



# RAAF BASE WAGGA WAGGA

## CAM TRAINING CENTRE

### FOREST HILL NSW

Nuflow Albury Wodonga was contracted by Spotless Services to assess and reline major fractures and breaks in earthenware sewer and stormwater lines within the CAM Training Centre Building, in March 2012.

### CCTV SURVEY

Following an Engineers assessment of movement within building foundations and cracking within walls, sewer and stormwater lines had been surveyed with pipe cameras and no less than 14 pipeline defects within the same building were identified, all within and beneath the slab.

Particular problems were found in the male amenities block, within the centre of the building and adjacent to external walls. Four outlets on large urinal stall each had sheared off to approximately 50% misalignment causing major leaks at each flush as well as constant pungent urine smells throughout the room. Fractures were also identified within the slab beneath toilets, basin, beneath downpipes, a stack and vertical jump ups, each causing water leaks beneath these foundations.



### RESULTS AFTER RELINING

The project was carefully planned not only to minimise interruption to the facilities but to ensure a fast and effective solution was achieved. A team of four begun installing the liners at 9am and had each defect repaired successfully at lunchtime the following day. Entire building including bathrooms remained operational throughout this procedure, without any excavation, noise or mess.



### ALTERNATIVES

Alternative repair methods for problems to this magnitude would have come at enormous cost as well as interruption to building and downtime. Discussions with management mentioned entire renovation of the building was the only other alternative considered which had forecast a budget into the hundreds of thousands. This was avoided as Nuflow Albury Wodonga provided the best outcome by solving these serious problems in quick time saving their client up to \$200,000.

