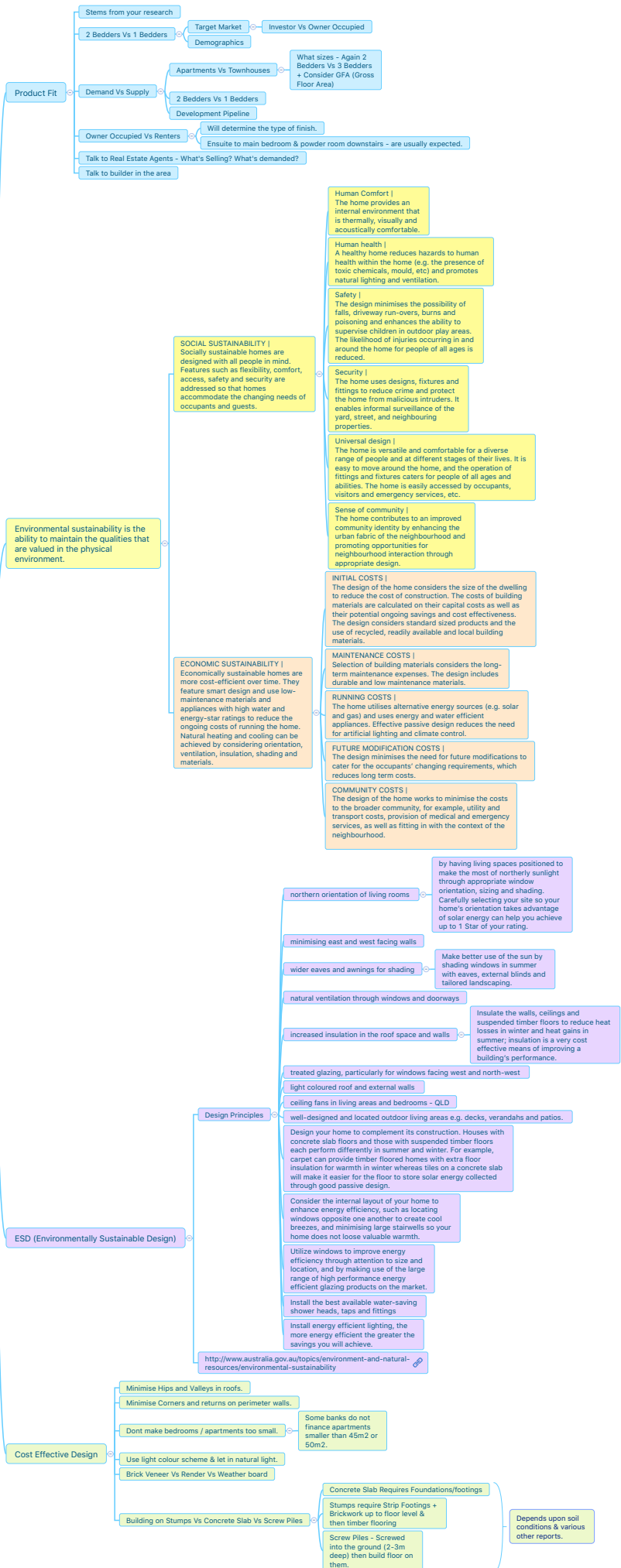


PROPERTY DEVELOPMENT SYSTEM

Design & Product Fit





Environmental sustainability is the ability to maintain the qualities that are valued in the physical environment.

INITIAL COSTS |

The design of the home considers the size of the dwelling to reduce the cost of construction. The costs of building materials are calculated on their capital costs as well as their potential ongoing savings and cost effectiveness. The design considers standard sized products and the use of recycled, readily available and local building materials.

MAINTENANCE COSTS |

Selection of building materials considers the long-term maintenance expenses. The design includes durable and low maintenance materials.

RUNNING COSTS |

The home utilises alternative energy sources (e.g. solar and gas) and uses energy and water efficient appliances. Effective passive design reduces the need for artificial lighting and climate control.

FUTURE MODIFICATION COSTS |

The design minimises the need for future modifications to cater for the occupants' changing requirements, which reduces long term costs.

COMMUNITY COSTS |

The design of the home works to minimise the costs to the broader community, for example, utility and transport costs, provision of medical and emergency services, as well as fitting in with the context of the neighbourhood.

ECONOMIC SUSTAINABILITY |

Economically sustainable homes are more cost-efficient over time. They feature smart design and use low-maintenance materials and appliances with high water and energy-star ratings to reduce the ongoing costs of running the home. Natural heating and cooling can be achieved by considering orientation, ventilation, insulation, shading and materials.

SOCIAL SUSTAINABILITY |

Socially sustainable homes are designed with all people in mind. Features such as flexibility, comfort, access, safety and security are addressed so that homes accommodate the changing needs of occupants and guests.

Human Comfort |

The home provides an internal environment that is thermally, visually and acoustically comfortable.

Human health |

A healthy home reduces hazards to human health within the home (e.g. the presence of toxic chemicals, mould, etc) and promotes natural lighting and ventilation.

Safety |

The design minimises the possibility of falls, driveway run-overs, burns and poisoning and enhances the ability to supervise children in outdoor play areas. The likelihood of injuries occurring in and around the home for people of all ages is reduced.

Security |

The home uses designs, fixtures and fittings to reduce crime and protect the home from malicious intruders. It enables informal surveillance of the yard, street, and neighbouring properties.

Universal design |

The home is versatile and comfortable for a diverse range of people and at different stages of their lives. It is easy to move around the home, and the operation of fittings and fixtures caters for people of all ages and abilities. The home is easily accessed by occupants, visitors and emergency services, etc.

Sense of community |

The home contributes to an improved community identity by enhancing the urban fabric of the neighbourhood and promoting opportunities for neighbourhood interaction through appropriate design.

ESD (Environmentally Sustainable Design)

Design Principles

northern orientation of living rooms

by having living spaces positioned to make the most of northerly sunlight through appropriate window orientation, sizing and shading. Carefully selecting your site so your home's orientation takes advantage of solar energy can help you achieve up to 1 Star of your rating.

minimising east and west facing walls

wider eaves and awnings for shading

Make better use of the sun by shading windows in summer with eaves, external blinds and tailored landscaping.

natural ventilation through windows and doorways

increased insulation in the roof space and walls

Insulate the walls, ceilings and suspended timber floors to reduce heat losses in winter and heat gains in summer; insulation is a very cost effective means of improving a building's performance.

treated glazing, particularly for windows facing west and north-west

light coloured roof and external walls

ceiling fans in living areas and bedrooms - QLD

well-designed and located outdoor living areas e.g. decks, verandahs and patios.

Design your home to complement its construction. Houses with concrete slab floors and those with suspended timber floors each perform differently in summer and winter. For example, carpet can provide timber floored homes with extra floor insulation for warmth in winter whereas tiles on a concrete slab will make it easier for the floor to store solar energy collected through good passive design.

Consider the internal layout of your home to enhance energy efficiency, such as locating windows opposite one another to create cool breezes, and minimising large stairwells so your home does not lose valuable warmth.

Utilize windows to improve energy efficiency through attention to size and location, and by making use of the large range of high performance energy efficient glazing products on the market.

Install the best available water-saving shower heads, taps and fittings

Install energy efficient lighting, the more energy efficient the greater the savings you will achieve.

<http://www.australia.gov.au/topics/environment-and-natural-resources/environmental-sustainability> 