

Sustainable Design

Rinker Hall

University of Florida

College of Architectural Design and

Building Construction

Gainesville, Florida

Sean Homem

# Building Facts

- Construction concluded in March 2003
- LEED Certified in 2004
  - Gold Rating (39 points)
  - 1<sup>st</sup> designed under USGBC LEED System in Florida
- 3-Story
- 47,300 Square Feet
- 450 students and visitors
- Multi-use
  - Classrooms, labs, offices, and other student amenities

# Interactive Design Process

- Collaboration
  - Design team, construction team, faculty, and students
  - “Communication from day one”
- Project Management
  - Recent graduates of the program

# Features

- Reduced Water consumption
  - Stormwater used for flushing
  - Waterless urinals
  - Reduced irrigation requirements
    - Reclamation of wastewater
    - Tree selection
  - 20% less usage than the requirements of Energy Policy Act of 1992

# Features

- **Reduced energy usage**
  - Peak load reduced by 55%
  - Daylighting techniques
    - North-South orientation
    - Natural lighting via atrium
  - Planned for future solar panel installation
  - Shade walls, air filtration, among others

# Features

- Optimal Material usage
  - Proximity, recycled content, renewable resource content, longevity, and end of life usability
  - Waste material control
- Efficient Land development
  - “Rock in the stream of students”
  - Easy access to and from other buildings and landmarks

# Finances

- Budget Constraints
  - Limited by Florida budget scale
- Delivered for: \$6.5 Million
  - \$137.50 per sq. ft.
  - Fell below the given constraint
- Cost of “green techniques”: \$182,000
  - Utility savings per year: \$22,000
  - 8.3-year payback (excluding health and well-being)

# Conclusions

- Gold rated building for “normal” price
- Long and short run Benefits
  - Economical
  - Health
  - Well-being
- Standard was set for University
  - All future buildings must be silver rated