Commercial

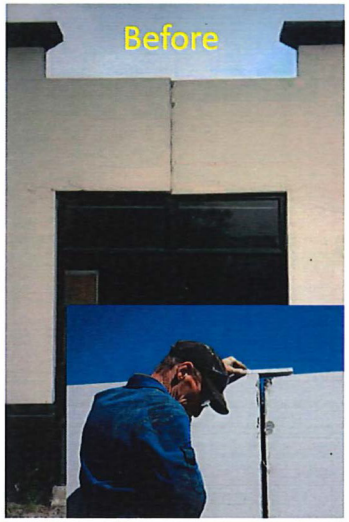
Francella Street

Property Information

Area of Work (m²)	69.7
Property Perimeter (m)	34
Foundation Type	Type C – Slab on Grade with thick perimeter beam
Water Table (m. BGL)	N/A
Repair Methodology	CCS Solution A + site specific technique
Time Duration (Days)	8

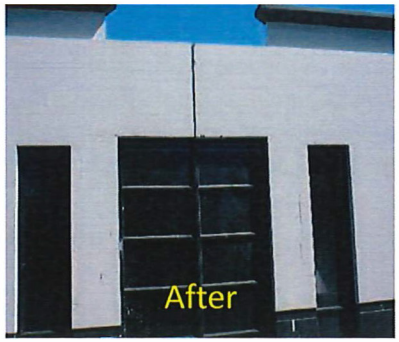
Before Re-levelling

- This particular building is an office with heavy precast concrete walls and is attached to a warehouse.
- The front right and left hand corners dropped approximately 70 mm and 15 mm, respectively.
- The settlement created an apparent drop of the concrete wall on the right hand side.



After Re-levelling

- Eleven piles (7 meters deep) were installed around the building. The job was done within 8 days.
- The final levels of the property are within the acceptable DBH tolerance of ± 15 millimeters.



Commercial

226 Salisbury Street

Property Information

Area of Work (m^2)	842
Property Perimeter (m)	231
Foundation Type	Type C – Slab on Grade
Water Table (m. BGL)	0.7
Repair Methodology	CCS Solution C + site specific technique
Time Duration (Days)	126

Before Re-levelling

- This particular building is a three Storey, dual-wing apartment block with 34 units constructed of Tilt-slab concrete
- The site soil conditions were Gravel, Silt and Peat with a high water table.
- The rear of each wing had dropped by 316mm and 266mm, respectively.
- For the duration of the lift the tenants continued to occupy the upper two floors
- All services (sewer & storm water) remained connected for the duration of the work

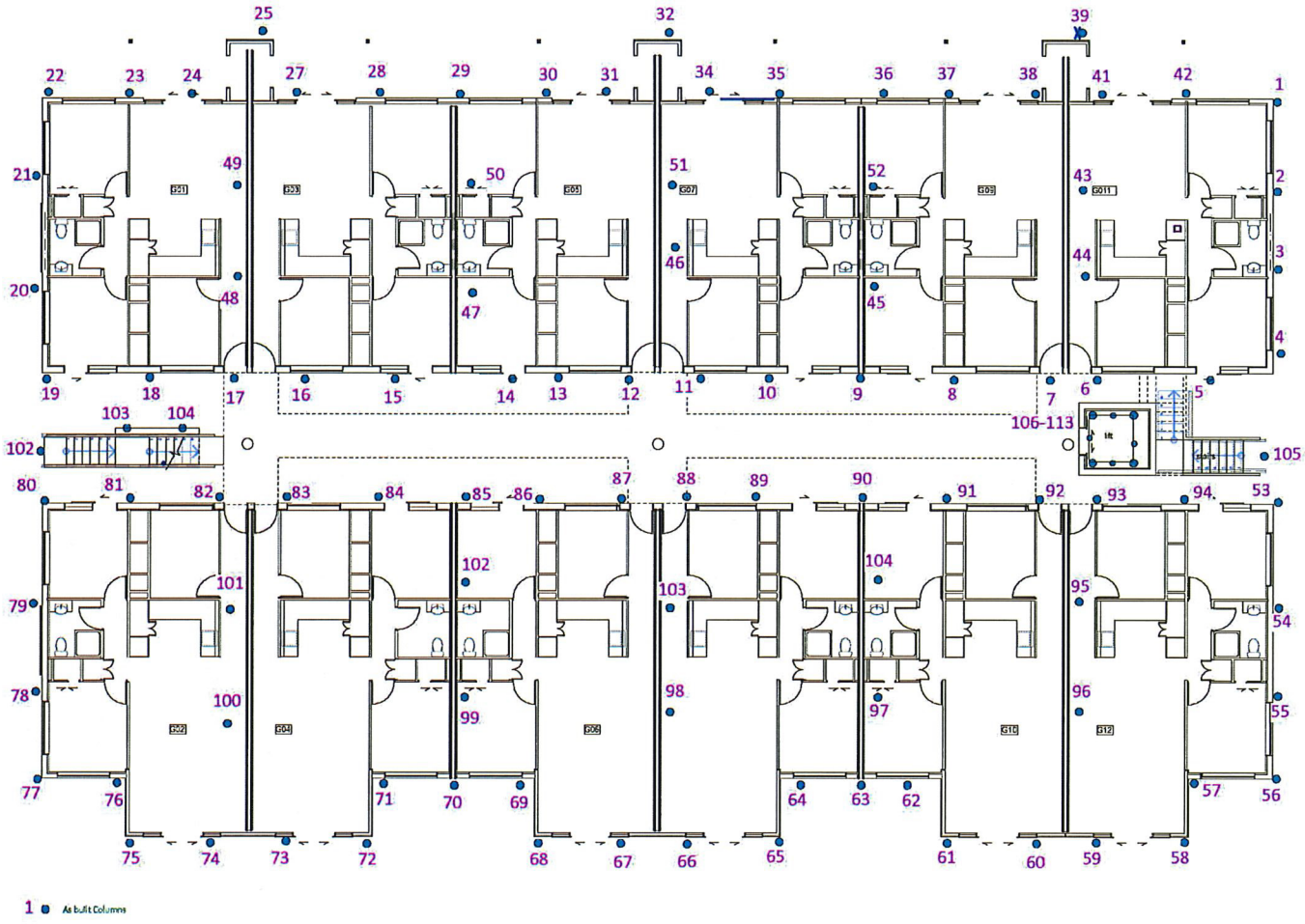
After Re-levelling

- Work was completed in stages (One wing at a time & then the lift shaft & stairs)
- 113 piles (3 meters deep) were installed around the building.
- Both apartment block wings and the free standing lift shaft were relevelled
- The maximum lift was 230mm

Core Civil Solutions

Site Plan / Pile Layout / Site Levels

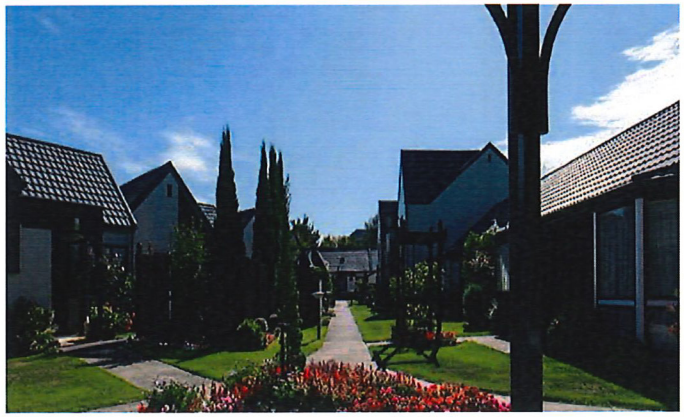
As built columns

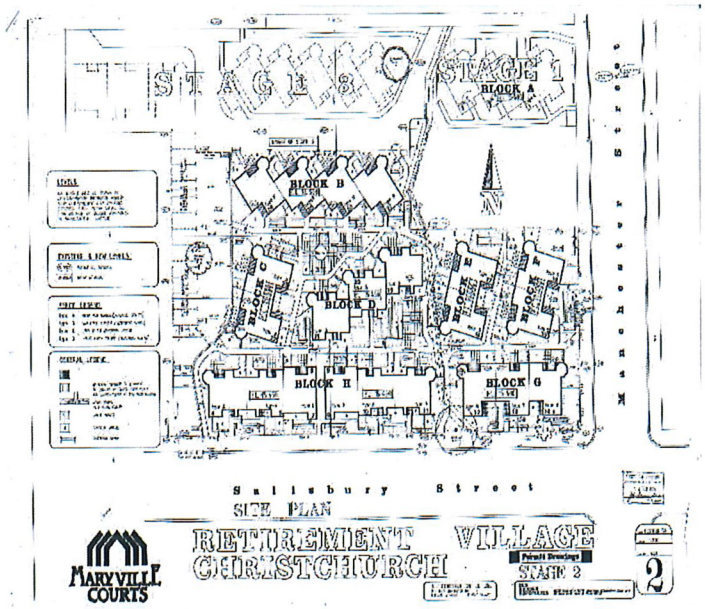


Commercial

Maryville Courts

Property Information





Before Re-levelling

- CCS were engaged by the client to provide a solution to re-level the retirement villas at Maryville Courts, the solution required full Geotechnical assessment & reports as well as engineered design and sign off to enable the client to reinsure the earthquake damaged villas
- A total of 21 Villas were relevelled over 7 stages of work at the Retirement Village
- The work was broken up into stages to allow the residents to continue living in the rest of the village giving only disruption to one unit at a time.
- The Villas were constructed of concrete block walls & timber cladding, lightweight shingle roof and concrete slab on grade construction and adjoining villas are separated by a reinforced concrete block firewall.
- The soil conditions varied across the site with Sand, Silts, Clay & Peat being found at different depths & zones.
- The water table was found at 1.5 bgl
- The villas all had differential settlement across the Slab & ring foundation. CCs successfully lifted the units to bring them back within the target levels with a maximum lift of 218mm

After Re-levelling

- CCS provided the full package for the village including drawings/plans, Council exemption, geotechnical report, engineering PS1 & PS4 for each stage.
- All villas in each stage were successfully re-levelled with a variation in the level from the datum of a maximum of 44mm

Commercial

Maryville Courts









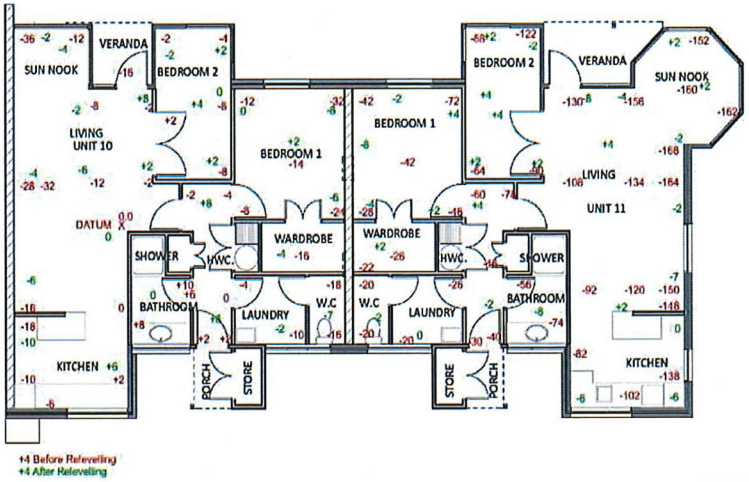
Core Civil Solutions

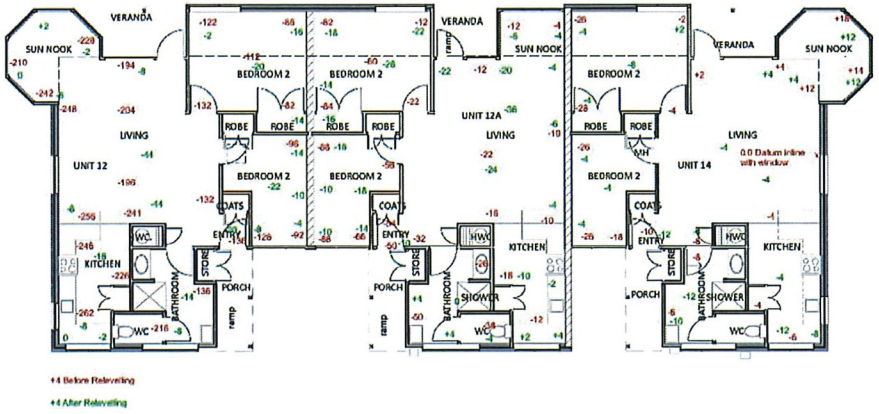
Stage 1- Villa 10 & 11

Area of Work (m²)	150
Total variance from datum	172mm
Foundation Type	Type C – Slab on Grade
Amount Lifted	160mm
Repair Methodology	CCS Solution C
Time Duration (Days)	30

Stage 2- Villas 12-14

Area of Work (m²)	150
Total variance from datum	262mm
Foundation Type	Type C – Slab on Grade
Amount Lifted	218mm
Repair Methodology	CCS Solution C
Time Duration (Days)	27





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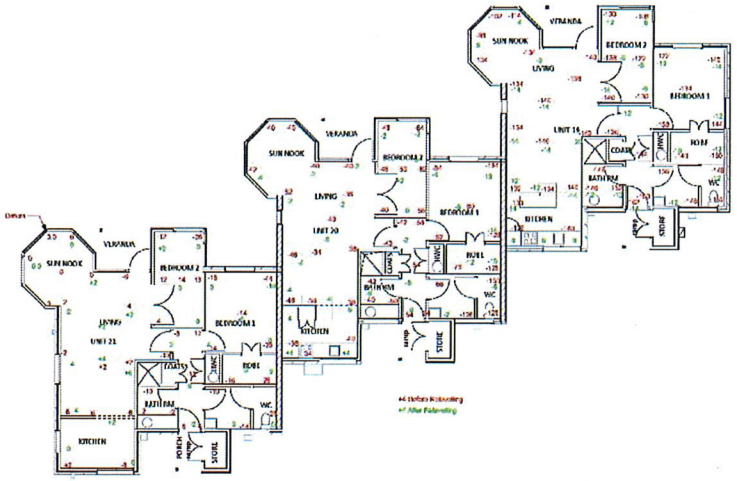
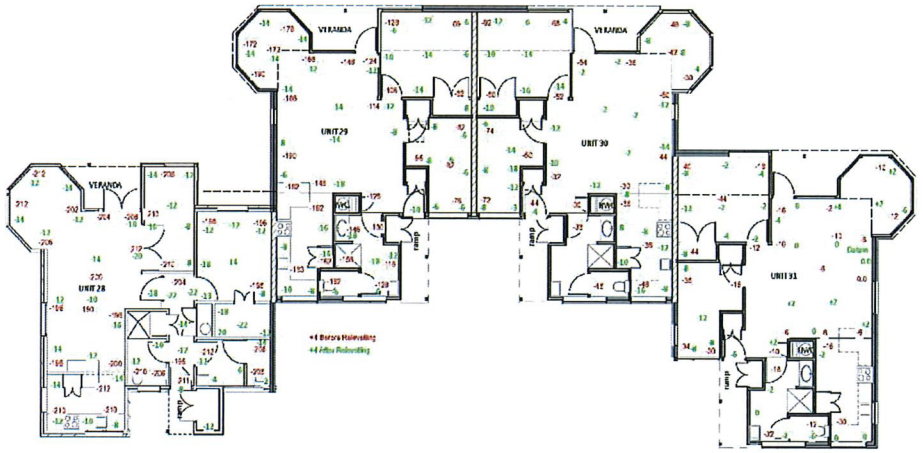
Stage 3- Villas 19-21

Area of Work (m²)	241
Total variance from datum	152mm
Foundation Type	Type C – Slab on Grade
Amount Lifted	140mm
Repair Methodology	CCS Solution C
Time Duration (Days)	22



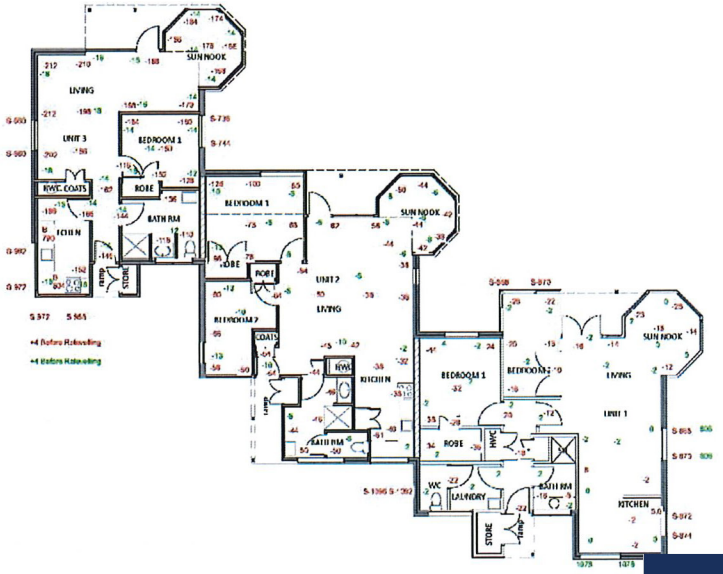
Stage 4- Villas 28-31

Area of Work (m²)	306
Total variance from datum	212mm
Foundation Type	Type C – Slab on Grade
Amount Lifted	200mm
Repair Methodology	CCS Solution C
Time Duration (Days)	32



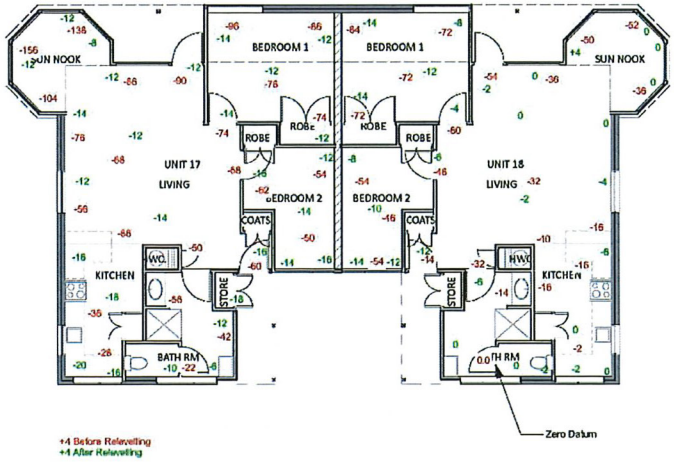
Stage 5- Villas 1-3

Area of Work (m^2)	215
Total variance from datum	212mm
Foundation Type	Type C – Slab on Grade
Amount Lifted	194mm
Repair Methodology	CCS Solution C
Time Duration (Days)	25



Stage 6- Villas 17 & 18

Area of Work (m^2)	152
Total variance from datum	156mm
Foundation Type	Type C – Slab on Grade
Amount Lifted	132mm
Repair Methodology	CCS Solution C
Time Duration (Days)	12



Stage 7- Villas 24-27

Area of Work (m^2)	152
Total variance from datum	156mm
Foundation Type	Type C – Slab on Grade
Amount Lifted	132mm
Repair Methodology	CCS Solution C
Time Duration (Days)	15