

LEED CASE STUDY

Morsani Floors 5 through 6
LEED Project ID 1000010109



Making Life Better®



Introduction to USGBC and LEED

United States Green Building Council (USGBC) is a national, non-profit organization formed to promote and encourage sustainable buildings. USGBC developed and administers the Leadership in Energy and Environmental Design (LEED) rating system as a way to measure and quantify the sustainable features designed and constructed in a project.

LEED Rating systems are performance criteria tools used to plan, design, construct, operate and certify green building methods and development practices.

The LEED for Commercial Interiors (LEED CI) is one of several rating systems. It was the decision of the project team to pursue LEED CI for the design and sustainability documentation of this Morsani project.

LEED CI is comprised of six credit categories.

CREDIT CATEGORIES

Sustainable Sites

Water Efficiency

Energy and Atmosphere

Indoor Environmental Quality

Innovation and Design

Regional Priority

Date Achieved | March, 2013

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PREREQUISITIES

The first five categories require the achievement of a set number of mandatory credits called prerequisites. Without meeting the prerequisites, a project will not be eligible for LEED Certification.

Example of a Prerequisite: **WEp1** Water Use Reduction – 20%

WE = Water Efficiency

p = prerequisite

1 = first prerequisite

EAp1 requires a project seeking LEED Certification to document that the project has reduced potable water 20% from a calculated baseline.

Within each credit category is a list of possible credits for each project team to review, assess, and agree to pursue. An example of the LEED Checklist used for this project is located on the last page of this document.

CERTIFICATION LEVELS

Four certification levels are possible for a project to achieve. Point totals for each certification level are specific to the rating system pursued.

LEED Civ2009 Certification Levels

Certified	40-49 points
Silver	50-59 points
Gold	60-79 points
Platinum	80-110 points

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A TOUR THROUGH THE LEED RATING SYSTEM AS IT APPLIES TO MORSANI

Sustainable Sites

GOAL: CONSERVATION OF WATER THROUGH MANAGEMENT OF STORMWATER. REDUCE CARBON FOOTPRINT BY LOCATION TO AMENITIES AND TRANSPORTATION.

- *Stormwater, Quality - USF's implemented stormwater management plan promotes infiltration and treats stormwater runoff for at least 90% of the average rainfall through the use of EPA Best Management Practices (BMPs) thereby protecting and preserving Florida's valuable water ways.*
- *Community Connectivity -*

Water Efficiency

GOAL: MAXIMIZE WATER EFFICIENCY WITHIN BUILDINGS TO REDUCE THE BURDEN ON MUNICIPAL WATER SUPPLY AND WASTEWATER SYSTEMS.

- *Through the installation of low flush water closets, low-flush urinals, low flow showers, and low flow lavatory facilities, potable water has been reduced by 20%.*

Energy and Atmosphere

GOAL: ESTABLISH A MINIMUM LEVEL OF ENERGY EFFICIENCY FOR THE PROPOSED PROJECT. ACHIEVE AN INCREASED LEVEL OF ENERGY PERFORMANCE BEYOND THE PREREQUISITE STANDARD TO REDUCE THE ENVIRONMENTAL AND ECONOMIC IMPACTS ASSOCIATED WITH EXCESSIVE ENERGY USE.

- *Morsani is serviced the USF Campus NW plant. Chillers at this plant meet the Enhanced Refrigeration credit and were selected based upon premium efficient chillers at full and part load. All the chillers at the NW plant are R-123 HCFC, a GWP of 76.*
- *Maximum pump efficiency is managed by a recent conversion at the NW plant. Chilled water flow and temperatures are monitored continuously by BTU meters on each respective chilled water loop.*
- *The loop that serves Morsani and a few other buildings is the most efficient loop averaging about 14 deg. temperature differential, this is greatly enhanced by optimized control systems at the Morsani building as well as the pressure independent control valves utilized at the individual air handlers.*

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Materials & Resources

GOAL: INCREASE DEMAND FOR BUILDING MATERIALS AND PRODUCTS THAT INCORPORATE RECYCLED CONTENT MATERIALS, INCREASE DEMAND FOR BUILDING MATERIALS THAT ARE EXTRACTED AND MANUFACTURED WITHIN THE PROJECT REGION (DEFINED AS WITHIN A 500 MILE RADIUS OF THE PROJECT SITE), AND ENCOURAGE ENVIRONMENTALLY RESPONSIBLE FOREST MANAGEMENT.

- *52% of the total wood-based building materials are harvested from FSC Forest*
- *65% of the on-site generated construction waste has been diverted from landfills*
- *27% of the total building materials, by value, have been manufactured using recycled materials.*

Indoor Environmental Quality

GOAL: ESTABLISH MINIMUM INDOOR AIR QUALITY PERFORMANCE. REDUCE THE QUANTITY OF INDOOR AIR CONTAMINANTS THAT ARE ODOROUS, IRRITATING, AND/OR HARMFUL.

- *Volatile organic compounds (VOCs). VOCs can adversely affect the environment and human health. Paint, carpeting, coatings, and even furniture finishes used throughout the building are low in volatile organic compounds*
- *Protection of Mechanical Air Ducts during construction. Air ducts were protected during construction and cleaned after construction to insure the removal of harmful dust. This process insures that that newly installed mechanical system will provide a quality air supply, free of potential construction contaminants.*

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