



# **BROST ARCHITECTS & PLANNERS LTD**

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## Testimonial

"Brost Architects designed our new building in 2008-2009. Dave Brost Jr. worked with us very closely during every step of the design, listened diligently to our needs and feedback, and developed a design that meets our needs perfectly. The highlight of the building is the clerestory design that allows a lot of natural light into the lab. The clerestory design, along with the overall layout, makes the building a very efficient and more enjoyable place to work."

- Dave DeCoste  
RF Micro Devices

## Contact Us

For more information: visit [www.brostarchitects.com](http://www.brostarchitects.com), call us at 319-366-8531, or send us an email at [brostarch@brostarchitect.com](mailto:brostarch@brostarchitect.com). To receive our monthly newsletter, visit the "Contact Us" page on our website and sign up for our email newsletter.

## Daylighting: Growing Productivity

Everyone has worked in a space without windows. There are plenty of spaces where it makes sense not to have windows: storage areas, mechanical rooms, and presentation conference rooms. However, providing natural light to the spaces where workers conduct their daily activities has proven benefits for productivity and energy conservation.

We often focus on the upfront cost of construction. However, the overhead costs related to building construction pale in comparison to the expense of employee salaries and benefits. The Journal of Property Management found that the average annual employee salary cost in an office was \$130 per square foot.<sup>1</sup> Daylighting is one design strategy that can improve employee well-being, as well as decrease the number of sick days. Figures and studies vary, but productivity increases between 5-15% are common. If you could get an extra 10% out of that \$130/s.f. labor cost every year, imagine how much you could save over the course of a building's life.

Aside from the productivity benefits of daylighting, there is also energy cost savings involved. Approximately 90% of the energy that goes into a typical incandescent bulb, and 70% of the energy that goes into a typical fluorescent fixture, is emitted as heat. Many studies have found that a well designed daylighting scheme can produce an energy savings of approximately 20%.



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## RFMD



Brost Architects and Planners started this project by working closely with staff to provide a design that fulfilled their needs and improved their everyday business functions. The building is planned around the central micro-processor research lab, facilitating an open environment with lots of natural light. The building incorporates several green design concepts, including extensive use of daylighting strategies, as well as sunscreen metal awnings to shield the windows from excessive heat gain in the summer and allow in heat during the winter.

One project that we have designed using ample daylighting is for RF Micro Devices, Inc. (RFMD), in Hiawatha. RFMD is a global leader in the design and manufacture of high-performance semiconductor components. Brost Architects and Planners started this project by working closely with Dave DeCoste and RFMD staff to provide a design that fulfilled their needs, in order to improve their everyday business functions within their Hiawatha Design Center. The building is planned around the central micro-processor research lab, from which all other spaces radiate out, facilitating an open environment where, as one employee described it, "We can always find people."

The building incorporates several green design concepts, including extensive use of daylighting strategies, as well as sunscreen metal awnings to shield the windows from excessive heat gain in the summer and allow in heat during the winter. The biggest challenge of this project was to bring daylight into the central lab space, while also balancing the specific thermal and humidity requirements of the space in order to minimize risk of damage to experimental prototypes. This was accomplished through the use of a saw-tooth roof feature with clerestory windows, as well as triple paned glazing to avoid moisture condensation in the winter. Daylighting is a strategy that we, at Brost Architects and Planners, frequently incorporate in our designs. We encourage you to explore it for your facilities.



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## About Us

### Mission:

The mission of Brost Architects is to design spaces that enrich peoples' lives and enhance communities by providing personal service with active client participation and developing lasting relationships.

### Value:

Brost Architects collaborates with business and community leaders, with an appreciation for architecture, that need unique, functional, and cost-effective spaces, by designing places that exceed expectations. Unlike large, out-of-town firms, Brost Architects is rooted in the community. We communicate clearly and promptly, develop lasting bonds with clients, and ensure that the same design professionals work on projects, from the start of design to the completion of construction. This is demonstrated by our many repeat clients, who enjoy their beautiful, cost-effective, energy efficient designs and often refer us to others.

## Architects: Who Needs 'em?

Have people ever asked you the same question over and over again? One question people in the construction industry hear every day is: "Do I need an architect for this?" The licensing of architects is intended to protect the health, safety and welfare of the public. It is the state that authorizes the use of the title "architect" and it is the state that regulates the profession.

The Architectural Practice Act of the Iowa Code defines the qualifications, obligations and responsibilities as practicing professionals. To view Chapter 544A of the Iowa Code, please visit the following website article: <http://www.state.ia.us/government/com/prof/architect/PDFs/544A.pdf>. The city of Cedar Rapids has developed the following chart, which indicates when an architect or engineer may be required: <http://www.cedar-rapids.org/government/departments/building-services/building-trades/Documents/Requirements%20for%20Architect%20and%20Engineered%20Plans.pdf>.

While certain types of construction are exempt from requiring a registered architect, the design of most buildings that will be used for human occupancy is restricted to architects. Even if your building is exempt from requiring an architect, an architect may be helpful. Many people that draw up their own floor plans on buildings that do not require an architect, often fail to account for things, such as: providing proper fire exiting, accessibility, or the proper amount of space for mechanical systems and storage.

Architects are tested on a wide array of issues including: life safety, accessibility, spatial relationships, energy efficiency, construction materials, and building codes. The state also mandates that we understand the concepts behind structural engineering, mechanical engineering, and civil engineering, as well as how to assist you with construction contracts and builders. The concept of saving money by not hiring an architect or engineer might be tempting, but it could cost you significant amounts of money on your project in the long run, by not obtaining sound professional advice.