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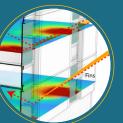
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design for good.



California Moves to Universal Transitional Kindergarten: *Game-changing legislation brings planning*

challenges for school districts



he majority of a child's brain development occurs in the first five years,¹ so education during this period is a significant foundation and stepping stone in a child's educational journey. The transitional kindergarten (TK) instructional level for four-year-olds was first introduced in 2012 for children who miss the age cut-off for kindergarten. The transition from preschool into elementary school is critical in developing social and cognitive skills, and studies have shown that children who attend TK are more confident in school and are held back less often². Without access to a quality TK program, some children risk being left

behind academically before they even enter kindergarten. The lack of a TK option has been identified as an early source of an achievement gap.

Ensuring broader access to early education has long been a goal of educational leaders and advocates in California and nationally. In 2021 California took a big step toward that goal, as California Governor Gavin Newsom signed groundbreaking legislation to provide free, universal TK for all fouryear-old children in the state by 2025.

Currently many California school districts do offer TK programs. Along with private

By Julie Strauss



Julie is the director of HMC's School Advisors and has 15 years of experience assisting PreK-12 districts throughout California to maximize and secure state funding. She is active in the CASH organization, having served on the Legislative Advisory Committee, completed the CASH Leadership Academy, and most recently received her ALEP designation with A41 F.

PHOTO: The transition from preschool into elementary school is critical in developing students' social and cognitive skills.



Without access to a quality TK program, some children risk being left behind academically before they even enter kindergarten.



Current TK Enrollment



Planned Future Enrollment

preschools and daycare centers, this is known as a "mixed delivery" model. But many children are still missing out and experiencing what amounts to a significant educational gap. Currently, about 100,000 students are enrolled in a TK program,³ but California's plan will bring TK education to every district in the state, giving approximately 400,000 studentsno matter their income or zip code—the opportunity to succeed and thrive in school. The hope is this mandate will go a long way toward closing an achievement gap that persists across the state. This mandate, possibly requiring the expansion of facilities, will have a major impact on the promise of equity in public education.

FUNDING AND STAFF SUPPORT

While the benefit to generations of Californians is clear, at a time when districts are facing funding, staffing and space challenges, difficult questions remain on how to pay for the facilities that will properly serve this new grade level; specifically, how to build and staff them.

The legislation has a total budget of \$2.7 billion, with \$490 million⁴ earmarked for the construction, renovation, and rightsizing of school facilities to accommodate a TK program. Although funding formulas and sources are complex, generally, the distribution of these funds will be based on need within each district, similar to how California's free and reduced meal eligibility is calculated. While many districts may receive some funding for retrofit and/or expansion, most districts will not receive funding through the new Preschool, Transitional Kindergarten and Full-Day Kindergarten Facilities Grant Program (PTKFDKFGP). Regardless of district size or socioeconomics, most of the 977 California school districts will face difficult financial decisions in order to meet the mandate.

In addition to the primary budget, there are several grant programs targeted to meet specific needs. For example, the UPK Planning and Implementation (P&I) Grant Program provides funds for local educational agencies (LEAs) to create or expand preschool or TK programs; including planning, hiring, training, and classroom materials costs. The "Early Education Teacher Development Grant" allocates \$100 million to help districts increase the number of credentialed TK teachers. This money can also be used to help current teachers with professional development in inclusive classrooms, culturally-responsive instruction, duallanguage learning, and trauma-informed practices.⁵

Funding from the various public sources is extremely competitive, and many argue that current funds are not enough to make a dent in the newly added requirements. The reality of inadequate budgets underscores the need for districts to work closely and collaboratively with

CDE recommendations

- 1,350 SF classroom size (new facilities)
- Minimum of 1,250 SF classroom size for retrofitted classrooms
- Bathroom access within classrooms
- Dedicated play areas
- Access to parent parking/ drop-off area
- Student-teacher ratio of 13:1 within the 1,350 SF classroom
- New TK facilities cannot be portable construction if using the PTKFDKFGP

industry partners to design solutions that will meet the need and maximize funding opportunities.

CAMPUS AND SITE CHALLENGES

Public school facilities are highly regulated, and the Universal TK Mandate is no exception. In addition to existing requirements, this legislation includes a set of key CDE recommendations to accommodate the needs of young children through the school day:

TK and Kindergarten classrooms are required by Title 5 to be 1,350 square feet, larger than a standard 960 square foot classroom; bathroom access from within classrooms is recommended; classes must have age-specific play structures separate from the rest of the campus; parking must also be considered, including proximate parent drop-off areas; there is studentteacher ratio of 13:1 within each 1,350 square foot learning environment.

In the Davis Joint Unified School District, just west of Sacramento, HMC Principal Architect Mike Rath is working with district leadership on a masterplan that spans eight elementary school campuses, requiring the addition of four new TK classrooms to meet the new TK requirements. He talks about some of the challenges, "We are starting with the idea of using the same classroom plan for multiple sites, which offers economies-ofscale, starting with the ability to expedite DSA approval via re-use of plans, and also in the construction process." He estimates this may yield a 10-20 percent cost savings.

"But because every campus is different, there are a lot of configuration factors to address. We are trying to locate the new TK classrooms next to existing kindergartens and to utilize existing play areas. There are issues with proximity to drop-off areas and we look at the distance to the cafeteria, which is a factor for younger students. In some cases, we're really trying to fit a classroom into a tight area." He mentions that in several instances they are proposing to use an existing under-utilized classroom. At another campus within the district, enrollment requires two new TK classrooms. The district's prior masterplan may need to be revisited after the TK situation is addressed—another challenge districts will be facing.

"Of course," he continues, "district planners are trying to predict future TK enrollment and capacity based on rapidly changing information, demographic trends, proposed development—as always, it's a tricky moving target."

Like DJUSD, many districts have begun planning and building new TK classrooms or adapting existing spaces. Between now and fall 2025 the adoption of the Universal TK mandate will require districts to dedicate a significant fiscal, planning and design, and construction effort. While these changes will undoubtedly be challenging, educators and policy experts agree that in the long run the promise of a more equitable and effective K-12 program will be worth the effort and expense.

UNIVERSAL TK-TRACKING THE IMPLEMENTATION

As California school districts work to meet the Universal TK mandate by fall of 2025, this story is the first in a series HMC School News will publish about the challenges and opportunities facilities planners and educators are addressing. If you are interested in consulting regarding TK planning and implementation, Julie Strauss, Director of HMC School Advisors, is available to help. Julie.Strauss@ HMCArchitects.com.

- 1. <u>Karen D'Souza,</u> <u>"Universal</u> <u>Transitional</u> <u>Kindergarten | Quick</u> <u>Guide," EdSource,</u> <u>October 13, 2021</u>
- 2. <u>"About TK,"</u> <u>TKCalifornia</u> (website), accessed November 22, 2022
- 3. <u>Karen D'Souza,</u> <u>"Universal</u> <u>Transitional</u> <u>Kindergarten | Quick</u> <u>Guide," EdSource,</u> <u>October 13, 2021</u>
- 4. <u>Karen D'Souza,</u> <u>"Universal</u> <u>Transitional</u> <u>Kindergarten | Quick</u> <u>Guide," EdSource,</u> <u>October 13, 2021</u>
- 5. <u>"Universal</u> <u>Prekindergarten</u> <u>FAQs," California</u> <u>Department of</u> <u>Education, accessed</u> <u>November 22, 2022</u>

The Growing Importance of Environmental Analysis

Today, Building Performance is a Key Part of Architectural Design

By Shweta Joshi



A project designer with over 10 years of experience working on large K-12 and Higher Ed projects, Shweta specializes in environmental and data analysis, using digital tools and research to deliver high performing, sustainably designed projects that are optimized for site and natural conditions. She holds a Master of Architecture degree and a Master of Science in Digital Arts. n the architectural design process, an essential challenge is to get an accurate preview of what a building and its spaces will look like, how the design will translate from concept to reality. We consider a wide array of general factors, spatial, proportional, orientation, including what users will need on a daily basis. And today, increasingly, we use a digital toolset to specifically analyze how a building or campus will best interact with the climatic conditions of a site: sunlight, wind, temperature and humidity.

This process is generally known as environmental analysis. Although the software has existed for over a decade, in the past few years we have made analysis for optimal performance a requirement on every project. As HMC Architects' Design Director James Krueger puts it, "These tools result in a superior design, because performance is a key part of design itself you can't separate the two."

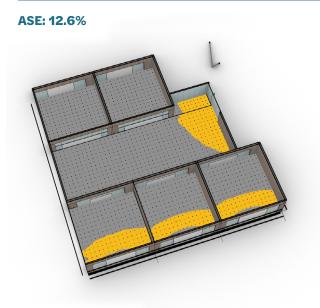
Like most design, it is a step-by-step deductive process, starting out with bigger general questions and then getting tighter and more specific as we go forward. We start by looking at the climatic conditions and incorporate design strategies that perform well in that location. As a next step we compare options to evaluate the most optimized high performing option. As a final step, we closely examine and refine design decisions to further enhance building performance.

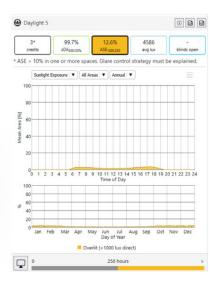
The results of this process suggest architectural solutions, like optimized orientation, window-to-wall ratio, glazing location, shading strategies, analyzing length and angle of the shades, water use reduction, and efficient HVAC system selection. This analysis also helps integrate passive design strategies and improve building performance. For example, in Cove Tool multiple consultants can collaborate and come up with integrative design solutions that meet specific project EUI and optimize embodied carbon goals.

We analyze prevailing wind to both capture desirable natural ventilation and prevent wind tunnels that can be uncomfortable. Based on this preliminary Computational Fluid Dynamic iteration we can know whether vegetation can be used as a wind block, and whether operable windows and natural ventilation may be an option.

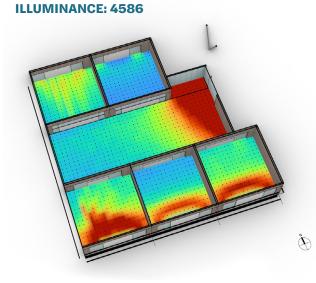
The process involves several complimentary tools, all of which talk with our core design software, Rhino. The two main software applications we use are Cove Tool and Climate Studio. We would not be able to arrive at these complicated calculations without them.

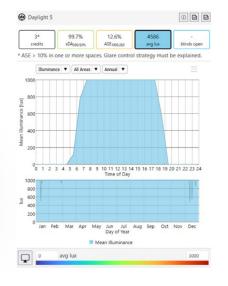
Nash Reyes, HMC's director of technology says that energy and climate apps are one piece of a larger technology picture. He talks about their power, "There's a lot of tech under the hood. You need a lot of math: weather data from NOAA (National Oceanic & Atmospheric Administration), geolocation information, seasonal data. The key value for our teams is the speed of the output for such complex calculations. In a matter of minutes these apps generate sophisticated diagrams and charts that are easy to read. Like all technology decisions in





The process involves several complimentary tools, all of which talk with our core design software, Rhino.





an increasingly tech-driven profession, we look at the needs of our teams—and ease of use is important." He continues, "this is part of a larger movement in architecture, data-informed design, where you now have information to back up your decisions. In the age of big data, gut feeling and intuition are not enough anymore."

At Laurelwood Elementary School, a 14acre K–5 campus currently in development in Santa Clara, we are using sustainability tools to optimize massing, daylight, energy use intensity, rainwater harvesting and potential solar power systems. The rainwater system will capture 850,000 gallons a year, which will completely meet the exterior landscaping needs. We also analyzed sunlight data, roof slope and direction to optimize a PV (photovoltaic) system across 31,000 SF of built space. It will generate nearly 750,000 kilowattsper-year, a significant amount of electricity. The data helped us arrive at the right system size—the right amount of power based on initial cost and ongoing need.

"These tools are game changers in allowing us to make real progress toward carbon reduction goals," explains Jennifer Wehling, HMC's director of sustainability. "Smart, data driven, decisions on building orientation, window size and placement, shading, wind, and solar can move a school toward zero-net energy, the emerging standard as energy codes become more stringent in California. We start with passive strategies, using the architecture and user habits to minimize the energy needed, then look to high efficiency systems to provide

DAYLIGHT SIMULATION LIGHT SOURCE vorking plan

that energy. With this approach, we are able to reduce the predicted energy use of the building often by as much as 40-80%, making offsetting the remaining energy with renewable sources, like photovoltaics, a much more affordable option."

James Krueger puts these digital tools into the larger context of our work. "As we move toward the 2030 global energy goals, climate and energy analysis helps us do the right thing—for the planet, the future, and for the kids attending the schools we build. Data-based design gives us a lot of credibility with our clients, who want to know why we make design decisions. We now have the data to back up our thinking."

With projects like Laurelwood Elementary and many others currently on our drawing boards, environmental analysis holds an important place in our overall design process. As the software continually improves and gets more accurate, it is an exciting and promising time in architectural design.

For further reading:

https://metropolismag.com/viewpoints/ three-technologies-are-changing-howwe-design-for-climate/

https://www.fastcompany. com/90738053/this-open-source-toolhelps-architects-design-climate-friendlyhomes

https://help.covetool.com/en/ articles/3676197-climate-analysis-andpassive-design-strategies

Creating a Sense of Place with Multipurpose Buildings A school's MPR can provide a sense

of belonging for students.



By James Krueger AIA, NCARB



As director of design, James oversees design and leads strategies to improve the impact of HMC's work. Formerly serving as design principal where he led projects for HMC's PreK-12 and civic practices, Krueger's creative approach emphasizes the firm's purpose of "design for good" to support clients with highperformance solutions that aim to have a positive impact.

PHOTO: Willett

Elementary School. HMC provided a 10,000 SF building design adapted to four existing DJUSD *elementary* school campuses, including Birch Lane, Cesar Chavez, North Davis, and Willett Elementary Schools in Davis, California.

reK-12 education has become far more sophisticated over the years, and school design must continually evolve to keep up with current and future needs. Today, there is a greater emphasis on student collaboration and creativity, and technology has become a standard part of every learning environment. Many elementary, middle, and high schools are looking toward incorporating a multipurpose building into their facilities to allow for a wide variety of teaching and learning methods in one easily transformed space.

There are ample opportunities to create spaces that facilitate your school's curriculum and students' needs. Multipurpose buildings serve multiple program and functional requirements. For example, school gymnasiums have

traditionally functioned as lunchrooms during inclement weather and often double as performance spaces. The issue with many of these spaces that try to accommodate various uses is that they tend not to do any one thing well. Today's students (and teaching models) demand a higher level of creativity in design, offering sensitivity to acoustics, movable walls that allow for reconfiguration, and access to and control of daylight.

What if you could divide your cafeteria into two smaller study spaces to use before and after lunch? Imagine opening a glass exterior wall of this space to the outdoors, allowing students to study or work on projects in the open air on good-weather days, and then rolling workstations and chairs to the perimeter to open the space up for a school dance that evening.

"A multipurpose room saves on space and can be cost-effective. Building fewer single-use rooms that are only occupied a couple of times during the day saves on construction costs." Many traditional school designs include unused spaces for large portions of the day. Gymnasiums, auditoriums, theaters, and large music rooms serve their purposes for a few hours and, occasionally, after hours when used for events. Still, the rest of the time, they often sit empty. These large spaces continue to consume resources, such as electricity and heat or air-conditioning, when unoccupied. A well-designed multipurpose building can reduce the overall size of a campus plan while offering various uses throughout the school year, and minimizing space downtime.

NEW MULTIPURPOSE ROOM DESIGNS AND FEATURES ALLAY OLD CONCERNS

You're likely familiar with traditional moveable walls, dividers, and slide-out bleachers that have allowed schools to turn gyms and cafeterias into event spaces. You're probably even more familiar with the bad experiences that went along with them: the malfunctions, the noise, the staffing needed to transform a space, and the yards of extension cords required to make the space functional for a specific purpose or event. Today's multipurpose room (MPR) designs have met those concerns head-on. By integrating highperformance materials and systems, we can mitigate any initial doubts about the feasibility and comfort of school MPRs, making these spaces compelling and practical for today's future-focused schools. Here are a few examples:

Move walls to move minds. Operable walls, including glass walls that teachers can move with one hand or coiling doors that roll down from above with the push of a button, have replaced clunky, mechanical dividers. These new design features offer excellent sound insulation and built-in egress doors and secure in place easily without having to call in maintenance staff.

Empower your students. Gone are the awkward floor outlets that were tripping hazards, difficult to clean around, and expensive to repair. They've been replaced with tables that roll and have charging stations built into them. At the end of the school day, move the tables to the walls and plug them in to recharge their batteries for the next day. **Tame the noise.** Large spaces can be noisy, so it's essential to consider that and include surface elements such as acoustic tiles, fabric-covered wall panels, or ceiling treatments that reduce excessive noise. Even the shape of the room can work in favor of reducing reverberation. Working with an acoustic engineer to analyze the space and angling walls/ceiling panels so they aren't all at 90-degree angles can help dampen a room's sound and alleviate excessive noise.

In addition to the above features, school districts might also consider incorporating program-specific design elements. If your school has a strong STEM focus, you might install gas and water connections at the room's perimeter to facilitate science experiments. In a performing arts school, dual-purpose furnishings such as a portable stage and moveable audience seating can allow for an in-the-round theater performance one night and a debate team practices the next. If you have a PE class in the space, we can ensure that the flooring is appropriate and that the acoustics are considered to eliminate reverberation.

CHOOSE THE RIGHT MPR DESIGN FOR YOUR SCHOOL

Your school is unlike any other. Therefore, your campus and programs should be considered when designing your MPR. At HMC Architects, we love the design challenges schools present. We believe that a school MPR can create a collaborative sense of place and belonging for students, particularly in today's learning environments.

Over the years, we have designed MPRs in several schools with various programs. Most recently, HMC and Davis Joint Unified School District (DJUSD) celebrated the opening of four new MPRs in Davis, California. HMC provided a 10,000 SF building design adapted to four existing elementary school campuses, including Birch Lane, Cesar Chavez, North Davis, and Willett Elementary Schools.

The prototype building has four major components: kitchen, dining/performance, music, and support spaces with room for 650 students and dining seating for 300. Designed to be the heart of each campus,



the buildings revitalize campus culture and provide a welcoming space for the whole school to gather. Deep overhangs allow indirect light to flood the main MPR space and minimize glare.

"I am as impressed with HMC's design work as I am with their engagement process," said DJUSD's Executive Director of Capital Operations David Burke. "While each building is essentially the same programmatically, the placement of each building on each site was skillfully located to reinvigorate the students and staff, developing a new center for social activity." We were designing and constructing all four MPRs with slightly staggered construction schedules that allowed for an efficient flow of trades across the four sites. The design team led stakeholder engagement meetings, both in-person and virtually, leading to a successful process for each campus. As the first of four, the subsequent MPRs benefitted from issues resolved at Birch Lane ES. The district's strategy to bid on the four projects in one package allowed our construction partners, Landmark Construction, to take advantage of a competitive market. With this combination of efficiency and competitive bidding, DJUSD estimates they saved over \$4 million in design fees and construction costs.

PHOTO: Birch Lane Elementary School

"The buildings revitalize campus culture and provide a welcoming space for the whole school to gather."



Q+A

Meet HMC's Director of School Advisors, Julie Strauss

A director of HMC Architects' School Advisors, Julie has over 15 years of experience assisting PreK-12 districts throughout California to maximize and secure state funding. She is active in the Coalition of Adequate School Housing (CASH). She has served on the Legislative Advisory Committee, completed the CASH Leadership Academy, and recently received her Accredited Learning Environment Planner (ALEP) designation with the Association for Learning Environments (A4LE).

What is the role of HMC's School Advisors?

A HMC's School Advisors (SA) works with the project team to identify funding sources and a funding strategy for the project. We then partner and collaborate with the state agencies, district and architectural team to ensure that all required approvals are secured (DSA, CDE and in some cases local). We then work with the Office of Public School Construction (OPSC) to secure the state funding for the project.

What is the biggest challenge school districts face today, and how can we help?

Challenges at this time.

 The creation of a new grade level (Transitional Kindergarten) and how districts will adequately house and serve these early learners. We should be partnering with our clients to develop early education master plans and develop feasibility studies. We can also work with our clients to apply for funding through the Preschool, Transitional Kindergarten, Full-Day Kindergarten Facility Grant Program (PTKFDKFGP) that is being administered by the OPSC.

2. Cost escalation and delays in the supply chain. Many districts are working to complete ESSER projects and the demand for mechanical units, increased costs and the funding timeline is proving to be full of opportunities. It is critical that we partner with our clients, consultants and vendors to develop solutions that will allow our clients to meet the funding deadline and complete critical infrastructure projects at their campuses.

You recently received your Accredited Learning Environment Planner (ALEP) designation. Tell us what that is and how it can benefit our PreK-12 clients.

A The ALEP accreditation is a program that develops the core competencies needed to be an educational planner. The year-long program provides course instruction from industry experts in educational visioning, community engagement, learning environment pre-design planning, learning environment design, educational facility

design for good

The positive impacts

of being outdoors

are numerous, from decreasing behavioral issues to increasing health and wellness. Project: Perris ESD Clearwater Elementary School.



implementation, project management/ project delivery, assessment of the school facility, and ethics/professionalism.

This program, for me, really brought the industry and services provided full circle. We often say that it is all for the students and the children and this program really showed me how the learner is at the center. How our projects can and do have a huge impact on the students and their growth. It was also exciting to learn about how education is progressing and evolving and how facilities can and need to progress with education.

It was also great to work closely with architects, educators, and planners worldwide and learn what and how others are delivering education and what their facilities look like. It was an extremely thought provoking and aspirational program.

Our clients can benefit from having an ALEP on their project team because we bring a very holistic approach and understanding to the planning and implementation of a project. Consensus building and engagement is key to the ALEP designation and these skills are critical to designing and building successful projects. In this issue's cover story, we talk about universal TK. How is HMC's School Advisors team helping our clients through this massive change?

A SA is partnering with districts to identify the potential need and impact that this new grade level may have in the district. We are discussing and developing options that may be available to our clients. In some cases, we are looking at adding TK/K classrooms at each campus. In other districts we are looking at how we can retrofit existing spaces at underutilized campuses to accommodate these early learners and only offering Transitional Kindergarten at some campuses within the district. And in other districts we are looking at developing early education centers.

What are some trends that you're seeing in PreK-12 design that our clients might want to know about?

A The educational trend that most excites me is outdoor learning. I am a person who thinks best while being active outside and to see students being provided these opportunities now post-pandemic is exciting. The positive impacts of being outdoors are numerous, from decreasing behavioral issues to increasing health and wellness. What are some important drivers today that school districts can do to promote student success?

A Currently, social issues are having dramatic impacts on learning and the services that schools are being asked to provide, and that have direct impacts to student success.

- 1. Homelessness and students who are unsheltered or do not have access to adequate shelter.
- 2. Food insecurity
- 3. Health and wellness services

These issues have come to the forefront and districts are being asked to help fill the need. We are seeing schools and campuses evolve from centers of learning to centers of community offering support and services to those who are in need.



School Bond Election Results

On November 8th, voters across California weighed in on some 106 local school bond measures. With a statewide bond not expected to make the ballot until at least 2024, and an estimated cumulative unmet facility need in the range of \$7.4B,¹ these funds are crucial for many districts to meet ongoing facility improvement needs.

Vote counts remain to be finalized and margins are very tight in several districts. Currently, results indicate 76 bonds have passed, or 72 percent of the elections.

Although a subject for ongoing discussion, current results do not seem to fall into specific patterns by district size, location in the state, or urban vs. rural districts. Many who track educational funding believe the uncertain future economic forecast may have been a factor in those measures that did not pass.

HMC will continue to track results statewide and update our website as they become available.

"Current results indicate 76 bonds have passed statewide."



PreK–12 Projects Win Top Honors in HMC Internal Awards Program

HMC Lance Hosey Impact Awards

By Bruce Boul



As HMC's communications director, Bruce leads external public relations activities and internal communications for the firm. He is part of a centralized in-house media group that also partners with project teams to provide HMC clients with various creative and branding services.

MC Architects promotes missiondriven work by celebrating it through our internal design awards competition. Now in its second year, the 2022 HMC Lance Hosey Impact Awards took place during HMC Design Week, October 11-13, setting a standard to which HMC designers can aspire. Within our firm of over 300 employee-owners in six offices, the annual program brings in outside judges to evaluate our work in relation to our mission to positively impact the communities we serve. For 82 years, we've pursued that mission in work with direct ties to the community through education, health, and civic projects.

Once again, we lined up a powerhouse jury from outside HMC to get expert feedback, hone our storytelling skills, and identify projects that deserve more celebration, internally and externally. To what degree is our work embodying our values? How consistent is this ethic across our work?

Each year, the projects selected for the Impact Award recognition must pass through an internal vetting process before they make it to the judges. This year we narrowed the field to 33 projects, including built and unbuilt work, which were critiqued by a jury of industry experts composed of architects, designers, academics, business leaders, and editors from outside the firm.

The jurors are measuring our projects on how well they fulfill HMC's mission, and aesthetics are secondary. "Everything we're doing right now is to shore up that mission," said James Krueger, AIA, NCARB, director of design. "We're a design firm, and the first signal of good design here should be whether it serves that mission in demonstrable ways."

At the end of deliberations, the jury singled out seven projects which included three honorable mentions, and Impact Awards for the best-built project, best-unbuilt project, best interior architecture project, and The Shape of Green award for sustainability, which is named after Lance Hosey's 2012 book The Shape of Green.

TWELVE BRIDGES HIGH SCHOOL

Lincoln, California Best Built

The design team is utilizing the site's natural topography and adjacent nature preserve as driving design elements; the campus nests into a hillside and splits open to allow the nearby grasslands to spill onto campus. The school's programs are strategically condensed into an inviting student-centric design that promotes collaboration, inclusivity, and contextual awareness. A true innovation of this project was that all repeating building elements were designed to be modularized and fabricated off-site with a focus on simple, efficient site installation.

MANGINI RANCH ELEMENTARY SCHOOL

Folsom, California Best Interiors

As the first elementary school to serve a new community being built in Folsom, California, the design team made it a point to promote community, collaboration, and local history in a school that meets the evolving needs of these students. Folsom has a rich history—early pioneers, the transcontinental railroad, the gold rush, the pony express, ranching, and agriculture. The school pays tribute to this history with large wall graphics spanning the entry lobby and classroom wings connecting local historic images to dayto-day student learning. The commons welcome students, parents, and staff into a sizeable inspiring space featuring a rich combination of natural textures and colors. The centerpiece is the gathering staircase, which is a hub for students.

HMC's Lance Hosey Impact Awards program is named for the firm's former Chief Impact Officer, Lance Hosey, <u>who passed in August 2021</u>.



BEST BUILT

Twelve Bridges High School

Lincoln, California

BEST INTERIORS

Mangini Ranch Elementary School

Folsom, California

The jury emphatically agreed that the project's goal was met. which was to build an efficient and inviting space that fosters collaboration and takes advantage of the natural setting of the preserve, the existing infrastructure, and the topography.

The jury also handed out honorable mentions to the following project teams:

MERIT AWARD, UNBUILT Chabot College Library and Learning Connections, Hayward, California

MERIT AWARD, BUILT **Kaiser Permanente Medical Center Expansion,** Downey, California

MERIT AWARD, BUILT **Cal Poly Pomona Student Housing and Dining Commons,** Pomona, California

Nature + Design = Transformative STEM Learning

Biomimicry education is creating the next generation of nature-inspired problem solvers.

By Adrienne Luce



Adrienne Luce is a social impact leader who has spent more than 20 years transforming lives and strengthening communities through the power of philanthropy. As the executive director of HMC's Designing Futures Foundation (DFF), she is committed to building a better world by investing in disadvantaged people and communities of color.

- 1. <u>"Our Mission,"</u> <u>Biomimicry Institute.</u> <u>Biomimicry Institute</u> (website), Accessed November 22, 2022
- 2. <u>"Youth Design</u> <u>Challenge 2023,"</u> <u>Biomimicry Youth</u> <u>Design Challenge,</u> <u>Biomimicry Institute</u> (website), accessed <u>November 22, 2022</u>

magine a time when you were awed by the wonders of nature. Now imagine harnessing the innovations found in nature to build a more sustainable world. That is the mission of the Biomimicry Institute which was "founded in 2006 by Janine Benyus, Bryony Schwan, and Dayna Baumeister to share nature's lessons with the people who design and make our world."¹

Recently the HMC Designing Futures Foundation (DFF) awarded a \$5,000 grant to support the Biomimicry Institute's Youth Design Challenge program that engages "middle and high school student teams to design bio-inspired ideas that can provide solutions to critical real-world problems. It provides a framework for formal and informal educators to introduce biomimicry as an engineering design strategy, to integrate relevant purposeful STEM experiences, and to provide engaging instruction aligned to the Next Generation Science Standards (NGSS).

The Youth Design Challenge (YDC) is a free, hands-on, project-based learning experience that provides classroom and informal educators with a new framework to introduce biomimicry and an interdisciplinary approach to science and environmental literacy. Working in teams with an adult coach, students explore the wonders of the natural world and apply what they learn to create innovations that support a healthier planet."²



This year the goal of the YDC is to engage 15,000 students from throughout the U.S. and around the globe. Registration is now open, and the submission deadline is April 4, 2023. Learn more, explore the YDC curriculum and past student submissions, and explore K-5 education resources at https://biomimicry.org/

The HMC Designing Futures Foundation (DFF) is committed to nurturing the next generation of designers and creative changemakers who will build a more sustainable world. HMC founded the Designing Futures Foundation (DFF), a nonprofit 501(c)(3) organization, to deepen the firm's commitment to giving back. Since its founding in 2009, the DFF has invested more than \$1.5 million in transformative nonprofits serving our communities.



Food Literacy Center Celebrates Grand Opening at Leataata Floyd Elementary School

After more than seven years in the making, the HMC Architects-designed Food Literacy Center has a new home. The 4,500 SF facility adjacent to Leataata Floyd Elementary in Sacramento now serves as the headquarters for the nonprofit organization with a mission to inspire kids to eat their vegetables. Located on 2.5 acres, the new Food Literacy Center includes a cooking classroom, a commercial kitchen, and student gardens.

To commemorate the grand opening, the Food Literacy Center hosted a ribboncutting ceremony on September 1, 2022, with tours of the new cooking school, bites and sips from top local chefs, live music, and dignitaries.

"The opening of this cooking school means so much more than health and nutrition education. It means a systemic change in a large school district," said Amber Stott, Founder and Chief Food Genius at Food Literacy Center. "I can't put into words how much it means to us that Sacramento City Unified School District (SCUSD) saw the value in our food literacy education and decided to invest in the students by building this incredible facility and allowing us to operate it."

SCUSD funded most of the \$7.6 million project and will serve multiple elementary school sites throughout the district. It also represents a significant investment in the Leataata Floyd community, serving the students and their families.

As an organization built around the tenets of health, wellness, and the environment, it was paramount that the headquarters reflected these same values while adhering to the nonprofit's budget. Fruits and veggies will be grown on-site and washed and prepared in the shade of the outdoor learning classroom. Meals are later prepared in the kitchen for healthy bodies and a healthy environment. The learning kitchen is anchored by a large demonstration counter and is surrounded by domestic cooking stations for kids to gain hands-on kitchen experience.

The building itself also functions as a learning tool where users actively observe on-site energy-conscious features in action. Solar panels, rainwater collection, operable windows and ceiling fans, and a holistic heating and cooling system reduce energy waste. As Sacramento City USD's first project to pursue Zero Net Energy, the building will produce as much energy as it uses, is free from all fossil fuels, and allows the nonprofit to keep its operating costs low.

The new facility offers programs and amenities, including:

- A cooking school with kidfriendly appliances and tools to teach students how to cook healthy meals.
- A kitchen for Food Literacy Center staff and volunteers to prep for after-school programs across the district, focusing on Title 1 schools.
- Training space for Food Literacy Center staff to train future instructors and manage day-to-day operations.
- Community programs, including family cooking classes and school field trips.

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Founded with the purpose of anticipating community needs, HMC aims to create designs that have a positive impact, now and into the future.

We focus primarily on opportunities to have the most direct contribution to communities — through healthcare, education, and civic spaces.

Learn more at <u>hmcarchitects.com</u>



AWARDS+ RANKINGS



The American Institute of Architects Inland California (AIAIC) Honor Award: **Malibu High School's new Classroom, Library, and Administration Building,** presented at the 2022 AIAIC Design Awards Celebration, September 14, 2022.

HMC ranks among top design firms in ENR's top 100 green design firms

TOP



HMC ranks number 15 in Top 160 K-12 school architecture + AE firms for 2022

