

# BUILDING AND ENVIRONMENT

The preservation and development of this World Heritage-listed architectural masterpiece, as famous as the people who perform in it, is of paramount importance to us and to the nation. Initiatives this year have all had this primary goal in mind, as well as the imperative of building an energy-efficient and sustainable environment.

Building a Better  
Sydney Opera House



## KEY OUTCOMES 2007/08

**A successful endeavour on the world stage,** management of the World Heritage Listing Project was awarded a Silver Premier's Award in the category of 'Growing Prosperity in NSW'.

**Moving closer to greater accessibility and amenities,** work on the \$38m Accessibility and Western Foyers Project continued. Total refurbishment of the Western Foyers has commenced, to be completed in nine separate phases. Phase 3, the upgrade of the western foyers, including The Playhouse and Studio bars and new southern toilet amenities, was completed this year. Other works commenced last year (including the large capacity lift connecting the Lower Concourse, Western Foyers and the Box Office) continued on schedule.

**More light with no increased energy usage** was the pleasing outcome of our upgrade to the concrete sloping beams on the southern side of the Vehicle Concourse. This was achieved through the use of new technology which results in automatic adjustment to light intensity, as required. This forms part of our holistic approach to lighting design in a Lighting Masterplan that was finalised this year and which will be progressively implemented as funding becomes available.

**With a planned outcome of increased access and a better customer experience,** drafting commenced on a comprehensive Access Masterplan. Our Architects, including Jan Utzon, Conservation and Heritage consultants, access experts and staff came together for this, so that every aspect could be both tabled and considered. A major inclusion was a methodology for assessing access design solutions within conservation and heritage frameworks. The Access Masterplan will become the design guide for all new access upgrades within the public, presenter, business partner and staff areas. This work has already assisted current projects such as the Accessibility and Western Foyers Project.

**Achieving or bettering planned deadlines,** three major projects were completed to make our building safer (fire services and smoke management upgrades and fire compartment around the Green Room). Other major maintenance projects undertaken this year was the upgrade of one of the sub main electrical distribution boards that service the southern end of the site; a 30,000 hour major overhaul to the main air-conditioning chillers and commencement of the implementation of the 10-year Carpet Replacement Strategy program.

**With performance-based contract management,** we undertook the annual review of our Building Maintenance contract and Cleaning contract with a fourth contract year being awarded to United Services Group and Cleanevent, respectively. Three new performance-based contracts were awarded during the past 12 months: HVAC operation and maintenance (Hastie Services); Stage Automation equipment maintenance (State Automation); and Lifts and Escalators comprehensive maintenance (ThyssenKrupp

Elevators). Finally, our research project, 'Adopting BIM for Facilities Management' was named industry Project of the Year by the Association of Consulting Engineers.

**With a target score of 80% set for this year and for next,** daily inspections of the building under our Building Fabric Index (BFI), established in 2005, resulted in an average score of 83% (versus 84% for 2006/07 and 78% for 2005/06). Engaging staff across the organisation for the first time, daily inspections under our Building Presentation Index (BPI) resulted in an average score of 82% (the same as for the previous two reporting years).

**22 projects reached completion this year, part of the three-year Information Systems Strategic Plan,** approved by the Trust in 2006. Increased systems stability and capability were achieved via a number of initiatives. These included: launch of our new sydneyoperahouse.com website, which is both more accessible and able to handle increased traffic and ticket sales; a business continuity centre for customer facing systems were completed and tested; aging data-base servers were consolidated and replaced and our overall Information Security Management was strengthened.

**A cleaner environment, a sustainable business and a reduction in both our ecological footprint and our costs are ambitious, yet achievable,** ongoing aims. We created a sustainability group of building development and maintenance staff, contractors and consultants whose focus is on the technical aspects of these aims, including hot water usage, air-conditioning efficiency, waste minimisation and recycling. Water and energy plans have been produced and the energy plan has been submitted to Government, with the recommendations reviewed and progressively implemented. The following was achieved this year in three key areas:

### Energy Management

**We completed an assessment of water usage that will feed into our Water Savings Action Plan** and will look to implement key findings from this audit. The first phase of the Lighting Master Plan, with sunrise/sunset automated technology was installed for all external lighting. Thermostatic mixing valves were replaced and additional sub-metering was installed to improve monitoring of significant energy use equipment. To better understand our total current usage, the metering network has been expanded to remote sites. We maintained a 'green' component of 6% in our energy contract and our energy use profile was reassessed during the year, resulting in the identification of a number of energy saving initiatives under an Energy Management Strategic Plan. Seven initiatives under this are due for implementation over the next 12 to 18 months.

### Waste and Recycling

**A series of waste audits has enabled us to identify current diversion rates,** areas for improvement and to refine strategies for waste collection, removal, and procurement. An action plan defined targets for waste generation and recycling, with a contract for two years awarded to Cleanevent for implementation of the WRAPP report recommendations and to generate and coordinate a waste management system that will minimise waste and increase resource recovery. A commingled recycling service was made available to onsite caterers to increase the amount of recycling from waste in these areas, with sorting after collection. Recycled waste was increased by 21%, resulting in 27% of the total waste we produce now being recycled.

### Sustainability, energy and water-saving initiatives

**Water-efficient shower heads and waterless urinals** were installed in a dressing room as a trial, with the aim to reduce water consumption. Motion sensors for power requirements continue to be installed in meeting rooms and offices and staff participated in a sustainability workshop hosted by the City of Sydney for business and government leaders, in which the Council presented a plan for a sustainable city. Outcomes of the workshop were refined and presented to a public forum late in 2007.

### The Year Ahead

- Construction of two sets of escalators to the Concert Hall and Opera Theatre southern foyers (by mid 2009).
- Remaining works on the Accessibility and Western Foyers Project to be completed including finalisation of the new large capacity (by early 2009).
- Further development to the Access Masterplan, focusing on presenter and staff areas.
- Development of a Forecourt Masterplan.
- New Manager, Sustainability & Energy, to be appointed to lead, manage and integrate the development and implementation of energy management and sustainability initiatives organisation-wide.
- A planned replacement of our voice infrastructure.
- Further energy saving initiatives, including strategy development for greater efficiency in chiller operation, a revised approach to venue and Box Office air-conditioning, further automation to lighting, improvement to maintenance practices, introduction of energy-efficient motors.