



Project Overview

The new Australian Tropical Forest Institute (ATFI) complex at James Cook University Smithfield Campus was designed by Woodhead in collaboration with Power Graham and Dempsey and features specialised laboratories and a commercial research facility and a quarantine laboratory.

The complex covers an area of 3100sqm and includes conference facilities with break out rooms and offices.

Other features of the design include internal loading bays, cold and cool rooms, passenger lift, dumb waiter, plant rooms at all levels, compactus room with specific climate control, explosion-proof spirit storage room, offices for lease, kitchens, laboratory fume cupboards linked to a series of exhaust chimneys, PWD access and facilities at all levels, stainless steel gutter, handrails, downpipes, and level two reception areas.

Finishes incorporated curved floor vinyl designs, feature coloured walls, stainless steel wire balustrades and clear finish ash veneer doors with glass viewing panels.

The structure is of a rectangular design, two storeys high and staggered longitudinally across a sloping cut and fill site. An undercroft area was created for plant access, with the exposed earth cuts concreted with shotcrete for stabilisation.

The difference in levels, at roof height incorporates structural glazing which illuminates an internal atrium running the full length of the building at level two.

The main entrance is on the western end at level two, accessed via a bridge across a creek which leads to both stairs and a ramp structure. The bridge roof structure is supported on raking steel columns. A secondary access is linked from an adjacent existing building, and takes the form of another bridge made up of precast concrete elements, cantilevered across supporting columns and heads. This bridge connects at level two, remains flexible at both ends at the connection points, and allows vehicular and pedestrian traffic to pass beneath.

