

EPA's Green Buildings

EPA DEFINITION: GREEN CONSTRUCTION

"Green construction" is the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's life-cycle from siting to design, construction, operation, maintenance, renovation and deconstruction. This practice expands and complements the typical building design concerns of economy, utility, durability, and comfort.

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"Green buildings' are constructed using green processes and are also known as a sustainable or high performance buildings.

Green buildings are designed to reduce the negative impacts of the built environment by;

- · Efficiently using energy, water, and other resources;
- Protecting their occupants health and improving productivity;
- Reducing waste, pollution and environmental degradation.

The following are the some of the areas impacted by the built environment:

| The Built Environment | Consumption | Environmental Effects | Consequences |
|-----------------------|-------------------|------------------------------|---------------------------|
| Siting | Energy | Waste | Harm to Human Health |
| Design | Water | Air Pollution | Environmental Degradation |
| Construction | Materials | Water Pollution | Loss of Resources |
| Operation | Natural Resources | Indoor Pollution | |
| Maintenance | | Heat Islands | |
| Renovation | | Stormwater Runoff | |
| Deconstruction | | Noise | |

By adopting green building strategies, we can maximize both economic and environmental building performance. Green construction methods can be integrated into buildings at any stage, from design and construction, to final demolition or disassembly.

The typical objectives of Green Buildings are:

Environmental:

- Enhance and protect biodiversity and ecosystems
- Create, expand, and shape markets for green products and services
- Improve occupant productivity.
- Conserve and restore natural resources.

Economic

- Reduce operating costs.
- Improve air and water quality.
- Reduce waste streams.

The information on this module is taken from EPA (US Environmental Protection Agency - Green Building). https://www.epa.gov/greeningepa/green-buildings-epa