



## How School Buildings Can Contribute to Anti-Racism

The Collaborative for High Performance Schools (CHPS) recognizes the reality of systemic racism in the United States, and we are committed to providing resources to professionals involved in the design, construction, and operation of schools to help them focus on healthy, high performance school buildings that equitably and adequately support the communities they serve. What do school buildings have to do with a more equitable educational system and society? Architecture is a representation of society, and the built environment—especially school buildings, where children spend most of their indoor time outside of the home—expresses a community’s values, systems, and goals. For an excellent statement on how general architecture can help, we recommend the article by Kimberly Dowdell of the National Organization of Minority Architects. [1]

Our mission of fostering school design that positively impacts student and staff health and wellness supports the need for inclusive, sustainably designed, anti-racist facilities. We know that poverty and skin color go hand-in-hand and that Black and brown children make up the vast majority of children in poverty, with Black children having the highest percentage. [2] We also know that poverty and school facility condition go hand-in-hand, and that socioeconomic status and student performance are closely linked. See the *Phi Delta Kappan* article for a summary of relevant findings. [3] Black children and Black and brown communities bear a disproportionate exposure to environmental degradation and pollution. Black children are two times more likely to suffer from asthma than non-Hispanic white children, and Black children are four times more likely to be admitted to the hospital for asthma compared to non-Hispanic white children. [4] These truths emphasize how much more vulnerable Black and brown children are to climate change and to their immediate environments.

Cypress-Fairbanks Independent School District (Texas) COO Roy Sprague points to the importance of reinvesting in poor communities, which are largely Black and Hispanic.

“We’ve made a concerted effort to look at our older buildings, which have a tendency to be in the lower economic areas of our district, and to reinvest in those facilities,” said Sprague, who is vice chair of the CHPS Executive Committee. “We make a big effort to make sure we bring that building up to what a brand-new building would be in an affluent suburb.”

Anti-racism and equity are promoted in high performance school buildings through:

**Indoor Environmental Quality (IEQ)** – With good ventilation systems, use of low-emitting materials and finishes, good heating and cooling systems, access to outside views, good lighting, use of daylight in the classroom, excellent acoustics, and proper, safe, green cleaning procedures, the high performance school building is a safe, non-toxic space. Evidence shows that high performance IEQ systems reduce the incidences of asthma attacks in school children and improve learning outcomes. See our [Knowledge Library \(https://chps.net/knowledge-library\)](https://chps.net/knowledge-library) for a clearinghouse of studies on these important elements and more.

**Energy Efficiency, Zero Energy, and Zero Carbon** – Non-polluting school buildings improve local and global air quality and reduce our collective contribution to climate change. Utility costs can be one of the highest items in a school’s budget, and the long-term cost of climate change can hit a



school district hard and unexpectedly through extreme weather events. By emphasizing low energy use, renewable energy sources, and low or zero carbon emissions, high performance schools support healthier macro and micro environments for children while reducing the school's operating costs and allowing for funds to be reallocated to better, equitable uses. US-CHPS Criteria:

***Biophilic and Responsive Design*** – Biophilia and biomimicry are building features that connect to or mimic nature. They serve to enhance occupants' well-being and provide expanded learning opportunities. Especially in urban schools, where access to nature is commonly limited, a school building's use of biophilia or biomimicry creates a nature space the children otherwise would not have. 'Responsive design' is the term we use to encompass design features that create safe and calming spaces, contribute to a sense of community, and allow for students of all abilities, backgrounds, and perspectives to learn together. Responsive features serve equitable education by making all children feel safe and welcome and by encouraging them to be engaged. Examples of responsive elements include calming or sensory rooms, visual features such as murals and floor designs that provide sensory and affirming input, and respite nooks for students in classrooms or hallways. Students living with trauma, including the trauma of racism, and those learning with disorders or disabilities especially benefit from these features.

***Toxin-Free Water*** – Clean, safe drinking water is critical to healthy child development and long-term well-being. Lead in water in schools is an ongoing and significant problem. While lead is in tap water everywhere, an early study in New York State shows that lead contamination is more likely to be a problem in schools with the poorest students, therefore impacting children of color more heavily. [5] Our school building criteria is the only green building system that incorporates and emphasizes lead-free plumbing and testing for water quality. National plumbing standards require lead-free fixtures in new installations, and all schools can go a step further by implementing an annual testing and remediation program.

From our customized design criteria, to our Best Practices Manual and Operations Report Card, to our partnerships with the Healthy Schools Network and other like-minded organizations, we're working to help designers, planners and others recognize and eradicate the poor investment decisions of the past. Together we will take an active role in rebuilding and transforming communities through the careful design of high performance schools that enhance student performance; positively impact student, teacher, and staff health and wellness; make education more enjoyable and rewarding; and promote positive environmental stewardship. CHPS will continue to develop and deliver tools, support and encouragement to designers to work towards the ultimate goal of eradicating all forms of racism and inequity.

### ***Citations and Further Reading***

1. <https://www.fastcompany.com/90512407/racism-is-built-into-u-s-cities-heres-how-architects-can-fight-back>
2. US Census, 2018 Social and Economic Supplement
3. <https://kappanonline.org/how-crumbling-school-facilities-perpetuate-inequality-filardo-vincent-sullivan/>

October 19, 2020



4. [Office of Minority Health](#), US HHS, 2015 data
5. Healthy Schools Network, *New York Safe School Drinking Water Law: A Report on First Findings*, <https://drive.google.com/file/d/1dA8Sig3o12IRXnqfCAC6tBcXa23fuzv5/view>
6. CHPS Criteria and other resources: <https://chps.net/getting-started-chps>

## **CHPS Criteria that support equitable design and operations**

**Based on US-CHPS v2.0, see <https://chps.net/us-chps-online>:**

### ***Indoor Environmental Quality (IEQ)***

EQ P1.0 Ventilation & IAQ and EQ C1.1 Enhanced Filtration, Ventilation, & Dedicated Outdoor Air System  
EQ P2.0 Off-Gassing and EQ C2.1 Pollutant & Chemical Source Control  
EQ C3.1 Outdoor Moisture Management  
EQ C4.1 Construction IAQ Management  
EQ C5.1 Post-Construction Indoor Air Quality  
EQ P6.0 Low Emitting Materials and EQ C6.1 Additional Low Emitting Materials  
EQ C7.1 Material Health Disclosures  
EQ C9.1 Low Radon  
EQ C10.1 Thermal Comfort - ASHRAE 55  
EQ C11.1 Controllability of Indoor Environment  
EQ P12.0 Daylight: Glare Protection and EQ C12.1 Daylight Availability  
EQ C13.1 Views  
EQ C14.1 Electric Light Performance & Circadian Lighting  
EQ P15.0 Acoustical Performance and EQ C15.1 Enhanced Acoustical Performance

### ***Energy Efficiency, Zero Energy, and Zero Carbon***

II C6.1 Low/Zero GHG Schools  
II C7.1 Design for Adaptation & Resilience  
EE P1.0 Energy Efficient Design and EE C1.1 Superior Energy Efficient Design & Zero Energy  
EE C4.1 Advanced Ventilation Strategies

### ***Biophilic and Responsive Design***

II C5.1 Safer Schools by Design  
II C8.1 Biophilic & Responsive Design

### ***Toxin-Free Water***

EQ C8.1 Drinking Water: Toxin-Free Plumbing