

**Sustainable Sites**

- An erosion and sedimentation control plan for all construction activities was implemented on this project. That means we put measures in place to prevent loss of soil erosion, prevent sedimentation of storm sewer and receiving streams and guarded against polluting the air with dust and particulate matter.
- Project is located within one or more public bus stops. This helps reduce pollution and land development impacts from automobile use. We are also providing a bike rack for cyclists.
- The site was developed to maximize open space. We exceed the local zoning ordinance for vegetated open space by 20%. Open space helps reduce heat island effect and increases stormwater infiltration.
- Reduced heat islands (thermal gradient differences between developed and undeveloped areas) over 50% of hardscape (constructed surfaces) to minimize impact on microclimate. This was accomplished through a combination of landscaping and high albedo concrete.
  - Part of the constructed surfaces on the site will be shaded by landscape features (trees).
  - The drive aisles of the parking lot are being constructed with material of a high SRI (Solar Reflective Index) that will reflect the sun's heat rather than absorbing and re-radiating that heat on site.
- Reduced heat island effect by specifying roofing material with a high SRI. Note that heat islands exacerbate air pollution for two reasons. First, smog is produced faster at higher temperatures. Secondly, rising temperatures lead to increased cooling requirements, requiring energy can causing associated emissions.
- Minimized light trespass from the building and site. This reduces sky-glow increasing night sky access and improving nighttime visibility through glare reduction. We accomplish this by automatically controlling all interior non-emergency lighting to turn off during non-business hours. The exterior of the building and parking lot were only lit as necessary for safety and comfort.

**Water Efficiency**

- We eliminated the use of all potable water for the purposes of landscape irrigation. Instead we engineered and installed a 2500 gallon underground cistern that will capture rainwater from our roof to supply water for all landscape irrigation. To further help minimize the need for water we are specified plants of native species and a highly efficient (drip) irrigation system. This strategy also helps limit stormwater runoff.
- We installed native and adaptive plants. These tend to require less fertilizer and pesticides, and thus reduce the water quality degradation and other environmental impacts.
- Our original goal was to reduce water use inside the building by 30% (better than code). Instead we maximized water efficiency by 40%. We accomplished this by specifying and installing highly efficient fixtures such as pre-rinse sprayer, faucets, toilets, urinals, ice machine and water heater. Maximizing water efficiency within buildings helps reduce the burden on the municipal water supply and wastewater systems.

**Energy & Atmosphere**

- Our goal was to optimize the energy performance of the overall building by 17.5% (better than code). To accomplish this goal we focused on three fundamental strategies: reduce demand, increase efficiency and harvest free energy. Below is a list of how those strategies were realized in this restaurant.
  - We designed the building envelop and building systems (HVAC, water heating, make up air and hood) to be as energy efficient as possible.
  - The glazing for this project will be Low-E (emissivity) keeping heat out in the summer and in during the winter.
  - The lighting design for this store utilizes LED lamps saving energy and reducing the amount of heat introduced to the dining room.
    - This store has no incandescent lighting in this restaurant.
    - LED lamps contain no mercury
    - They last for thousands of hours. The LED lamps in this restaurant will not need to be replaced for 7 to 8 years.
  - We scrutinized all of our kitchen equipment and specified Energy Star rated equipment where available (ice machine, fryer, refrigerator and warmer).
  - All of this information is fed into software that creates an energy model. This model is used to study various strategies and make more informed design decisions for the building.

- We installed a 6kW wind turbine on site capable of supplying clean, renewable energy to the store. We anticipate the turbine providing 7.5% of the store's energy.
  - Wind turbines are highly efficient in a larger sense. They generate electricity from a natural, renewable resource, without any hidden social or environmental cost. There is no need to mine for fuel or transport it, no global warming pollutants created, and not need to store, treat or dispose of waste.
- The restaurant is equipped with an energy management system (EMS) capable of monitoring all major building systems (HVAC, wind turbine, water heater, make up air, hood and lights).
  - In addition this system will keep daily performance records of these systems that will be available online and in real time. This supports Facilities in their efforts to provide exceptional maintenance while also ensuring that all critical building systems are operating as designed.
  - The EMS will control lighting so that the lights are only on when necessary. As an example the lights will be on in the kitchen during morning prep, but off in the dining room until the restaurant opens for business.

## Materials & Resources

- In store recycling program will capture glass & plastic from the dining room and cardboard from the kitchen.
- Our construction team set aggressive goals and implemented a plan to divert as much construction and demolition debris from being disposed in a landfill. They created a construction waste management plan and worked closely with their subcontractors and a local recycler. The project was able to recycle and divert 75% of its construction waste.
- For the first time we used 25% fly ash as a recycled material in our concrete.
  - Fly ash is a byproduct from the combustion of coal. In the past it has been viewed as a waste material and therefore disposed of in a landfill.
  - However, fly ash use improves concrete performance, making it stronger, more durable, and more resistant to chemical attack.
  - Fly ash use also creates significant benefits for our environment.
    - Because fly ash use displaces cement use, it also reduces the need for cement production – a major energy user and source of greenhouse gas emissions.
    - Helps conserve landfill space

## Indoor Environmental Quality

- For the first time we developed and implemented an indoor air quality (IAQ) management plan for the construction and pre-occupancy phases of development. This will serve to protect construction workers, employees and patrons from contaminants that can occur from the construction process.
  - During construction all HVAC equipment are sealed off to protect from dust and odors.
  - Porous building materials are protected from exposure to moisture and other materials that may off gas.
  - After construction, and prior to occupancy, the building is flushed out. This means fresh air is run through the building for a specified period of time thereby flushing out contaminants from the construction process.
- We are reducing the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well being of occupants by specifying low (or no) VOC paints, coatings, caulks and sealers.
- The store has been designed to provide all building occupants with a visual connection between indoor spaces and the outdoors through the introduction of daylight and views into the regularly occupied areas of the building. Daylighting reduces the need for electric lighting of building interiors, resulting in decreased energy use. This conserves natural resources and reduces air pollution impacts due to energy production and consumption.

## Innovation & Design

- We plan to provide green building education. This will happen via formal crew training of green building specifics as well as communication to our customers highlighting primary LEED credits (in the store and on our website).
- This will be the first Chipotle with a Green Housekeeping Policy. Chipotle's cleaning practices derive from a commitment to pursue environment, health, and safety concerns in our restaurants. Food and worker safety are considerations at the forefront of our cleaning program. Reducing environmental and worker exposure to potentially toxic materials is a priority. The green housekeeping policy has focused on eliminating hazardous components of cleaners, reducing packaging, and reducing energy associated with freight.

