

The GREENY FLAT Experiment - Can we build a small, energy-positive, infill house for an affordable price?

GREENY FLAT GOALS AND STRATEGIES								
Project Goals →	Energy Positive	Affordable	Low-Maintenance	Water Conserving	Fire Resistant	Elderly Friendly	Healthy	Sustainable
Strategies	PART 1 - ENERGY CONSERVATION	INITIAL CONSTRUCTION	No wood on exterior	Rainwater harvesting	No wood on exterior	Low running costs	INDOOR AIR QUALITY	Small size, simple shape
	Small size, simple shape	Small size, simple shape	No paint on exterior	Town water backup	No eave vents	Low maintenance	Fresh air intake under slab	Energy conservation
	Passive Solar Design = warm in winter/cool in summer	Readily available materials	Durable materials and finishes	Automatic switching device keeps tank as empty as possible	Steel cladding and porch frames	Covered and ramped access to both front and rear doors	Continuous low-flow exhaust ventilation	Resource conservation
	North aspect	Simple finishes	Concrete floors	= maximum potential for collecting rainwater	No voids under house or decks where leaf litter or cinders can accumulate and ignite	Minimum steps	Bathroom and kitchen exhaust fans to expell stale, humid air	INFILL HOUSING
	Window placement	Reclaimed materials	Treated timber frames		Grab rails	Small and easy to clean	Low or zero VOC materials and finishes	Utilises already developed land
	Room layout	ONGOING COSTS OPERATION AND MAINTENANCE	Steel cladding	Aluminium windows	Easy clean gutters	Lever handles on doors and taps	Wide doorways	Close to services, amenities and public transport reduces driving
	Double insulation		"Ecoply" interior walls			Low-flow fixtures		
	Double glazing with ins blinds		Energy conservation			Low-water use appliances		
	Air tightness	Low maintenance	Metal trim	Short plumbing runs	Pre-plumbed for possible future greywater system.	Raised garden beds	Water conservation	
	Thermal mass floor	Durable materials	Accessible plumbing and electrical systems					
	Summer shading	Water conservation	Deconstructable, reusable, and recyclable materials	Close to services and amenities	Low-water use landscaping		Local materials and suppliers	
	Landscaping							
	Solar Hot Water							
	Low-flow plumbing fixt.							
	Efficient electrical fixt.	Close to services and amenities					Recycled and reclaimed materials	
	Short plumbing runs							
Natural lighting								
Clothes lines								
PART2 - ENERGY PRODUCTION	3Kw Solar Power system.					Deconstructable and recyclable materials and building methods		