

# Education, Learning, and Facilities in a **COVID-19 World**



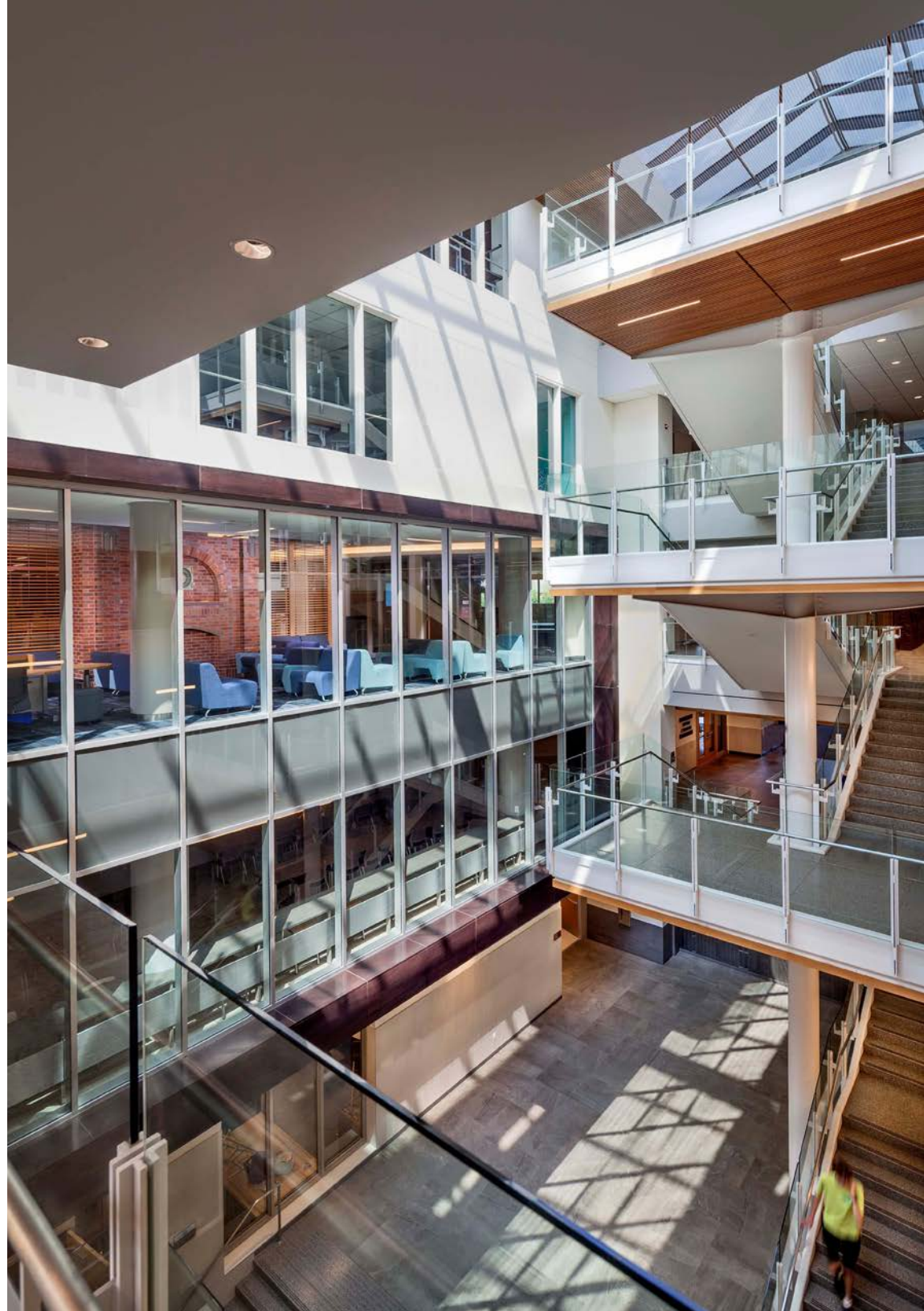
Where students grow

## WHAT NOW?

The PK-12 world is facing a massive task in re-opening schools for in-person, on-site education. This effort poses significant challenges as districts must accommodate regulatory recommendations and guidelines. Emotions and pressures could also intensify as parents begin to realize what next school year could look like. There are multiple changes that school districts will be wrestling with this summer. Simultaneously, schools must be bold in imagining the next phase of education in an age of uncertainty.

Our PK-12 Education experts gathered to reflect on both the **immediate challenges** facing our clients and the **future opportunities** that might evolve the traditional educational experience. We recognize that schools are considering a variety of scenarios as they plan for the start of the 2020-2021 school year. Leveraging what we have learned from our rapid reliance on technology and reflecting on what we have missed socially and creatively provides a great opportunity to rethink the education process and how it might look moving forward.

This document addresses the next few months, and envisions the next several years, for PK-12 Education in a COVID-19 world. It is our hope that the thinking outlined in the following pages creates inspiring, healthy, responsible environments for students, educators, and communities.



## IMMEDIATE CHALLENGES

After most natural disasters, the first step in recovery includes creating a sense of normalcy. While the COVID-19 crisis is different in many ways than anything we have experienced before, getting students physically back into school buildings is an important initial step forward. There are many opinions and ideas being floated around social media about what that return may entail. Most of these ideas are centered around cleaning, scheduling and what types of activities will be allowed. Although many of these concerns seem logistically difficult, and perhaps even scary, we are an adaptive species. Possibilities abound, and the opportunities are there to be seized.



## Vehicular Circulation

The daily pick-up and drop-off ballet could be significantly modified by using separate entrances or shifting start times. Bus service would likely need to be altered to reduce the number of riders. More student drop-offs should be expected as parents elect to avoid the bus completely. When possible, alternate student drop-off zones should be considered.



## Building Circulation Routes and Patterns

Paths of travel for students and staff might be reconceived to minimize the number of people that may come into contact or cross in a transition period. Hallways may be designated as one-way and the timing, location and density of movements and destinations will need be considered in a purposeful and coordinated manner.

***Where possible, would teachers moving from classroom to classroom be safer than moving students?***

***Could common spaces be utilized for small group instruction outside the classroom?***



## Personal Spacing and Scheduling

*Is it possible to blend remote e-learning and in-school teaching to help control the number of people in a building at any given time?*

*Can implementing block scheduling limit student movement and help satisfy physical distancing requirements?*

While some students prefer to learn at home part-time, others have unique circumstances requiring them to be in school all day. Perhaps recognizing these differences will help inform split-scheduling scenarios. Reducing the density within a building might allow the new standards of personal space to be accommodated within existing spaces.

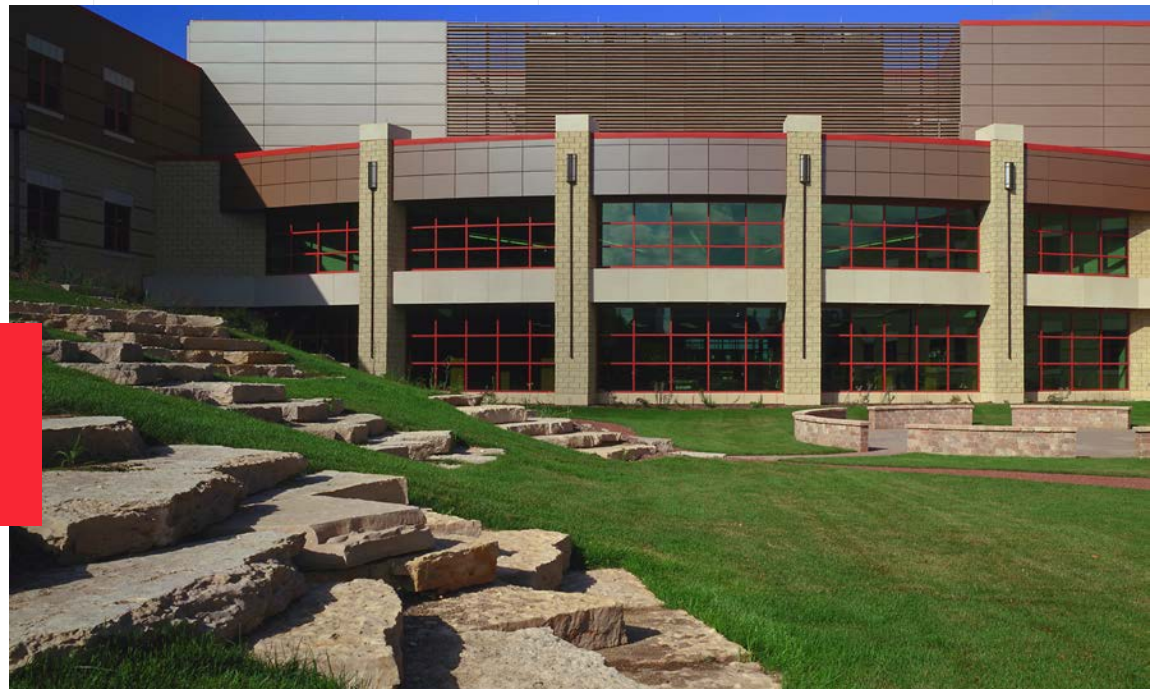


## Outdoor Learning

Distancing standards will require either less students in a class or more space for them to spread out. It is impractical for school districts to increase the size of their building footprint on a temporary basis.

*How might some form of outdoor learning help alleviate the burden placed on indoor facilities?*

*In what ways can the entirety of a campus be utilized to support academic practices and activities?*



## Health Clinics

Traditional nurse's offices will be busier places when schools re-open. This may lead to expansion or may warrant the need for supplemental satellite Health Clinics in multiple locations designed to maintain distancing within the suite. Provision may be required for temporary quarantine areas within the school. Local health officials may provide support to students as well as families and may need space within the school for their operations. Additionally, two separate areas may be required for treating and attending to students and staff—one for those who are well and another for those who are sick. Physical distancing will remain critical in those spaces, driving the need for additional square footage for school health offices.



## Food Preparation and Delivery

Food preparation and delivery will likely be a transformative process as guidelines and procedures are developed and individual physical constraints are analyzed. In the short term, lunch will be served more as a necessity than an “event.”

*Can half-day or “shift” scheduling eliminate food service altogether?*

*Alternatively, if a full-day program is in place, can children eat in their classroom and be responsible to clean up their workspace before/after lunch?*



## Cleaning and Disinfecting Procedures

Advancements in cleaning equipment and procedures have advanced quickly due to the high demand across all building types. Innovative technologies are being introduced that can sterilize high occupant/high touch spaces quickly. In time, these new practices will supplement regular deep cleanings and basic individual student hygiene to create safer environments. Balancing durability and ease of cleaning surfaces with the products being used will require product and systems analysis.



## FUTURE OPPORTUNITIES

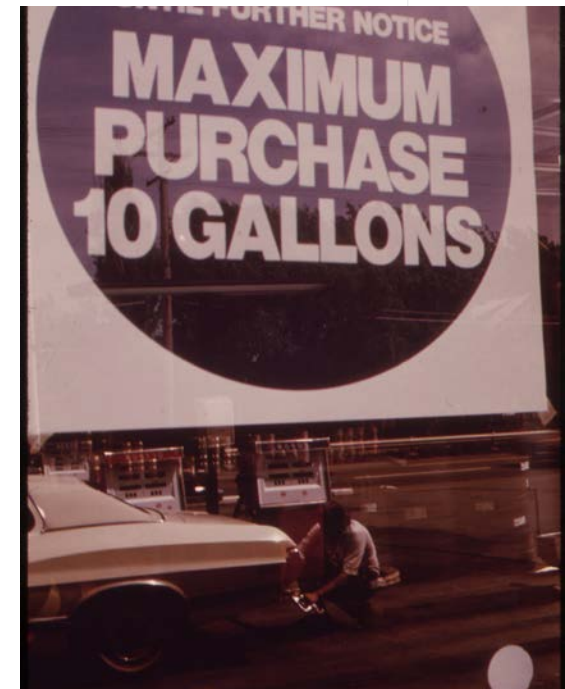
Over the last century, several world events have led to massive societal disruption and fundamental change to our daily lives and psychological state. For example, after the Great Depression, people became more focused on stockpiling food and other staples as a means of survival. The energy crisis of the 1970s caused long lines at the gas pump and forced citizens to pause and consider only essential travel. Efficient vehicles became the norm and industry experts began looking for more sustainable options to equip our cars. Following 9-11, the world accepted enhanced security procedures at airports, sporting events, and other large gatherings.

***How will this COVID-19 crisis change the world?***

***Specifically, how will it alter the world of teaching and learning?***

***If it is conceivable to accept that the “experience of school” may never be the same, what could that future look like?***

***How might school facilities and campuses adapt to support and enhance these new strategies?***



## Rethinking Spaces

Social skills are often developed outside the classroom. Modern school design already provides flexible spaces and seating to enable groups of students to meet informally. Looking forward, shifting the location of these spaces to allow students to access resources such as the library, tutoring areas, or counseling centers may help students work in a self-directed environment yet be more connected to essential resources. Relocating these spaces may allow for these social and self-directed activities to occur in a supervised, central area within a school.



## Expanding Alternative Learning Programs

Building on the e-learning skills students are developing, blended learning programs will grow in popularity and may expand the need for smaller breakout spaces in a school. Collaborative and project-based activities promote student skills in social development and require a new set of spaces to comply with physical-distancing standards. Instruction may be delivered with students in non-traditional locations throughout a school. Providing access to virtual viewing studios throughout the school may evolve these programs and enhance student learning.



## Social-Emotional Wellness

An increase in professional intervention, peer mediation, and tutoring activities in our schools will be needed to help students and staff learn to cope with and manage the massive cultural shifts, climatic events, and educational changes that lie ahead. Buildings may need to be adapted to create more intimate settings that are strategically scattered throughout the schools to enable real-time, individual interventions. Informal, large-group spaces will continue to complement smaller rooms but will need to be highly adaptable to provide for evolving social distancing standards.



## Performing Arts

People may be sensitive to crowd density for many years after this crisis. Auditoriums may be occupied at a reduced capacity or refitted to accommodate fewer, spaced seating. Seats may be removed, or the space may be converted into virtual viewing studios, to avoid large-crowd gatherings. Teachers and students may seek opportunities to express and perform through digital means to reach a larger, more diverse audience.



## Physical Wellness and Locker Rooms

An increase in non-contact activities will drive the need for PE activities that are individually-focused rather than team-focused. The demand for individual fitness in a group space may rise. Traditionally dense locker rooms will either need to adjust to alternate scheduling options or be re-planned with individual changing rooms. Student lockers that hold items with the potential to harbor bacteria and viruses could be replaced with private showers or defined changing spaces.



## Toilet Rooms

Continuing the recent trend to provide private/ gender-responsive toilet rooms in our schools, traditional large group toilet rooms may become a thing of the past. Perhaps these will be replaced by single, water-closet stalls resembling European-style models. For lower grade levels, these private toilet rooms might be accessed directly from the classroom, and for upper grades, they could be scattered throughout the building.



## Humidity Management

Humidity concerns have been in the news because they play a role in the ongoing pandemic. The ASHRAE (American Society of Heating, Ventilation and Air-Conditioning Engineers) studies indicate that bacteria, viruses, and respiratory infections are most active when the indoor environment is dry (relative humidity between 0-30%). We anticipate greater emphasis will be placed on environmental design strategies that maintain IAQ in the band of 30-60% relative humidity, which will also have an impact on building envelope assemblies.



## High Performance Air Filtration

ASHRAE has stated that there is a potential risk of airborne exposure to the COVID-19 virus. Even the most robust HVAC systems are challenged to control airflow and completely prevent dissemination of an infectious aerosol or droplets. However, changes to the operation of HVAC systems, can reduce airborne exposures. The impact of these changes will depend on a wide variety of technical and environmental design factors. Enhanced ventilation and filtration systems can reduce the airborne concentration of the virus and thus the risk of transmission through the air. To achieve healthier school environments in COVID-19 world, existing HVAC systems will need to be modified with the latest filtration technology to enhance safety and well-being.



## Parental Engagement

Over the last few months parents have become more aware and involved in their children's education. The experience of playing the role of co-teacher has likely increased their appreciation of teachers and made parents realize that teachers do so much more than teach the ABC's. They likely have realized the complexity of modern learning. Looking forward, schools have an opportunity to be more engaged with parents in a virtual environment.

*Will parent-teacher conferences be conducted by video conference?*

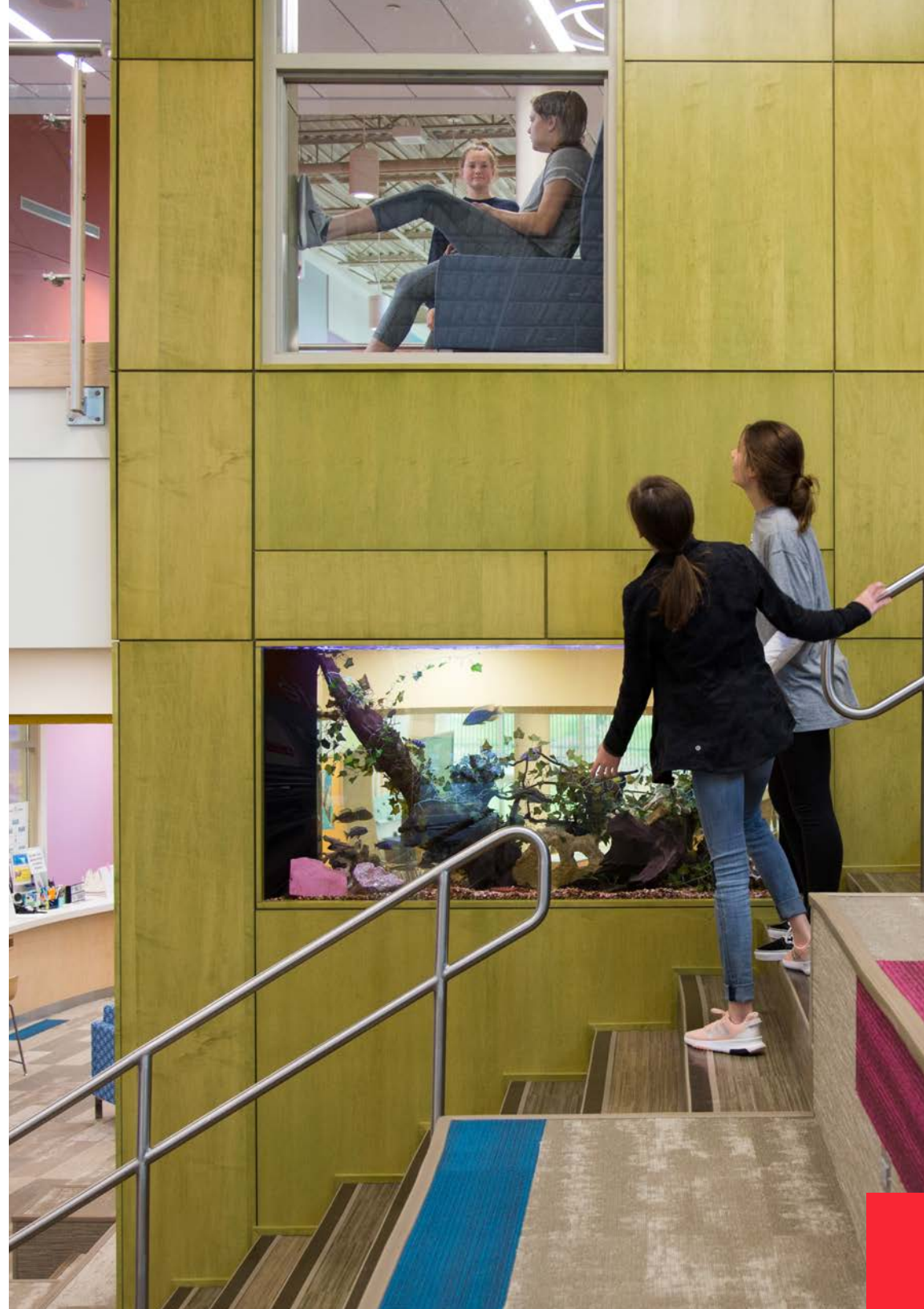
*Will curriculum night be held in an asynchronous environment?*

*Perhaps community engagement will take a new path.*



## Final Thoughts

The emergence of COVID-19 has already changed the world in so many ways. Although our behavior has been modified, we have rapidly adapted to new ways of working, learning, and teaching. We are now poised to improve with the technology and tools that we use daily in those activities. Our challenge is to leverage what we learn from this experience and shape it into solutions that provide a positive, impactful experience for teachers and students now and in the years to come.



## Wight & Company

WightCo.com

### Contact

**Brad Paulsen, AIA**  
bpaulsen@WightCo.com

**Rick Dewar, AIA, REFP**  
rdewar@WightCo.com

### Chicago

211 North Clinton, 3N  
Chicago, IL 60661

312 261 5700

### Darien

2500 North Frontage  
Darien, IL 60561

630 969 7000

### Denver

8181 Arista Place  
Suite 100  
Broomfield, CO 80021

720 432 4435



**BEYOND  
YOUR  
BASE**  
A CONSULTING  
GROUP OF  
WIGHT & COMPANY

**BeyondYourBase.com**