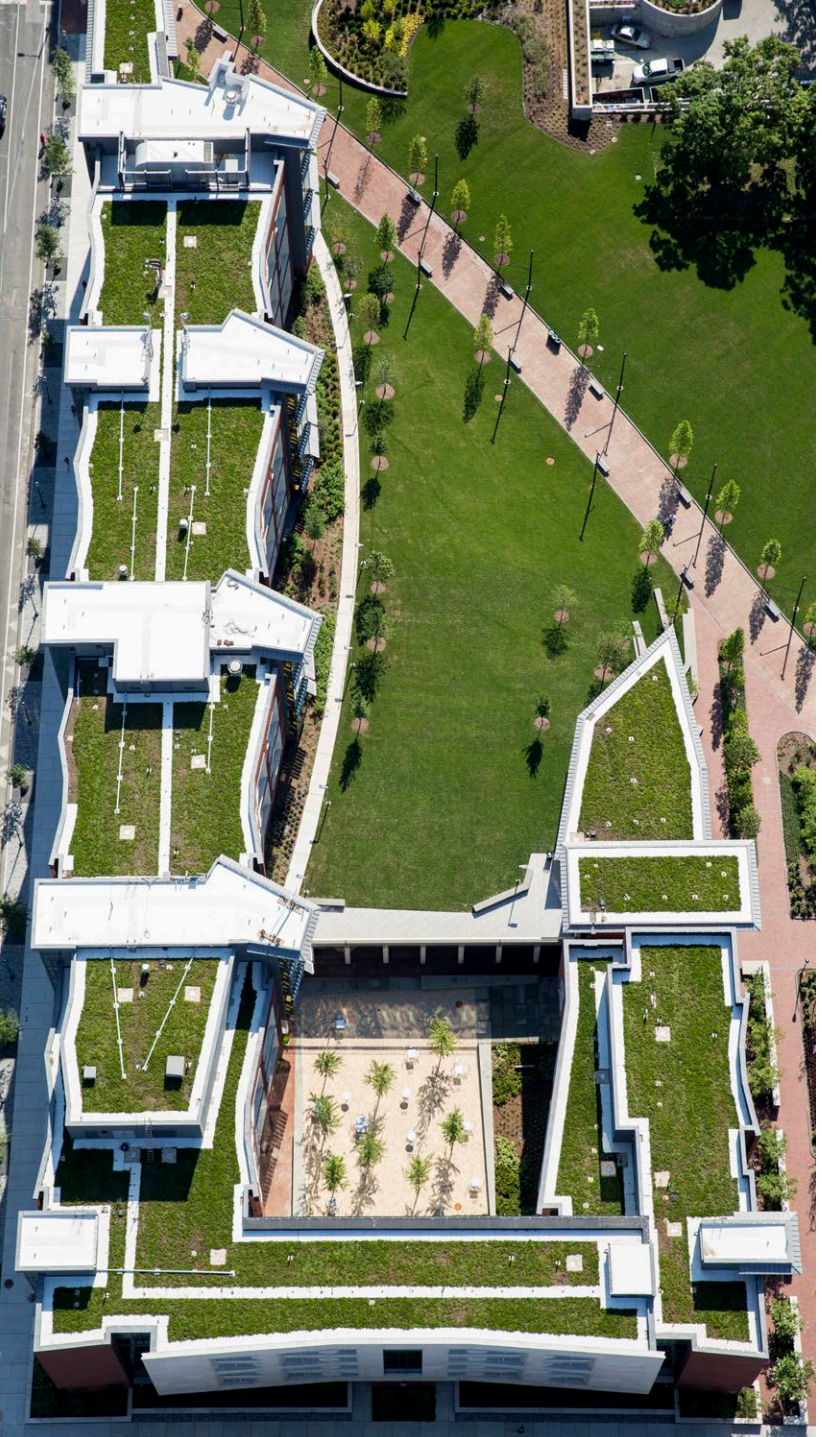


# Sustainability



**building+**

passionate principals + committed professionals + unparalleled service

## OUR GLOBAL VIEW

INTECH is dedicated to constructing buildings that provide both short- and long-term value to our clients while also increasing the well-being of their users. We are committed to the use of construction techniques that minimize the impact on the consumption of energy and natural resources, and enhance and protect the natural environment.

INTECH leads in areas related to construction methods and procurement, managing construction waste, ensuring good indoor air quality during construction, and enforcing on-site management of sustainability practices and the use of approved materials. Our expertise supplements that of architects and project consultants. We advise on issues of cost-effectiveness related to individual points on the LEED Scorecard, and we suggest alternate ways of achieving sustainable goals while still earning the points toward LEED certification.

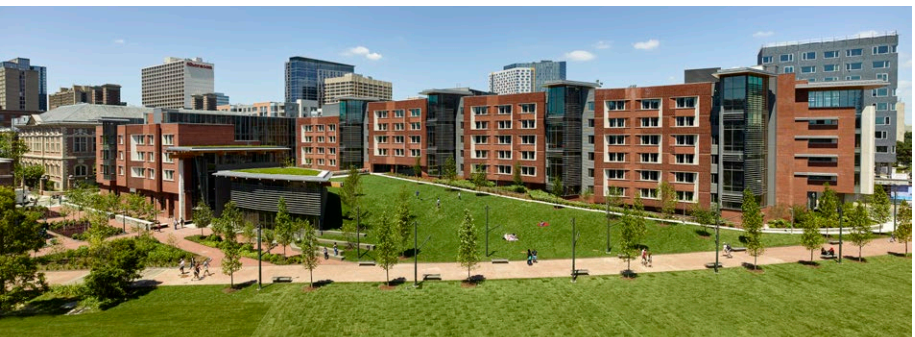
## CRITICAL CONCEPTS

### SUSTAINABLE SITES

This key LEED category addresses project location and minimizing the environmental impact of the site during and after construction. Credits are awarded for protecting natural habitat, managing stormwater, providing alternative transportation, and promoting community connectivity.

#### **University of Pennsylvania, New College House New Residence Hall / LEED Silver (pending)**

Nearly 1,000 tons of soil were excavated from the site and replaced with clean fill prior to construction. During construction, INTECH was responsible for enforcing an erosion and sedimentation control plan that included installation of filtration socks and silt fencing to limit soil loss and stormwater runoff. The final design included a series of green roofs with 95% water retention and a below-grade cistern to manage stormwater.



## WATER EFFICIENCY

Minimizing consumption and maximizing conservation are the two primary approaches to increasing water efficiency. In general, consumption is typically reduced with the use of low-flow plumbing fixtures and conservation is boosted through greywater reuse and water-efficient landscaping.

### Museum of the American Revolution New Museum / LEED Gold (pending)



This project incorporated several sustainable features that benefit water efficiency. The use of low-flow plumbing fixtures will reduce overall water consumption by 43%. All plantings on the project, including the 12,000 SF green roof, are native and require little water and maintenance. A water recapture system recycles greywater by sending it back to the cooling tower. Additionally, the construction team was tasked with

adding large valves and piping to the recapture system late in the project to divert water from the plaza during the winter when concentrations of calcium are increased.

## MATERIALS AND RESOURCES

Sustainable buildings are constructed from materials that are either partially recycled or regionally sourced. Construction waste management is also a large part of the materials and resources category. It is the project team's responsibility to track and verify construction waste totals. At INTECH, our waste management initiative sets a goal of 75% landfill diversion rate of construction debris for all projects. In 2016, over 93% of the construction debris generated from our projects was diverted from landfills.

### 3601 Market New Apartment Building / LEED Silver



3601 Market exceeded all targets for waste management, recycled content, and regional materials credits. LEED Cover Sheets required subcontractors to provide LEED information during the submittal process. As a result, final recycled content and regional material values were projected accurately throughout the project. The project exceeded both the recycled content goal and regional materials goals by nearly 15%, and 95% of total waste was diverted from landfills. INTECH also recycled 170 tons of excess concrete from the concrete washout process.

*"It was a pleasure working with INTECH on 3601 Market. They were attentive and professional during the LEED process, constantly keeping the goal of LEED Silver well within reach. INTECH set the bar high for all future LEED projects and I have no doubt that they will make any job a success."*

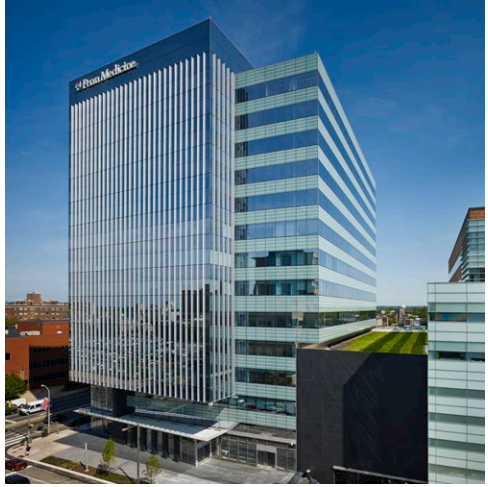
*- Faun Carlson, LEED AP BD+C  
Sustainable Design Consultant  
exp Services Inc.*

## ENERGY AND ATMOSPHERE

High-efficiency HVAC systems and the use of natural light and ventilation are typical energy-efficient design strategies. On-site renewable energy sources can also contribute to credits in this category. If on-site renewable energy sources are not available, green power can be purchased through renewable energy credits.

### **3737 Science Center** **New Medical Office Building / LEED Gold**

This project received the maximum number of points under the Maximize Energy Performance credit for obtaining a 48% reduction in energy use. What makes this accomplishment especially impressive is that these figures were realized despite two floors being added to the tower mid-way through construction. The addition of these floors greatly affected the mechanical systems by requiring the equipment to be resized. INTECH accommodated these changes with minimal impact to the schedule, all while performing high-quality coordination and installation.



## INDOOR ENVIRONMENTAL AIR QUALITY

LEED rewards projects for considering indoor air quality (IAQ) throughout all building phases. Project teams develop and implement indoor air quality plans during construction, which typically focus on six key areas: HVAC system protection, source control, pathway interruption, housekeeping, moisture protection, and scheduling. Project teams are also responsible for providing documentation and installation of low-emitting materials to ensure adequate indoor air quality during building use.

### **Philadelphia University, DEC Center** **New Studio and Classroom Building / LEED Gold**

The DEC Center is an excellent example of using IAQ measures to improve the overall environment during and after construction. INTECH was responsible for issuing and enforcing a strict IAQ plan during construction. This plan included dust control, moisture control, filter requirements for HVAC, and monitoring of the products used in the building. Regular reports were issued to the University and design team updating the different measures being used as construction progressed. Following construction, the schedule did not allow for a full building flush, so INTECH cleaned the space with HEPA vacuums and engaged an IAQ testing agency. Testing passed in all categories during its first round, proving that our IAQ plan was a success.



# COMMERCIAL INTERIORS

LEED Commercial Interiors (LEED-CI) provides tenants with the opportunity to make sustainable choices and improve the environment within the scope of work they control.

## Hill International

Corporate Office Fit-out / LEED Silver



Hill International's corporate headquarters is a 60,000 SF space on the 16th and 17th floors at One Commerce Square. INTECH was responsible for a substantial amount of LEED documentation, which included tracking recycled content and regional materials as well as verifying that all paints, adhesives, and flooring were low-emitting. Sustainable features included the installation of a fully integrated, all-LED Lutron lighting control system, consisting of both daylight and

occupancy sensors. Both sensors are lithium ion battery-powered wireless devices that communicate locally with the controller box mounted in the ceiling of each distinct area.

## OUR COMMITMENT

INTECH Construction is committed to challenging the way we think about the built environment. Our construction management professionals are active participants in the green building movement. Over 30% of INTECH's staff holds LEED credentials, many with specialty accreditations.

INTECH has completed 15 LEED certified projects, totaling nearly 3,000,000 SF in the Philadelphia market. In addition, another 1,000,000 SF of LEED space is either under construction or pending certification.

*"With a 12,000 SF green roof that covers nearly 40% of the building, the Museum of the American Revolution features one of the largest meadows in Old City. This is just one of the eco-friendly elements incorporated into the building design in order to achieve Leadership in Energy and Environmental Design (LEED) Gold certification, an amazing feat for a museum due to stringent climate requirements for preserving artifacts."*

*- Michael Quinn  
President and CEO  
Museum of the American Revolution*



# LEED Projects

## LEED GOLD

- 3737 Science Center
- Curtis Institute of Music, Lenfest Hall
- Germantown Academy, Upper and Middle Schools
- The Haverford School
- Hotel Monaco
- Hotel Palomar
- Philadelphia University, DEC Center
- University of Pennsylvania, FMC Tower Tenant Fit-out
- Museum of the American Revolution (pending)

## LEED SILVER

- 3601 Market
- 777 South Broad
- The Agnes Irwin School, Dining and Athletic Facility
- CHOP Karabots Pediatric Care Center
- Hill International
- Project HOME, Stephen Klein Wellness Center
- Temple University, Montgomery Parking Garage
- Wexford Science Center
- NorthxNorthwest (pending)
- University of Pennsylvania, Richards Medical Research Lab (pending)
- University of Pennsylvania, New College House (pending)

## LEED CERTIFIED

- Walnut Street Library
- Courtyard Philadelphia South at The Navy Yard
- 3020 Market Street (INTECH's office)

**For more information please contact Ed Rowe, Director of Sustainability,  
at 215.243.4995 or [ERowe@intechconstruction.com](mailto:ERowe@intechconstruction.com)**

**On the cover:** The green roof at the University of Pennsylvania's New College House



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