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NATURAL LIGHT INSPIRES WORKER PRODUCTIVITY FOR STAFF ZONE HQ

ENEREF INSTITUTE EXAMINES HOW A NATURAL INTERIOR
DAYLIGHT INCREASES OFFICE PRODUCTIVITY

Staff Zone has been an innovator in the building construction industry since 2002, specializing in providing general and skilled labor to national and regional contractors. When it came time to redesign their own office

headquarters, Staff Zone's leadership continued their spirit of innovation by incorporating modern best practices including, among others, the use of natural interior daylight as a primary light source.

WE DECIDED ON NATURAL DAYLIGHT BECAUSE IT INSPIRES A BETTER WORK ETHIC.

SHERRI HARRIS | *Staff Zone CEO*

“People working inside a dark enclosed space feel confined. Natural daylight makes them more inclined to be in better moods, produce more work and just be happier,” explains Sherri Harris, Staff Zone’s CEO.

For their new headquarters, Staff Zone bought a historic, square-shaped building just outside of Atlanta in Roswell, GA. After gutting the building, Harris found that the further she explored the building interior, the darker it felt. Sam Harris, Staff Zone’s COO, was an early proponent of using window light throughout the facility, even for the interior offices—a difficult goal to accomplish given the building’s large square floor space. After several brainstorming sessions, architect Joshua Roland suggested a skylight system covering the entire rooftop to bring in natural light where windows could not.

A CEILING OF DAYLIGHT

“We decided on a large rooftop skylight because we know that natural lighting inspires a better work ethic,” said Sherri Harris.

The rooftop skylight that

architect Joshua Roland chose to install was a VELUX Pinnacle daylighting system. The light coming through the skylight is ample enough to spill down into the lobby, as well as through the railing of the second floor stairwell. According to Roland, the skylight brings in an abundance of light. Roland, an Associate Principal at Chapman Coyle Chapman, worked with David Grace, of the Atlanta-based firm A Classical Studio, during the renovation.

THE EFFECT OF NATURAL DAYLIGHT

“That combination of the height, the exposed steel and the light that inundates the building really gives the space a light and airy feeling,” Roland pointed out.

Laura Green Rothermel, who worked with Staff Zone on the interior office design, agreed that the skylight vastly enhanced the space. “Early on, we spent months walking the property and talking about their business. Once I saw it, the skylight tied everything together and made the office look gorgeous.”

Ashley Guyer, Corporate Recruiter at Staff Zone, commented on the significant impact that the skylight has had on the work environment for the office staff. “I would totally say it was worth it. The daylight just helps with everyone’s moods, emotions and feelings. I don’t even turn my overhead lights on.”

The reason that the skylight induces these positive feelings is that daylight reduces the production of melatonin—the protein that makes us sleepy—thereby preventing drowsiness and improving attention and cognition. Using natural daylight to illuminate offices helps regulate our melatonin, not only reinforcing circadian wellness but also improving work performance.

“The first time that I walked in and saw the light, I loved it. It was so refreshing. I felt good immediately,” said Ashley Guyer. “I just felt like it did something to my energy. I definitely feel like the natural light helps me to be more productive.”

In contrast, poorly designed electrical office lighting has negative effects on workers’ performance; without the proper wavelength of light, workers’ natural circadian rhythm is disrupted. In a groundbreaking study by the U.S. Department of Energy, Lockheed Martin discovered significant human-centric benefits by including natural light in their office space,

in what was originally planned as an energy reduction project to reduce lighting costs. Lockheed was surprised to see an increase in productivity from their 2,700 engineers as a result of bringing natural light into the office. Furthermore, there was a 15% drop in employee absenteeism. (See Eneref Report: Natural Daylight in Big-Box Retail Stores Boosts Consumer Sales.)

WARRANTIES SQUELCHED WORRIES

One concern for architect Joshua Roland as well as Jeff Thomas, the general contractor, was the skylight's longevity and maintenance.

"Some of our questions had to do with, what's the maintenance over time and who's going to service it, or even, is it going to fail?" explained Roland. "But the warranties offered by VELUX really squelched any worries that we had in that regard. And the

warranties even put Jeff's mind at ease, who, as the contractor, would be the first to respond if anything happened to the skylight."

Jeff Thomas is the owner of Thomas Custom Properties, an Atlanta-based construction company in service for more than 30 years. Staff Zone hired Thomas as their contractor because he is a local Roswell businessman with whom they had successfully worked previously.

SKYLIGHT INSTALLATION

Joe Burton Company provided the skylight and glazing specifications to VELUX, who in turn worked with the glass company, Oldcastle Building Envelope in Dallas, TX, to engineer the glass to fit VELUX's framing. The skylight frame structure was shipped unassembled; Thomas Custom Properties assembled it on site and lifted it onto the roof

with a crane.

The glass, which had been shipped separately in crates, was laid into the metal framing piece by piece on the roof. Pressure bars and sealant were subsequently set in place. The lower glass sections were strong enough to support the weight of the construction workers as they installed the upper glass segments. From assembly to installation, the process took four days to complete. The flashing, which eliminates the chance that rainwater will leak into the building, was also provided by VELUX. While VELUX designed the entire skylight system, Thomas built the curb mount and installed the advanced flashing system.

"It's really a very strong and super-reinforced metal and glass skylight up there. Velux did all the engineering and really figured it all out," said Thomas.

SKYLIGHT *brings daylight* TO INTERIOR

HIGHLIGHTS | • Low-E • Thermal • Flashing • Natural Daylight





ABUNDANT INTERIOR DAYLIGHT

The light coming through the skylight spills down into the lobby and spreads throughout the building.

Photos courtesy of Designer Laura Green Rothermel of CRLG Holdings.

SYSTEM CHARACTERISTICS AND SPECIFICATIONS

Specifications for the Pinnacle skylight, such as size and pitch, were determined according to the local code and wind load requirements. The total depth of the Insulated Glass (IG) is over 1 inch in thickness. It includes tempered glass on the exterior, argon gas for thermal insulation and two pieces of interior glass secured together with protective vinyl. The low emissivity (Low-E) coating is a microscopically thin, transparent layer of material that minimizes the ultraviolet and infrared light that can pass through the glass. Before any interior heat can escape during the winter or any outside heat can enter during the summer, the

Low-E coating reflects the heat back, reducing the radiant heat transmission. The vinyl further protects the glass from breakage. Condensation, not uncommon in skylights, is resolved with a gutter system that drains any moisture back out of the skylight and onto the roof.

CHOOSING THE RIGHT MANUFACTURER

Jeff Thomas worked extensively on sourcing the right type of skylight system for the Staff Zone building. He and architect Joshua Roland researched and met with three different skylight manufacturers. They considered aspects such as price and delivery time, as the project was under an aggressive build

schedule. The final decision to choose the Pinnacle skylight was further influenced by their impression of the VELUX sales team.

“Jeff and I both agreed that they seemed the most competent, confident and approachable,” said architect Joshua Roland. “Their demeanor in the sales pitch, decorum and confidence were decisive for us.”

Jeff Thomas agreed: “When you talk to people, you get a feeling of what they’ve done before and how they’ve done it.”

Lewis Burton is the Sales Representative at Joe Burton Company in Tucker, GA. “I met with the architect and the contractor early on to help them

through the process,” recounted Burton. “I just tried to address whatever concerns they had, such as structural integrity and solar heat gain.”

BRINGING DAYLIGHT INTO EVERY OFFICE

Staff Zone’s CEO and COO were looking to assemble as many office spaces as possible and to illuminate them with natural daylight. Having natural light inside the building was critical for motivating their employees, as they both understand the positive impact of natural light on wellbeing and productivity.

As architect Roland explained, “I thought, ‘Hey, how do I get more light in here?’ So I said, ‘Let’s think outside of the box, let’s think big.’ The notion of

the skylight caught on and we pursued it.” He added, “It was a pretty boldacious idea that I came up with during the design process.”

Staff Zone COO Sam Harris agreed that the skylight was an ingenious way to achieve his main goal: bringing natural light into the building to illuminate the interior offices.

AN IMPACTFUL INVESTMENT

Beyond the benefit of a reduced carbon footprint with the use of natural interior daylight as a primary light source, Eneref Institute wanted to better understand how the skylight has impacted the working conditions in Staff Zone’s new headquarters. Eneref interviewed Staff Zone employees, who expressed their

appreciation for the better visual comfort. Office employees said that the daylight lends the space an “openness” and “pleasant feel” and that it serves as an “energy booster.” Further, they noted that the skylight gives the building a “striking” and “sophisticated” appearance. Employees also indicated that they “truly feel cared for” by Staff Zone.

“The benefits of the skylight outweighed the cost. No matter what the price was, we wouldn’t have done it any other way. That’s how significant the impact is,” explained Sherri Harris. “I think if you put that much care into thinking about the building, then it shows you’re putting that much care into how you run your business.”





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