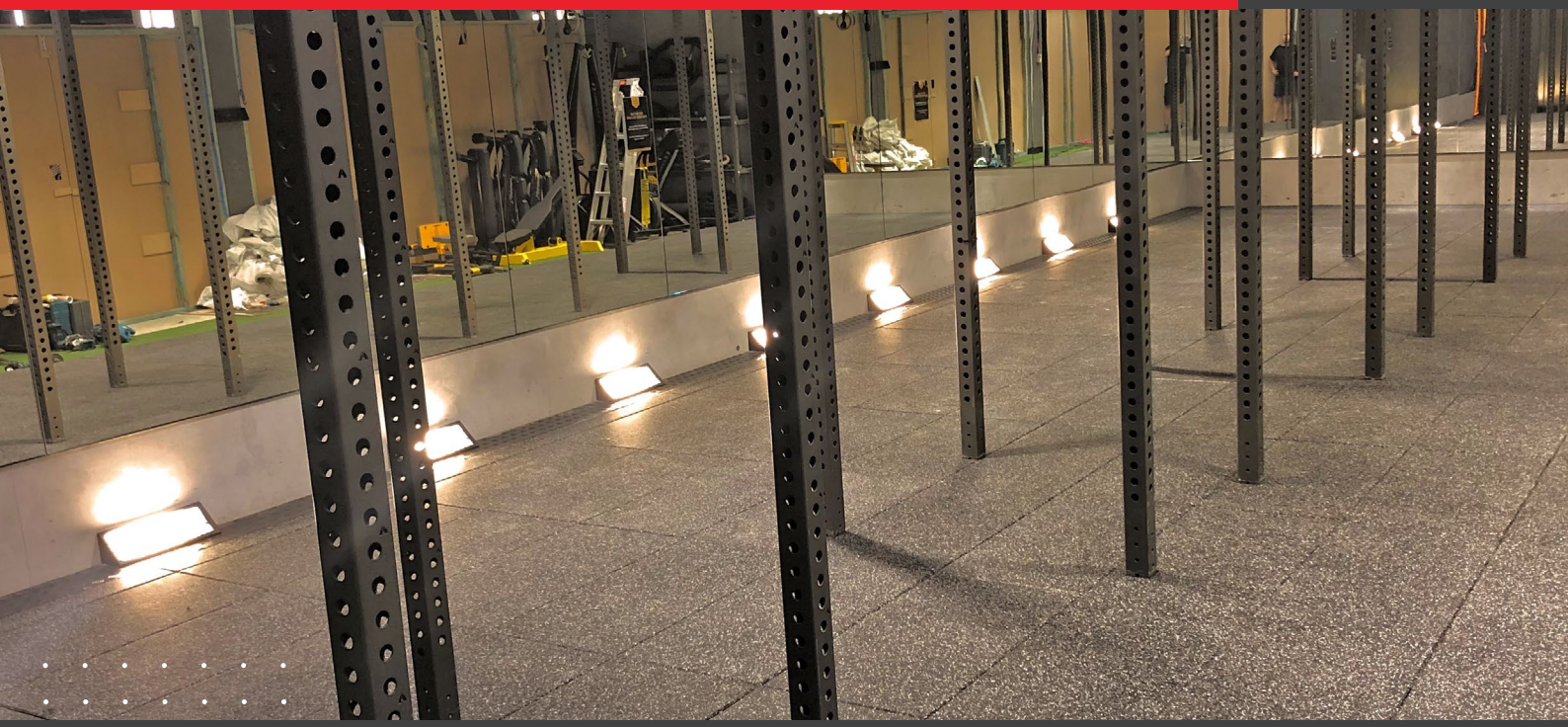
Gymnasium
Floor Isolation



Mason Mercer

Increasing amenity is critical when marketing new multi storey residential apartments, particularly in the build to rent market.

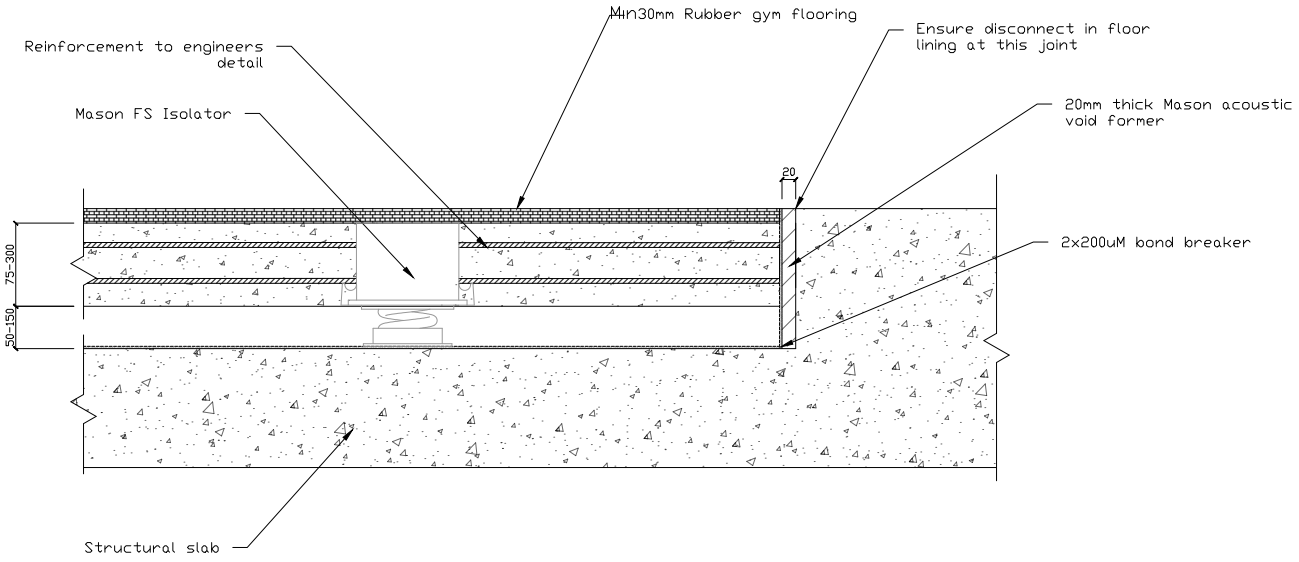
Mason Mercer are leaders in providing high performance vibration and shock isolation systems for gymnasium floors for new construction. With systems aimed at reducing impact and structure borne noise generated from treadmills, pin loaded machines and free weight activities, our systems typically comprise of either a rubber or spring-based isolation system.

Damped Spring Floor System

CONCRETE ACOUSTIC FLOOR

The no compromise solution for gymnasium floors consists of our spring (FS) or rubber (FSN) jack up floor system. The isolators are installed within a minimum 100mm thick secondary concrete slab with the floor lifted a minimum 50mm creating an airspace under the acoustic floor of equal measurement. The jack up floor is in a class of its own and offers significant options for performance and ease of construction over traditional formwork systems.

We offer an engineered damping system which can be incorporated into a spring supported concrete jack up floor system to reduce dynamic floor movement under large cardio machine clusters.



TYPICAL DETAIL - FS SPRING JACK UP FLOOR

NTS

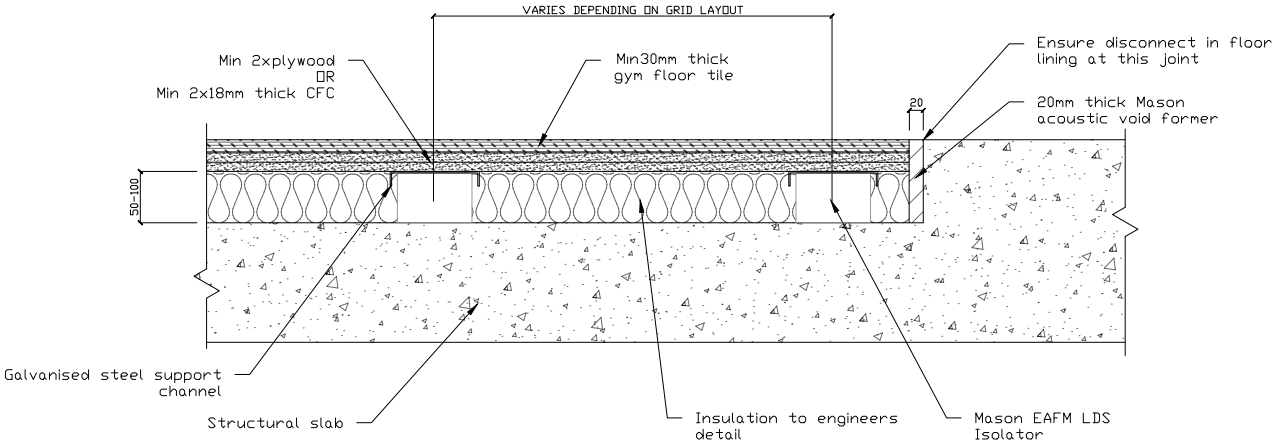
LIGHTWEIGHT ACOUSTIC FLOOR

In lieu of concrete, multiple mass layers, typically 19/25mm plywood or compressed cement sheet are installed over rubber or spring isolators to create a lightweight acoustic floor system alternative to concrete floors. With available options for free weights, pin loaded and cardio machines.

The lightweight floor system is a low-cost alternative to extensive built up flooring systems comprising of multiple layers of thick rubber and foams with plywood interlayers.

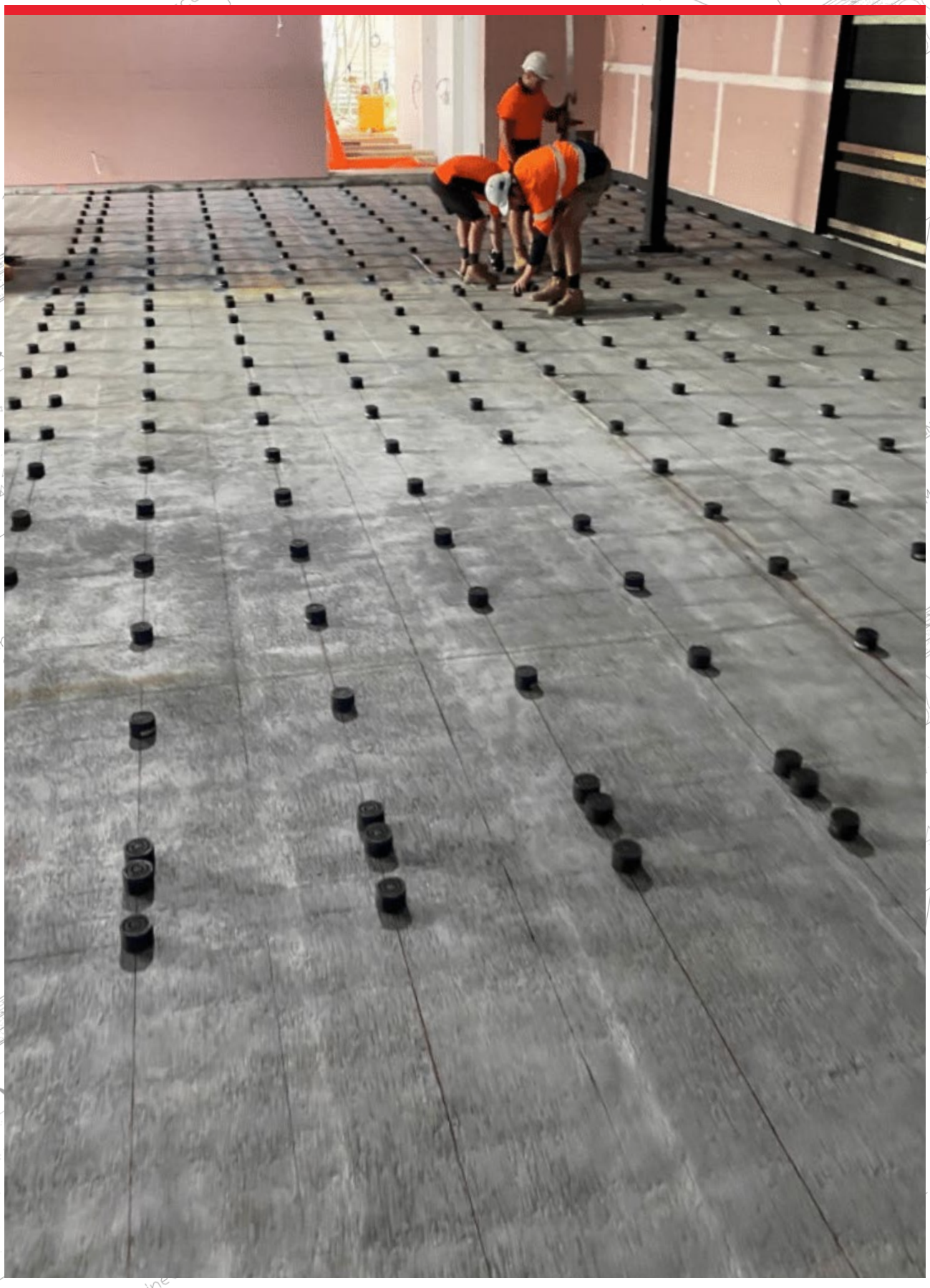
LOW DYNAMIC STIFFNESS RUBBER ISOLATORS

Using our proprietary Low Dynamic Stiffness (LDS) rubber we have developed a range of high-performance compact isolators used for cardio and aerobic exercise and machines. With class leading performance, our LDS isolators underpin the performance of the floor.



TYPICAL DETAIL - RUBBER GYM FLOOR

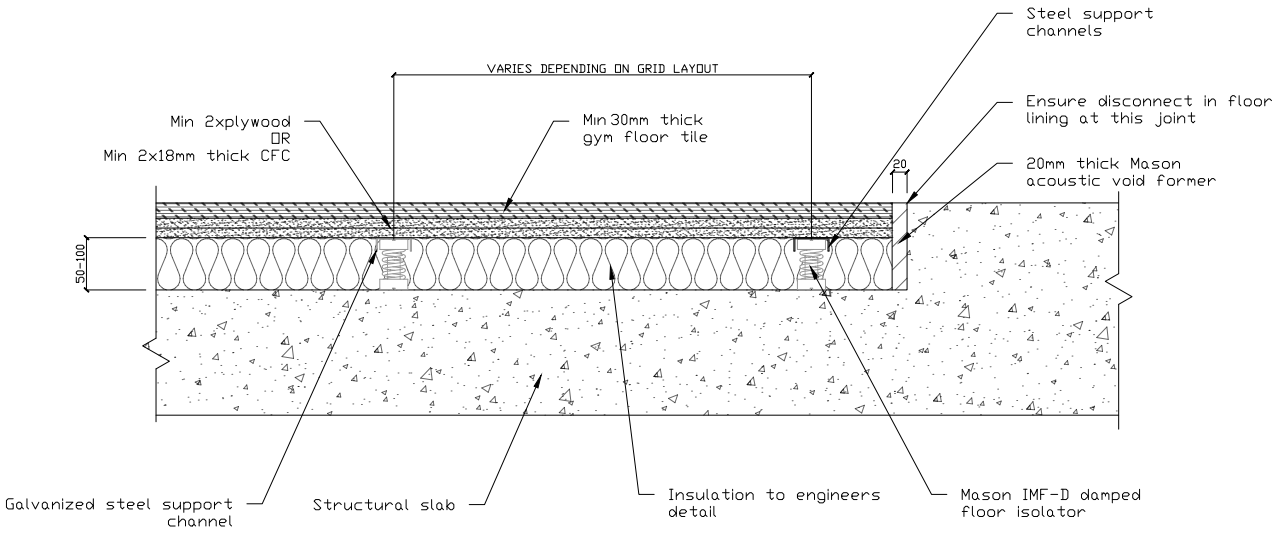
NTS - Lightweight Floor



LDS Isolators installed

DAMPED SPRING ISOLATORS

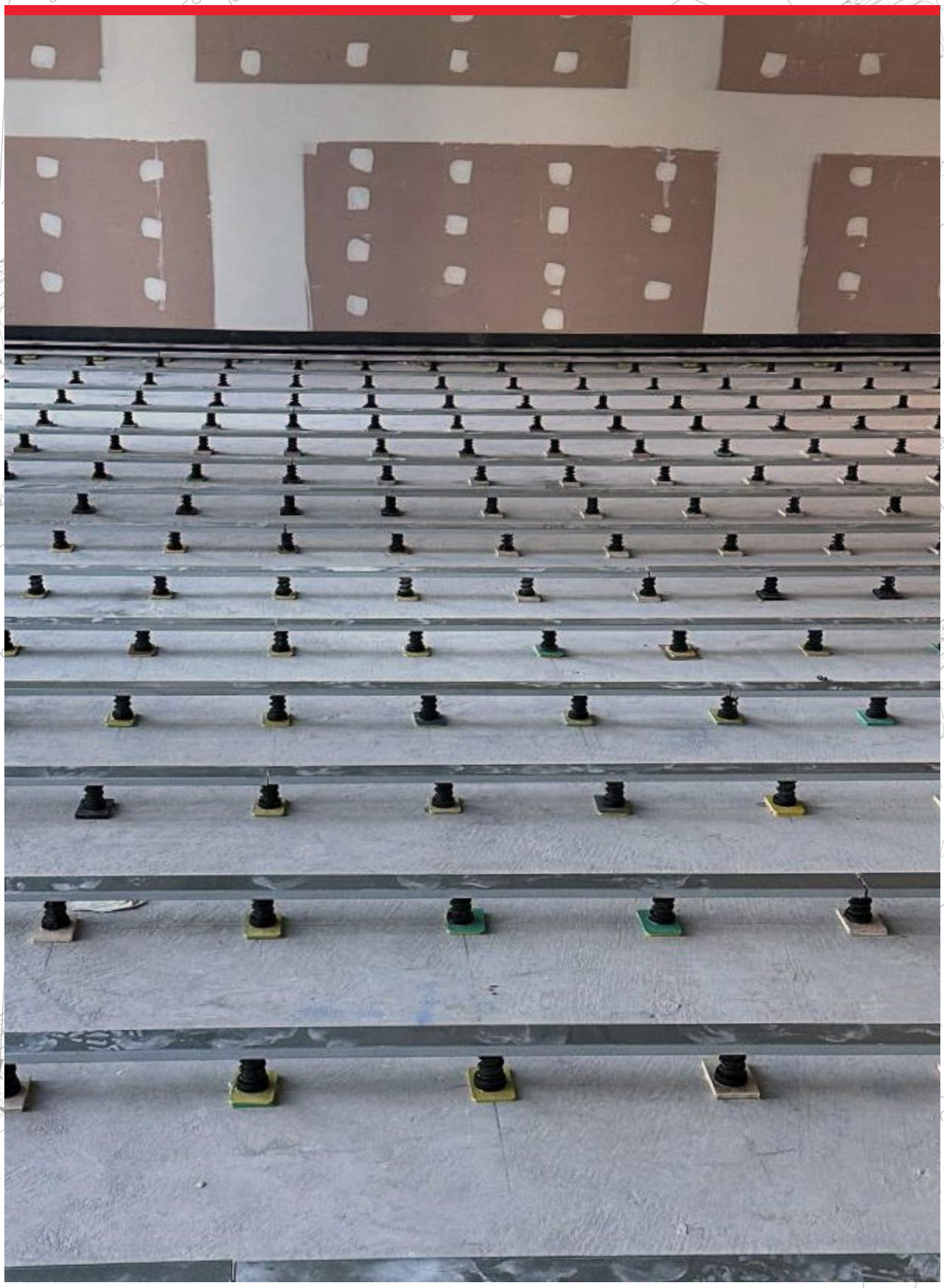
Free weights, cross training and pin loaded machines require a higher level of isolation. Adding damping to our spring isolators enables the spring to reduce or dissipate energy from impact and shock as soon as possible. Damping also reduces vibration amplitude at resonance.



TYPICAL DETAIL - SPRING GYM FLOOR

NTS - Lightweight Floor

In conjunction with an isolated floor, un-damped springs can be installed under weight stacks of pin loaded machines to reduce shock and impact noise.



IMF-D Damped Springs Installed prior to insulation and floor sheeting

RUBBER FLOORING

Mason Mercer have no affiliation with Rubber Gym Floor manufacturers and suggest you consult with your preferred supplier for a finished floor lining.

The Mason Mercer Floor does not remove the need for rubber flooring. The purpose of the Mason Mercer Floor is to increase performance at low frequencies where rubber flooring does not provide meaningful isolation.

TESTING

Each structure is unique, from time to time we provide test floors to acoustic consultants to conduct site validation testing.

Should comparative testing be conducted on site, all prospective rubber floor linings should be tested directly on the host floor and then tested again individually on the selected Mason Floor System. This test procedure combined with a baseline test with no isolation will provide the most extensive comparison for the insertion loss of the proposed flooring systems.

Vibration isolation for gymnasiums ensures a quieter, more enjoyable living environment while protecting property value. It's a smart investment that enhances tenant satisfaction and sets your property apart in an increasingly competitive rental market. You could give a spiel here also that Mixed Use buildings are increasingly more common now with residents living in buildings with commercial gym tenants.

FOR FURTHER READING PLEASE CLICK THE FOLLOWING LINKS

- *Concrete Gym Floors*
- *Lightweight Gym Floors*

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