

Eco Friendly Structures

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Abstract

Global warming is a serious problem which is faced by the world today as well the world in the future. In order to stop or reverse this problem, society must change; learn to alter i.e. what they should use in order to be less harmful to the environment. Making buildings “Green” would greatly impact this problem. There are many ways for this to be done and more ways are being developed rapidly. As these new developments arise, the cost reward for green building becomes more logical for the consumer. The Global warming is the effect of climate change and felt across the world. Both government and individuals are beginning to take task of building green houses much more seriously. Green building is an opportunity to use the resources efficiently, create healthier building that can improve human health.

Keywords: Green Building, Low Carbon Building, Green House Effect, Eco-Friendly Construction.

Introduction

“Green buildings are a hallmark of economically sound business decisions, thoughtful environmental decisions, and smart human impact decisions.”-Rick Fedrizzi

Eco-friendly, or ecological, construction is building a structure that is beneficial or non-harmful to the environment, and resource efficient. Otherwise known as green building, this type of construction is efficient in its use of local and renewable materials, and in the energy required to build it, and the energy generated while being within it.

A green or sustainable building is a building that can maintain or improve:

1. the quality of life and harmonize within the local climate, tradition, culture,
2. the environment in the region,
3. conserve energy, resources and recycling materials,
4. reduce the amount hazardous substances to which human and other organisms are (or may be) exposed and
5. the local and global ecosystem throughout the entire building life-cycle

Green Building is important for the growth and development of our communities has a large impact on our natural environment. The manufacturing, design, construction, and operation of the buildings in which we live and work are responsible for the consumption of many of our natural resources.

Ideas for Green Home Building

Location: First, avoid building west facing home. This will keep your home cool as it minimizes sun exposure. Secondly, avoid building home in environmentally sensitive locations such as earthquake or hurricane or flood prone areas. Thirdly, check if public transportation is easily available and local grocery shop is not that far away. This will help you avoid taking your own vehicle every time and will reduce your travel time.

Smaller is Better: A small home built with eco-friendly techniques is going to have smaller environmental impact as against a large home. A house that is too large is likely to cost more to heat and cool. Try to keep the place manageable and cost effective. If you are planning to extend your family and bring in few relatives, you need to put proper resources and accommodation in place.

Proper Insulation: Insulation is one of the most important things that you need to consider while building a green home. Air leaks such as around windows, door and duct work is

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responsible for building's heat loss. Don't let heating and cooling of your interior spaces air go waste through improper insulation. Proper insulation will not only reduce your energy consumption but will bring down your electricity bills substantially.

Reduce, Reuse, and Recycle: Reduce your need for buying new products that are not environment friendly. Reuse your old material such as wood floors, doors, windows in your next home. Recycled materials such as recycled glass, aluminium, recycled tile, reclaimed lumber, recycled plastic can be used in green home building.

Use Sustainable Building Materials: If building a green home is your goal, then using environmentally or eco-friendly products should be on your list which can reduce the impact of construction on the environment. Each and every part of your house such as roofing material, building material, cabinets, counters and insulation to your flooring should be environmentally friendly. Use products such as reclaimed lumber, recycled plastic, recycled glass or natural products such as bamboo, cork and linoleum which are made of natural, renewable materials.

Install Solar Panels: Solar energy is clean and renewable source of energy. Solar panels are an emerging and hot technology for people who want to utilize the natural power all around us, the sun. Solar panels may be expensive at first, but the long-term savings you can put into your pocket is a stunning example of the benefits of turning your life from black to green. The location of your house and the way you have constructed solar panels can determine how much power you can collect. By taking advantage of solar power you can bring down your energy consumption and supply excess energy, if any, to your utility company. Also, government grants, incentives and tax breaks are huge bonus to those who want to use solar power in their home.

Energy Star Windows: Energy efficient windows labelled as ENERGY STAR windows are new player in window market and are much more energy efficient than normal windows. The ratings for these windows determine how energy efficient they will be. The lower the rating, the

more energy efficient are your windows. The energy savings provided by these windows are enough to cover the added cost per window.

Rainwater Harvesting Systems: Install rainwater harvesting system while building your green home to collect rainwater from roofs and then storing it in a tank. The collected water can then be used for other purposes such as toilets and sprinkler systems. Rain barrels are one of the most common methods of rainwater harvesting being used today.

Eco-Friendly Lighting: Both LED and CFL cost more upfront but use less energy and last longer than traditional incandescent bulbs. Since they offer significant cost savings in the long run, they can be ideal for your new green home.

Cost Effective Benefits of Going Green

- You can eliminate the stress that comes with paying high monthly bills.
- Saving money for other things like trips, special occasions and outings.
- Reducing your carbon footprint.
- Encouraging others in your family to save energy by eliminating the use of certain things during high peak or mid peak hours
- You can put the money you saved to good use, no matter what it is.

Suggestions

- Helps to enhance occupant health and comforts
- Improves air and water quality
- Helps to reduce operating costs
- Reduce waste streams

Conclusion

Eco-friendly structures have provided more advantage to occupant and environment. It has also created more positive impact on environment condition. Building using sustainable

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materials is immensely rewarding. It requires ingenuity and creativity, whilst at the same time providing a sense of well-being and contributing to a better environment, now and for future generation.

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