

Leadership in Energy and Environmental Design (LEED) at the Oak Ridge National Laboratory

The “master plan” for the Oak Ridge National Laboratory (ORNL) is to transform its present industrial / ad hoc landscape into a true research campus. This master plan creates a physical growth pattern based on ORNL’s needs and aspirations to provide a sense of coherence to the entire campus. This master plan is the touchstone by which site and building proposals can be evaluated, enabling each part of ORNL to be linked to the larger whole, and by providing a sense of purpose with a meaningfully constructed environment.

At the heart of any master plan are the core principles. These principles distinguish ORNL as unique, with its own identity and connecting the Lab to the larger world. There are four guiding principles upon which the plan is based: (1) creation of an open research campus, (2) use of sustainability as a major organizing design principle, (3) establishment of a flexible yet coherent structure that allows for phased program growth, and (4) establishment of campus center(s).



This partnership among DOE, the state and the private sector is the first of its kind in the nation and a potential model for other national laboratories. ORNL financing mechanisms will be the prototype for DOE’s Office of Science plans to “leverage the private sector in a way that minimizes current year fiscal demands.”

Through 2003, ORNL’s East Campus (five newest buildings with three complete and two under construction) were designed and constructed under LEED guidelines. Energy efficient roofs, low emission materials, recycled-content materials, and native landscaping all add up to efficient, sustainable buildings. (See included pictures.) This focus has also resulted in the establishment of a local East Tennessee professional USGBC (green building) chapter.

One of the most innovative features of this transformation involves the long-term transfer of DOE land at ORNL to a non-profit corporation, making possible construction in excess of \$50 million in new facilities funded by the state, Battelle and private developers. In this innovative approach, the private developer leases these facilities for use by ORNL researchers. In addition, ORNL has requested more than \$50 million in capital funding from DOE for new government buildings that will be integral to ORNL’s new research campus.





Oak Ridge National Laboratory's Ethanol Fueling Tank and Example of a Flex Fuel Vehicle

Oak Ridge National Laboratory's Ethanol Fueling Pump and Example of a Flex Fuel Vehicle



Oak Ridge National Laboratory Energy Star Building Designation Example

