

*The Gisborne Cenotaph, erected on the Turanganui River bank in 1923, suffered significant structural damage during a 6.8 magnitude earthquake in December 2007. The earthquake left this nationally significant monument at risk of serious damage in future seismic events.*

Major strengthening of the foundations, were necessary to protect the Cenotaph. These works included the removal of soil surrounding the foundations, demolishing portions of the original foundation and casting a substantial foundation ring beam around the central core of the Cenotaph. This new foundation was supported directly on screw piles and designed to support the entire Cenotaph structure.

The consultants ensured the repairs were undertaken to give longevity and minimize any need for future repairs. A significant feature of the remedial work, was to ensure that the Cenotaph was not damaged through long term corrosion of any reinforcing present. As a result, **mateenbar™** was specified for the stirrups and longitudinal steel reinforcing the foundations. Unlike steel, **mateenbar** doesn't need any extra form of protection, as it doesn't corrode – an important feature considering the salinity of the Cenotaph's coastal location.

Using **mateenbar** in the newly built, upgraded foundations of the Cenotaph not only saved time during installation, but also insures that it will still be standing for another 100 years.

*“mateenbar is the ideal solution to achieve long-term durability in an important historic monument.”*

PETER SMITH – SPENCER HOLMES

### TIME SAVING WITH MATEENBAR

A significant benefit to the contractor was the lightness and cleaner surface of the **mateenbar** which allowed for easier installation and tying. As **mateenbar** is one quarter of the weight of steel, the 8m lengths of #10 (32mm) rebar were able to be installed by 1-2 people. Currie Construction's Project Manager, Mark van Wijk noted, "its weight made it far easier to handle".

#### KEY DETAILS

**Project:**  
Gisborne Cenotaph Repair

**Location:**  
Gisborne, New Zealand

**Client:**  
Gisborne District Council

**Consultant:**  
Spencer Holmes, Salmond Reed Architect & McManus Geotech

**Contractor:**  
Currie Construction

**Criteria:**

- Corrosion Resistant
- Seismic Repair and strengthening

