



PRIVATE UNIVERSITY PRODUCTS AND NEWS

FEBRUARY 2026
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HIDDEN FAILURE
POINTS IN FIRE
SPRINKLER SYSTEMS
**WHERE WATER,
AIR, AND NEGLECT
COLLIDE**

FLOORING A CAMPUS
WITH PURPOSE
**HOW STRATEGIC
FLOORING CHOICES
SUPPORT FUNCTION,
SUSTAINABILITY, AND
CAMPUS LIFE**

THE BENEFITS OF
SYNTHETIC TURF
OVER GRASS FIELDS
FOR MULTIPLE
SPORTS

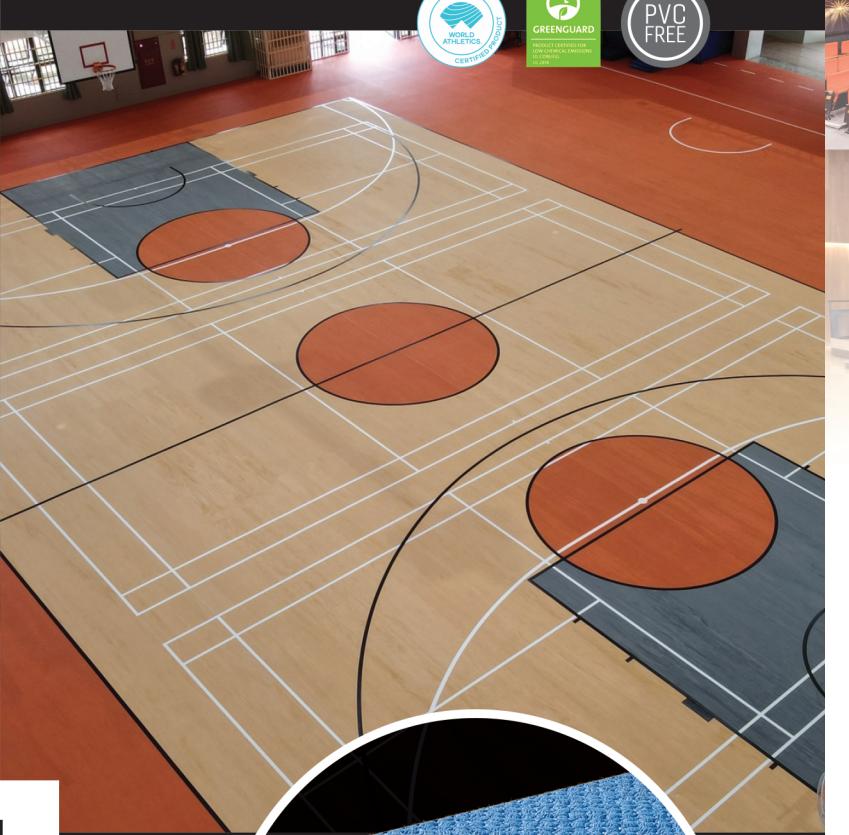
DESIGNING THE
CAMPUS OF
TOMORROW
**HOW TECHNOLOGY
IS SHAPING
ARCHITECTURAL
INNOVATION IN
HIGHER EDUCATION**

Interdisciplinarity
and Collaboration
AT LAWRENCE UNIVERSITY



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Editor's Letter

FEBRUARY 2026



If you live on a college or university campus long enough, you learn two things very quickly: there is always something being renovated, and spring is always almost here.

As I'm writing this, many of you are navigating icy sidewalks, unpredictable weather, and that familiar late-winter optimism that says, "Surely it will be 65 degrees next week." Hope springs eternal—even if the temperature does not. Thankfully, there's plenty of inspiration happening on campuses across the country to keep us energized while we wait it out.

In this issue of Private University Products and News, we're diving into topics that quite literally support your campus from the ground up. Flooring takes center stage as we explore how different buildings—from residence halls to academic spaces—require very different solutions. Durability, sustainability, acoustics, and aesthetics all come into play, and the right flooring choice does more than protect subfloors; it shapes first impressions and daily experiences for students, faculty, and visitors alike.

We're also looking at how technology is becoming an essential part of architectural campus design. Today's buildings are smarter, more connected, and more flexible than ever, and that technology isn't just hidden behind walls—it's actively shaping how spaces are planned, built, and used. When design and technology work together, campuses become more efficient, adaptable, and frankly, more impressive.

Athletics and recreation get their moment as well, with a focus on turf solutions for sporting facilities. Whether it's competition fields or multipurpose recreation spaces, turf plays a major role in student recruitment, campus branding, and long-term maintenance planning. The right surface matters on game days—and every day in between.

And because no conversation about campus facilities is complete without talking about infrastructure, we also touch on sprinkler maintenance for campus buildings. It may not be glamorous, but it's essential. A well-maintained system protects buildings, budgets, and peace of mind—and avoids those "surprise water feature" moments no one enjoys.

As always, we appreciate the work you do and the creativity, problem-solving, and persistence it takes to keep campuses running smoothly. And if spring hasn't shown up yet where you are, hang in there. It's coming... probably right after one more cold snap.

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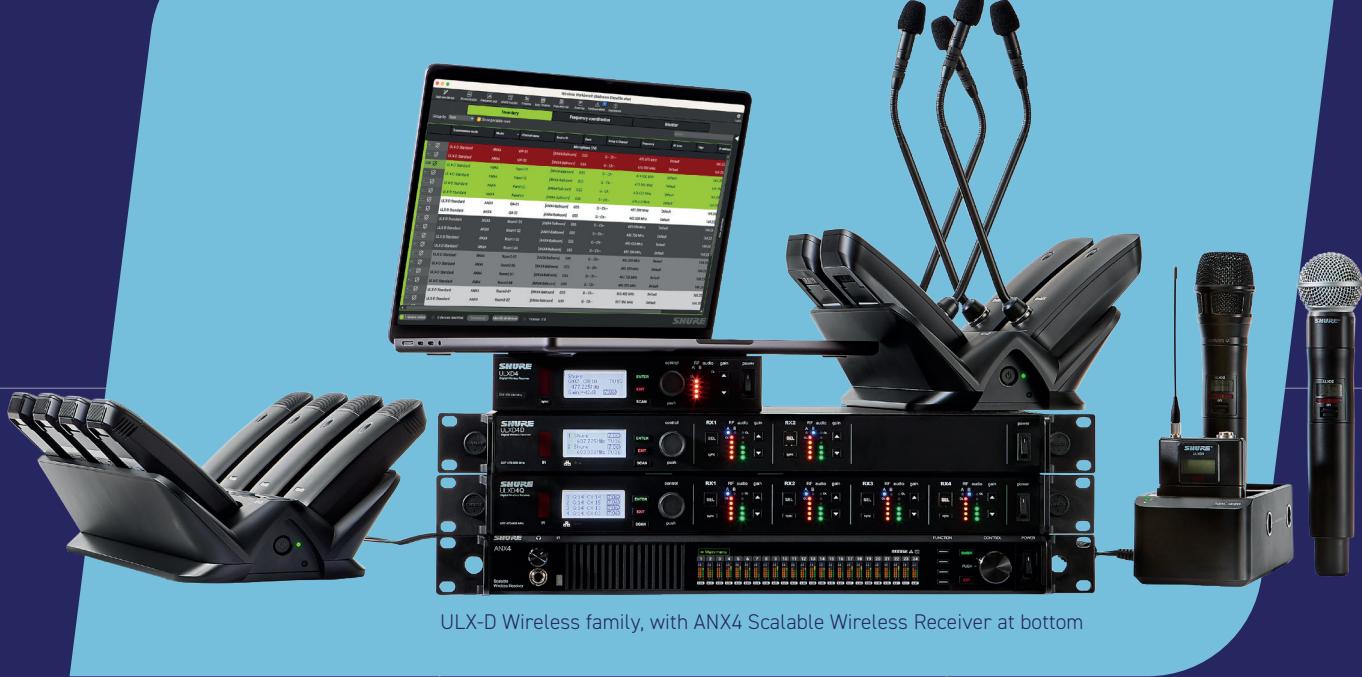


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In support of Rico's visionary imagination, Lawrence has empowered her to develop a Humanities Center to serve both the campus and the wider community.

Rico consistently broadens her focus to pull in more potential avenues for interdisciplinary understanding. This approach informs her teaching of gender history at Lawrence, which includes elements of women's and gender studies in relation to the study of history. Rico also teaches public history, which is history as communicated outside of an academic context. Public history is housed in places such as museums and archives, as well as in oral history collections. These rich and complex sites naturally include a high degree of interdisciplinarity, as well as rich potential for collaborative work.

Teaching regularly in Lawrence's First-Year Studies Program—a signature program at Lawrence which brings together people from across the institution—has offered Rico insights into the ways that students across campus respond to the curriculum, since

she typically doesn't otherwise have the opportunity to engage with those in other disciplines, such as STEM and Conservatory students. Rico says that engaging in writing exercises and class discussions with diverse students in these small classes has allowed her to get to know them as individuals; encountering first-year students from many different disciplines in these ways has enhanced her career.

Valuing Interdisciplinary Work and the Humanities

Rico is steeped in interdisciplinary work through her academic research. One area of focus for Rico is representations of gender in historical texts, as well as how representations of gender and nature intersect in the eighteenth and nineteenth centuries. These explorations naturally lend themselves to interdisciplinary research. During her years at Lawrence, Rico also found herself in a different interdisciplinary space—the Environmental Studies (ES) program. She was the first person in the Humanities to direct ES at Lawrence, and she's rightfully

proud of the work she did in directing this interdisciplinary program for four years; the ES curriculum includes sciences, humanities, and fine arts components.

Rico's leadership roles at Lawrence have enabled her to more strongly envision how all parts of campus work together to create the interconnected whole. One such role was chairing the History department for three years. In fact, Rico recently gave a presentation at the American Historical Society regarding leadership in the History Department. Rico notes that her vantage point as chair offered insights into what was happening in other departments on campus. These insights have been further strengthened by her service on the curriculum and sustainability committees, as well as her participation in a campus task force which focused on preparing students for their post-college lives.

One of the biggest influences on Rico's perspectives about how Lawrence works as a whole was her time recently chairing the task force on general education curriculum

Interdisciplinarity and Collaboration at Lawrence University

BY CYNTHIA MWENJA, PhD

Monica Rico, Robert S. French Professor of American Studies and Professor of History at Lawrence University, places a strong emphasis on interdisciplinary work, both within the Humanities and beyond. As an established campus leader, she sees how each discipline on campus works in concert to strengthen the others, and she strongly advocates for the potential of the liberal arts in the twenty-first century.

revision. In these meetings, the task force members talked strategically about Lawrence University's mission and unique strengths. They discussed how they want to be part of re-envisioning the liberal arts for the twenty-first century. Rico knows Lawrence is not the only university thinking in these ways, but the campus wants to be part of a dynamic vision for the future, not stuck in past ruts.

Rico recognizes that these times are challenging and stressful for small liberal arts colleges, but she sees this moment as a chance to get excited about possibilities while staying true to the campus values and mission. Lawrence leaders want to address elements that students desire in a university experience; they also want Lawrence to be a place which attracts innovative faculty members. Rico points out that many new PhD graduates—potential faculty new hires—have been steeped in high-impact teaching practices, such as community-based learning, digital

pedagogy, experiential learning, and collaborative learning. These faculty members aren't limited to the old standard of only having readings, papers, mid-terms, and a final exam—and Lawrence wants to be the place that these innovative faculty members want to be. Attracting these faculty members is one part of attracting students, including students who may not have previously considered attending a private institution of higher learning.

Rico notes that part of attracting students to liberal arts colleges like Lawrence is articulating what taking courses and having experiences within the Humanities might mean for them. She offers the example that many potential students are interested in neuroscience, often due to a personal connection. Such students may imagine they will learn everything they need to know about the field in science classes, but Rico states that the Humanities need to be part of these

conversations. As we think about neurology, she notes, questions such as these arise: How can people age well? How can they better understand their own or others' neurodiversity? Rico points out that these are questions better suited to Humanities inquiries, such as within English and Philosophy classes, for example.

Humanities Center

Given Rico's interdisciplinary interests and strong leadership track record, she was the perfect choice to spearhead the development of a Humanities Center which will serve both campus and community. The Center is housed in the newly opened West Campus project, a building situated in Appleton's downtown area which showcases an innovative public-private collaboration between Lawrence University and local community partners. The city's art museum is housed on the first floor, while the second floor houses a multi-disciplinary array of Lawrence programs: in *continued...*

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addition to the Humanities Center, this floor includes offices and practice rooms for the Conservatory of Music, along with space dedicated to the Math, Computer Science, and Statistics programs. The planners' goal is to generate new kinds of collaborations by having this variety of disciplines grouped in one space. Additionally, this space is distinctively Lawrence's; the school is one of the only liberal arts colleges to boast a true Music Conservatory. Having the Conservatory's offices and practice rooms in this space highlights this unique campus aspect to the larger community.

The West campus project is one example of ways that Appleton civic leaders continue to strive to keep the downtown area alive and thriving. Rico appreciates that Lawrence University wants to be part of that flourishing, particularly in an era when many downtown areas in similar municipalities are struggling. The West Campus project is just

one collaboration between town and gown; Lawrence also opened a Pre-Health Commons nearby; it is a 180,000-square-foot healthcare, housing, retail, and mixed-use community hub "designed to strengthen student connections with classmates, professors, and the surrounding community," according to an August press release. Lastly, the Lawrence University Business and Entrepreneurship Center "serves as a nexus for students to extend career exploration in collaboration with faculty and the community." Each of these projects further advances Lawrence's commitment to realizing a dynamic future vision for the liberal arts in the area.

Within the Humanities Center, Rico aims to focus on interdisciplinary, collaborative work involving Humanities disciplines, and she hopes to make connections for this sort of work within the local Fox Cities community, as well. Rico is currently building awareness and spreading the word about the existence

of the Humanities Center and possibilities for how it can serve various campus and community stakeholders. As a historian, she embraces the Humanities as part of the forward vision for Lawrence.

As Rico connects with stakeholders, she often needs to start by explaining what a Humanities Center is. As the National Humanities Center website states, "The humanities help us understand and interpret the human experience, as individuals and societies." A Humanities Center can facilitate projects which help both students and local community members to gain stronger insights into their own and others' experiences. Rico says that her colleagues don't always immediately see how their work can contribute to interdisciplinary projects, but she is able to envision possibilities and highlight how potential collaborations can benefit all partners involved.

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In one early initiative at the Center, Rico is creating a professional development series for faculty members to learn strategies of incorporating digital humanities in their course work. One example of such inclusion might be assigning the making of a podcast instead of writing a conventional essay. To create this professional development workshop, Rico will work with the people in Lawrence's instructional technology office, along with colleagues in the Center for Teaching Excellence, leveraging resources that the campus already has in place. Rico is also already planning to organize a wide variety of internship programs through the Humanities Center.

As the Center becomes more established, it will also be able to hire interns to help with the work. Rico envisions that they will continue building awareness of the Humanities Center through social media presence and website maintenance. She plans for the interns to also research what other organizations are doing

in their Humanities Centers. She reports that the Consortium of Humanities Centers and Institutes provides a great deal of information that she hasn't yet been able to sort through, so the interns can put together fact sheets of recommendations from the material. Once the Humanities Center has projects up and running, the interns will also support those projects with event planning, preparation, and follow up.

Rico's position at the Center is underwritten by the Associated Colleges of the Midwest's Academic Leadership Fellows program. This program, funded by the Mellon Foundation, supports 10 fellows in two-year terms; participants are tenured Humanities faculty with "demonstrated leadership capabilities, commitments to institutional excellence, and the potential to have a transformative impact at their current or future institutions," according to the program website. Rico's skill set and track record admirably align with the Fellows

program goals, as her work has already had a "transformative impact" at Lawrence.

Each university campus needs leaders who not only see how all of the pieces fit together but who can also articulate the possibilities arising from the mosaic. Rico exemplifies such leadership; her consistent dedication to interdisciplinary collaboration provides an excellent and inspiring model for those at other institutions of higher learning.

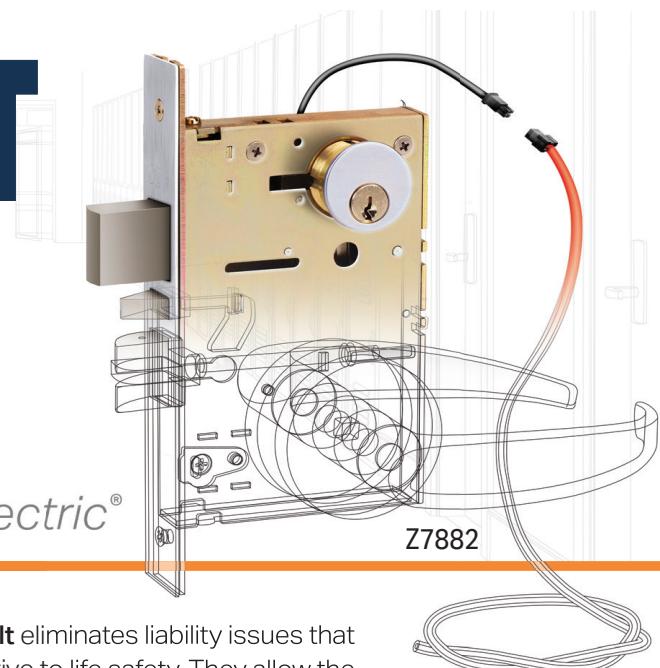


ABOUT THE AUTHOR: Dr. Cynthia Mwenja teaches Composition and Rhetoric at the University of Montevallo.

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Hidden Failure Points in Fire Sprinkler Systems: Where Water, Air, and Neglect Collide

BY AGF

Fire sprinkler systems are widely recognized as among the most dependable life safety measures in the built environment—but reliability is shaped by the details. Learn the secrets to avoiding hidden failure points that can compromise performance when systems are needed most.

Yet investigations following system impairments, unwanted water discharge, or failure to operate as intended continue to reveal a common pattern: many problems originate not from major component failure, but from small, overlooked conditions that develop gradually over time.

These hidden failure points are rarely dramatic at installation. Instead, they stem from how air and water behave within piping networks, how systems are drained and tested, and how maintenance activities interact with original design assumptions. Left unaddressed, these factors can compromise system performance and increase the risk of impairment when the system is most needed. Understanding and mitigating these

vulnerabilities is essential for designers, installers, inspectors, and building owners seeking reliable fire protection throughout the life of a building.

Reliability Is Not the Same as Compliance

Modern fire sprinkler codes and standards establish essential baseline requirements for life safety. Meeting those requirements is essential, but compliance alone does not guarantee long-term reliability. In practice, many systems that technically meet code still experience operational issues that increase the risk of impairment during testing, maintenance, or emergency activation. These issues often arise from design decisions made early in a project, particularly when consideration

is given primarily to installation efficiency rather than to how the system will perform over decades of service.

Reliability is shaped by the details. It depends on how air is managed within the piping network, how water is drained after testing or system activation, and how easily the system can be inspected and maintained without introducing new risks. These considerations are often secondary during design and installation, yet they play an outsized role in how systems age and perform.

Trapped Air: A Global Challenge with Local Consequences

Air is inevitably introduced into wet fire sprinkler systems during initial filling, maintenance activities, and normal operation. Temperature fluctuations cause dissolved gases to come out of solution, forming air pockets even in sealed systems. Once inside the system, air migrates to high points in the piping network. If it is not actively removed, it becomes trapped. In wet systems, trapped air accelerates internal corrosion by introducing

oxygen into the piping network, increasing the likelihood of pinhole leaks, premature pipe failure and obstructions.

Across global markets, removing trapped air has become an increasingly recognized best practice. Air vents are now required by NFPA 13, allowing accumulated air to be released. Automatic options continuously remove trapped air without manual intervention. When installed at appropriate high points in a system, they help reduce long-term corrosion risk and extend the longevity of system piping.

Cold Climate Lessons That Apply Everywhere

Freeze-related failures are among the most visible and costly sprinkler system issues, but the lessons they reveal extend well beyond cold climates. Investigations frequently show that freezing occurs not because systems

lack heat tracing or insulation, but because water remained trapped where it should not have been.

These failures highlight the cumulative effect of small design and maintenance decisions. A slight sag in piping, a missing auxiliary drain, or an undocumented low point can allow water to collect unnoticed. When temperatures drop, the consequences are immediate and severe. Even in regions where freezing is rare, the same trapped water conditions contribute to corrosion and long-term degradation, reinforcing the importance of effective drainage worldwide.

The Role of IoT in Preventive Fire Protection

Internet of Things (IoT) technologies are increasingly being applied to life safety systems to provide continuous insight into system status. Sensors can monitor pressure,

temperature, valve position, and water presence, transmitting data that allows stakeholders to identify abnormal conditions early.

When integrated thoughtfully, connected monitoring does not replace inspections or maintenance. Instead, it enhances them by highlighting where attention is needed most. Early alerts allow corrective action before conditions escalate into impairments, water damage, or system downtime.

Solutions such as AGF Connect, which provide remote monitoring of key sprinkler system parameters, illustrate how digital tools can support preventive maintenance strategies. By offering real-time visibility into system conditions, these platforms help bridge the gap between scheduled inspections and everyday operation.

Data as a Tool for Risk Reduction

Beyond individual alerts, connected systems generate valuable data over time. Trends in

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pressure fluctuation, temperature exposure, or repeated minor events can reveal systemic issues within a building or across a portfolio of properties.

For building owners and facility managers responsible for multiple sites, this data supports more informed decision-making. Maintenance resources can be allocated proactively, reducing emergency responses and unplanned downtime.

From a broader industry perspective, aggregated data offers insights into how sprinkler systems behave in real-world conditions, informing future design practices and standards development.

Small Interventions, Meaningful Impact

Post-incident analyses consistently show that system impairments often begin with small, manageable issues: trapped air in a wet system, condensation in auxiliary drains, or gradual

pressure loss over time. Individually, these issues may seem minor. Collectively, they represent a significant reliability risk.

Addressing these vulnerabilities does not require radical system redesign. Instead, it involves thoughtful integration of air management, effective drainage, and improved system visibility. Automatic air vents, heated auxiliary drains, and remote monitoring technologies all play a role in reducing uncertainty and improving system resilience.

Designing for the Life of the Building

Fire sprinkler systems should be evaluated not only on their performance at installation, but on how reliably they operate throughout decades of service. Systems designed with air, water, and visibility in mind experience fewer impairments, lower maintenance costs, and improved confidence among stakeholders.

Designers, installers, and owners who adopt a life-cycle perspective recognize that

reliability is an ongoing process, not a one-time achievement. Integrating practical, preventive measures at the design stage supports safer, more dependable fire protection over time.

Toward a More Predictable Future

Fire protection has always been rooted in anticipation and prevention. As buildings become more complex and expectations for reliability increase, the industry is evolving to address not only catastrophic events, but the everyday conditions that lead to them. By combining sound system design and proactive maintenance, the industry can reduce hidden failure points and enhance confidence in fire sprinkler system performance.



ABOUT THE AUTHOR: AGF Manufacturing is a family-owned, American manufacturer delivering innovative fire sprinkler solutions for over 30 years. Known for industry-leading TESTanDRAIN and specialty products, AGF combines reliability, versatility, and hands-on expertise to simplify maintenance and improve fire protection system performance.

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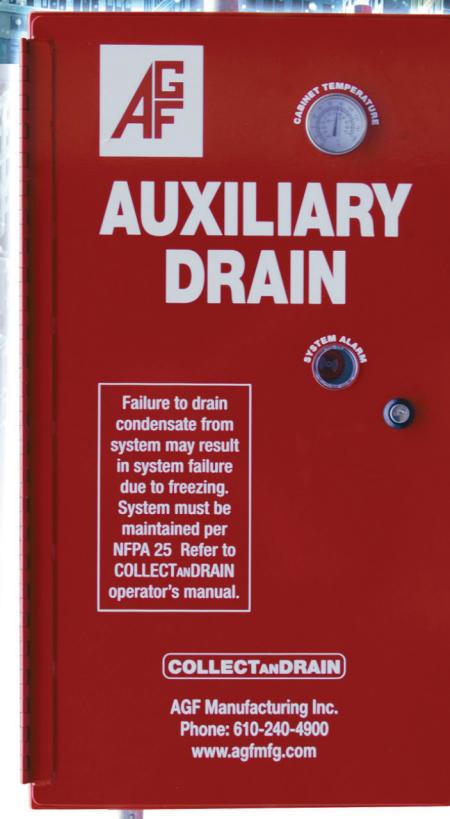
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According to Sean Farrell, senior project manager at Layton Construction, establishing collaborative relationships is key to successful construction projects. One of the best examples of this maxim is a multi-phase university project for which Layton Construction is serving as construction manager. Layton, part of the STO Building Group, is a nationally-ranked commercial contractor with ten offices around the United States. The firm specializes in healthcare, industrial, warehousing, and higher education projects. As construction manager, Layton hires the sub-contractors and manages and oversees the project as part of a team.

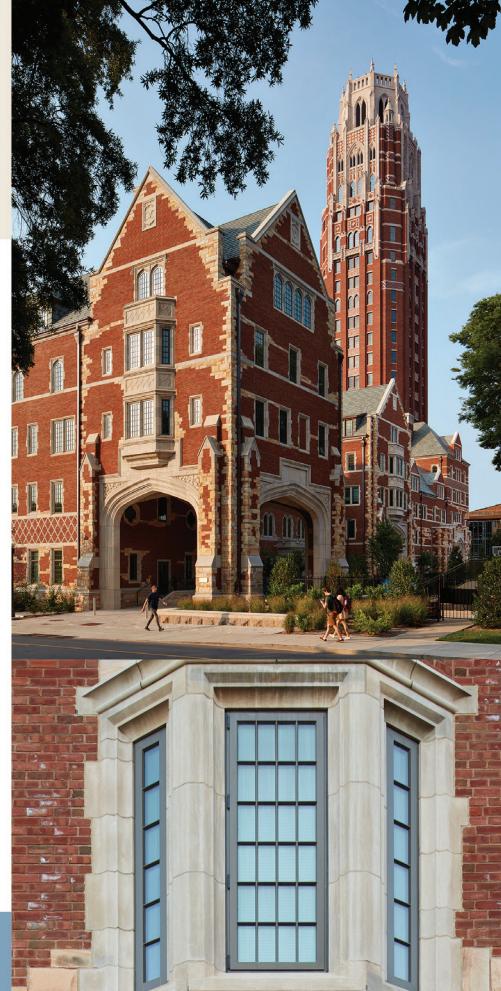


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— Sean Farrell, Sr Project Manager
Layton Construction

Hope's Brian Whalen, Vice President of Sales, acknowledges that the project was a real test of Hope's capabilities. He is especially proud that they Hope's was able to expedite the schedule even in the face of design changes and in the midst of the Covid-19 pandemic. The shop drawing approval process – including preparation of blueprints of windows and doors with all setting conditions, sizes, customized designs, and required testing – took longer than normal. Changes were made along the way that might have pushed back the delivery schedules for some, but Hope's made adjustments during the production process to deliver all materials on time. Whalen gave a nod to Joey Riggan and the team at Alexander Metals, the frame and glass installer team, saying the overall project went extremely smoothly once the frames were on site.

Says Whalen, “It was a fantastic collaboration among all the parties. Hope's worked closely as the manufacturer to fulfill the architect's design vision, and then the installer worked closely with us to make sure everything was installed executed properly.”



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Flooring a Campus with Purpose

HOW STRATEGIC FLOORING CHOICES SUPPORT FUNCTION, SUSTAINABILITY, AND CAMPUS LIFE

BY ED BAUER

The flooring choices a college or university makes shape the daily experience of students, faculty, staff, and visitors, but the broader implications often go unconsidered. Flooring quietly influences how spaces function, how buildings age, how sustainable a campus truly is—and how students, faculty, and visitors feel while moving through it all. From historic academic halls and bustling residence buildings to laboratories, dining spaces, and recreation centers, each campus building places unique demands on its floors.

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Selecting the right flooring across a multi-building campus isn't about choosing a single material; it's about understanding how use, durability, sustainability, and design intersect.

For facilities leaders, flooring decisions carry long-term implications. The wrong choices can result in frequent repairs, safety concerns, or missed sustainability goals—while better choices can support institutional branding, contribute to LEED certification, and even play a role in student attraction and retention.

One Campus, Many Flooring Needs

Unlike single-use facilities, private university campuses are complex ecosystems. Each building type has distinct traffic patterns, acoustic needs, maintenance demands, and aesthetic goals. A successful flooring strategy starts by matching materials to purpose.

Academic Buildings and Classrooms. Academic buildings experience constant foot traffic throughout the day, often with students carrying heavy backpacks and equipment. In classrooms and lecture halls, durability and acoustics are top priorities. Carpet tile remains a popular choice, offering sound absorption that reduces noise transfer between classrooms while allowing for easy replacement of damaged sections. Many institutions opt for modular carpet systems with recycled content and low-VOC adhesives, supporting sustainability goals without sacrificing performance.

In corridors and high-traffic common areas, luxury vinyl tile (LVT) and polished concrete have gained traction. LVT offers the appearance of wood or stone while standing up to heavy use and requiring minimal maintenance. Polished concrete, often used in modern academic buildings or renovated industrial spaces, provides exceptional durability and a contemporary aesthetic, while eliminating the need for additional floor coverings.

Administrative and Office Spaces. Administrative buildings benefit from flooring that balances professionalism with comfort. Broadloom carpet or carpet tile remains common in offices and conference rooms due to its acoustic benefits and underfoot comfort. Facilities teams increasingly select carpet products with cradle-to-cradle certifications, recycled backing, and take-back programs, ensuring the material's end-of-life is considered from the start.

In shared spaces such as lobbies and reception areas, stone-look porcelain tile or terrazzo delivers durability and a strong first impression. These materials also align well with institutions looking to reinforce a sense of permanence and quality.

Residence Halls. Residence halls present one of the most challenging flooring environments on campus. Floors must withstand heavy foot traffic, frequent move-ins and move-outs, spills, and furniture movement—all while feeling comfortable and welcoming to students.

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Carpet tile is frequently used in student rooms and hallways, offering warmth, sound absorption, and easy replacement. Many campuses now specify solution-dyed fibers, which are more stain-resistant and maintain appearance over time. In suite-style residences and bathrooms, LVT and sheet vinyl are preferred for moisture resistance and ease of cleaning.

An example can be seen at a Midwestern private university that recently renovated three residence halls, replacing aging broadloom carpet with modular carpet tile made from recycled fishing nets. The upgrade reduced maintenance costs, improved indoor air quality, and supported the institution's broader sustainability commitments.

Dining Facilities and Student Centers. Dining halls and student unions demand flooring that handles spills, rolling equipment, and constant traffic. Safety is paramount,

making slip resistance a key specification. Quarry tile, porcelain tile, and textured LVT are commonly used in food service areas, while polished concrete and terrazzo remain popular in seating and gathering spaces.

Beyond function, these buildings often serve as social hubs—and flooring can subtly reinforce school branding. Custom color palettes, logo inlays, or patterned designs help spaces feel distinctly “on brand” without overwhelming the design.

Laboratories, Libraries, and Specialized Spaces

Laboratories and Research Facilities. Labs require flooring that prioritizes safety, chemical resistance, and ease of sanitation. Seamless sheet vinyl, rubber flooring, and epoxy systems are frequently specified due to their ability to withstand spills and aggressive cleaning protocols. These materials

also support infection control, an increasingly important consideration in research environments.

Libraries and Study Spaces. Libraries demand quiet. Carpet tile and cork flooring are often used to reduce noise while providing comfort for long study sessions. Cork has gained interest for its renewable properties, resilience, and warm aesthetic, making it a smart option for institutions prioritizing sustainability and wellness.

Sustainable Flooring and the LEED Advantage

Sustainability is no longer a “nice-to-have” in campus design—it’s an expectation. Flooring plays a measurable role in achieving LEED certification and advancing institutional environmental goals.

Many flooring products now contribute points in multiple LEED categories, including:

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- **Materials and Resources (MR):** Products with recycled content, regional sourcing, and Environmental Product Declarations (EPDs).
- **Indoor Environmental Quality (IEQ):** Low-VOC materials and adhesives that improve indoor air quality.
- **Life-Cycle Impact Reduction:** Durable materials with long lifespans and manufacturer take-back programs.

For example, a private university in the Northeast incorporated linoleum flooring—made from natural, renewable materials—into a new academic building. The flooring choice supported LEED Gold certification while aligning with the institution's commitment to transparency and environmental stewardship.

Installation Examples: Real-World Lessons

Across the country, campuses are leveraging

flooring upgrades as part of broader renovation and modernization efforts.

- A Southern private university replaced dated vinyl composition tile (VCT) in academic corridors with LVT, reducing annual maintenance costs by eliminating stripping and waxing.
- A West Coast institution used polished concrete throughout a new engineering building, combining durability with a modern aesthetic and lowering long-term operational expenses.
- A historic campus in the Midwest selected wool-blend carpet tiles for a renovated library, balancing sustainability, acoustics, and respect for the building's original character.

These examples highlight a common theme: flooring decisions are most successful when facilities teams consider life-cycle cost, maintenance capacity, and campus identity together.

Flooring as a Strategic Campus Investment

Flooring may not always grab headlines, but its impact is undeniable. When thoughtfully selected, flooring supports safety, sustainability, branding, and long-term operational efficiency across campus. For private universities navigating tight budgets and rising expectations, flooring decisions represent an opportunity to invest wisely—creating spaces that work harder, last longer, and reflect the values of the institution they serve.

In the end, the most successful campuses are those that understand every surface tells a story—starting from the ground up.

ABOUT THE AUTHOR: Ed Bauer has been in publishing for over twenty years. He worked on the staff at Mount Union College.



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SPORTS & FITNESS

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The Benefits of Synthetic Turf Over Grass Fields for Multiple Sports

BY A-TURF

Athletes have been playing games on natural grass since the beginning of man, making the use of synthetic sporting surfaces a recent concept by comparison. According to the National Library of Medicine, “the first synthetic turf at a major sporting event occurred in Houston, Texas, at the Astrodome in 1966.”

That’s when “ChemGrass (developed by Monsanto), a short-fiber, dense nylon carpet, was installed over a compacted soil base in the stadium.”

Synthetic turf has continued to evolve over the past 60 years. Coaches and players have also discovered how critically important playing surfaces are because of how they impact athletes’ performance and safety.

With so much money being invested into sports on the collegiate level, it makes sense to specify a synthetic surface that is designed for multiple sports in order to maximize a university’s return on investment (ROI). In addition to reducing long-term costs, there are four benefits of installing one well-designed synthetic turf surface for multiple athletic programs, such as football, soccer, lacrosse, and field hockey, at the collegiate level.

Shared Capital & Maintenance Costs

Chances are, your university has multiple sports teams, and each team requires a different practice and/or playing field. The first benefit of installing one well-designed synthetic turf

surface for multiple athletic programs like football, soccer, lacrosse, and field hockey is that all four teams can share the capital and maintenance costs of the field. When one field serves multiple teams, the university’s resources can be more judiciously allocated.

One turf field also simplifies long-term replacement planning, since a school only has one field to plan, budget, and fundraise for. Predictable replacement timelines help facility departments prepare for future capital expenditures, and it’s easier to justify a future field upgrade when multiple sports programs are benefitting.

After a synthetic turf field is installed, ongoing maintenance costs such as grooming, infill management, and field repairs will be reduced, since these expenses will be consolidated into one budget that four sports teams contribute to. One field type also requires fewer specialized maintenance tools and staff training requirements.

When multiple sports share one field, the surface can be customized with multi-sport

line markings. Permanent and removable line systems allow for many sports layouts. Permanent line systems also eliminate the need for repainting or re-sodding a field for seasonal sport changes.

Consistent Playing Surface & Safety

The second benefit of installing one well-designed synthetic turf surface for multiple athletic programs is that it creates a consistent playing surface that is safe. Due to the advances in synthetic systems, modern turf fields offer shock absorption and traction profiles that are suitable for multiple sports.

When it comes to consistency, athletes will benefit from uniform footing, which reduces adaptation time. Fewer field condition variables also improve training quality and athlete confidence. Because synthetic turf permits year-round, all-weather use, athletes can play in rain, heat, and cold, minimizing cancellations. Reduced wear from weather also extends usability compared to natural grass.

Increased Event & Revenue Opportunities

The third benefit of installing one well-designed synthetic turf surface for multiple athletic programs is that it will increase a university’s event and revenue opportunities. When a field isn’t comprised of real grass, you don’t have to worry about harming the blades or overuse issues, which can create wear patterns and mud. As a result, a field can be used for other events as well.

A synthetic turf field can host tournaments, camps, clinics, or be rented out to local high schools or the community to generate additional revenue. An artificial turf field also offers the opportunity to support special events like alumni games, physical education classes, and campus celebrations. All of these activities can take place in the evening, on weekends, or during the off-season so as not to disrupt university athletes' training or playing time.

Recruiting & Campus Appeal

The final benefit of installing one well-designed synthetic turf surface for multiple athletic programs is that it can help with student recruitment and campus appeal. One high-quality, multi-use field demonstrates an institutional investment in its athletics and student life, versus having several grass fields that aren't well maintained or attractive.

By having one custom-made, beautiful synthetic turf field, prospective students see a modern, accessible facility used by many programs. This will enhance a university's overall campus image and athletic competitiveness.

Many students today are also concerned with sustainability. By installing a synthetic turf system, a university will reduce its water

usage and the need for fertilizers and chemical treatments compared to multiple grass fields. A one-field footprint serving many programs also minimizes land disturbance. All of these benefits support universities' sustainability goals and reporting.

Having one synthetic turf field that can host multiple types of play also sets a university up for future program growth and flexibility, since schools can add emerging or club sports without having to build new fields.

Best Turf System for Multi-Sports Use

Once a university realizes the benefits of installing one well-designed synthetic turf surface for multiple athletic programs at the collegiate level, what type or system should be specified? Before this can be decided, there are several factors that need to be considered.

It's advantageous to select a supplier like A-Turf®, a premier field builder that has been providing athletic fields across the U.S. for more than 20 years and has sales offices and installation crews located throughout the country. The company you select should also have experience with different sports and venues and the capability to work through all phases of a project from bidding to field design and construction.

Other Factors to Consider

Materials. Since athletes will spend many hours on the turf system selected, it should be safe. When you partner with a company like A-Turf, you know all its materials are made and assembled in the U.S. When coupled with a ShockPad, the field will be just as safe as grass.

Warranty. Make sure your synthetic surface has a warranty. A-Turf fields consistently outperform other brands because every component is driven by quality. This unwavering commitment results in unique durability, which A-Turf backs up with a 12-year warranty.

Environmental Impact. Most universities are concerned with how the materials it specifies impact the environment. A-Turf surfaces have a positive environmental impact. Both the ShockPad and rubber infill are made from shredded and cleaned scrap-tire rubber, which is 100 percent post-consumer waste.

Before installing a new turf system, a university should research the company, materials, warranty, and environmental impact of the products. Based on this information, they can the field builder they believe is best.

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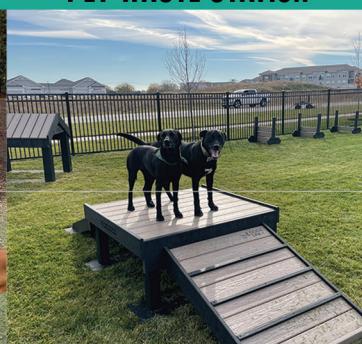
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Because A-Turf consistently outperforms other brands and provides the greatest value, they are an ideal partner to choose when creating a multi-use synthetic turf field. More specifically, A-Turf Titan DiamondBlade offers the best synthetic system solution for multiple athletic programs, such as football, soccer, lacrosse, and field hockey. Titan DiamondBlade represents a revolutionary advancement in synthetic turf technology because it contains the industry's highest-grade dual fiber system. As a result, this innovative turf solution offers reinforced strength, unparalleled durability, and exceptional performance.

By adding a ShockPad underneath DiamondBlade, a university will receive a 12-year warranty on the system. By reducing friction and wear, ShockPad also increases the life expectancy of a synthetic turf system by at least 25 years, while also giving athletes the best protection and the greatest ability to perform.

Project Spotlight: Erie Community College

Erie Community College (ECC), which is part of the State University of New York, has three locations and more than 7,000 students. ECC also has a unique relationship

with Erie County, since the county assumed sponsorship of the college in 1953. When it was time for the college to replace the existing grass NCAA field at its North Campus, which is used by four sports teams, ECC specified A-Turf Titan DiamondBlade with an Ecore ShockPad.

The 133,451-square-foot field used by ECC's softball, football, and soccer teams now features 50-ounce Titan DiamondBlade with a 2.25-inch finished pile height and sand infill over 10mm Ecore ShockPad, which gives this system the best possible safety rating. When combined with Titan DiamondBlade, ShockPad provides the most natural and playable shock absorption in the industry over the life of the surface. By reducing friction and wear, ShockPad increases the life expectancy of a synthetic turf system by at least 25 years, while also giving athletes the best protection and the greatest ability to perform.

In addition to these benefits, A-Turf was specified for this project, because of their substantial portfolio, good relationship with Erie County, and for providing the industry's best 12-year warranty. Although the schedule was tight and there were some delays due to

unexpected site conditions, A-Turf brought in a second crew and worked with PM Pavement, Wendel Architects, and new site contractors to get this new field installation completed on time.

Bottom Line

A single, well-designed multi-sport synthetic field is preferable to multiple natural grass fields. An A-Turf Titan DiamondBlade system will provide maximum utility, improve campus appeal, and reduce costs, while providing a consistent and safe playing surface that offers increased flexibility. As such, Titan DiamondBlade is a smart investment for colleges and universities focused on long-term campus ROI. To learn more about A-Turf Titan DiamondBlade, visit ATurf.com.



ABOUT THE AUTHOR: A-Turf, an Ecore company, builds premier athletic fields nationwide, delivering stable, sustainable surfacing solutions for youth, schools, colleges, professionals, and municipalities, backed by experience, U.S. manufacturing, and recycled rubber innovation.

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Designing the Campus of Tomorrow

HOW TECHNOLOGY IS SHAPING ARCHITECTURAL INNOVATION IN HIGHER EDUCATION

BY ED BAUER

Across private university campuses in the U.S. and around the world, the role of architectural design has expanded far beyond aesthetics and space planning. Today's campus buildings are conceived as technological ecosystems—integrating digital infrastructure, data-driven systems, and immersive tools that enhance learning, sustainability, community engagement, and operational efficiency.

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In an era where connectivity, flexibility, and collaboration are standard expectations for students and faculty, campus architecture must embed technology from the earliest stages of design through construction and daily use.

In essence, modern campus architecture is no longer just about place—it's about platform: physical environments optimized through technology to support research, teaching, well-being, and institutional competitiveness.

The Fusion of Architecture and Technology: A Strategic Imperative

Campus architects, planners, and facilities leaders are increasingly prioritizing technology for a simple reason: the learning ecosystem has changed. Students use digital tools to collaborate across disciplines; faculty require spaces that support hybrid teaching and research; and institutions strive to meet sustainability goals that demand smart, data-responsive systems. This convergence of needs places technology at the heart of design, not as an add-on, but as a built-in foundation.

Today's technology-enabled campus buildings leverage innovations such as:

- Advanced audiovisual and learning systems that support hybrid and immersive pedagogies.
- Smart controls and IoT devices integrated into lighting, HVAC, and security for operational efficiency and occupant comfort.
- Digital twins and building information modeling (BIM) for planning, simulation, and long-term facility management.
- High-performance networks that can support 5G, extensive Wi-Fi coverage, and future connectivity needs.
- Collaborative maker spaces and labs designed for cutting-edge research and interdisciplinary work.

All of these elements redefine how campus spaces perform and how they are experienced by students, faculty, staff, and visitors.

Technology-Enabled Learning Spaces: Merging Pedagogy and Place

One of the most visible shifts in campus architectural design is in the classroom. No longer static, whiteboard-centric environments, classrooms today are dynamic hubs of interaction—equipped with AV systems that support hybrid learning, VR/AR capabilities for immersive exploration, and flexible furniture layouts that encourage collaboration.

At the Rochester Institute of Technology (RIT), the newly constructed Student Hall for Exploration and Development (SHED) stands as a leading example of how technology complements architectural innovation. This 120,000-square-foot facility houses classrooms, maker spaces, studios, and performance areas that are all underpinned by advanced audiovisual technology. Systems like Crestron DM NVX AV-over-IP and Crestron XiO Cloud enable remote monitoring, scalable connectivity, and flexible room configurations that serve a multitude of teaching and

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learning styles. The SHED illustrates how a building's design must accommodate diverse technological platforms while enhancing student creativity, collaboration, and academic exploration.

Similarly, interactive technologies are becoming essential tools for campus engagement. Video walls, dynamic displays, and digitally enabled environments help universities communicate with students, showcase research, and build a sense of community. At some institutions, these technological elements also support real-time analytics and student participation metrics—a trend that is likely to expand as campuses adopt more data-centric approaches to space utilization and program assessment.

Digital Building Systems: Smart, Sustainable, and Responsive

While AV systems and networked learning spaces are critical in defining how students learn, the backbone of technology-driven architecture is found in smart building systems.

These automated, sensor-driven technologies profoundly impact a campus's energy efficiency, operational performance, and sustainability outcomes.

A “smart building,” in architectural terms, refers to a structure that uses embedded technology—from IoT sensors to integrated building management systems—to continuously optimize environmental conditions and resource use. These systems can automatically adjust lighting and temperature based on occupancy, track air quality, and optimize energy consumption across a campus microgrid.

The benefits are tangible: reduced utility costs, improved indoor environmental quality, better space utilization, and a dramatic reduction in the carbon footprint of buildings. This aligns directly with broader institutional sustainability goals, including LEED certification, carbon neutrality commitments, and climate action plans. In fact, well-integrated smart systems can support predictive maintenance, allowing facilities managers to detect

issues before they escalate—which reduces downtime and extends the life cycle of building components.

One emerging frontier in this domain is the use of digital twin technology, where buildings are paired with digital replicas capable of real-time performance monitoring and simulation. These platforms use data from connected sensors to model energy use, simulate emergency scenarios, and provide analytical insights that inform facility decisions. Digital twins effectively transform static architectural plans into living models that evolve with the campus and help administrators plan for future needs.

Network Infrastructure: The Backbone of Modern Campuses

As learning and operations become more digitally intertwined, a robust network infrastructure has become indispensable. High-speed connectivity isn't a luxury—it's an expectation.



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Universities are advancing beyond basic Wi-Fi solutions, building campus-wide networks using next-generation technologies such as Wi-Fi 6/7 and private 5G. These networks provide the bandwidth and reliability needed to support thousands of simultaneous connections in classrooms, labs, dorms, and common areas. While many of the specific examples today originate from global institutions like BRAC University's high-density smart campus network deployment, the underlying principle is universal: a scalable, resilient digital backbone positions institutions to support future innovations, from augmented reality learning environments to autonomous vehicle infrastructure.

Integrating Sustainability and Technology in Campus Design

Technology's contribution to sustainability in campus architecture goes far beyond lighting or HVAC optimization. When integrated thoughtfully, architectural technology can reduce resource consumption, improve occupant well-being, and support institutional climate commitments.

For example, sophisticated climate control systems dynamically respond to occupancy and weather patterns, optimizing energy use without sacrificing comfort. Smart systems also improve water usage via leak detection and automated irrigation. Such capabilities are increasingly valued by campus planners seeking both operational efficiency and improved environmental performance.

Additionally, technology-infused design practices like BIM and digital collaboration platforms significantly enhance project coordination, helping architects and stakeholders reduce waste during construction and execute more accurate cost and performance simulations. These tools can track project data and lifecycle impacts, enabling facilities leaders to make choices that support long-term resilience and environmental responsibility.

As sustainability criteria grow more stringent, technology-driven architecture will continue to play an increasingly central role in achieving certifications like LEED, WELL,

and even Living Building Challenge.

Case Spotlight: Technology-Driven Campus Projects

Several recent university projects from higher education illustrate how technology and architecture can combine to create environments suited for the 21st-century learner. For instance, Malachowsky Hall for Data Science & Information Technology at the University of Florida demonstrates how technology and architectural vision converge in today's academic buildings. Opened in 2023, this 263,440-square-foot facility houses interdisciplinary programs in AI, data science, engineering, and medicine, equipped with specialized labs—including AI, IoT, and VR/robotics spaces. These labs feature high-resolution LED walls, advanced visualization tools, and collaborative research zones designed to support cross-disciplinary inquiry and innovation.

The architectural design itself reinforces the building's technological mission—featuring electrochromatic glazing for dynamic light

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Smart Campuses and Technology Hubs

Nationally, many campuses are adopting smart building standards that encompass connected devices and responsive systems. These technologies are not limited to lecture halls or labs—they extend into student services, housing, dining, and outdoor spaces. This trend reflects the idea of a smart campus: a connected ecosystem where buildings, networks, and digital services contribute to greater efficiency, convenience, and engagement.

For example, campuses are integrating mobile apps that connect students to schedules, events, and services, while smart signage and digital kiosks offer place-based information and wayfinding. IoT sensors monitor everything from occupancy levels to environmental quality—creating responsive spaces that adapt to user needs.

The Human Dimension: Experience, Engagement, and Opportunity

Technology-infused architecture isn't just about impressive systems—it's about human experience. When buildings intuitively support users through seamless connectivity, dynamic environments, and tools that enhance learning and collaboration, they elevate campus life.

Students today expect connectivity comparable to what they use in their daily lives. They seek environments that empower collaboration, support flexible learning, and adapt to diverse modes of teaching and research. By integrating technology into architectural design, private universities create spaces that are future-ready, adaptable, and truly reflective of institutional mission and values.

The Future Is Smart—and It Starts with Design

The campuses that succeed in the years ahead will be those that view technology not as an

add-on, but as a fundamental component of architectural design. From high-tech learning spaces and resilient networks to smart building systems and digital twins, technology is reshaping how campuses are planned, built, and experienced.

For facilities leaders, architects, and university planners, the imperative is clear: embrace technology with intentionality, invest in infrastructure that supports tomorrow's needs, and let architecture be the canvas where innovation and human experience intersect.

As campuses evolve, their buildings will no longer just house activity; they will enable it—smartly, sustainably, and with an eye toward a future where learning, research, and community thrive together.

ABOUT THE AUTHOR: Ed Bauer has been in publishing for over twenty years. He worked on the staff at Mount Union College.



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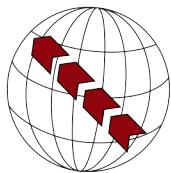
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