

Project Summary

PROJECT NAME :	The Nursing Building	
LOCATION:	The University of Newcastle, Callaghan 2308	
CLIENT:	The University of Newcastle	
PROJECT CONTACTS:	Philip Pollard - client Peter Stutchbury - architect Doug White - EJE architect Rod Simpson - esd consultant AEC - environmental consultants	
DATE COMPLETED:	1997	
PROJECT SIZE:	Site:	130 Ha
	Building:	5000 m ²
	Total building cost:	\$6.8 M
PROJECT DESCRIPTION:	The building houses the university's faculty of nursing, a 450 seat theatre, academic offices, general office, teaching & staff spaces.	
ESTIMATED SAVINGS FROM ENVIRONMENTAL DESIGN:	Est., 100 - 200 Mwh/yr, \$5,000 - \$10,000/yr Note, other 5000m ² buildings on site consume 1,000 to 300 MWh/yr Mechanical services cost, \$0.675 M, (10% building) Note: includes \$0.180 M geothermal field 250KW capacity.	
NOTABLE ENVIRONMENTAL DESIGN / LIFE COSTING:	<p>LOW ENERGY PERFORMANCE OF BUILDING ENVELOPE:</p> <p>Building fabric and mass optimised for good thermal performance Controllable natural ventilation to offices assisted by wind and thermal buoyancy Shading strategies Daylight management including lightshelves and transfer panels</p> <p>LOW ENERGY MECHANICAL DESIGN FOR AUDITORIUM:</p> <p>Geothermal field heat rejection/retention Displacement air distribution concept Night purge operation for air conditioning Fresh air requirements sensor-adjusted to suit occupancy</p> <p>WATER MANAGEMENT MEASURES: (Note: water conservation measures not subject to cost analysis)</p> <p>Roofwater collection to supply wcs Water conservation devices on fixtures Stormwater runoff collected for irrigation</p>	