miyamoto. ENGINEERS + CONSTRUCTION CONSULTANTS



Years New Zealand Industry Experience.



75+

Years Global Engineering Experience.



7,300+

Projects completed within New Zealand.

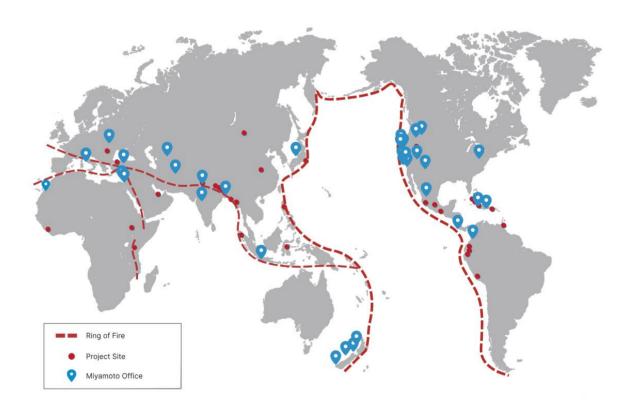


50,000+

Projects completed worldwide.

With over 75 years of experience, 7,300 projects in New Zealand and 50,000 projects worldwide, Miyamoto is a distinctly purpose-driven, solutions-oriented company, always looking for a better way to achieve the best outcome for our clients. To do this, we put our client's needs and collaboration first, sharing our knowledge and experience to get the job done.

Miyamoto New Zealand is closely affiliated with Miyamoto International, a global engineering firm with a humanitarian focus that has a presence in 30 locations around the world. This network provides the ability to have specialist skills for specific project needs. We work closely with our international team and collaborate where value can be added for our clients without incurring unnecessary costs.



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Proven Experience in Base-Isolated Design

We are global leaders in the application of high-performance seismic design, delivering cost- effective solutions that protect life, preserve infrastructure, and ensure rapid recovery after seismic events. Our teams in New Zealand, the United States, and our other international offices combine deep local insight with international expertise to tailor cutting-edge designs for a wide range of structures. The following exemplars highlight our commitment to resilient design and the outcomes we've achieved for clients worldwide incorporating base-isolation.





Wellington Children's Hospital (WCH)

Miyamoto New Zealand's Director, Amir Moshref, was the lead structural designer for the WCH. To achieve resilient performance of the structure during a major event, moment-resisting steel frames on top of friction pendulum bearings (baseisolation) were chosen as a structural system.

San Diego Emergency Comms Complex

The San Diego Emergency Conns Complex is a twostorey building with a floor plate of 1,859 ms per level. The building was designed and built circa 1995. The building was base-isolated using 27 Lead Rubber Bearings (LRB).



Eskişehir Public Hospital, Türkiye

The Eskişehir public hospital is 291,00 m² and was built in 2016 with 973 double-friction, pendulum-type isolators.



Corum Public Hospital, Türkiye

Completed in 2016, the Corum Public Hospital is 102,000 m² and designed for 741 LRB-type isolators.



Bursa Şevket Yılmaz Hospital, Türkiye

Built in 2013 and 53,000 m 2 in size this hospital is a seismically isolated concrete structure.



Leadership in Seismic Innovation

Our leadership team—comprising Amir Moshref, Director of Miyamoto New Zealand, and Dr. Amir Gilani, Principal of Miyamoto International—actively collaborates with academic institutions and leading industry partners to advance building code development and promote the application of high-performance seismic technologies.

We have long-standing relationships across multiple projects with key global innovators such as Earthquake Protection Services (EPS) and Taylor Devices. These organisations are recognised worldwide for their cutting-edge technologies and have played a pivotal role in the evolution of resilient design and seismic code improvements.

Base Isolators - Earthquake Protection Services

- Friction Pendulum isolators use the characteristics of a pendulum to lengthen the natural period of the isolated structure to avoid the strongest earthquake forces.
- EPS invented Friction Pendulum seismic isolation in 1985 and has made 35 years of continual improvements in materials, hardware, and engineering.
- The patented Triple Pendulum isolators can limit damage to less than 2% of facility replacement costs. These Triple Pendulum isolators are multi-stage isolators that optimise seismic performance during small, medium, and large earthquake events.
- Triple Pendulum isolators substantially reduce the cost of delivering post-earthquake functionality.
- Each Triple Pendulum isolator is custom engineered for the unique characteristics of each facility type and use, structure type, site soil conditions, and site seismic hazards.

Fluid Viscous Dampers - Taylor Devices

- Fluid viscous dampers (FVDs) are used to dissipate energy in a structure caused by seismic and wind events.
- FVDs can increase structural damping, typically between 15% and 35% in seismic applications, which significantly reduces drifts and stresses in a structure.
- Using FVDs allows the structure to remain largely undamaged, improving functional recovery capacity and operability following an earthquake.
- Taylor Dampers can be placed in a variety of different configurations depending on the type of building.