



WILLIAMSTOWN HIGH SCHOOL, BAYVIEW CAMPUS

IMAGE

Williamstown High School,
Bayview Campus
5 Star Green Star - Education Design
PILOT

PROJECT DATA

Owner

Victorian Government's Department of Education and Early Childhood Development

Location

Bayview Street, Williamstown, Victoria

School Size

Williamstown High School caters for 750 students in years 7-9, and employs 75 staff members on campus

Project scope

5,300sqm of new building, including classrooms, administration, gymnasium, canteen, horticulture facility and landscaping

PROJECT TEAM

Sustainability Consultant

Built Ecology and Spowers

Architect

Spowers

Construction

Devco

Structural/Civil engineer

JMP Consulting

Building Services

WSP

Landscape Architect

RushWright

Building Surveyor

Wilsmore Nelson

Hydraulics

CJ Arms

Project Facilitator

SCA Partners

Quantity surveyors

Donald Cant Watts Cork

The project at a glance:

- ▶ 5 Star Green Star –Education Design PILOT representing 'Australian Excellence'
- ▶ Cost of \$2,075 per square metre including fitout
- ▶ Exceptional learning facilities for students
- ▶ Healthier environment for both students and teachers
- ▶ Learning resource for the entire community
- ▶ Numerous sustainability awards

green building council australia



Education PILOT 2011

In 2005, the Victorian Government's Department of Education and Early Childhood Development, together with the local school community, committed \$11 million to redevelop Williamstown High School as a model for environmentally sustainable education. Research has shown that green schools can improve student performance across all academic fields, including increasing student progression by up to 20 per cent in mathematics and 26 per cent in reading, while improving student health by up to 41.5 per cent.

The investment has delivered a high quality and cost-effective development which provides a better and healthier learning environment for students and teachers and was awarded a 5 Star Green Star – Education Design PILOT rating. The cost of \$2,075 per square metre, which included all site works and the fitout, was within a standard school build budget; demonstrating that green schools can be good for the heart strings and the purse strings.

The school community and the Victorian Government had a three-point vision for Williamstown High School: to take up the challenge of providing for a sustainable future; to build a centre of excellence in environmental education and to instill pride and knowledge of Victoria's environment in students.

As College Principal, Lisa Sperling, explains: "Williamstown High School has a strong commitment to social justice and a passion to protect and improve our environment and our community. The new campus allows students to engage directly with contemporary environmental concerns in their everyday learning."

The finished product not only delivers on that vision, but has also challenged the notion that tight budgets and stringent design guidelines exclude school buildings from being inspiring and sustainable places of learning. This willingness to think outside the square earned the project extra publicity and ultimately led to the project receiving additional corporate sponsorship from Smorgan Steel, Nylex and BlueScope.

The initial show of leadership has resulted in Williamstown High School becoming a showcase school of the future, with sustainability features that improve learning outcomes, reduce resource consumption and enhance the local environment. These include measures to reduce indoor pollutant levels and create healthier learning spaces, incorporating energy saving features to reduce energy use and utility bills, and enhancing the local area through the expansion of the native wetland. Jenni Webster, Associate at Spowers, believes the most important benefit has been its impact on the students. "The greatest social dividend is the contribution this development has played in helping to educate, inspire and involve students in their local community and the wider environment," she says.

Ros Magee, Managing Director at Spowers, believes that in hindsight, the success of the school is even more remarkable. "Williamstown High School was designed before any Green Star tool was envisaged for educational facilities. It is a tribute to the school and the drive from the Department of Education that the environmental considerations were always integrated with the educational outcomes for the school."

"The continuing performance of the building is something in which we, at Spowers, are particularly proud. After all, it is the long-term sustainability of buildings that make them valuable, not what a design says. That is the merit of the project; it performs in use, not only in theory," he concludes.



WHAT WILLIAMSTOWN HIGH SCHOOL ACHIEVED:

INDOOR ENVIRONMENT QUALITY

Williamstown High School encompasses a range of features aimed at improving indoor environment quality to ensure students and teachers can work in a healthy environment that is ideal for learning. External views, shown to improve attention spans, reduce fatigue and even increase learning performance by 10 per cent, are available to 84 per cent of the usable floor area. This exceeds the Green Star requirement of 60 per cent, providing students with some of the highest quality classrooms in Australia.

The design of the school ensures that classrooms are well ventilated and circulate fresh air which, in combination with specifications of low-volatile organic compound (VOC) paints and furnishings, will provide students at Williamstown High School with cleaner air and healthier classrooms, especially beneficial to students with asthma and pollutant sensitivities.

MANAGEMENT

Williamstown High School has been constructed so the building itself is a learning resource for students. This concept informed every stage of the design process and has enhanced the final outcome. For example, the recycled reverse brickwork and the recycled timber atrium floor provide a practical, real-world demonstration of how materials can have a second life in new structures.

Hands-on engagement with sustainability has been incorporated into the curriculum with students able to explore the impact of their building on the atmosphere and local environment. What's more, they get a daily lesson in grassroots sustainability through the school's vegetable gardens and composting facilities.

LAND USE AND ECOLOGY

During the project, native wetlands in the area were rehabilitated and extended, and a Marine Education Centre constructed.

The wetland has been planted with indigenous coastal flora, and will provide an additional environmental benefit by retaining and cleaning stormwater runoff, thereby improving the quality of water entering Hobsons Bay and reducing the need for extra stormwater infrastructure. The wetland and Marine Education Centre also provide a new and unique learning resource for the school and the local community and improve the amenity of the surrounding area.

WATER AND ENERGY

Solar hot water and rainwater collection systems are some of the energy and water saving features that can now be found at Williamstown High School. Not only do these features deliver a 90 per cent reduction in the use of potable water and a 35 per cent reduction in energy consumption, they have also attracted a regular flow of school principals and company executives through the school to see first-hand what smart, sustainable design can achieve.

AWARDS

Green schools are more likely to attract grants, subsidies and other awards that demonstrate environmental stewardship, increase energy efficiency and reduce greenhouse gas emissions. In Williamstown High School's case, the community's commitment has been rewarded with the Premier's Sustainability Public Award in 2008, Best Secondary School and Best Overall School Design at the Victorian School Design Awards 2008 and the Sustainable Design Award at the National Interior Design Awards 2008.

