

# BedZED Beddington Zero Energy Development

Hackbridge, Sutton, U.K.



Photo from ZEDfactory.com

**Size:**

100 Homes

**Dates:**



2000 – 2003






**Project Team:**

Peabody Trust, BioRegional Development Group, Bill Dunster Architects

**BedZED is a brownfield development that contains a mixed-use sustainable community with residential, office, and community spaces.** It is a zero-carbon development that encourages a lifestyle dedicated to reducing electricity, heating, water, and fossil fuel transportation demands.

## Goals & Strategies

 Place	
<b>Food</b>	<p><b>Goals:</b> Promote a local food network.</p> <p><b>Strategies:</b> Farmers market, walking distance to community garden.</p>
<b>Habitat</b>	<p><b>Goals:</b> Increase biodiversity in the area.</p> <p><b>Strategies:</b> Garden plots, balcony gardens, green roofs, reed wetland for wastewater filtration.</p>
<b>Transportation</b>	<p><b>Goals:</b> 50% reduction in resident vehicle mileage.</p> <p><b>Strategies:</b> Car sharing, bicycle infrastructure. Walking paths between units. Vehicle parking on the periphery. Proximity to public transportation.</p>
 Water	
<b>Water</b>	<p><b>Goals:</b> Hot water consumption reduced by 33%. Potable water consumption reduced by 33%. On-site water treatment.</p> <p><b>Strategies:</b> Water-efficient appliances. Water meters that monitor consumption. Resident education. Biofiltration gardens that filter blackwater into greywater for use in non-potable applications.</p>

 <b>Energy</b>	
<b>Energy</b>	<p><b>Goals:</b> Zero-carbon development. 90% reduction in space heating needs. Generation of energy on site.</p> <p><b>Strategies:</b> Passive solar heating. Passive ventilation and heat exchangers. District hot water. PV arrays. Energy efficient appliances. Monitored performance.</p>
 <b>Health + Happiness</b> (Details not provided by researchers)	
 <b>Materials</b>	
<b>Embodied Energy &amp; Carbon</b>	<p><b>Goals:</b> Use low embodied energy materials and construction practices.</p> <p><b>Strategies:</b> 52% of materials were sourced within 35 miles. 15% of construction materials were reclaimed or recycled products.</p>
<b>Waste</b>	<p><b>Goals:</b> 30% waste reduction.</p> <p><b>Strategies:</b> Encourage recycling.</p>
 <b>Equity</b>	
<b>Neighborhood &amp; Access</b>	<p><b>Goals:</b> 25 – 50% affordable units.</p> <p><b>Strategies:</b> Variety of housing options.</p>
<b>Access to Nature</b>	<p><b>Goals:</b> Goals not defined.</p> <p><b>Strategies:</b> Outdoor spaces and gardens connected to homes. Outdoor seating area.</p>
<b>Access to Community Services</b>	<p><b>Goals:</b> Goals not defined.</p> <p><b>Strategies:</b> Shared public square and sports fields. Community center, sports area.</p>
 <b>Beauty</b>	(Details not provided by researchers)

> See next page for Performance Levels achieved

**Performance Levels Achieved:**

	Standard	Good	Better	Living	Regenerative
<b>Place</b>					
Limits to Growth					
Food					
Habitat					
Transportation					
<b>Water</b>					
<b>Energy</b>					
<b>Health + Happiness</b>					
Civilized Environment					
Neighborhood Design					
Biophilia					
Resilient Connections					
<b>Materials</b>					
Material Plan					
Embodied Energy & Carbon					
Waste					
<b>Equity</b>					
Neighborhood & Access					
Access to Nature					
Access to Community Services					
Investment					
<b>Beauty</b>					
Beauty & Spirit	Not specified				
Inspiration					

**Sources:**

<http://www.ecobicester.org.uk/cms/content/north-west-bicester#XhZGfC2ZNUN>

*\*Note: This case study was developed using found information.*

**21st Century Development** is a model for the creation of regenerative communities that strives to provide a healthy environment for all people and living systems now and in a dynamic future.

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