The Butler University Athletic Annex LEED and Sustainability White Paper

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What is LEED?

LEED is an internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO_2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

Developed by the U.S. Green Building Council (USGBC), LEED provides building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

The LEED scoring system has been in place since 2000 and currently in its fourth version. There are six categories within which LEED buildings are scored: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality and Design & Innovation. There are four levels of LEED certification: Certified, Silver, Gold and Platinum. The Butler University Athletic Annex is in the process of reaching Silver Certification under Version 2.2 and will join the more than 70 LEED Certified Indiana buildings. As of December 2010, there were 29,000 LEED registered projects and 7,300 LEED Certified buildings.

The following document lists the LEED credits that are being sought by the Butler University Athletic Annex project. The list is broken down by the six major categories and explains the intention of the credit, the environmental impacts of the credit, and how The Butler University Athletic Annex is achieving the requirements of it.

Sustainable Sites

SS Prerequisite 1: Construction Activity Pollution Prevention

What is it?

Reduce pollution from construction activities by controlling soil erosion, waterway sedimentation and airborne dust generation.

Prevent loss of soil during construction by stormwater runoff and/or wind erosion, including protecting topsoil by stockpiling for reuse. Prevent sedimentation of storm sewer or receiving streams. Prevent polluting the air with dust and particulate matter.

Why does it matter?

The topsoil layer contains organic matter, nutrients and biological activity. Losing topsoil can affect the soils ability to support plant life, regulate stormwater and can consequently increase dependence on fertilizers, pesticides and irrigation systems.

Erosion impacts offsite water quality issues as well. Runoff can carry pollutants, sediments and nutrients that can disrupt aquatic habitats. Sedimentation degrades water bodies by lessening flow capacity in stream channels, increasing flood probability.

How did we do it?

The project was designed in accordance with the Marion County and State of Indiana Department of Environmental Management erosion control practices and policies. Items that were part of the Erosion Control Plan included: installation of silt fencing along construction limits, spraying ground and machinery to minimize dust and keep soils on site, identifying and protecting existing areas from altered runoff streams, soil stabilization through seeding and mulching any disturbed area where construction is not going to occur for more than 15 days. These methods were followed throughout the construction process along with inspections and necessary repairs after every rain event.

SS Credit 1: Site Selection

What is it?

Avoid the development of inappropriate sites and reduce the environmental impact from the location of a building on a site. Do not develop buildings, hardscape, roads, or parking areas on portions of sites that meet any of the following criteria: 1) Prime Farmland, 2) Previously undeveloped land whose elevation is lower than 5 feet above the elevation of the 100-year flood, 3) Land specifically identified as habitat for any species on federal or state threatened or endangered lists, 4) Land within 100 feet of any wetlands, 5) Previously undeveloped land within 50 feet of a water body, and 6) Land that was public parkland prior to acquisition.

Why does it matter?

The credit aims to preserve precious land resources such as farmland, wetlands, water bodies, and public parkland, which are compromised every day by new development. Farmland provides security to both our global and local economies and our food supplies, and protects the environment by providing food & cover for wildlife, controlling flooding, and maintaining air quality. The American Farmland Trust estimates that we lose an acre of farmland every minute. In addition to providing habitat for a wide range of animal & plant species, wetlands play a key role in the quality of our environment by removing pollution, recharging groundwater supplies, and controlling floodwaters. The EPA estimates that between 2004 & 2009, the United States lost an estimated 62,300 acres of wetlands. Developing land near a water body can lead to contamination through runoff and disturbance of the surrounding ecosystem. A recent study of the United States' streams found that only 28% have healthy biological communities (EPA), and as a critical element to life, it is important that our water bodies be protected.

Selecting a previously developed site preserves and protects these precious resources that support food production, water supplies, and wildlife habitat.

How did we do it?

The project is located on previously developed land that is neither prime farmland nor habitat for endangered species, and is located away from wetlands and bodies of water.

SS Credit 4.2: Alternative Transportation: Bicycle Storage & Changing Rooms

What is it?

Encourage alternative transportation to Butler University by means other than automobile by providing secure bicycle racks and/or storage within 200 yards of a building entrance for 5% or more of all building users (measured at peak periods), and providing shower and changing facilities in the building for 0.5% of Full-Time Equivalent (FTE) occupants.

Why does it matter?

The environmental effects of automobile use include pollution from emissions and impacts from oil extraction and refinement. Bicycle commuting produces no emissions and has zero demand for oil based fuels. It also relieves traffic congestion and reduces noise pollution and requires less paving than the roadways and parking lots required for automobiles, allowing for the development of more green space.

How did we do it?

It is estimated that at peak times, The Butler University Athletic Annex can host up to 83 individuals. To accommodate this number of people, racks that can hold 10 bicycles are located outside the main entry. Inside the building, showers and changing facilities for men and women are accessible to the student and faculty population.

SS Credit 4.3: Alternative Transportation: Low Emitting & Fuel Efficient Vehicles

What is it?

Reduce pollution and land development impacts from automobile use by providing preferred parking for low-emitting and fuel-efficient vehicles for 5% of the total vehicle parking capacity of the site. Low emitting vehicles are those that are zero emission vehicles or that have received a score of 40 or more from the American Council for an Energy Efficient Economy vehicle rating guide.

Why does it matter?

The emissions from automobiles are estimated to account for 60% of CO2 released to the atmosphere in the US over the last twenty years. Automobiles also generate a large portion of air pollutants responsible for smog and ground-level ozone, which impacts human health.

The provision of preferred parking for high efficiency and alternative fuel vehicles at Butler University and other sites can encourage their use over less efficient options, reducing overall emissions.

How did we do it?

Of the 15 parking spaces at The Butler University Athletic Annex, 1 is dedicated for Low-Emitting Fuel-Efficient vehicles; which being nearest to the main entry and adjacent to a sidewalk, is the most convenient spot on the site.

SS Credit 4.4: Alternative Transportation: Parking Capacity

What is it?

Reduce pollution and land development impacts from automobile use from low occupancy vehicles by providing no new parking.

Why does it matter?

The emissions from automobiles are estimated to account for 60% of CO2 released to the atmosphere in the US over the last twenty years. Automobiles also generate a large portion of air pollutants responsible for smog and ground-level ozone, which impacts human health.

Adding no additional parking at the Butler University Athletic Annex and other sites encourages more efficient transportation habits and reduce overall emissions.

How did we do it?

No new parking spots were added to the existing site.

SS Credit 5.2: Site Development: Maximize Open Space

What is it?

Provide a high ratio of open space to development footprint to promote biodiversity. For areas with no local zoning requirements (e.g., some university campuses, military bases), provide vegetated open space area adjacent to the building that is equal to the building footprint.

Why does it matter?

The presence of open space serves three critical functions: 1) Open space provides habitat for vegetation and local wildlife. Habitat and areas of refuge animal and insect populations help sustain populations necessary for the food chain. 2) Vegetated open space reduces the urban heat island effect and increases stormwater infiltration, maintaining natural climate balances and reducing loads on local utilities. 3) Open space provide humans with a connection to the outdoors and its natural seasonal shifts.

How did we do it?

As is the case with SS Credit 5.1, The Butler University Athletic Annex benefits from being located on a generously sized site with an existing building that takes up only a small portion of the site. The area of open space available on the site is over twice that of the building footprint, thus qualifying the project for an additional Innovation in Design point for Exemplary Performance.

SS Credit 8: Light Pollution Reduction

What is it?

Light pollution is more commonly known as excessive or obtrusive artificial light. It can be defined to include: light trespass, sky glow and energy waste. Light trespass occurs when unwanted artificial light traverses property lines.

Sky glow can best be described as the “glow” that can be visible over populated areas as a result of poorly directed and reflected lighting being redirected by the atmosphere back towards the ground. Energy waste is the consequence of excessive and poorly designed lighting.

Why does it matter?

Lighting has been estimated to consume one quarter of all the electricity worldwide. The reduction of light pollution can have positive impacts on the surrounding ecosystem and human health due to less fossil fuel consumption, circadian sleep disruption and excessive glare which reduces overall night vision when driving.

How did we do it?

Exterior light fixtures were carefully evaluated and selected with “light cutoffs” that prevent the exterior fixture’s lighting from extending beyond the building more than necessary.

Water Efficiency

WE Prerequisite 1 & Credit 3: Water Use Reduction

What is it?

To increase water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems by reducing potable water consumption by 30% (WE Credit 3.2) from a baseline building.

Why does it matter?

In the United States approximately 340 billion gallons of fresh water are withdrawn from water sources (rivers, streams, reservoirs and underground aquifers) to support residential, commercial, industrial, agricultural and recreational activities. This accounts for about one-fourth of the Nation's total supply of renewable fresh water. Almost 65% of this water is discharged into rivers, streams and other water bodies after use and, in some cases, treatment. In some parts of the United States, water levels in underground aquifers have dropped more than 100 feet since the 1940's. Water is being extracted from the water sources at greater rates than the water is being returned to the recharge the sources.

Through rigorous water reuse strategies and the Energy Policy Act of 1992, the U.S. is using 36% less water than they did in 1950. Using large volumes of water increases maintenance and lifecycle costs for building operations and increases consumer costs for additional municipal supply and treatment facilities. Conversely, facilities that use water efficiently can reduce costs through lower water use fees, lower sewer volumes to treat energy and chemical use reductions, and lower capacity charges and limits.

How do we do it?

Water efficiency measures in commercial buildings can easily reduce water usage by 30% or more. This facility utilizes low-flow fixtures which greatly reduce the volume of water used per day by approximately 30%. This water conservation strategy has little to no additional cost with rapid payback.

WE Credit 1: Water Efficient Landscaping: Reduce by 50%

What is it?

Limit or eliminate the use of potable water, or other natural water resources available on or near the project site, for landscape irrigation.

Why does it matter?

Outdoor uses account for 30% of the daily water consumed in the United States. The primary use of this water is for landscape irrigation. Landscaping with native or adapted species that are drought tolerant and do not require irrigation presents a cost saving to the owner and reduces the amount of water that needs to be treated by a municipal utility.

How did we do it?

The site at The Butler University Athletic Annex has no permanent irrigation systems.

Energy & Atmosphere

EA Prerequisite 1 and Credit 3: Commissioning of the Building Energy Systems

What is it?

Verify that the building's energy related systems are installed and perform according to the Owners' wishes and construction documents.

Why it matters.

Getting all the "bugs" worked out of the installation equates to lower maintenance and operating costs, as well as increased energy efficiency.

How we did it.

Contracted a full time commissioning agent to perform this service.

EA Prerequisite 2 and Credit 1: Energy Performance

What is it?

To achieve increasing levels of energy efficiency for the proposed building and systems to reduce environmental and economic impacts associated with excessive energy use.

Why it matters.

Buildings account for 45% of CO2 emissions and in the US (Architecture 2030), of which energy consumption plays the most significant part of. CO2 and other greenhouse gases cause weather change, global temperature increase, and damage to the earth's ecosystems.

How we did it.

The locker rooms require a significant amount of exhaust to keep a constant turnover of fresh air to the space. Exhausting conditioned air can be costly because conditioning the replacement "make-up" air requires a considerable amount of energy. The project maximizes efficiency by utilizing an energy recovery wheel to capture and recover the energy from the conditioned exhaust air and use it in the replacement, "make-up" air.

Additionally, simultaneous heating and cooling of spaces can be inefficient. One zone can require cooling and another zone require heating at the same time. Simultaneous heating and cooling often occurs in buildings that have multiple exterior exposures. For example, on a cool sunny day, one side of the building may exposed to warm sun and the other isn't. Often two separate energy sources are employed to heat and cool spaces, one to heat spaces while another is used to simultaneously cool other spaces. This project utilizes a variable refrigerant flow system (VRF) that has the ability to use the rejected heat from a space requiring cooling to provide heating for other spaces without the need for a new energy source. This is done through refrigeration heat exchange and accomplished with control automation and valves used to route the refrigerant to the appropriate zone.

The building also utilizes ultra-efficient LED lighting throughout as well as occupancy sensors that turn off lighting when the spaces they serve are unoccupied. There are also photo cells in each of the perimeter spaces that can reduce lighting levels based upon the amount of day light the space receives through the windows.

EA Prerequisite 3: Fundamental Refrigerant Management

What is it?

CFC type refrigerants are not used on the project.

Why it matters.

CFC's contribute to the depletion of the earth's ozone layer. The ozone layer protects the earth from the sun's harmful ultraviolet rays.

How we did it.

All of the refrigeration equipment utilizes non-CFC type refrigerants. Equipment was carefully selected so that non-CFC refrigerant could be used exclusively.

EA Credit 6: Green Power

What is it?

To encourage the development and use of grid-source, renewable energy technologies on a net zero pollution basis.

Why it matters.

Renewable energy sources reduce the negative impact that typical energy sources such as gas & coal have upon the environment.

How we did it.

Engaged in a 2-year contract to purchase at least 35% of the building's electricity from renewable sources.

Materials & Resources

MR Prerequisite 1: Storage & Collection of Recyclables

What is it?

Facilitate the reduction of waste generated by building occupants that is hauled to and disposed of in landfills. Provide an easily accessible area that serves the entire building and is dedicated to the collection and storage of non-hazardous materials for recycling, including paper, corrugated cardboard, glass, plastics and metals.

Why does it matter?

Recycling by building occupants can significantly reduce solid waste streams headed to a landfill. This material also reduces the need for extraction from virgin natural resources. For example, recycling one ton of paper can prevent the processing of 17 trees and saves three cubic yards of landfill space. Additionally, the processing of some recycled materials consumes less energy than what is required to produce it from its raw material form.

How did we do it?

The collection is provided throughout the building and picked up from the building on a regular basis.

MR Credit 1.1: Building Reuse-Maintain Existing Walls, Floors, and Roof

What is it?

Extend the lifecycle of existing building stock, conserve resources, retain cultural resources, reduce waste, and reduce environmental impacts of new buildings as they relate to materials manufacturing and transport.

Why does it matter?

Reusing existing building stock preserves the embodied energy within the existing building and reduces the amount of both new material that is extracted from the earth, and construction waste that might go to landfill.

How did we do it?

The existing exterior walls, interior loadbearing walls, foundation slabs, and roof structure were all maintained to the greatest extent possible, as were window & door openings. All told, the project retained over 95% of the existing walls, floors, and roof.

MR Credit 3: Materials Reuse

What is it?

The diversion of 50% and 75% (respectively) of construction waste material from landfill disposal. Waste material consists of construction, demolition and land clearing debris. These waste materials can be redirected as recyclables back into the manufacturing process, or as reusable materials back to the appropriate sites.

Why does it matter?

Recycling and reusing waste materials prevents them from being sent to local landfills, which are quickly filling up faster than they are breaking down. Many materials that are able to be recycled and reused are items that would require long periods of time to decompose in a typical landfill environment, if at all.

How did we do it?

Subcontracts are written with the general requirement; all waste must be separated by type. We then set up separate dumpsters for each type of waste, Metal, paper, wood, and trash. The trash hauler is responsible to provide status reports of the materials removed and where they go.

MR Credit 4: Recycled Content

What is it?

Use of materials with recycled content such that the sum of the post-consumer recycled content plus one-half of the pre-consumer content constitutes 10%+ or 20%+ (respectively) of the total value of the materials in the project.

Why does it matter?

Increases demand for building products that incorporate recycled content materials, thereby reducing the impacts resulting from extraction and processing of virgin materials.

How did we do it?

Identified material suppliers and products that provided high levels of recycled content and used these materials on the project as often and in as many applications as possible. Some materials used in the construction of the building that included high-levels of recycled content were various steel products, precast walls, vinyl base and rubber flooring, wood doors, metal framing, insulation, ceiling grid and trim. In all, nearly 30% of the building products at The Butler University Athletic Annex are of recycled content.

MR Credit 5: Regional Materials

What is it?

Use of building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of The Butler University Athletic Annex project site for 10-20%+ of the total project materials value.

Why does it matter?

Increases the demand for materials and products that are extracted and manufactured within the region, thereby supporting the use of local resources and reducing the environmental impacts resulting from transportation of materials.

How did we do it?

Identify which materials have the potential to be purchased from a local vendor. Once the items are identified, verify with each bidder whether or not they will be using a local vendor. If they are not, we request they look into the option of using a local vendor.

Indoor Environmental Quality

IEQ Prerequisite 1: Minimum IAQ Performance

What is it?

Establishes minimum indoor air quality performance to enhance tenant comfort.

Why it matters.

Provides a healthier environment for the occupants.

How we did it.

Minimum outdoor air rates were calculated in accordance with the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) standards to provide ample levels of fresh air. This fresh air helps to displace space contaminants such as volatile organic compounds (VOC's) and carbon dioxide.

IEQ Prerequisite 2: Environmental Tobacco Smoke (ETS) Control

What is it?

Minimize exposure of building occupants, indoor surfaces, and ventilation air distribution systems to Environmental Tobacco Smoke.

Why does it matter?

The separation of secondhand smoke from building occupants can result in increased productivity, and reduced illnesses and absenteeism.

How did we do it?

Butler University bans smoking on campus. Signage reinforcing the policy is provided in the form of pavement markings near entrances.

IEQ Credit 2: Increased Ventilation

What is it?

To provide additional air ventilation to improve indoor air quality for improved occupant comfort, well-being and productivity.

Why does it matter?

Increased fresh air ventilation removes allergens & other pollutants from the indoor environment, increasing occupants' health, well-being, and productivity.

How did we do it?

The ventilation air is pre-conditioned by the exhaust air from the locker rooms through the use of an energy recovery wheel that captures the energy of the locker room exhaust and utilizes it to pre-condition the ventilation air. The amount of ventilation air required to provide the space with a slightly positive pressure after exhaust resulted in an increase in ventilation over the minimum required. The positive building pressure is necessary to limit air infiltration and prevent the building from feeling "drafty".

IEQ Credit 3.1: Construction IAQ Management Plan: During Construction

What is it?

Plan developed to protect the HVAC system during construction, control pollutant sources, and interrupt contamination pathways. Plan was designed to meet or exceed SMACNA guidelines for occupied buildings under construction. Included the protection of stored onsite or installed absorptive materials from moisture damage.

Why does it matter?

Reduces indoor air quality problems resulting from the construction process in order to help sustain the comfort and well-being of construction workers and building occupants.

How did we do it?

A plan is developed prior to bidding the work so everyone on the project is aware of the requirements. All air handling materials must arrive clean and be kept that way throughout the construction process. All ductwork arrives on site with protective covers to

keep dust and dirt out while awaiting installation. Ductwork is capped and or covered as work progresses to keep construction dust out during installation. Plans are developed to start equipment with proper filters in place from the moment systems are started. Maintenance schedules are also developed early on to ensure the systems stay clean.

IEQ Credits 4.1, 4.2, 4.3, & 4.4: Low-Emitting Materials

What is it?

To reduce the quantity of indoor air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of installers & occupants.

Why does it matter?

Volatile Organic Compounds (VOCs) are commonly contained within construction materials such as paints, coatings, adhesives, and wood preservatives. VOCs can have a number of adverse health effects to building occupants, and utilizing materials that are free of these harmful compounds helps to improve the health of building occupants.

How did we do it?

We work with the design team to provide documentation of the VOC content of all materials used. Materials specified to be used which do not meet the requirements will be substituted with lower VOC containing materials. Subcontractors are reminded a weekly job meetings to use only materials approved for the site.

IEQ Credit 5: Indoor Chemical & Pollutant Source Control

What is it?

Minimize exposure of building occupants to potentially hazardous particulates and chemical pollutants. Design to minimize and control pollutant entry into buildings and later cross-contamination of regularly occupied areas.

Why does it matter?

The indoor air quality of a building can be affected by daily activities – visitors and occupants carrying contaminants on their shoes, off-gassing from the storage and mixing of cleaning supplies, odors emitted from food preparation, and hazardous gases being released by activities in designated rooms. Some of these impacts on the indoor air quality can be classified as nuisances, while others can affect the health of occupants over long periods of exposure. Regardless, the quality of the air impacts the productivity and well-being of a building's occupants.

How did we do it?

Controlling and limiting the sources of chemicals and pollutants being released into the general atmosphere was accomplished through three methods at The Butler University Athletic Annex. 1) At each of the building's major entries, walk-off carpet is installed for the length of at least ten feet. Walk-off carpet systems are designed to remove soil and other particulates from the soles of shoes. 2) All rooms that can potentially produce hazardous or irritating air are directly exhausted to the outside and are not mixed with the rest of the buildings air supply. 3) All air handling units, regardless of what room they serve at filtered with Minimum Efficiency Reporting Value (MERV) 14 filter.

IEQ Credit 6.1: Controllability of Systems: Lighting

What is it?

The intent of this credit is to provide at least 90% of the building occupants the ability to adjust lighting for increased productivity, satisfaction and comfort.

Why does it matter?

The effect use of lighting controls can increase the efficiency of the lighting system by focusing on task lighting rather than unnecessary ambient or general lighting and can reduce the amount of cooling required by the HVAC systems.

How did we do it?

Each of the office spaces has an individual light switch with a dimmer so that space lighting can be adjusted to suit each of the occupant's needs.

IEQ Credit 6.2: Controllability of Systems: Lighting

What is it?

The intent of this credit is to provide at least 90% of the building occupants the ability to adjust lighting for increased productivity, satisfaction and comfort.

Why does it matter?

The effect use of lighting controls can increase the efficiency of the lighting system by focusing on task lighting rather than unnecessary ambient or general lighting and can reduce the amount of cooling required by the HVAC systems.

How did we do it?

Each of the office spaces has an individual thermostat so that space temperature can be adjusted to suit each of the occupant's needs.

IEQ Credit 7.1: Thermal Comfort: Design

What is it?

Provides a comfortable thermal environment that supports the well-being of the building occupants.

Why it matters.

Enhances the productivity of the teachers and students.

How we did it.

Air distribution devices such as grilles, registers, and diffusers, were carefully selected so that they did not create uncomfortable conditions for the occupants. The air distribution temperature and speed were evaluated and analyzed using software that allowed the designers to predict an overall comfort level for the majority of the occupants.

IEQ Credit 7.2: Thermal Comfort: Verification

What is it?

Provides an assessment of building thermal comfort over time.

Why it matters.

Implementation of ASHRAE 55-220 does not necessarily equate to occupant comfort.

How we will do it.

We will implement a thermal comfort survey of building occupants within a period of six to 18 months after occupancy. Anonymous responses will be digested and scrutinized with corrective action to be taken if necessary.

Innovation & Design

ID Credit 1.1: Green Building Education

What is it?

The building can be used as a teaching tool to educate the public about green building and its benefits.

Why does it matter?

The term "Green Building" covers a wide range of the elements that go into the building. These elements impact the building design, construction process and technology, landscape, building supply economies, and the human health of the occupant in a variety of ways. To this end, each green building is unique in the way it has met the challenge of sustainability. Using the building as a teaching tool helps evolve the art and science of green building.

How did we do it?

Butler offers a tour of the building that highlights some of the key sustainable features of The Butler University Athletic Annex Campus. This tour focuses on the quantities that are associated with building this project green. To provide a more in depth view of the sustainable side of the campus, this white paper has been prepared that can be shared with the public and help serve as the guide for informational tours.

ID Credit 1.2: Green Cleaning Plan

What is it?

Butler has instituted a Green Cleaning Plan that promotes the health and safety of building occupants and the environment.

Why does it matter?

Many commonly-used cleaning products contain toxic chemicals that can adversely affect the health of building occupants, and contribute to environmental issues such as ozone layer depletion, and aquatic toxicity. Use of appropriate cleaning procedures and safe products helps protect the health of both building occupants and the natural environment; and also leaves a clean building.

How did we do it?

Butler updated their Housekeeping Policies to eliminate the use of harmful cleaning products & procedures, and set goals to improve their performance over time, while maintaining a high standard of cleanliness throughout campus.

ID Credit 2: LEED Accredited Professional

What is it?

At least one principal participant of the project team shall be a LEED Accredited Professional (AP).

Why does it matter?

A LEED Accredited Professional intimately involved in the project can serve as a constant champion for green design and construction. Their presence is critical in developing a list of green design goals at the outset of the project, identifying the requirements to meet these goals and objectives, assigning responsibility to team members, ensuring objectives are being met, and helping to streamline the LEED certification process.

How did we do it?

Joe Yount, project architect at RATIO Architects, Inc., was closely involved in the project from the early design phases through construction completion. In addition to his role as project architect for the Butler University Athletic Annex, Joe served as LEED coordinator for the design/build team and has overseen the LEED submission process.