



Client

Gympie Council

Installation

JUZ CIVIL Pty
January 2023

Location

Wyvern Rd,
Rainbow Beach

Product

EziPit 1000MH

Engineering Success: EziPit® delivers durable solutions in challenging conditions

The Rainbow Beach project faced tough conditions - tidal water, acid sulphate soils and unstable sand. EziPit maintenance holes provided a durable, safe solution, overcoming these challenges and earning council approval for future projects.

Project Challenges

This project presented a unique set of challenges for sewer infrastructure:

- **High Salt Water Table:** The site was subject to tidal influences, resulting in a persistently high water table
- **Acid Sulphate Soils:** Corrosive soil conditions threatened the longevity of conventional maintenance holes
- **Unstable Sandy Soils:** Required careful trench support to prevent collapse during installation

Engineering Solution

The consulting engineer, Ms Diana Campbell of DMC Consulting, sought a maintenance hole solution that would withstand both the corrosive soils and the high water table. *"...The EziPit solved the issue of corrosive soils and provided a long-term solution."*

At the time, Gympie Regional Council had not approved the use of EziPit maintenance holes. However, after Ms Campbell's insistence on the technical merits and suitability of EziPit for this project, the council granted a special dispensation for their use.

Installation

A significant challenge during installation was managing the high water table - open trenches would quickly fill with water as the tide came in. De-watering was essential to allow for safe and effective installation.

EziPit's design provided two key advantages:

- **Efficient Backfilling:** EziPits can be backfilled as they are installed, allowing the job to progress quickly and safely with minimal trench shields. This is especially beneficial in sandy soils, reducing the risk of trench collapse and creating a safer, smaller working area.
- **Non-Floatation:** EziPit maintenance holes do not float when correctly backfilled, even in saturated ground. This was demonstrated both by calculation, testing and proven in practice on this project.

Result

- 21 EziPit maintenance holes were successfully installed
- All units passed required pressure testing and have remained issue-free since installation
- The success of this project contributed to Gympie Regional Council's approval of EziPit maintenance holes for use in projects within the region

Conclusion

The Rainbow Beach project demonstrates how EziPit maintenance holes provide a robust, corrosion-resistant, and installation-friendly solution for challenging environments. The project's success has set a new standard for sewer infrastructure in the Gympie region.