



## TTT SED POLES

TTT SED Poles were used to construct a large retaining wall on a steeply sloped site. The retaining wall needed to achieve a retained height of 4.5m with a high surcharge. The site was located in Opuā, Bay of Islands.

## Project background:

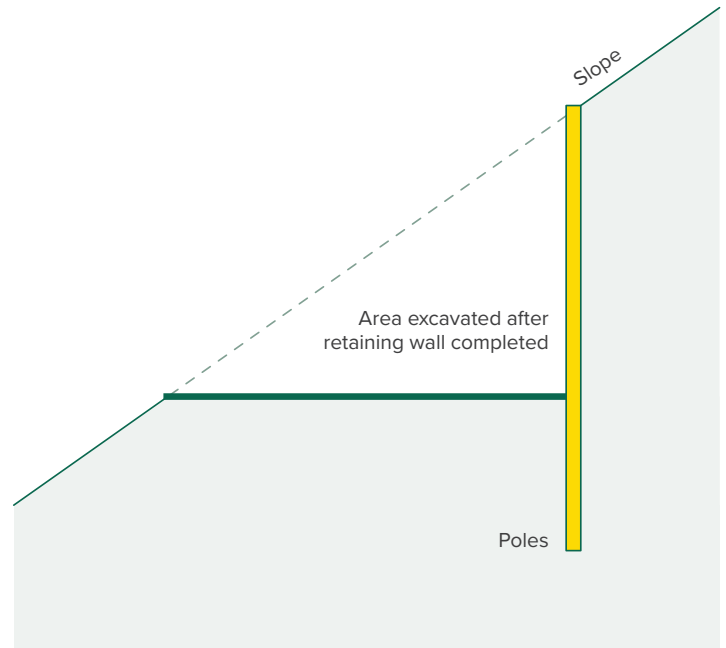
- A new dwelling was to be built on a steeply sloped site.
- A retained height of 4.5m with a high surcharge needed to be achieved.
- The project was completed by the contractor in 2018.

## Why use TTT Poles:

- The ground conditions were silty, clay material.
- The site was steep.
- Site access was restricted resulting in an extremely tight working area.
- Installation of the retaining wall had to be carried out from above before full excavation of the building platform could occur.
- Due to the restricted site and operational area lightweight equipment and materials were required. Poles, when compared with steel and concrete alternatives, are lightweight, easily handled, and installed using equipment with a lightweight footprint.
- TTT Poles were identified by the contractor as being the best, most cost effective solution that would allow a retaining wall to be built on a steep site with difficult access.

## How TTT Poles were used:

- TTT SED Poles were ordered by the contractor.
- TTT SED Poles are naturally tapered, machine-peeled poles. Minimal wood is removed during processing so each pole retains its strength.
- TTT supplied 14.0m x 500mm SED poles.
- The poles were installed from the 'top-down' meaning the poles were installed from above before excavation occurred. The building platform was then excavated.
- The contractor installed the poles at 900mm centres, with a 3-tonne pile driver. No concrete was used.
- The retaining wall was 40m long.



Photos courtesy of Markovina Pile Driving