Activity #1 - LEED Green Associate

In the United States, buildings account for:

14% of potable water consumption

30% of waste output

40% of raw materials use

38% of carbon dioxide emissions

24% to 50% of energy use

72% of electricity consumption

Green building pursues solutions that represent a healthy and dynamic balance between environmental, social, and economic benefits.

The triple bottom line concept incorporates a long-term view for assessing potential effects and best practices for three kinds of resources:

\_\_\_\_\_\_\_\_\_\_\_\_ (Social Capital)

\_\_\_\_\_\_\_\_\_\_\_\_ (Natural Capital)

\_\_\_\_\_\_\_\_\_\_\_\_ (Economic Capital)

The term externalities is used by economists to describe costs or benefits incurred by parties who are not part of a transaction.

The goal of LEED is market transformation—to fundamentally change how we design, build, and operate buildings and communities—through certification that honors levels of achievement in areas such as energy savings, water efficiency, CO2 emissions reduction, improved indoor environmental quality, and stewardship of resources.

The built environment, including buildings and transportation systems, accounts for more than two-thirds of all greenhouse gas emissions.

Building commissioning helps project teams ensure that systems are designed efficiently, are installed appropriately, and operate as intended.

Adaptive reuse is the practice of redesigning and using a structure for a use that is significantly different from the building’s original use.

Match

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| --- | --- |
| \_\_\_\_\_\_ Natural Context  \_\_\_\_\_\_ Social Context  \_\_\_\_\_\_ Infrastructural Context  \_\_\_\_\_\_ Social Responsibility  \_\_\_\_\_\_ Environmental Stewardship  \_\_\_\_\_\_ Economic Prosperity | 1. Available resources, materials, skills, and connections to utilities, roads and transit. 2. Climate, sun, wind, orientation, soils, precipitation, local flora and fauna. 3. Connections to the community and other destinations, local priorities, cultural history and traditions, local regulations and incentives. 4. All the economic costs and benefits of a project for all the stakeholders (not just the project owner) 5. All the costs and benefits to the people who design, construct, live in, work in, and constitute the local community and are influenced, directly or indirectly, by a project 6. All the costs and benefits of a project on the natural environment, locally and globally |

Regenerative projects strive toward “net-zero”—using no more resources than they can produce.

net-zero energy projects use no more energy from the grid than they generate on site

carbon neutrality, emitting no more carbon emissions than they can either sequester or offset

water balance: they use no more water than that which falls on site as precipitation

produce zero waste by recycling, reusing, or composting all materials

On average, green buildings save energy, use less water, generate less waste, and provide more healthful, more comfortable indoor environments.