Australian Customs Service Container Examination Facility

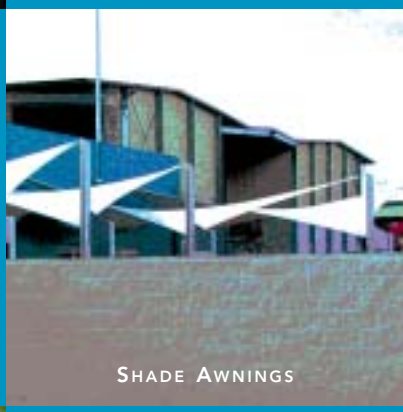
Natural Ventilation

Our **Vision** is to be "Australia's leading port: positioned for the future".

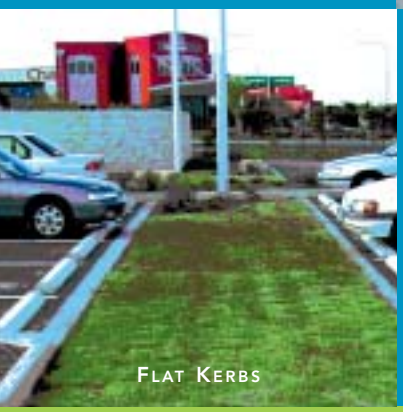
Natural Lighting

Vegetated Swale Drain

We will achieve this by being a **Leader** of change, working with those developing on port land to adopt creative approaches to traditional urban-industrial development.



Shade Awnings



Flat Kerbs

Part of our **Contribution** is to inspire new developments on port land to adopt the principles of sustainable development.

Native Vegetation

This fact sheet details the various design approaches integrated into the Australian Customs Service Container Examination Facility at the Port of Brisbane.

It highlights the key features of and direct benefits for the facility and the surrounding receiving environment, realised through the adoption of a sustainable approach to development.

The Port of Brisbane Corporation is committed to sustainable development on port land. The Customs facility highlights what can be achieved and is an example for all future port development.

Environment Economy People Process Community

PORT OF BRISBANE CORPORATION

The Australian Customs Service Container Examination Facility sets a benchmark for sustainable design features

Sustainable Design Features

- > Water Sensitive Urban Design
- > Natural Ventilation
- > Strong Use of Natural Lighting

The Australian Customs Service Container Examination Facility and administration centre on Fisherman Islands have set a new benchmark for sustainable design features for new development at the port. The Customs facility has incorporated various Water Sensitive Urban Design features, including:

- > Flush kerbs
- > Landscaped grass swales
- > Native landscaping
- > 'Catchment' hardstand/pavement areas

The success of the design has resulted in a number of traditional 'hard' engineering solutions, such as stormwater treatment devices, not being required on the site – saving both construction time and money.

Water Sensitive Urban Design promotes a balanced approach to water cycle management – the right applications (a range of concepts and technologies) in the right locations (site conditions and constraints) to achieve sustainable outcomes (conservation and protection of natural resources).

PRINCIPLES OF WATER SENSITIVE URBAN DESIGN

- > Protect natural systems
- > Protect and enhance natural water systems within urban developments
- > Integrate stormwater treatment into the landscape
- > Use stormwater in the landscape by incorporating multiple-use corridors that maximise the visual and recreational amenity of developments
- > Protect water quality
- > Protect the quality of water draining from urban development
- > Reduce run-off and peak flows
- > Reduce peak flows from urban development by local detention measures and minimising impervious areas
- > Add value while minimising development costs
- > Minimise the drainage infrastructure cost of development

Source: Urban Stormwater, Best Practice Environmental Management Guidelines, Victorian Stormwater Committee, 1999

The Port of Brisbane Corporation actively promotes Water Sensitive Urban Design features in all new developments to assist with the protection and conservation of precious water resources.

The Customs facility has also used smart building design to assist with:

MAXIMISATION OF NATURAL VENTILATION

through the use of non-electric roof vents throughout the design.

MAXIMISATION OF NATURAL LIGHTING

through the use of clear polycarbonate roof sheeting.

PROJECT SUMMARY

KEY FEATURES	BENEFITS
WATER SENSITIVE URBAN DESIGN	
Flush kerbs	Stormwater directed towards and used in landscaping areas, rather than discharged directly into traditional side entry pits
Landscaped swale drains	Water retained on site longer, reduced site discharge
Native landscaping	Reduced potable water demand
'Catchment' hardstand/ pavement areas	Ability to break up large flows across site and direct into vegetated swales
NATURAL LIGHTING	
Use of clear roof sheeting; zoned lighting system including photo electric cells	Reduces demand for electricity, (lighting etc.); indirectly reduces CO_2 emissions
NATURAL VENTILATION	
Use of roof vents	Reduces demand for electricity (air conditioning, fans etc.); indirectly reduces CO_2 emissions

FOR FURTHER INFORMATION:

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