7 Benefits Of A Raft Slab System

New Zealand's 1st choice home foundation.

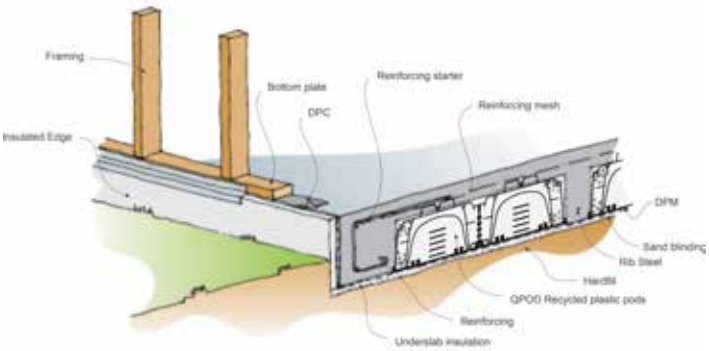
What Systems Are Out There?

A common question that arises for homeowners or first home buyers when they start learning about their new build and all the new jargon that comes with it; building materials, methods and technologies.
Every house needs a stable foundation and the terrain you build on is a big decider in this. On a sloping site, timber piles may seem like a cheaper option at a glance, but what lies under the soil could totally change this perception. It's important and necessary to obtain a comprehensive Geotech soil report of your new build site prior to building any structure, this will be a guiding light as to what foundation type will be suitable for your build.
The foundations of your development will directly impact your costings as they are a significant part of the house build. Choosing between the Conventional Slab from NZS: 3604:2011 or a Raft Slab System may not always be an option in your area as more and more areas of New Zealand build sites fall into highly active soils subject to shifting, cracking, sinking and liquefaction. Many of these situations now are overcome by adopting the 'Raft' technique as demonstrated with the QPOD™ Allied READY Superslab or Firth RibRaft systems.

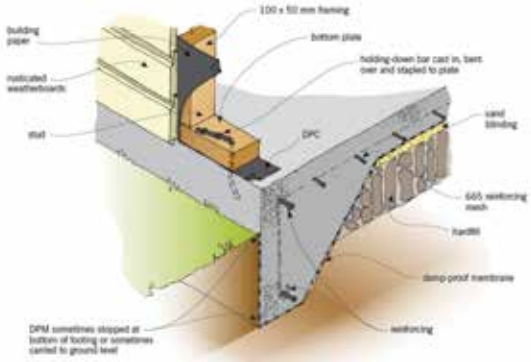
Why is the Raft system able to conquer these varying conditions? We take a look into this here.
Identifying the differences between 'Raft' and 'Conventional' is a good start to knowing what the best solution is.
Raft Slabs typically do not require excavated footings whereas your Conventional Slab does, so your Raft foundation is formed 'on' the ground rather than dug 'into' the ground.
Raft Slab Systems require less hard fill having greater stability achieved in the ribbed structure formed between the groups of Pods.

NZS: 3604:2011 has a limited scope for Conventional Slabs therefore if you are outside of that scope you will require an engineer costing anywhere upwards of $1,000 for a foundation design, whereas with the QPOD™ Allied Superslab is a Codemarked system with a greater window of opportunity of ground conditions it will be suited to requiring no engineered design for most solutions.

Raft Slab Foundation



Conventional Slab Foundation



PH +64 6 835 5463
Fax +64 6 835 0693
NZ Free 0800 000 872
w www.qpod.nz

QPOD EARTH-FRIENDLY FLOORING

The Benefits

Raft Slab Benefits

1. Raft slabs can be constructed quicker than your Conventional Slab due to efficient work flow and limited excavation.

2. A Raft slab can be laid and poured in 2-3 days whereas a conventional can take a week or more allowing for several concrete pours.

3. There is also generally less hard fill with Raft Slabs.

4. Raft slabs allow for low soil-bearing capabilities (as low as 50kpa) which mean they are more compatible with soft ground.

5. Raft Slabs were proven in the Christchurch earthquakes to be seismically stronger than Conventional Slabs due to being on top of the ground as opposed to being in the ground.

6. There can be less excavation and earthworks required therefore less waste in the construction of Raft Slabs. With recycled plastic pods such as used in QPOD™ Raft Slabs there is minimal wastage and no on-site mess.

7. Additional insulation is achieved with a 220mm encapsulated air thermal break underfoot making for a cosy home in the winter months.

Conventional Slab Benefits

1. Most builders are familiar with this method as it has been around for many years.

2. Conventional Slabs are great for small additions and or adjoining platforms where soil is very stable and insulation is not critical.

3. There will likely be less concrete used in a conventional slab. You can use an online calculator to work out how much concrete a Rafts Slab will use: See www.qpod.nz/qpod_calculator/

4. All Councils are very familiar with the design of Conventional Slabs therefore often makes processing easier for approval.

PH +64 6 835 5463
Fax +64 6 835 0693
NZ Free 0800 000 872
w www.qpod.nz

QPOD
EARTH-FRIENDLY FLOORING

Factors

Other Factors

There are so many more factors that will influence your decision on slab construction including, terrain, climate, polished surfaces, underfloor heating, load points, and much more – you can discuss with your architect in the early design phases of your build. The construction industry is always seeking to find ways to move forward and QPOD™ Raft Slab solutions are quickly becoming a popular choice among professionals and are considered one method of advancement. Many areas of New Zealand are adopting the Raft Slab construction because of the many benefits while Australia has been using them for a lot longer.
While most councils are highly familiar with the concept now there are pockets of councils where this advancement is slow to emerge, it is up to us all to introduce the benefits of these systems to the trade professionals and develop a greater understanding of the QPOD™ Raft System.

On the website www.qpod.nz we provide free downloads of all detailing and specification enabling easy adoption of the QPOD™ system for engineers, architects and trade professionals. Help yourself to these to share with those involved in your project.

PH +64 6 835 5463
Fax +64 6 835 0693
NZ Free 0800 000 872
w www.qpod.nz

QPOD
EARTH-FRIENDLY FLOORING