

# Accountability and Ethical Standards:

## Where Do We Draw the Line?

By Nick Warndorf, Harrison McCampbell, and Nikki Warndorf

**ETHICAL DILEMMAS EXIST** in nearly every building project, so it is imperative that building enclosure consultants clearly understand how to address these challenges. Since its founding 40 years ago, IIBEC (formerly RCI) has recognized that consultants must be ethical in their practice and should not favor one party or another in order to receive a commission. In addition, building enclosure consultants are ethically bound to provide their clients with up-to-date and objective advice, any pertinent background information or observations, and a full range of positive options for their projects.

Given their ethical obligations, building enclosure consultants must work closely with their clients to fully understand the project's unique demands. Once a consultant and client agree to work together, the client's needs—not the consultant's personal interests or gains—come first. Furthermore, consultants should never shirk their duty to be honest, objective, and forthright with their clients, as clients place a great deal of trust in consultants and their professional advice.

Building enclosure consultants encounter situations in which conflicting personalities, differences of opinion, or other factors make it difficult to make professional and responsible decisions. During these times, consultants should remember their ethical obligations and think carefully before making any pivotal decisions. This article considers three challenging construction scenarios, discusses their key ethical implications, and considers how building enclosure consultants who adhere to ethical principles can serve owners and the public. **Figures 1 and 2** show examples of a project where a consultant was not engaged, and in the absence of objective oversight, clear and

prevalent installation flaws occurred throughout the project. These examples are among many throughout the article that are intended to detail what can happen in the absence of objective third-party oversight on any project, big or small. That's where the enclosure consultant comes in.

### SCENARIO 1: PROJECT WITHOUT DUE DILIGENCE

A homeowner had a 10-year-old shingle roof that was experiencing persistent leaks, usually in the same places. The homeowner searched the internet, called a few roofing contractors, and was quoted a wide range of prices. Without conducting any further research or investigation, the homeowner chose to use the lowest-priced contractor and signed his proposal as the contract. The terms were favorable to the contractor.

The contractor required 50% of the estimated total up front to pay for materials and to get the job started, with the other half due upon completion. The client and contractor agreed to start the project as soon as possible. Within a week, work was underway. One day, the homeowner returned from work to find that the project was "finished." However, the contractor had put the new roofing right over the old roof, even though the proposal called for removal. The supervisor on the job said that rain was predicted for the next day, so the crew needed to work quickly. He defended his choice by saying there was no need to remove the old roof, he had been doing shingle work for over 15 years, and he knew what was best for his jobs.

The owner called the contractor and demanded that the crew tear off all the shingles and start over. However, the contractor also claimed that a tear-off was unnecessary and that it would be too costly to redo the roof. Getting nowhere, the owner contacted the shingle manufacturer to enforce the shingle warranty, but the manufacturer's representative

informed him the company did not warrant their system when installed over another roof. Also, the shingles had been improperly nailed, the overhang of the perimeter shingles was excessive, and warranties were never enforceable unless all bills were paid. **Figures 3 and 4** demonstrate typical lapses in roof installation oversight or understanding of minimum standards by some contractors. It's an important lesson that installation requirements and standards are not always understood by every member of an installation team or crew.

The homeowner then discovered that the contractor had offered a two-year "quality of work" warranty. However, when the homeowner pursued this matter, the contractor also refused to honor his warranty until all bills had been paid. At this point, the homeowner learned that the contractor had never purchased a permit for the reroof, did not have a current license to do roofing (he had let it expire), and had little net worth, as his "office" was, in essence, his pickup truck and his cell phone. The now irate homeowner hired an attorney who instigated a lawsuit to get the contractor to remove and replace the roof, as was originally intended. The contractor in turn sued the homeowner, claiming that even though he did not have a license, had not gotten a permit, and had not installed the roof correctly, his work was of some value and that the homeowner had to pay accordingly.

The suits never went to court, as the homeowner's attorney advised his client that it

*Interface* articles may cite trade, brand, or product names to specify or describe adequately materials, experimental procedures, and/or equipment. In no case does such identification imply recommendation or endorsement by the International Institute of Building Enclosure Consultants (IIBEC).



**Figure 1.** Example of a critical eave where drip edge was not installed even though it is the minimum required standard. Ethical decision-making means doing what's right for the client even when no one is looking.



**Figure 2.** Example of improper terminations missed/ignored by all coordinating trades even though proper termination to prevent water entry is the minimum required standard. Ethical decision-making in this scenario means refusing to leave an at-risk area incomplete in the interest of the client and occupants of the building.



**Figure 3.** This pipe penetration was never flashed per minimum required industry and manufacturer standards, resulting in persistent leaks that went undiagnosed by the original roofer in subsequent service calls for over three years.



**Figure 4.** Nailing missed sheathing, no edge metal present per codes, excessive shingle overhang—all of which violate manufacturer's installation instructions.

would be cheaper to pay the contractor than to pursue the matter in the legal system. Litigation seemed especially futile because the contractor had no real net worth upon which the homeowner could collect if the court ruled in the homeowner's favor. The owner was left with two shingle roofs that would have to eventually be removed when he had a quality roof system installed, as the local building code allowed a maximum of two roofs. The outcome was distressing for the homeowner, who had spent what money he had on the project with the "low-cost" contractor.

This scenario highlights the adverse consequences for the project owner when

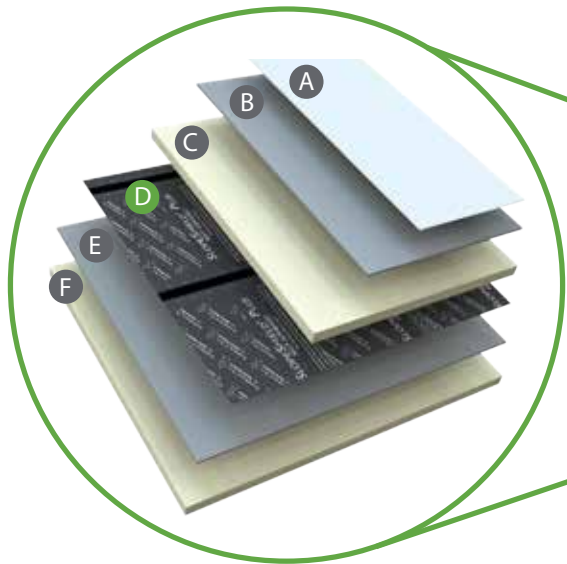
no one performs due diligence to ensure that all parties working on a project are qualified, competent, and ethical. On this project, the homeowner was responsible for that due diligence. On a project where the owner engages a building enclosure consultant, the owner may delegate some of this oversight responsibility to the consultant. If one were to consider this scenario in terms of peer review, the idea is that we all miss things or make mistakes. The general idea, however, is that all of us in the construction environment offering professional services do our very best to mitigate risk to the enclosure and its occupants.

It should be noted that building enclosure consultants do not typically work on projects

of the type or scale described in this scenario. Also, the owner who delegates due diligence to a consultant must, of course, choose an ethical and competent consultant. To help owners identify qualified consultants, IIBEC has developed credentials to indicate that consultants have the appropriate technical knowledge, are experienced in their field, and promise to uphold ethical standards. To hold an IIBEC credential, individuals must agree to comply with the IIBEC Code of Ethics and report any observed violations. To earn an IIBEC credential, a consultant also must demonstrate their experience and expertise and provide references. (For further details on IIBEC credentials, visit <https://iibec.org/credentials>.)

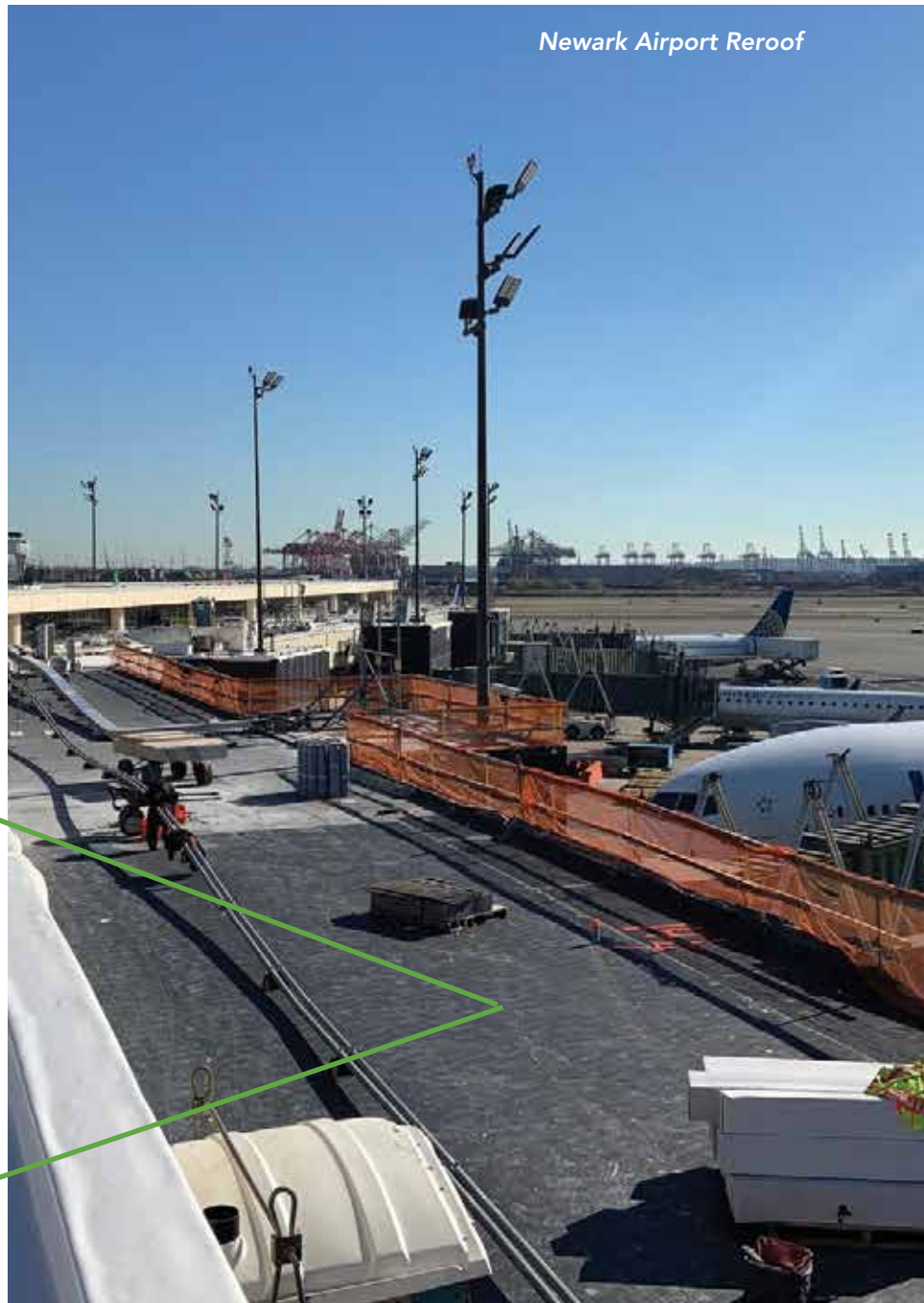
# SELF-DRYING ROOFING UNDERLAYMENT SAVES LANDFILLS

**SLOPESHIELD® PLUS**  
SELF-ADHERED  
Vapor Permeable Air Barrier



- A** 60 mil PVC roof covering  
*(by others)*
- B** Additional gypsum recovery board  
*(by others)*
- C** New insulation *(by others)*
- D** SlopeShield Plus SA breathable underlayment
- E** Recovery board *(by others)*
- F** Re-used existing insulation

**VAPROSHIELD®**  
Breathable Membrane Systems for Roofs & Walls



Newark Airport Reroof

By using VaproShield's vapor permeable roofing underlayment – SlopeShield Plus SA – the expansive Newark reroof project (375,000 sq.ft) was able to **save tons of roofing materials** from the landfill, **reducing the carbon footprint**. Installed over existing materials, the exceptional drying capacity of SlopeShield Plus SA allowed **moisture vapor to escape** from the wetted roofing materials, while keeping out liquid water.



Order a free sample at [VaproShield.com](http://VaproShield.com)



**Figure 5.** Evidence of moisture intrusion at masonry wall and numerous voids in the coating allowing water entry.



**Figure 6.** Moisture intrusion at masonry wall confirmed during testing.

The role of the building enclosure consultant is to act as the owner's representative; the consultant may therefore be expected to ensure contract terms, performance criteria, and manufacturer's installation specs and that all other enclosure-specific needs are met in relation to the scope of work. To successfully fulfill such responsibilities, enclosure consultants must stay up to date with the latest industry knowledge and standards, as well as

the legal requirements associated with their profession, so that each project meets the client's expectations. The IIBEC Code of Ethics (<https://iibec.org/membership/code-of-ethics>) makes clear that fulfilling these responsibilities is not just good business but a foundational ethical expectation. For example, according to the code, IIBEC members and IIBEC-credentialed building enclosure consultants must:

- Adhere to applicable laws and regulations
- Approve and/or issue only those documents that they prepare or review and that are determined to be safe for public health and welfare, in conformity with accepted industry standards and applicable laws
- Undertake assignments only when qualified by education and experience in the specific technical fields involved
- Further knowledge of technical and non-technical capabilities, including, but not limited to, the science, principles, and ethics of the profession and community

## SCENARIO 2: NO DOUBLE-DIPPING

An owner decided to renovate an existing 80-year-old industrial block of buildings and convert it into mixed-use space for commercial offices, restaurants, bars, and parking. The location was highly desirable, and the existing structures were full of vintage charm. However, many of the existing enclosures had exceeded their usable service lives.

When the idea of renovation was first proposed, the owner might have benefited from the guidance of a qualified building enclosure consultant. If that consultant had completed a thorough evaluation, they would have advised the owner to pursue a comprehensive building enclosure strategy with an overcladding system and other interventions to address existing water management issues throughout the complex. Unfortunately, the owner did not engage a building enclosure consultant. Instead, a lower-cost contractor was selected to "coat" the buildings' single-wythe masonry exterior, which served as the enclosure's only weather-resistive barrier. **Figure 5** represents the general condition of the masonry and what a coating or topical solution amounted to in this case.

Unsurprisingly, this initial "strategy" did not work to stop moisture intrusion. Numerous leaks would occur, and the property management firm would try to fix them with additional topical repairs that did little to change the leak conditions. This cycle continued until a new property management company added the complex to its portfolio. The moisture intrusion problems continued, and a third-party consulting firm was eventually hired to investigate the source of leaks in one unit through visual observation and targeted water testing.

Water testing confirmed an enclosure assembly issue (**Fig. 6**). As a result, the consulting firm recommended a scope of work in which the enclosure improvements would be approached as an entirely new, comprehensive project instead of small-scale, piecemeal repairs. The prospective



**Figure 7.** Evidence of moisture intrusion at masonry wall shown as rust escaping a wall void.

cost associated with the proposed scope of work would have required considerable investment from the property owner, and the owner decided to avert further investigation and any new scope development procedure. The owner and the building enclosure consultant stopped working together.

Soon after that, a new property management firm took over the complex (becoming the third management firm in less than five years). On behalf of a prospective tenant, the new management firm contacted the building enclosure consultant with another request to evaluate the building enclosure. The proposed scope of work for the evaluation was to observe conditions, test as needed, and recommend

enclosure options that would address the ongoing moisture intrusion (**Fig. 7**).

At this point in the scenario, we reach the ethical issue. The building enclosure consulting firm had a choice. They had the technical expertise and experience that the job required. They could agree to submit a quote for the proposed scope of work for the evaluation, do the work correctly if contracted, and provide an objective assessment. In these respects, there were no ethical red flags.

However, the consulting firm had already done an evaluation, knew that the failures in the enclosure were systemic in nature, and believed that the owner would have to commit to substantial renovation work to



**Figure 8.** Improper weather-resistive barrier application and flashing sequence—active moisture intrusion and damage to substrate and water entry at doorway rough opening.

resolve the problems. Therefore, the building enclosure consultants recognized that they were ethically bound to disclose that their firm had previously evaluated the building enclosure and made recommendations. Given an opportunity to “double dip” on the same site, the consultant instead chose to inform the owner’s representatives that established knowledge of the enclosure conditions, which were already verified with testing, indicated that the job required a systemic approach. This decision was essential for protecting both the consultant’s professional brand and the project’s overall success.

This scenario illustrates that the building enclosure consultant is ethically obligated

## Special interest

# Bosses Say Time's Up for Working From Home



Source: Sharomka/shutterstock.com

Employers want their work-from-home employees to come back to the office, and they're changing their tactics to make that happen.

“The days of enticing employees with free food, laundry services, and yoga classes are largely over,” Taylor Telford wrote in the *Washington Post*. “Now, executives are resorting to threats—and it’s forcing some workers to decide whether they’re willing to give up the flexibility they’ve gotten used to.”

Tech companies such as Zoom have asked employees who live within 50 miles of a Zoom office to start coming to the office at least two times a week. Similarly, Amazon has set an expectation that its office workers will be on site three days or more each week. At an Amazon employee meeting, chief executive Officer Andy Jassy informed attendees who resisted the policy that “it’s probably not going to work out for you at Amazon.”

US President Joe Biden has also called for workers to return to the office. He recently told Cabinet officials to inform federal employees that they need to return this fall.

to serve the client and the building. Like a physician diagnosing a patient, consultants should make a diagnosis based on the best obtainable version of the facts at hand (both current and throughout the project's history) and let the building do the talking. If the consultant had performed the requested evaluation, it would have been akin to a physician performing unnecessary medical interventions for financial gain. Keeping this medical analogy in mind can help consultants establish a clear delineation between what is ethical and what is not.

### SCENARIO 3: COMMISSIONING TO FIND ENCLOSURE DEFICIENCIES

From design to installation, there needs to be a two-way street of coordination and communication to ensure that all required building criteria are met. No matter what a person's role is in the project and how they view it, construction is a hands-on process with real-time on-site requirements. One of the ways this can be achieved is through building enclosure commissioning (BECx).

In this scenario, an out-of-state designer was hired to provide professional services and direction on a high-end townhome development with common-use areas. The problem arose when the designer of record's involvement ended at the design—they were never on the project, they provided no specifications, and they weren't able to make site visits during installation to confirm correct detailing. On top of this, the contractor never coordinated with the designer of record throughout the project, as is generally specified and expected.

The general contractor that was chosen to execute the work then also subcontracted the project out to eight different subcontractors in the enclosure scope alone. One might wonder how there could be that many; we too asked ourselves that question. The subcontracted work included the fenestrations, electrical penetrations, shingles, metal, single-ply membrane, pavers, brick, and siding. Each subcontractor represented a separate entity and interest in the overall performance of the enclosure system. The oversight was abysmal with the quality of work and final product a failure from day one.

After roughly three years of continued failures and water intrusion, the project went legal and numerous experts were brought in to evaluate the overall complex to include all known issues, as well as any unforeseen conditions upon discovery. The team of experts



**Figure 9.** *Dryer exhaust penetration through roof, unsealed and building up around penetration.*



**Figure 10.** *Improper wall penetrations and termination detailing resulting in substantial leaks into the space below.*

included forensic investigators, architects, construction management, and structural engineers. The obvious visual deficiencies gave way to testing and evaluation, which in turn led to complications that put lives at risk. Issues included:

- Blocked dryer vents that caused condensation and posed a risk of fire, ignoring minimum codes and standards (**Fig. 9**)
- Pervasive water intrusion at exterior walls via scuppers, windows and doors that resulted in rotting sub-floor

- Rotted sub floor investigation that identified laminated veneer lumber (LVL) beams too short to be fully supported at the outside wall

While limited deficiencies are uncovered all the time in forensic investigations, it is no less alarming that our reporting of these kinds of issues as consultants can often be swept under the rug and ignored by other parties. Issues such as pervasive water intrusion via the enclosure and obvious distress expressed by the enclosure itself are indicators of potentially high-risk

performance issues. This is evidenced most recently by building failures such as the Surfside condominium collapse in Miami in 2021 or the Davenport partial building collapse in Iowa in 2023.

The result in this specific scenario was a multi-million-dollar lawsuit that lasted several years. During that time, occupants were forced to stay in the units they owned, unable to sell or rent due to active and ongoing moisture intrusion issues. The homeowners association didn't have the funds in reserve to pay for repairs. The cost estimate based on the extensive repairs required were further compounded by countless dollars spent chasing leaks. The worst part is that all of this could have been avoided entirely with a bit of redline review of the initial design, and periodic observations of the build by an objective third-party enclosure consultant. From an ethical standpoint, this scenario represents the opportunity for us to identify as many enclosure deficiencies as can be observed. When there are catastrophic construction defects present, those observations must transcend individual trades or trade interests, prioritizing health and safety. The general contractor is responsible for managing their subs, but all too often they don't possess the necessary bandwidth to maintain a constant pulse on progress. They also may not fully grasp the enclosure from a holistic perspective and focus more on deadlines and coordinating the various subschedules. This mode of thinking seems to bypass ethical considerations all together. That's where the enclosure consultant comes in.

This is not a condemnation of contractors. It's also obviously not intended to suggest that contractors aren't ethical. Rather, it's intended to bolster the necessity of third-party oversight in coordination with the other professional services involved in a build, such as architects, engineers, and contractors. The enclosure consultant has an eye for all things water entry. This is in contrast to trade-specific subcontractors. A framer is thinking about structure, not the weather-resistive barrier (WRB). A mason is thinking about masonry and not the rough opening flashings, fenestrations, roofing, and so on and so on. Each tends to think that the next person in line will fill in the gaps or make sure an enclosure condition is watertight. Subcontractors are going to focus on their contracted trade and the bottom line, which is always limited by time on site and coordination with other trades. Ethics tends to take a back seat to efficiency. Ethically speaking, a consultant would have put the enclosure performance and the client first rather than the budget. The point in this


scenario is to illustrate how lapses in judgment take place in the absence of BECx oversight.

**Figures 9 and 10** are indicative of such lapses.

## CONCLUSION

It behooves us all within the construction industry to recognize the various strengths and weaknesses of the teams and projects we serve. They are all unique and completely independent of one another, but no more or less important. Generally speaking, everyone has a role to play and a duty to play it well. Ethically speaking, consultants have a responsibility to look at the whole picture regardless of who is involved, ask the hard questions, and make sure everything fits together correctly for the final product and enclosure performance. These projects ultimately protect and shelter someone's loved ones. We are all in the business of sheltering human beings.

Each project poses its own set of challenges to be overcome by specific trades and independent professionals. Each "patient" or building can be treated with a standard of care congruent to industry standards rather than common industry practices, which should but often don't meet minimum standards—standards that we *must* meet and should seek to exceed. Ethical standards are our guiding light (along with codes, industry standards, and specs). Ultimately, ethical behavior in construction consulting must be at the core of all decisions made.

In every situation and project, having a clear ethical standard is essential for maintaining continuity of service and a continued respect for the profession. If the aforementioned scenarios are to teach us anything, it's that not everyone shares the same ethical standards, and every project plays by its own rule book. As enclosure consultants, even if the rules change from project to project (i.e., the contract documents or site conditions), the ethical standards we adhere to remain the same. When in doubt, default to a code of ethics and start making decisions from there. 

## ABOUT THE AUTHORS



**NICK WARNDORF**

**Nick Warndorf** owns *The Warndorf Group LLC*, a consulting firm specializing in roofing and waterproofing investigation and commissioning, in Nashville, Tennessee. He holds a master's degree from the *University of Louisville* in *Irregular Warfare*

and became a roofing contractor after receiving his MA. He has managed hundreds of projects around the country and has authored numerous articles regarding construction, best practices, forensic investigation, and construction defects. He serves on the board for IIBEC Mid-South, BEC Mid-South, and ASTM, and continues to contribute to his graduate research as a guest speaker abroad.



**HARRISON MCCAMPBELL**

**Harrison McCampbell** is the president of *McCampbell & Associates, AIA*, an architecture firm specializing in roofing and waterproofing issues, in Brentwood, Tennessee. He is the author of *Problems in Roofing Design* (Butterworth-Heinemann press) and a contributing author on *Facilities and Engineering Management Handbook* (McGraw-Hill).



**NIKKI WARNDORF**

**Nikki Warndorf** is the business development, marketing, and education director at *The Warndorf Group LLC*, a consulting firm specializing in roofing and waterproofing investigation and commissioning, in Nashville, Tennessee. She holds a master's degree in education from *Lipscomb University*. She has also assisted in the curriculum development of the first infrared education program through a university and is a *Level I Certified Infrared Thermographer (CIT)*.

Please address reader comments to [chamaker@iibec.org](mailto:chamaker@iibec.org), including "Letter to Editor" in the subject line, or IIBEC, IIBEC Interface, 434 Fayetteville St., Suite 2400, Raleigh, NC 27601.

