

LEED Certification of a Restaurant Concept

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THE PROBLEM

Sustainability is the key to preserving the planet for the future generations. By designing an environmentally friendly restaurant concept, Cracker Barrel will be taking a step towards a brighter and sustainable future.

The first Cracker Barrel was opened in 1969. They have taken small steps in the last few years to become more energy efficient. However, a fully LEED certified store would take more work than just a few changes.

THE PROJECT

This project is very conceptual in nature. We conducted analysis on existing systems as well as analysis on systems that could be implemented that would count for LEED points or make the store more environmentally friendly. We conducted analysis over the following systems:

- Lighting
- Solar Energy
- Hydrologic Drainage
- Recycling
- Heating Envelope

THE OUTCOME

This project is not going to be financially feasible for Cracker Barrel at this time. But as technology advances and equipment becomes more efficient, Cracker Barrel now has ideas and designs of systems that can be implemented in order to work towards becoming LEED certified as well as more environmentally friendly.



SUSTAINABILITY

LEED stands for Leadership in Energy and Environmental Design. This is a third party certification program that is nationally accepted for the design, operation, and construction of environmentally friendly buildings.

The objectives we chose to focus on for our project are:

- Reduce water consumption
- Reduce energy consumption
- Reduce waste produced
- Reduce surface runoff
- Achieve LEED Certification

Through the analysis that were conducted during this project if implemented, it would create a sustainable restaurant concept that would encompass the three important pillars of sustainability; environmental, economic, and social.

WHERE THE POINTS COME FROM

LEED points are allocated through these 8 major sustainability issues:

- Location and Transportation
- Sustainable Site
- Water Efficiency
- Energy and Atmosphere
- Materials and Resources
- Indoor Environmental Quality
- Innovation
- Regional Priority

PROJECT GOALS

The goal of each analysis conducted

Lighting: to reduce the carbon footprint by using LED lighting.

Solar Energy: to use solar power as an alternative energy source instead of coal power.

Hydrologic Drainage: create an underground water storage basin used to water the landscape.

Recycling: Implement a recycling system where glass, plastics 1-7, steel cans, paperboard, in addition to the already recycled cardboard are all recycled instead of considered waste.

Heating Envelope: reduce the energy consumption and heat loss of the store.

INSIGHT

This project has allowed our team to look at things from different perspective. Looking at everything we do with an attitude of what can I do to protect the earth and how can I change the way people view sustainability. We think every day what are the small things we can do to take steps towards a big change.

