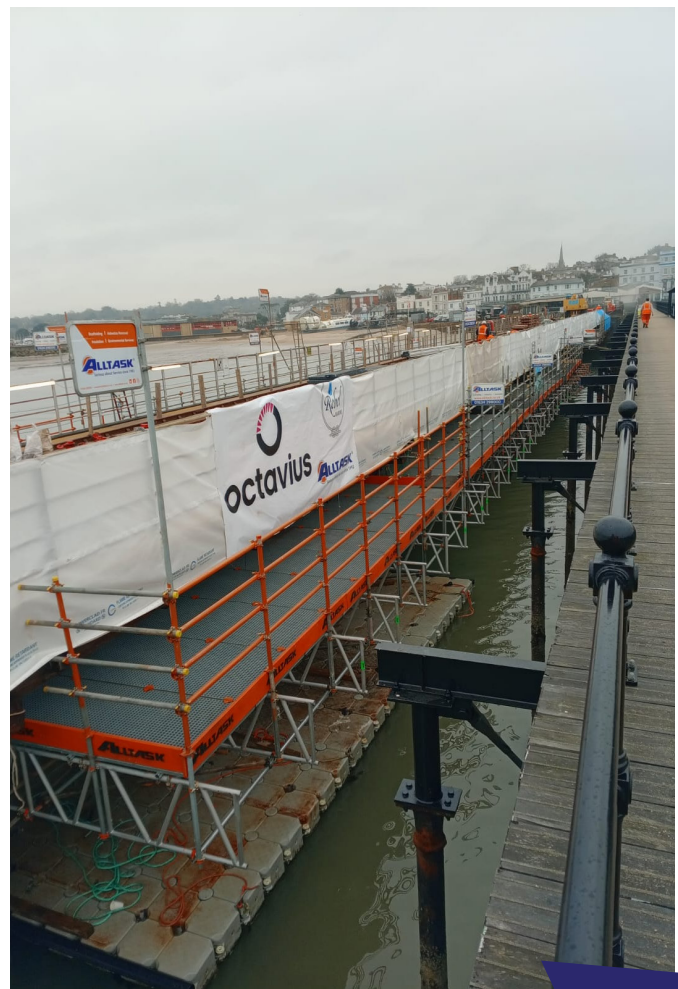
Reduced On-Site Risks: Conducting the primary scaffold erection off-site mitigated risks associated with weather and tidal delays.

Time and Cost Savings: By minimising on-site activities and streamlining the installation process, the project timeline was shortened, resulting in significant cost savings.

Client Satisfaction: The efficient and creative methodology was well received by the client, showcasing our team's commitment to excellence and adaptability.

The success of this project was made possible through the collaborative efforts of Alltask's Head of Innovation Rob Vernon, who carried out the initial design and developed the feasibility studies; Prime Scaffold Design and Structures Ltd, who provided the detailed scaffold design; Mott MacDonald who carried out the structural checks onto the existing structure, Rebel Marine who provided the safety boats, pontoons and support staff, our valued client Octavius, and our on-site scaffold team, whose meticulous and skilled installation ensured the project's seamless execution.

The off-site erection and transport approach not only met the unique challenges of the site but also set a benchmark for future projects requiring suspended scaffolding in challenging environments. This case study highlights the importance of collaboration, creativity, and a commitment to delivering value to clients.



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