

# Barriers and Incentives to Residential Development – District Plans

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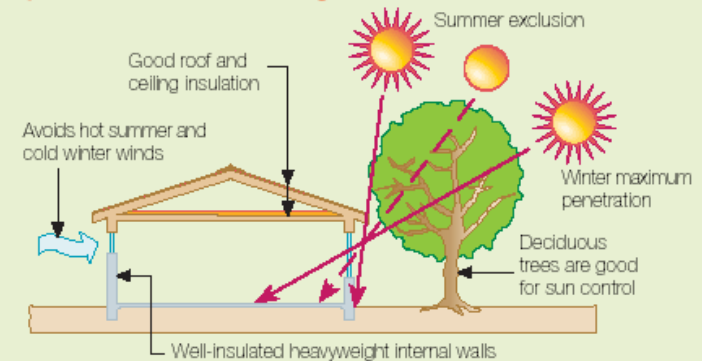
# Case Studies

- Auckland City Council
- Hamilton, Kapiti-Coast, and Christchurch
- Focus on District Plans
- Growth pressures both greenfield and greenfield and infill
- Desire to promote sustainable development

# Sustainability Features

- Passive solar design
- Rainwater tanks
- Swales, rain gardens
- Greywater reuse
- Recycling / compost
- Cycle storage
- Pedestrian focus
- Minimum earthworks
- Minimum impervious area

## How passive solar heating works:



## District Plans

- Greatest influence at neighbourhood and neighbourhood and community level level
- Traditional development controls
- Existing provisions encouraging features features
- Recent initiatives (i.e. Comprehensive Comprehensive residential development development)

## Potential Barriers / Conflicts:

- Activity status (notification)
- Alternative energy source
- Maximum noise standards
- Development controls
- Minimum parking standards
- Urban service requirements
- Minimum lot size / dimensions
- Inflexibility of rules
- Ability to weigh up positive effects
- Designing to comply

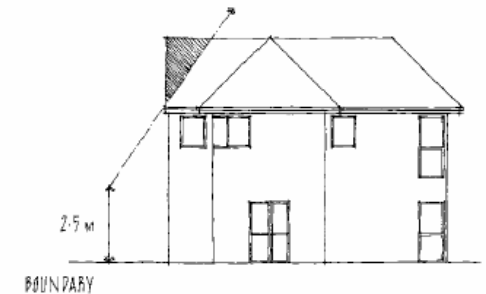


Diagram 5A

## Advice: Eco-advisors

- Provide residential home buildings with with info on sustainable building practices:
  - reducing your energy bill
  - reducing your water use
  - better water and waste management
  - careful material choices
  - improved indoor air quality
- Kapiti Coast, Hamilton, Waitakere
- Funded by BRANZ



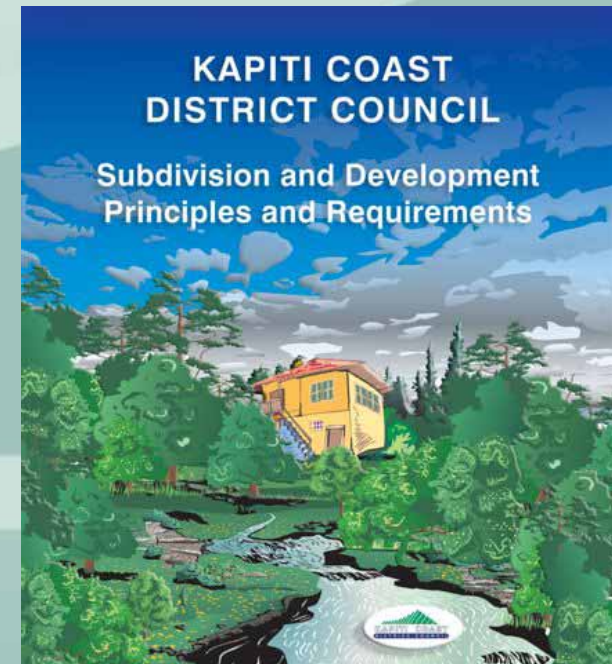
# Design Guide: North Shore - Good Solutions Guide

- Non-regulatory guideline
- Apartments and Medium Density
- Identifies better design practice - for  
for example Water Conservation:
  - Install water efficient appliances
  - Install water meters
  - Consider rainwater tanks for non-potable  
potable supply
  - Avoid in-sink waste disposals
  - Avoid building materials that contaminate  
contaminate the environment



# Design Guides: Kapiti Coast – Sustainable Development

- Code of Practice
- Traditional and alternative routes routes for provision of infrastructure infrastructure
- Encourages use of alternative design approaches
- Design and review team

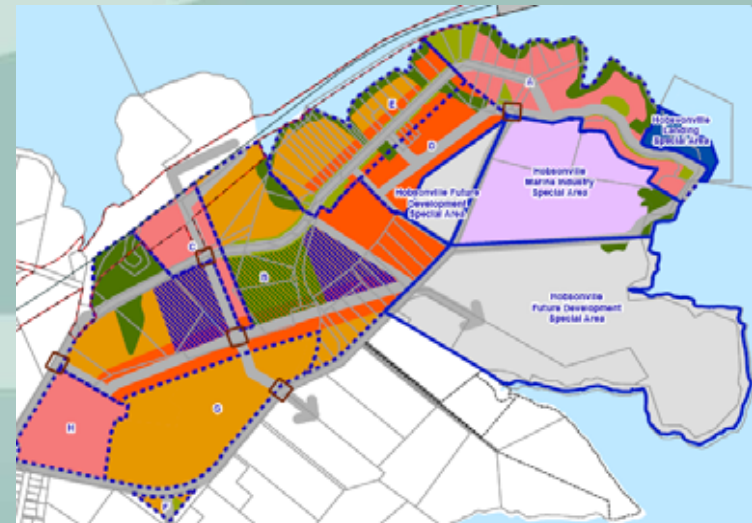


# Policy Framework: Christchurch

- Seeks to minimise energy use through improved building design
- Factors identified that contribute include density and layout of subdivision subdivision
- Achieved primarily through height and recession planes
- Applicability for non-complying consents consents

# Comprehensive Development Plans: Waitakere - Hobsonville

- Hobsonville Airbase - Proposed Plan Plan Change 13
- Requires CDPs for precincts
- Criteria requires design guidelines to to achieve sustainable urban development
- General assessment criteria



# Guidelines: Auckland – Residential Design Guide

- Applies to intensive development in Res 8 zone, zone, 4+ units in Res 6 & 7
- Triggered by discretionary resource consent consent
- Key element around Energy Efficiency

## CRITERIA

- C1 The design, orientation and layout of developments should encourage energy efficiency.
- C2 Development should take advantage of opportunities for natural ventilation, daylight admission and solar energy.
- C3 Developments should be designed and materials selected to reduce winter heat loss and make use of solar energy.
- C4 Developments should be designed to be flexible, to accommodate a variety of uses over time.
- C5 Developments should provide facilities for recycling of household waste as detailed in Element 11 Site Facilities.
- C6 Developments should be designed to contain materials that minimise resource use and consumption.

# Assessment Criteria: Auckland – District Plan CBD

- Plan change 1 (Victoria Quarter Quarter)
- Resource Management Strategy Strategy
- Triggers for require consents as consents as restricted discretionary and restricted controlled
- Specific assessment criteria

## 14. Sustainability

- a) Buildings should be designed to be sustainable through the use of durable low maintenance materials inert exterior cladding (avoiding the use of materials containing copper or zinc), maximising solar access and natural ventilation and the incorporation of mechanical and electrical systems that optimise energy efficiency.
- b) Where appropriate, on-site landscaping should consist of indigenous vegetation.
- c) On-site stormwater conservation measures should be incorporated where appropriate including rainwater harvesting devices, green roofs, site landscaping, rain gardens and wetland treatment systems and stormwater planter boxes (subject to soil contamination considerations).

# Allowances - Newcastle City Center Local Environmental Plan

- Requires all development to obtain consent
- Schedule of exempt development with specific standards
  - Solar and wind generation generation
  - Water tanks
  - Dwelling orientation

Water tanks	Number	
Installation and use of above ground water tanks	Siting	<ul style="list-style-type: none"> <li>• Maximum of one tank per dwelling</li> <li>• Not located between the dwelling and the street alignment</li> <li>• Located wholly within the boundaries of the allotment</li> <li>• At least 0.6 metres from any property boundary</li> <li>• At least 1 metre from any sewer main</li> <li>• Does not encroach on any easement, pipeline or watercourse</li> </ul>
	Dimensions	<ul style="list-style-type: none"> <li>• Maximum height of 2.4 metres above existing ground level</li> <li>• Maximum capacity of 5,000 litres</li> </ul>
	Connection	<ul style="list-style-type: none"> <li>• Is not interconnected with a reticulated water supply provided by Hunder Water Corporation</li> </ul>
	Drainage	<ul style="list-style-type: none"> <li>• Overflow is connected to a stormwater drainage system</li> </ul>

# Financial Incentives: Auckland City – Rainwater tank rebate

- Development contributions policy policy 2007
- Stormwater charges \$1340 per per Household Unit Equivalent Equivalent
- Partial remission of \$1000 for rainwater tank

# Standards: North Shore – Onsite Stormwater Management

- Proposed Plan Change 22
- Permitted standard provided dual purpose rain tanks and bio-retention retention installed
- Working towards standard solution solution
- Includes allowances

