

Circular Building

What is Circular Building? The concept of creating buildings with longevity and material reuse in mind while aiming to eliminate waste from construction. This can be achieved through many methods including the use of durable and reusable materials, using mechanical connections instead of adhesives, and designing for simple repairs.

Buildings as Material Banks

Reimagining buildings as storage for valuable reusable materials reduces the need for harmful extraction of virgin materials and reduces the risk of resource scarcity. One way to encourage resource recovery in demolition is through material passports that keep track of all of the materials that go into a building. This helps eliminate waste, making it easier to recover the materials at the end of the buildings life. [Source](#)

Building Materials

Through careful planning of materials, waste can be avoided beginning in the design stage. For example, the Israeli company Kite Bricks has designed bricks made of high strength concrete that allow for the construction of ecological structures, offering large savings in heating, cooling, and energy. These bricks reduce the need for raw materials and are designed to be easily joined together with open internal spaces for infrastructural elements, simplifying repairs. [Source](#)

Sharing Spaces

Sharing spaces maximizes asset utilization, requiring less resources to deliver the same function. Asset owners can rent out under-used spaces and share facilities to reduce the demand for space while also saving money. Co-living is rising in popularity as well, creating low-cost homes with many communal areas, housing more people in less space. [Source](#)

Carbon Neutral Buildings

Shifting towards buildings that are zero energy and carbon neutral helps reduce the impact that a building has on the environment during its lifetime. The Dutch company Sustainer Homes has created a customizable modular construction process for carbon neutral buildings that can be fully off grid, using solar panels to create energy. [Source](#)

