

Residences at Grove Park  
425 Hillsborough St.  
Chapel Hill, NC



Special Use Permit Application  
Preliminary Energy Management Plan

February 8, 2008

*Preliminary Energy Management Plan*

In accordance with the Council's Resolution on Expectations for Energy Efficiency and in accordance with the Town's Comprehensive Plan objectives, we have prepared this preliminary Energy Management Plan to outline the design goals of the Residences at Grove Park project:

Overall Goal Areas:

1. Energy Efficiency
2. Minimization of Carbon Footprint

Goals:

1. This project meet the Town's goal of 20% energy efficiency increases by utilizing multiple energy efficient technologies in conjunction with proven sustainable design techniques to ensure continuing efficiency of the project.
  - a. Elements:
    - i. High Efficiency HVAC Equipment
    - ii. Effective passive solar design methodologies to maximize solar orientation and improve day lighting while minimizing solar heat gain
    - iii. Install energy efficient fixtures and equipment
    - iv. Install improved control systems to maximize efficiency of HVAC and lighting equipment
    - v. High efficiency building envelope including exterior walls and windows to minimize energy loss
  - b. Stipulation: We will submit energy efficiency calculations showing the 20% increase in energy efficiency prior to issuance of the Zoning Compliance Permit.
2. This project will minimize its carbon impact during construction and after completion by making sustainable design choices and selections, utilizing responsible construction management plans, and providing features and amenities that encourage our future occupants to reduce their own carbon footprints while living at Grove Park.
  - a. Elements:
    - i. Reduce the use of fossil fuels by locating the majority of parking underground in stacked concrete decks rather than surface lots and minimizing surface roads to Town Standards for accessibility

- ii. Replant the nearly clear cut site with significant new plantings to reduce CO<sub>2</sub> in the region going forward
  - iii. Reduce heat island effects by locating the majority of the parking below ground
  - iv. Sustainable design decision to maximize the use of local or region materials where feasible
  - v. Explore finish options that utilize rapidly renewable resources or green technologies
  - vi. Use construction management techniques that minimize waste and maximize recycling of building products
  - vii. Manage construction to reuse fill and excavated materials onsite rather than exporting spoils or importing additional fill wherever feasible
  - viii. Provide high efficiency equipment and fixtures through out the project to reduce overall and individual power consumption contributing to the reduction of fossil fuel usage in power generation
  - ix. Encourage shared transportation by making bus stop improvements and creating bus stop amenities
  - x. Encourage our residents to decrease automobile dependency by providing improved pedestrian connections to Downtown and local destinations with a new pedestrian connection to Martin Luther King Jr. Blvd, improved sidewalks and an accessible connection to Hillsborough St., and a easement through the RCD for a future greenway connection across the site
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