

What is Green Building?

Green Building Centre
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Green Building uses practices and products that are environmentally responsible and resource efficient throughout a building's lifecycle. This includes a building's siting, design, construction, operation, maintenance and deconstruction. It also considers liveability, affordability, durability and adaptability.

Building, renovating, and living this way

- conserves energy, water and other resources
- reduces waste, pollution and environmental impact
- enhances the health of those living and working in the building

Key Areas

SITING AND DESIGN

Passive solar design is the first strategy in green building. Passive solar design means your house will be comfortable all year round in most climates whilst minimising the need for artificial heating or cooling. Avoiding west facing orientation, designing for natural ventilation, strategic use of insulating building materials and thermal mass, as well as awareness of the capacity of different surface textures and finishes to capture or reflect heat are the key elements to be considered in the siting and design stage.

REDUCING ENERGY CONSUMPTION

Reducing energy consumption and living comfortably is the goal of passive solar design. However reducing energy consumption is also the focus of many other aspects of green building. Choosing materials with low embodied energy, using recycled materials, installing solar or other renewable power sources, and using energy efficient appliances mean a further reduction in the carbon footprint of a building - both in its construction and ongoing use by occupants.

REDUCING WATER CONSUMPTION

Water is a precious natural resource. Efficient use and recycling of water throughout the building and landscape should be considered part of green building practice.

REDUCING WASTE AND TOXIC POLLUTION

Waste and toxic pollution of our environment are currently big environmental problems. Choosing re-cycled, non-toxic, non-polluting or natural materials, finishes and furnishings reduces the environmental impact of a building. These materials, finishes and furnishings are ideally considered in terms of their whole life cycle – from manufacture and use, through to disposal or recycling and to be included in waste management plans. Training trades people to avoid waste and toxic dumping are also a part green building.

LIVEABILITY, DURABILITY AND AFFORDABILITY

Creating buildings that are healthy, durable and affordable for people to live and work in is a key consideration in green building. Here such things as insulation and passive solar design, good ventilation, breathable materials and finishes that are mould resistant and free of volatile organic compounds (VOCs) are important health factors that should be considered along with durability and affordability.

INNOVATIVE MATERIALS, DESIGNS AND IDEAS

Innovative new products, designs and ideas that are ecologically and socially responsible and give high performance outcomes, inspire and motivate us. Incorporating these new ideas or contemporary remakes of old methods in a building creates a positive social impact and encourages the positive evolution of humanity in a sustainable direction.

Further links: <https://www.basix.nsw.gov.au/basixcms/basix-help-notes/energy/design-principles-energy.html>