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An Australian Approach to School Design

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# An Australian Approach to School Design

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Designing a successful educational facility is predicated on ensuring the project is thoroughly understood during the critical briefing and design phases. A selection of contemporary school buildings in Perth illustrate exemplary designs.

Scotch College Science & Technology Centre, flexible learning areas – first floor
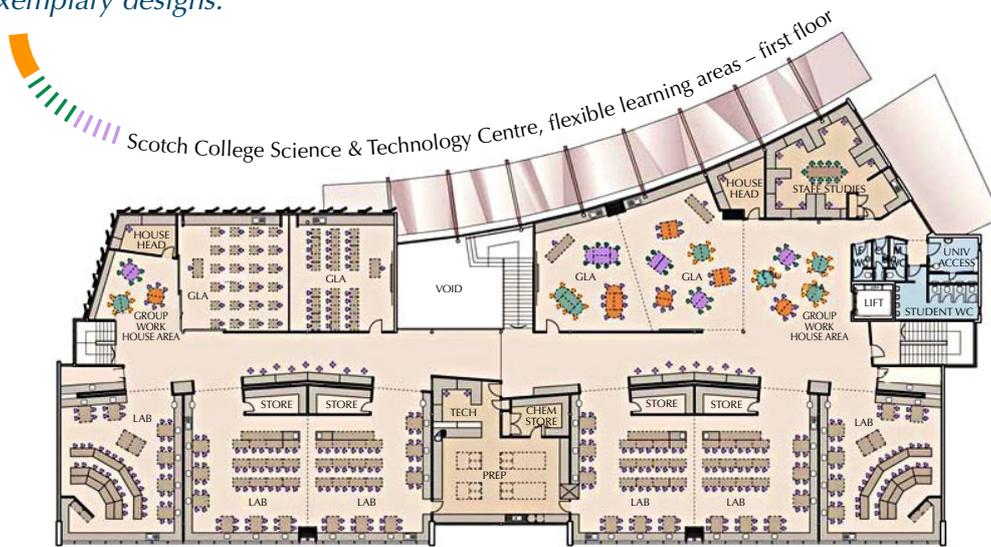
INTRODUCTION

Contemporary education design strongly emphasises stimulating, adaptable learning environments, with spaces able to support various styles of teaching and learning. Delivering successful school buildings requires a close collaborative relationship between the architect and all key stakeholders from initial briefing through to project handover.

Scotch College Dickinson Centre, contemporary performance space
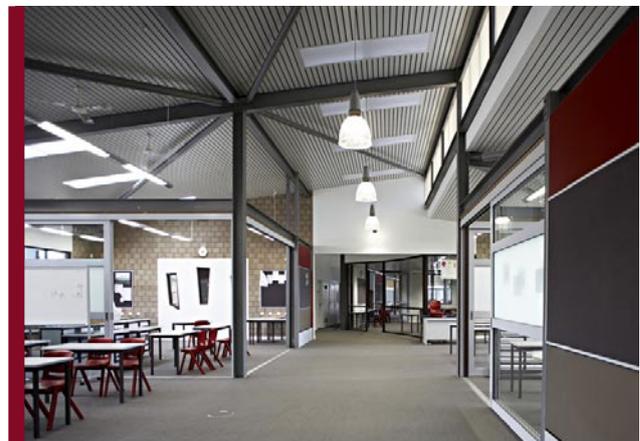
Gilmore College, middle school learning community – flexible spaces

The brief should identify the opportunities and challenges to create an exciting architectural solution which is functional, aspirational and contextually responsible.

The design should demonstrate adaptability and flexibility, maintainability, attention to siting, a culture of community, and sustainability.

The building programme and budget also require special attention.

The photographs throughout this article show a variety of examples of educational facilities in Perth, Australia, across both the primary and secondary levels. They demonstrate the role architecture can play in creating stimulating learning environments and communities of excellence.

THE BRIEF

Firstly, exploring and developing a comprehensive brief includes both functional requirements and aspirational goals. Functional and technical expectations can be clearly briefed, however the aspirational and inspirational aspects of the brief require a commitment from all stakeholders – the school, the parent body, other users and the consultant team – to explore and expand the boundaries.

Scotch College Science & Technology Centre, contemporary building adjoining existing buildings

Secondly, every aspect of the project – the facilities, the planning, the building form and structure, finishes, embedded technology, adaptability and flexibility, siting, and sustainability – needs to contribute to the effectiveness of the buildings in supporting, enhancing and contributing to the whole school environment.

Scotch College
Dickinson Centre,
views across campus

Gilmore College cafeteria, staff/student social space

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THE DESIGN

Adaptability and flexibility

Building requirements are constantly evolving and if a building is to meet the aspirations set down, it must be adaptable and flexible and allow for changes both to technology and to the demands and requirements of its user groups and the community in general.

Scotch College Upper Primary, boarding house recycled into contemporary learning environment

Maintainability

School facilities must withstand a high level of "wear and tear". Therefore materials and finishes need to be carefully selected to provide a low maintenance and robust physical environment.

Scotch College Dickinson Centre, pre-finished, low maintenance, robust materials

Siting

It is important to obtain a clear understanding of the context in which the new facility will exist amongst current buildings in the vicinity, since key aspects of the site have an impact on the facility's design. The design should be contextually responsive in relation to the immediately adjacent buildings; it should not copy existing architecture but take design queues where appropriate. While maintaining that relationship to the adjacent built environs, the facility should provide a contemporary design embracing cutting edge forms, materials and finishes.

A culture of community

When a new school building is designed, a community is also being formed. Learning occurs socially within a physical space and the design of that space is pivotal in encouraging a culture of participation in the learning process. In essence, the students interact as a community.

The size of this community is important and experience suggests that creating smaller learner groups within a building (and a school generally) is more conducive to fostering this sense of community.

Scotch College Science & Technology Centre, contemporary façade treatment – tonally compatible with adjacent buildings
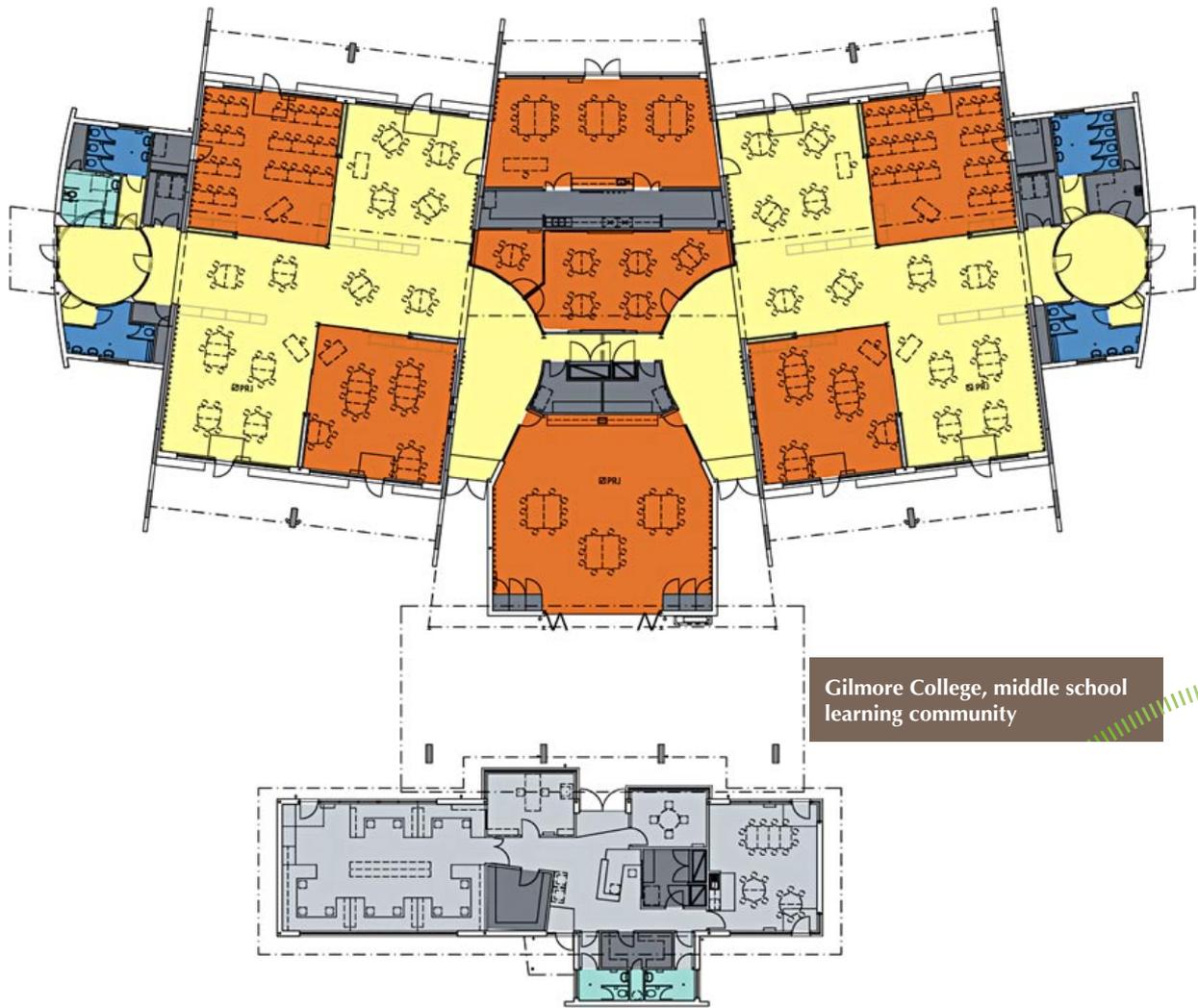
Gilmore College, middle school
learning community

Scotch College Upper Primary,
recycled 1960's building

Sustainability

A major consideration in today's energy conscious world is the design of a facility which is environmentally responsible. The facility should demonstrate a commitment to innovation and use passive design elements and active systems, materials, finishes and selections with the ultimate goal of eliminating any footprint on the environment. The refurbishment of existing buildings after they are no longer able to meet the needs of a modern curriculum is often a commercially and environmentally viable option for school decision makers.

Harmony Primary School,
environmentally sustainable initiatives

PROGRAMME

It is necessary to establish and maintain a programme for the procurement of any new facility, beginning immediately with milestones agreed with the school and key stakeholders.

In existing schools, it is important to determine the impact of a major building programme on the school's operation during the construction phase. Construction is disruptive and places stresses on staff and students. These questions should be considered: Will additional teaching spaces be required as an interim solution? Will building noise compromise student learning?

Will external breakout spaces be compromised during the construction phase?

BUDGET

One of the most significant factors in the successful delivery of any project is the building budget. Regular review is essential to ensure that the brief and the design match the budget.

A process to prioritise "must have", "nice to have" and "out of the question" should happen early in the design phase and be costed accordingly.

Costs should be kept under review by quantity surveyors when the brief is agreed, when schematic designs are prepared and during design development. A pre-tender estimate should also be prepared.

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