



# Getting Beyond Green

A BASELINE OF EQUITY APPROACHES IN SUSTAINABLE BUILDING STANDARDS



Centering Equity in the Sustainable Building Sector  
NAACP ENVIRONMENTAL & CLIMATE JUSTICE PROGRAM  
JULY 2019

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## Introduction

### NAACP's Initiative: Centering Equity in the Sustainable Building Sector

Communities of color and low-income communities bear the brunt of the impacts of unhealthy, energy inefficient, and disaster-vulnerable buildings. These effects include poor health and the financial burdens of high energy bills and medical conditions related to indoor contaminants, as well as the disproportionately negative effects of climate change, to which buildings contribute as a major consumer of fossil fuel-based energy.

Yet, as one looks around the work tables or worksites of the sustainable and regenerative building sector, there is little representation of the populations most impacted by our current proliferation of unsustainable, inefficient, sometimes unsafe, and often unhealthy building stock. Whether it is as policy makers, advocates, architects, project managers, contractors, or even in the construction workforce, the most impacted communities are underrepresented in the design, construction, and occupancy of sustainable, regenerative, healthy buildings.

Given the huge import of buildings in reducing the demand on energy production, plus the co-benefits that regenerative design has for building occupants and the community, not to mention the environment, this gap in access and uptake must drastically change, and quickly, to build a big tent and universalize sustainable, regenerative buildings.

Our aim as the nation's oldest and largest civil rights organization is to be a beacon of inspiration and transformation in centering equity in the sustainable building sector. In doing so, we can catalyze the building of a bigger, broader base for the sustainable building movement towards the betterment of the building users, communities, the economy, and the planet.

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*"We are going to have to have people as committed to doing the right thing, to inclusiveness, as we have in the past to exclusiveness."*

Whitney M. Young Jr.,  
Executive Director,  
National Urban League  
(1968 American Institute of Architects  
Convention Speech)

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### Background

Following a wave of environmental initiatives in American communities starting in the 1970s, green buildings were first formally and comprehensively defined by voluntary rating systems like *Leadership in Energy and Environmental Design* (LEED) in the 1990s. These rating systems sought to inspire and applaud leadership within the building industry by outpacing local building codes. Simultaneously, state and local governments began defining their own programs and policies to promote green building and "beyond code" initiatives, including energy and water efficiency criteria for new public and private buildings.<sup>1</sup> During the 2000s, state and local governments began adopting and aligning their building codes with the requirements of green building rating systems, as well as new model codes like *ASHRAE 189.1 Standard for the Design of High-Performance Green Buildings* and the *International Green Construction Code*. Mandatory and voluntary green building programs have since proliferated across the country, featuring a diversity of approaches to evaluate energy efficiency, resource conservation, water efficiency, indoor environmental quality, site development, land use, and more. It should be noted that the terms "sustainable," "green," "healthy," "regenerative," "high-performance," and "living" buildings are often used interchangeably.

From the beginning of the movement, the concept of sustainability has been defined as a balance between environmental, social, and economic considerations. Also called the “triple bottom line,” this approach seeks to design comprehensive solutions that support quality of life for all. In addition to natural and economic capital, green building projects take into account social capital, defined as “the costs and benefits to the people who design, construct, live in, work in, and constitute the local community and are influenced, directly or indirectly by a project.”<sup>2</sup> In practice, the social elements of sustainability have been some of the most difficult or least likely for planners, architects, designers, and construction companies to embrace and implement. As declared by the U.S. Green Building Council, a leading voice in the movement:

*The goal of the triple bottom line, in terms of the built environment, is to ensure that buildings and communities create value for all stakeholders, not just a restricted few. For example, an energy-efficient building that saves the owners money but makes the occupants sick is not sustainable, nor is a material that has a small carbon footprint but was made in a sweatshop, nor is an eco-resort that displaces threatened species or local people.*

An emerging conversation within the concept of the triple bottom line is the definition of equity in the context of sustainability and green building projects. Equity could mean different things in this arena based on the populations and scale of impact being considered. For example, equity could mean:

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*Equity is just and fair inclusion into a society in which all can participate, prosper, and reach their full potential.*

PolicyLink

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- Eliminating greenhouse gas emissions from buildings to mitigate global climate change, which disproportionately impacts low-income communities, communities of color, and other frontline communities around the world.
- Investing in building upgrades in communities that are most impacted by the burdens from unhealthy and unsustainable buildings, such as air pollution, high energy costs, and displacement from gentrification.
- Reducing inequities within an individual building project, such as improving physical accessibility for those with disabilities or enhancing worker safety on a construction site.

In this assessment, we explore and compare the ways in which green building programs currently define and address equity issues and provide recommendations to center equity in these programs. We focus primarily on the strategies that are explicitly framed to support and empower populations experiencing inequities in relation to a building, rather than global public impacts like climate change mitigation or biodiversity conservation.

We know that community-serving facilities and public spaces (such as libraries, schools, hospitals, parks, churches, community centers, etc.) bridge the most equity issues because of the cumulative effect of bringing people together to access space, services, or resources, often for free. Equitable design should intentionally enhance and expand the impact of mission-driven organizations and building use types.

We recognize that almost all green building strategies can be considered equity-building strategies -- if they directly benefit communities that have experienced disinvestment and discrimination related to planning, housing, and environmental protection, which can include

people of color, people of low-income, people with disabilities, immigrants, women, children, seniors, and other frontline groups based on context. However, we do not assume these groups are the beneficiaries of a given green building project. Unless mandated by policy or intentionally implemented to ensure access in communities of greatest need, green buildings are often luxury products that are motivated by consumer demand and price premiums from privileged audiences.<sup>3</sup>

*This organization has spent almost a quarter of a century in the dogged pursuit of creating a luxury product, one full of hopes and dreams – in our case, that product is the Platinum level of our LEED v4 rating system – and we must now treat that luxury product of ours with the same missionary-like zeal that Tiffany for over 100 years has treated everything from its store windows at Christmastime and its high-end clientele to its precious (and now patent-protected) color blue.*

Rick Fedrizzi, Co-Founder and Former CEO  
U.S. Green Building Council

## Overview of Green Building Programs & Equity Approaches

<i>Programs Reviewed</i>	<i>Quick Summary</i>
<b>LEED</b>	Global certification program for <b>green buildings</b> of all types.
<b>EGC</b>	U.S. certification program for <b>affordable housing</b> developments.
<b>LBC</b>	Global certification program for <b>living buildings</b> of all types.
<b>WELL</b>	Global certification program for <b>healthy buildings</b> of all types.
<b>BREEAM</b>	Global certification program for <b>green buildings</b> of all types.
<b>NGBS</b>	U.S. certification program for <b>land development or buildings that include residential</b> spaces.
<b>RELI</b>	Global certification program for <b>resilient buildings</b> of all types.
<b>CHPS</b>	U.S. and local certification program for <b>green schools</b> .
<b>AEGB</b>	City certification program for <b>green buildings in Austin, Texas</b> .
<b>Built Green</b>	State certification program for <b>green homes in Washington</b> .
<b>EarthCraft</b>	Regional U.S. certification program for <b>residential &amp; commercial buildings in the Southeast</b> .
<b>Earth Advantage</b>	Regional U.S. certification program for <b>green homes in the Northwest</b> .
<b>King County Sustainable Infrastructure Scorecard</b>	Local certification program for <b>public facilities in King County, Washington</b> .
<b>GreenPoint Rated</b>	State certification program for <b>green homes in California</b> .

### LEED

LEED is a voluntary rating system first developed by the non-profit U.S. Green Building Council (USGBC) in 2000 and administered by Green Building Certification, Inc. (GBCI). The rating system is adaptable for many different types of structures in addition to generic new or existing commercial buildings, such as warehouses, hospitals, hotels, retail stores, building interiors, data centers, schools, neighborhoods, single-family homes, and multifamily complexes. LEED is now one of the most widely-recognized and internationally-adopted green building programs.



Image: Harvard University

The rating system is comprised of mandatory prerequisites and optional credits. Points are earned by fulfilling design requirements across nine categories of credits, including Integrative Process, Sustainable Sites, Location & Transportation, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, Innovation, and Regional Priority. Based on a cumulative score of at least 40 points and up to 110 points, building projects can earn one of the four levels of certification ranging from LEED Certified to LEED Platinum.

Among the seven goals of the program, LEED is intended to *Enhance Social Equity, Environmental Justice, and Community Quality of Life*. This category explores "...the importance that buildings have in the context of the greater community that surrounds them, and how they can powerfully shape the culture, politics, values, prosperity, health, and happiness of the citizens that are unavoidably affected by them."<sup>4</sup> The goal is defined by the following four types of impacts:

<p><b>Create a Strong Sense of Place</b></p>	<p>Create a strong sense of place in communities by focusing on human-scale environments that allow for seamless interaction and engagement of citizens with their environment and each other. A stronger sense of place provides means creating more opportunities for cultural, social and recreational interactions, improving community aesthetics, creating a strong sense of identity with the community and a greater sense of connectivity between members of that community.</p>
<p><b>Provide Affordable, Equitable and Resilient Communities</b></p>	<p>Provide affordable and equitable communities and neighborhoods that address community-level economic, social and environmental problems. Neighborhoods should have an adequate supply of healthful, high-performing, affordable housing that is well connected to critical goods and services, public transportation, and employment opportunities. Neighborhood development and redevelopment should focus on the management of community resources (including natural resources, ecosystem services, economic resources, civic resources, recreational resources, and social services) and enable local networks that will continue to foster strong and diverse local economies, and benefits that feed back to the community. Communities should be built to be resilient and stable under shifting economic conditions, climatic conditions, and natural disasters.</p>
<p><b>Promote Access to Neighborhood Completeness Resources</b></p>	<p>Promote development patterns that support diverse, accessible and proximate location to vital services including employment, education, healthcare, healthy food, recreation, civic and public spaces, retail, and other basic services.</p>
<p><b>Promote Human Rights and Environmental Justice</b></p>	<p>Promote basic universal human rights as they pertain to the built environment and enable communities to uphold environmental justice.</p>

While this definition offers a powerful long-term vision of equal benefits for all people, it fails to answer the question, "*Environmental justice for whom?*" Without stating the historical problems we seek to remedy and the populations experiencing injustice, the definition rings hollow. **The goal captures the building blocks of community quality of life in detail, but misses an opportunity to name the frontline communities and inequities it seeks to address.**

Of the 100 core points available in the rating system (i.e. excluding Innovation and Regional Priority bonus points), the largest proportion (35%) is allocated to strategies that mitigate climate change, while the smallest proportion (5%) is allocated to enhancing social equity. According to the USGBC, the distribution of points is meant to serve as a “simplified guide” for building project teams to prioritize strategies for many complex and interdependent issues; nonetheless, the organization acknowledges that **LEED is “not equally effective at addressing all of its goals,” particularly “human health, community, and social equity**, where the aspirations for LEED are not necessarily met with practical strategies (credits) to accomplish these goals.”<sup>5</sup>

For this reason, the USGBC has dedicated a working group to the topic of social equity since 2014, which has led to the development of experimental “pilot” credits to explicitly test new equity-building requirements.<sup>6</sup> **Several highlights of strategies currently being piloted include the following:**<sup>7</sup>

<b><i>Social Equity within the Community</i></b>	Encourages a project team to address identified needs and disparities in the community surrounding the project. It outlines a process of engagement and partnership with communities and allows certification through established frameworks such as the SEED Evaluator.
<b><i>Social Equity within the Project Team</i></b>	Encourages a project’s owners, financiers, architects, engineers, and contractors to incorporate social equity into their daily activities by paying prevailing wages, providing workforce development, or demonstrating corporate social responsibility.
<b><i>Social Equity within the Supply Chain</i></b>	Encourages social equity for those involved in the production of materials and products for our buildings, rewarding the establishment of supplier assessments and Supplier Codes of Conduct that address basic human rights for workers.
<b><i>Inclusive Design</i></b>	Prioritizes the experience and participation of all possible building users by considering the full range of ability, age, gender, language, cultural understanding, and other characteristics of human diversity in the context of place.
<b><i>Housing types and affordability</i></b>	Requires a wide variety of housing sizes and types and/or a proportion of dwelling units priced for households earning less than the area median income.
<b><i>Integrative Process for Health Promotion</i></b>	Engages public health partners and community stakeholders to discover how the project could address community health needs and reduce any existing health inequities.
<b><i>Prevention through Design</i></b>	Incorporates protective health and safety measures for workers during the construction and operations phases of the project, addressing roof design, equipment, waste management, enclosures, lighting, hazardous exposures, fall prevention, etc.

The first core credit in the rating system to explicitly include equity strategies is the **High Priority Site and Equitable Development** credit, updated for the latest version of LEED in July 2019.<sup>8</sup> The credit includes four pathways to demonstrate impact. The first promotes the development of sustainable buildings in disadvantaged communities, based on average household income, poverty rate, and/or unemployment. Alternatively, projects may choose a brownfield location and remediate contamination on the site. An additional option for *Equity & Community Benefits* requires the development and implementation of an equity plan, which

encourages projects to: 1) designate an expert in equity, engagement, and community benefits for their team, 2) assess inequities in communities impacted by the project, 3) partner with a local organization working with those communities, 4) carry out community engagement, and 5) develop a plan and implement community benefits. Lastly, projects can choose to include a proportion of new rental and/or for-sale dwelling units priced for households earning less than the area median income.

Despite this progress since the establishment of the equity goal for the rating system in 2013, equity has not been comprehensively integrated into the rating system as a core feature, let alone a mandatory element.

## Enterprise Green Communities

The Green Communities Criteria (GCC), launched in 2004 by Enterprise Community Partners, define sustainability specifically for affordable housing developments. The GCC are applicable for any housing project that includes affordable dwelling units, including New Construction, Substantial Rehab, and Moderate Rehab in both multifamily and single-family projects.<sup>9</sup> In addition to up to 46 mandatory criteria based on project type, projects must achieve 30-35 optional points from more than 290 possible points and across two project stages – design (PreBuild) and occupancy (PostBuild).



Image: Enterprise Green Communities

The Enterprise GCC are grouped into the following eight categories: Integrative Design; Location + Neighborhood Fabric; Site Improvements; Water Conservation; Energy Efficiency; Materials; Healthy Living Environment; and Operations, Maintenance, and Resident Engagement.

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## CONTEXT OF RACIAL DISCRIMINATION IN HOUSING

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The historic reality of housing in the U.S. is one of discrimination, and the country is only a few decades away from an era when racial segregation was an explicit goal of public policy. The results of housing inequity are substandard housing conditions and related health problems, with African Americans nearly twice as likely as the rest of the population to occupy homes with severe physical problems. Concentrated housing inequity also results in disproportionate exposure to environmental pollutants and isolation from essential health resources for African American communities. Overall, exclusion from housing opportunity has contributed to a massive wealth gap for African American families, whose median household wealth is 13 times less than white households.

Source: Brookings<sup>10</sup>

**Given that the entire GCC program focuses on affordable housing, many of the mandatory and optional criteria can have an inherent equity impact.** For example, people of low socioeconomic status cannot always afford more expensive disaster preparedness

actions, may be less likely to evacuate during disasters, and may fare more poorly from health impacts and financial losses during disasters.<sup>11</sup> Knowing this, three optional criteria: *Access to Potable Water During Emergencies*; *Resilient Energy Systems: Floodproofing*; and *Resilient Energy Systems: Islandable Power*, help prevent inequitable impacts of disasters for low-income households staying in place during an emergency.<sup>12</sup> Similarly, GCC combats common health inequities through an extensive list of health-promoting strategies for all residents, such as mold prevention, active design, access to fresh local foods, selection of materials that are asthmagen-free or have low/no volatile organic compounds (VOCs), ventilation, integrated pest management, smoke-free buildings, and reduction of lead hazards. All of the criteria are complemented by a mandatory operations and maintenance plan, resident and staff manuals, and orientations to ensure that all occupants are aware of these strategies and are prepared to maintain them.

**There are various optional criteria that speak directly to additional equity lenses to improve the quality of life within affordable housing communities, including:**

<b><i>Resident Health and Well-Being: Health Action Plan</i></b>	Encourages consultation with public health professionals and community stakeholders to identify actions that can be taken within the project's design, construction or operation that will promote health equity.  <i>Mandatory criterion that complements this option: Resident Health and Well-Being: Design for Health</i>
<b><i>Resilient Communities: Multi-Hazard Risk / Vulnerability Assessment</i></b>	Promotes resources to reduce the risk and consequences of natural hazards and climate change impacts with a special emphasis on protecting the most vulnerable populations in a community.  <i>Mandatory criterion that complements this option: Resilient Communities: Design for Resilience</i>
<b><i>Local Economic Development and Community Wealth Creation</i></b>	Encourages local preference for construction employment and subcontractor hiring: at least 20% local employment, or provision of physical space for small business, nonprofits, and/or skills and workforce education.
<b><i>Beyond ADA: Universal Design</i></b>	Requires a minimum of 10-15% of the dwelling units (no fewer than one) to achieve ICC/ANSI A117.1, Type A, Fully Accessible guidelines. As a requirement or an option (based on project type), all ground-floor units and elevator-reachable units must comply with ICC/ANSI A117.1, Type B, or have accessible unit entrances designed to accommodate people who use a wheelchair.

Green affordable housing certainly does not universally or single-handedly resolve the health, economic, and wide-ranging social issues that affect low-income communities and communities of color. First, the gap between households who need housing assistance and those who are actually assisted is enormous and growing. There is currently a shortage of seven million affordable homes in general, and green affordable homes are still a rarity.<sup>13</sup> Meanwhile, federal funding for housing assistance and services is declining.

Among people served by housing assistance programs, they are predominantly extremely low-income renters spending half or more of their income on rent and utilities alone; many households are elderly or contain members with a disability, and many are led by women and include children.<sup>14</sup> Affordable housing can improve health outcomes by freeing up resources for other expenditures and reducing health risks associated with crowding, instability, violence, and homelessness; nonetheless, these developments alone do not ensure true affordability in all cases nor high housing quality. Projects must be coupled with good construction and maintenance practices, tailored design to serve the primary demographics of affordable housing, access to neighborhood amenities and supportive services, separation from polluting industries and other hazardous exposures, and enforcement of fair housing laws.



Image: Enterprise Green Communities

## Living Building Challenge

The Living Building Challenge (LBC) is described as a philosophy, certification and advocacy tool for building projects to “move beyond merely being less bad and to become truly regenerative,” meaning socially just, culturally rich, and ecologically restorative.<sup>15</sup> Developed in 2006 by the International Living Future Institute (ILFI), a non-governmental organization (NGO), LBC certification is distinct for its two key principles:

- Certification is based on actual, rather than modeled or anticipated, performance. Projects must be operational for at least 12 months prior to a third-party audit.
- There are never more than 20 goals (called imperatives) defined for any type of project, with 10 core imperatives that are mandatory for partial certifications.

The imperatives are grouped into seven performance categories, or “Petals,” including Place, Water, Energy, Health & Happiness, Materials, Equity, and Beauty. The four different project scopes, or typologies, for LBC are: New Buildings; Existing Buildings; Interiors; and, Landscapes or Infrastructure. Requirements are further localized by rural and urban zones (called transects): natural habitat preserves; rural areas; villages or campuses; general urban areas; urban centers; and, urban cores.



Image: Miller Hull Partnership

The Equity Petal, introduced in 2009, intends to “elevate equity as a project goal, and to transform developments to foster a just and inclusive community that enables all people to participate, prosper, and reach their full potential.”<sup>16</sup> ILFI argues that a society that engages all people and upholds equal access and fair treatment is best positioned to steward the natural environment and confront climate change. For this reason, **both of the Equity Petal Imperatives are mandatory Core Imperatives. ILFI also names the barriers to equity ingrained into the development process:**

*Current limitations to reaching this ideal stem from ingrained cultural and social attitudes about the rights associated with private ownership and from structural and institutionalized racism and sexism, and widespread discrimination. A clear and concerted effort to address social equity issues is generally absent in most organizations, design objectives, and outcomes, and project stakeholders are usually limited by our ingrained assumptions and attitudes about ownership and rights, further excluding stakeholders in the community who will also be impacted by and could benefit from the project.*

The first Imperative for **Universal Access** requires Living Buildings to be accessible and welcoming to all people, helping recognize and celebrate cultural richness, while ensuring equitable access to fresh air, sunlight, and clean water and soil. Components include:

- Equal access regardless of background, age, and socioeconomic class to all primary transportation, roads, and external, non-building infrastructure (e.g. plazas, seating or park space).
- Most projects must provide for and enhance the public realm for all people (e.g. street furniture, public art, gardens, and benches).
- Safeguard access for those with physical disabilities by meeting the Principles of Universal Design (United States Access Board), the Americans with Disabilities Act (ADA), and the Architectural Barriers Act (ABA) Accessibility Guidelines.
- No project may block access to, nor diminish the quality of, fresh air, sunlight, and natural waterways for any member of society or adjacent developments. Projects must also appropriately address any noise audible to the public.

The second imperative for **Inclusion** seeks to ensure that the design, construction, and operation of Living Buildings creates jobs and opportunities for inclusion of people who have been disadvantaged, excluded, or discriminated against. At least two major project team organizations (e.g. businesses or non-profits) must assess and publicly share their own internal equity policies by attaining a JUST Label (ILFI’s social justice reporting program), and five additional organizations involved in the project must complete the first step of a self-assessment. In addition, as part of the project, diverse stakeholders from disadvantaged populations must benefit from either:



Image: ILFI

- Design/construction contracts (at least 20%) and maintenance contracts (at least 10%) with JUST organizations with strong diversity levels or registered minority, woman, or

disadvantaged business enterprises (MWDDBE) organizations, and general contractor's project contracts and/or project maintenance contracts (at least 10%) include workforce development/training/ community benefits agreements, registered apprentice programs, or similar programs

*Note: For community-scale projects, JUST Organizations requires a label for at least two major project team organizations, such as the Architect, Planner, Owner, or Development Authority, as well as advocate for JUST participation for all future employers within the community.*

- Donation of at least 0.1% of total project cost to a regional, community-based nonprofit organization focused on equity and inclusion

*Note: For community-scale projects, Equitable Investment requires a donation of at least half a cent for every dollar of project cost to a charity or the Living Future Equity Exchange Program for renewable infrastructure for charitable enterprises.*

Because it plays a prominent role in the Equity Petal, the JUST Label also merits review. As a voluntary self-assessment and disclosure tool for organizations and businesses, the JUST program results in a transparency label within a public database rather than a certification with external verification.<sup>17</sup> The label is comprised of 22 indicators with four levels of achievement per indicator. The indicators fall under six categories: diversity and inclusion; equity; employee health; employee benefit; stewardship; and, purchasing. ILFI permits organizations to opt out of a maximum of six indicators but only one indicator maximum per category. The minimum level of achievement for most indicators is a written and posted (public) organizational policy on the respective topic. As an example of top performance for an indicator, under *Pay-Scale Equity*, the highest-paid employee must not make more than 15 times the base salary of the lowest-paid employee.

In addition, there are equity components in the Place and Materials Petals. Under **Ecology of Place**, a core imperative, all project teams must assess cultural and social equity factors and needs in the community and consider those identified needs to inform design and process decisions. **Urban Agriculture** can be complemented by public access to healthy, local food on the project site, for example via a farmers' market, in order to address a community need. In addition to a **Red List** of harmful chemical classes that must be avoided in building materials, **Responsible Sourcing** requires that all projects advocate for the creation and adoption of third-party certified standards for sustainable resource extraction and fair labor practices for extraction of rock, metal, minerals, and timber.

For community-scale projects, additional equity imperatives include:<sup>18</sup>

<b><i>Human Scale and Humane Places</i></b>	Ensures design guidelines for surface cover, streets, intersections, signage, and building proportions to create human-scaled rather than automobile-scaled places.
<b><i>Universal Access to Community Services</i></b>	Ensures access to community services and amenities that support the health, dignity and rights of all people, including public transportation and at least one provider of fresh produce and meat, mixed-use commercial zone, community/ youth/senior center, office building, light industry, hospital/clinic, daycare, and/or school/higher education institution.

Though LBC has set a new precedent for centering equity as a main, mandatory category within the rating system, there is still much work to be done to ensure that abstract notions of equity are well-understood and actionable for project teams. Moreover, strategies for resilience, social

connection, and community programs can be strengthened and tailored to serve populations with the least access or greatest barriers.

## WELL

Established in 2014, the WELL Building Standard is considered the first rating system to focus exclusively on the impacts of buildings on human health and wellness. The standard is developed by the International WELL Building Institute (IWBI), a public benefit corporation, and is administered through GBCI with additional onsite testing by local performance testing agents contracted by WELL project teams.<sup>19</sup>

WELL contains 23 mandatory features (Preconditions) and 94 optional features (Optimizations) divided among ten topic areas (Concepts): Air; Water; Nourishment; Light; Movement; Thermal Comfort; Sound; Materials; Mind; and, Community.<sup>20</sup> There are 110 points available in the standard, with three certification levels requiring a minimum of 50, 60, and 80 points, respectively. Projects must earn a minimum of two points per concept but may not earn more than 12 points per concept.

**Within the six principles of the program, equity is uplifted first.** It is defined as providing “the greatest benefit to the largest number of people, inclusive of all demographic and economic groups and with special consideration to less advantaged or vulnerable populations.”<sup>21</sup> The standard acknowledges the importance of designing buildings to address health disparities, the “differences in health status between population groups resulting from unequal distribution of power and resources as a function of gender, race, ethnicity or socio-economic status.”<sup>22</sup> In addition, in the latest iteration of the standard, IWBI articulated the goal of driving equity “into the very architecture of the standard” by reducing barriers to entry and ensuring any well-intentioned project could achieve its intent and do so without major capital expenditure.<sup>23</sup>



Image: BuroHappold

**Nearly all identifiable equity-building strategies, which are optional, are located within the Community concept, including:**

<b>Enhanced Occupant Survey</b>	Requires projects to collect and respond to information from building users about their health and well-being, both before and during occupancy. One of the optional topics is social equity.
<b>New Mother Support</b>	Encourages provision of designated lactation rooms with supportive design, amenities, and educational opportunities.  <i>Complementary Optimizations include: New Parent Support for paid parental leave and supportive services for returning to work; Family Support for programs to support individuals’ childcare, eldercare, and other caretaking needs.</i>
<b>Civic Engagement</b>	Promotes charitable activities and contributions and voting support for occupants.

<b>Organizational Transparency</b>	Validates participation in third-party certification programs that evaluate an organization’s adherence to principles of equity and inclusion.
<b>Accessibility and Universal Design</b>	Requires compliance with basic accessible design requirements in their region and integrates principles of universal design into the design and operation of the space.
<b>Bathroom Accommodations</b>	Includes access to basic sanitary materials (including free or subsidized menstruation products) and accommodations for users with diverse needs, such as all-gender, single-user and accessible bathrooms.
<b>Emergency Preparedness</b>	Requires projects to have an emergency management plan with promotion/supportive resources. The plan must account for the needs of vulnerable occupants or groups (e.g., older adults, people with disabilities, pregnant women, and children).
<b>Community Access and Engagement</b>	Designates a shared, flexible public space for use by the surrounding community and offers programming that engages local individuals in managing or utilizing the space in diverse ways.

**BREEAM**

BREEAM (Building Research Establishment’s Environmental Assessment Method) was the first sustainability rating program for buildings, originating in the United Kingdom in 1990. Through the Building Research Establishment’s (BRE) network of global rating system operators and independent assessors, projects in the United States can certify to the international versions of *BREEAM New Construction* and *BREEAM Refurbishment and Fit-Out* for residential and commercial buildings, as well as *BREEAM USA In-Use* for existing commercial buildings.<sup>24</sup> The rating system includes nine environmental categories: Management; Health & Wellbeing; Energy, Transport; Water; Materials; Waste; Land Use & Ecology; and, Pollution. For each of BREEAM In-Use’s environmental categories, the assessor determines the number of “credits” awarded, which is then weighted and added for a total percentage score.<sup>25</sup> Projects are certified to one of six rating benchmarks (from Acceptable to Outstanding), with a minimum achievement of 30% of credits (New Construction, Refurbishment and Fit-Out) or 10% of credits (In-Use). Depending on the project type and certification level, there are up to 15 minimum standards to be met and 789 possible credits. The BREEAM USA In-Use assessment process is broken down into three parts which may be certified together or individually for a given building; a year of occupancy and data collection is required to certify the parts recognizing building and occupier management of the project.



Image: BuildingWise

BREEAM is designed to reduce the environmental impacts of buildings while reflecting “the social and economic benefits of meeting the environmental objectives covered.”<sup>26</sup> **Though the program does not articulate explicit, high-level equity goals for each rating system, there are a number of equity-building strategies available:**

<b><i>Inclusive design; Accessibility</i></b>	Promotes features, beyond those specified by law, which enable full use by all potential users, including individuals with temporary or permanent disabilities, people of different age groups, genders, ethnicity and fitness levels, and families.
<b><i>Responsible construction practices</i></b>	In addition to implementing national health and safety legislation, considerate construction practices are followed to continuously improve safety, respect and treat all workers fairly, engage neighbors, and reduce impacts on the community, such as those from dust, air pollution, water pollution, noise, and vibration.
<b><i>Emergency plan</i></b>	Provides a physically-accessible means of escape for fire safety and accounts for the full range of people who might use the premises, paying particular attention to the needs of people with physical or mental impairment.
<b><i>Sustainability report</i></b>	Requires an organizational sustainability/Corporate Social Responsibility (CSR) report to ensure transparent communication of social, economic and environmental performance. For maximum achievement, the report must conform to the Global Reporting Initiative (GRI) guidelines, be independently verified by a third-party body, and be accessible to all internal and external stakeholders.
<b><i>Alternative modes of transport; Local public transport</i></b>	Creates an agreement with local public transport operators/authorities to expand and/or improve transit services and ensure that information is readily available for users.
<b><i>Cyclist facilities</i></b>	Half of the required number of bicycle racks can be provided via an on-site, public bicycle sharing systems that serve people who do not own a bicycle with free or affordable access. The system must serve the entire city with a robust network of rack stations.
<b><i>Material procurement: Selection</i></b>	In any procurement policy for products and materials, organizations must consider social impacts (working conditions, environmental practices, safety standards, and human rights policies). When contracting with a supplier, companies should make it known that they expect business partners to comply with all national laws and regulations, including labor and environmental laws.
<b><i>Supplier approval</i></b>	Organizations must ask their suppliers to provide information about their social and environmental practices to ensure that materials are ethically and sustainably sourced. This could include a survey, membership in an industry/supply chain initiative, on-site visits, and/or involvement of suppliers' factory management and workers in monitoring.
<b><i>Supplier responsible sourcing standard (third party certified); Responsible sourcing of construction products; Responsible sourcing of materials</i></b>	Suppliers conduct responsible sourcing in accordance with a procedure/guideline/standard that has international scope. Key social issues that must be addressed include: safe and healthy working conditions; slave labor; child labor; freedom of association; equality in respect of gender, ethnicity, religion, political persuasion; corruption; complaints and prosecutions; skills and training; and, community relations.

## National Green Building Standard

The National Green Building Standard (NGBS) certification provides independent, third-party verification that a home, apartment building, or land development is designed and built to achieve high performance in six key areas: Site Design; Resource Efficiency; Water Efficiency; Energy Efficiency; Indoor Environmental Quality; and, Building Operation & Maintenance.<sup>27</sup> First published in 2008, the program is administered by Home Innovation Research Labs, an independent subsidiary of the National Association of Home Builders. Homes and buildings can achieve Bronze, Silver, Gold, or Emerald certification by complying with mandatory provisions and earning various point and percentage thresholds.



Image: National Association of Home Builders

**The NGBS is exclusively focused on environmental impacts of buildings, but it does include one equity-related component for universal design.** In both new residential construction and remodeling projects, dwellings must incorporate one or more universal design elements, such as no-step entrances, accessible routes and turning spaces for wheelchairs, blocking for grab bars in bathrooms, lever handles, elevated outlets and switches, and mobile controls for temperature, lighting, alarms, and locks.<sup>28</sup>

## RELi

The RELi Rating System (pronounced *rely*) is a rating system for the comprehensive (social, economic, and environmental) resilience of neighborhoods, buildings, homes, and infrastructure.<sup>29</sup> The rating system combines its own requirements for emergency preparedness, adaptation, and community vitality with existing strategies from rating systems such as LEED, STARS, Envision, FORTIFIED, SITES, and REDi. The standard was first developed by the Institute for Market Transformation to Sustainability with a collaborative of partners in 2014. Launched as a certification program in 2018 with management from USGBC, RELi is currently available in pilot form for projects already pursuing LEED certification. There are 15 mandatory requirements, and projects may



Image: USGBC

achieve one of four certification levels by earning optional points: Certified (300 points), Silver (350 points), Gold (450 points), and Platinum (600 points). The categories of credits in the rating system are:

- Panoramic Approach
- Hazard Preparedness, Short-term Hazard Preparedness, Mitigation + Adaptation
- Hazard Mitigation + Adaptation
- Community Cohesion, Social + Economic Vitality
- Productivity, Health + Diversity
- Energy, Water + On-Site Food Production
- Materials + Artifacts
- Applied Creativity

Notably, the RELi Rating System assumes that there will be an initial emergency response from state and/or federal emergency authorities within four days after the occurrence of a major event. Therefore, RELi is not intended to provide design guidelines for indefinite building and community operation following a catastrophe.

**Two optional credits specifically identify social equity as goals of the program, while many other required and optional strategies align with equity-building concepts:**

<b><i>Resilient Organizations: Cooperative + B Corporation(s), Nonprofits + Social Equity Measures</i></b>	All projects are encouraged to develop a B-Corporation, not-for-profit, producer or consumer cooperative corporation, and/or worker cooperative and/or achieve one or more of the LEED Social Equity Pilot Credits.
<b><i>Human Health, Diversity, &amp; Productivity: Provide for Social Equity + Interdisciplinary/ Intercultural Opportunities</i></b>	All projects are encouraged to achieve three or more of the following: <ul style="list-style-type: none"> <li>• Implement a Diversity Initiative with a coordinator, assessment, and support for underrepresented groups.</li> <li>• Implement an Insight Program to incorporate diverse perspectives, methods, and values between groups.</li> <li>• Display diverse, multilingual and/or multidisciplinary accurate historical accounting and context as a means for cultural bridging.</li> <li>• Display diverse, multilingual and/or multidisciplinary art, artifacts + zymology.</li> <li>• Attempt to achieve diverse, multicultural and/or multidisciplinary Board and Staff representation.</li> <li>• Provide diverse, multilingual and/or multidisciplinary signage + communication.</li> <li>• Provide gender-neutral toilet rooms, mothers' rooms + prayer rooms.</li> </ul>
<b><i>Study: Short-Term Hazard Preparedness + Mitigation (Required)</i></b>	All projects must study socio-economic crises with an understanding of economic inequity and identify opportunities for cooperative behavior, collaboration and coordination to improve resilience and provide the socio-economic means for problem-solving.
<b><i>Business + Community Case Analysis, Post-Development Evaluation + Reporting</i></b>	Encourages development of a Comprehensive Business Case and/or a Health Impact Assessment for the project covering the triple bottom line of economics, environment, and equity.

<p><b>Study + Living Design for Advanced Resiliency Using a Diversity of Ecology-Based Perspectives</b></p>	<p>Encourages projects to demonstrate via diagrams how they have executed strategies that help mitigate socio-economic change + inequity, such as: Affordable + Intergenerational Housing; Local + Regional Economic + Knowledge Diversity; Local + Regional Jobs / Employment (Living Wage or Minimum Wage for 1/3 Credit); Local + Regional Socio-Economic Equity; and, Public Space + The Commons (must be mutually beneficial to all stakeholders).</p>
<p><b>Fundamental Emergency Planning for Common Hazardous Events</b></p>	<p>Requires community-scale projects to identify at-risk populations and provide planning and implementation assistance, including facilitation of community outreach efforts between local entities.</p>
<p><b>Enhanced Access: Emergency Care + Supplies, Water, Food, Communications</b></p>	<p>Encourages projects to identify individuals with special medical needs who may require supplies or medication over a 10-day period and, with their participation, develop plans to meet those needs.</p>
<p><b>Provide Additional Emergency Provisions for the Community + for Longer Timeframes</b></p>	<p>All projects are encouraged to provide fundamental first aid, water, water purification, food, sanitation, shelter, back-up power, and/or batteries for not just project occupants, but also an equal number of people from the surrounding community, or other unaffiliated facilities, to last between 4-10 days. Low-glycemic options must be available for people with diabetes, as well as other accommodations to meet special health-related food needs.</p>
<p><b>Adaptive Design for Extreme Rain, Sea Rise, Storm Surge + Extreme Weather Events + Hazards</b></p> <p><b>Advanced Emergency Operations: Thermal Safety, Lighting, Critical Services, Water</b></p>	<p>In these two credits, all projects are encouraged to provide public amenities, including a community space for emergencies (i.e. emergency shelter, kitchen space, community tool share program, meeting space, community radio station, community mesh network) and/or a cooling center for heat waves with sign-language interpreters, child friendly materials, accessibility and assistance for those with disabilities, and support procedures for those who need additional services (e.g., health care, social services).</p>
<p><b>Improve Common Quality of Life</b></p>	<p>All projects are required to align and verify community plans with stakeholders and reduce or eliminate any potential negative impacts of the project on nearby affected communities. In addition, projects can demonstrate broad community endorsement that it meets or exceeds identified community needs or substantially reinvigorates the host and nearby communities.</p>
<p><b>Community Connectivity: Mixed-Use Commercial, Housing + Public/Community Space.</b></p> <p><b>Expand Citizen</b></p>	<p>Projects are encouraged to improve or develop mixed-use areas that may include the following socioeconomic equity elements: Emergency Shelter; Police and Fire Stations; Hospital or Emergency Clinic; Health Clinic; Affordable Housing; Affordable Daycare/Cooperative Daycare; Affordable Live/Work Space; Affordable Maker Space; and, Affordable Retail Space.</p> <p>In addition, projects can provide community access to the following spaces free or at nominal cost: Community Bike Repair Space and/or Day Stowage Space; Community Car Share Space(s); Community Education Space For at</p>

<b>Participation: Public Amenities, Councils, Organizations, Communications</b>	Least 12 People; Community Garden Space; Community Indoor/Outdoor Recreation Space; Community Local Mesh Computer Network Hub; Community Meeting Room for at least 8 People; Community Radio Space; Community Resource Reuse/Swap Space; Community Tool Share Space; Community Usable Open Space; Community Work Space; Facilities for Community newsletter staff; Kitchen Space - Available to the Community at harvest periods; Bus or Transit Shelter; Small Emergency Shelter Space for Surrounding Facilities and Areas; Farmers Market/Community Support Agriculture (Exchange Space).
<b>Develop or Expand Local Skills, Capabilities + Long-Term Employment + Mix</b>	Encourages projects to hire locally, conduct specific skills outreach, develop local capacity, and support long-term competitiveness for workers and businesses.
<b>Minimum Material Effectiveness + Life Cycle Planning</b>	Requires projects to review the primary materials used on the project for socially-responsible manufacturing supply chains (safe work environment, reasonable work hours, and living wages) and avoidance of products with significant negative social impacts during their life cycle.

For *Fundamental Community Service Organizations* (such as pharmacies, convenience stores, grocery stores and facilities with significant stocks of refrigerated or frozen food and Automated Teller Machines) and *Mission-Critical Facilities* (such as hospitals, emergency clinics, nursing homes, key government centers, data + internet critical communication centers, and emergency response facilities), RELi articulates distinct requirements for back-up power, emergency supplies (including food and water), temperature management, and floodplain avoidance.

## CHPS Criteria

The Collaborative for High Performance Schools (CHPS) Criteria was established in 2009 to provide a framework and a process for a national definition of healthy, sustainable schools. A set of *Core Criteria* are available to be adapted to create state and regional rating systems (currently available for 12 states), or projects can use the national *US-CHPS Criteria* as a general framework.<sup>30</sup> The Criteria include seven categories: Integration; Indoor Environmental Quality; Energy; Water; Site; Materials and Waste Management; and, Operations and Metrics. Among the mandatory prerequisites and optional credits in each category, there are 250 points available in total. School projects may include new construction, new buildings on an existing campus, or major renovations. Projects can be recognized under the CHPS Designed self-



Image: CHPS

certification, CHPS Verified third-party assessment, or the CHPS Verified Leader status of earning more than 135-160 points based on project type.

**As with BREEAM, equity is not identified as a major goal of the CHPS program, but there are several noteworthy optional strategies:**

<b><i>Joint-Use Facilities</i></b>	Allows for more community and neighborhood integration within the school facility and grounds by sharing resources such as recreation space, parking lots, gardens, and libraries. Social benefits from this approach include enhanced communication, trust, cooperation, and community safety.
<b><i>School Gardens</i></b>	US-CHPS specifically promotes school gardens to provide a diverse learning environment, particularly for students who are not engaged by traditional learning methods.
<b><i>Design for Adaptation &amp; Resilience (Core Criteria)</i></b>	Encourage design practices that respond to climate change vulnerabilities in order to preserve access to safe water, sanitation, and life safety for students, staff, and the broader community.
<b><i>Enhanced Acoustical Performance (Core Criteria)</i></b>	US-CHPS specifically discourages excessive noise and long sound reverberation which causes students to strain to hear or cope with noisy distractions, particularly students who are hearing impaired.
<b><i>Innovation (Core Criteria)</i></b>	As an example, US-CHPS specifically promotes inclusive design features that create a calming environment for all students, but particularly for those with special needs or traumatic backgrounds.

Due to children’s greater susceptibility to adverse health impacts, particularly within disinvested communities, various other health-related options and requirements can be considered inherently equitable strategies in school settings, such as:

<b><i>Site Selection</i></b>	Promotes sites that are a safe and healthy environment for students and staff, free from pollutants known to be hazardous to student and staff health.
<b><i>Low Emitting Materials</i></b>	Provides classrooms with acceptably low indoor air concentrations of volatile organic chemicals (VOCs) that derive from building products and building materials used indoors.
<b><i>Views</i></b>	Distant views through classroom windows enable students to relax their eyes, which is especially beneficial to younger children who are still developing visual capabilities.
<b><i>Low-EMF Best Practices</i></b>	Minimizes exposure to extremely-low frequency electric and magnetic fields (EMF), which can cause some degree of increased risk of childhood leukemia and other harms. The Criteria note the importance of the precautionary principle in school environments.
<b><i>Green Cleaning</i></b>	Protects students and staff from exposure to hazardous cleaning products.
<b><i>Drinking Water: Toxin-Free Plumbing (Core Criteria)</i></b>	Ensures drinking water is free of lead and other potential contaminants that leach from plumbing, which have acute and life-long impacts on children.
<b><i>Anti-Idling Measure</i></b>	Reduces exposure to diesel exhaust and associated respiratory problems such as asthma and bronchitis.
<b><i>Pollutant &amp; Chemical Source Control; Indoor Environmental</i></b>	Maintains good indoor air quality to protect the health of students and staff by preventing or eliminating pollutants and chemicals releases.

**Management (Core Criteria)**

**Austin Energy Green Building**

The Austin Energy Green Building (AEGB) program was developed in 1990 by the City of Austin to rate the sustainability of new and remodeled buildings for the single-family, multi-family, and commercial market.<sup>31</sup> Building professionals work with an AEGB Representative to certify their projects by demonstrating achievement of Basic Requirements and voluntary measures for eight categories of sustainable design and construction. These are: Integrated Design; Site; Energy; Water; Indoor Environmental Quality; Materials & Resources; Education & Equity; and Innovation. By meeting all Basic Requirements, a project earns a 1 Star rating; Multifamily and Commercial projects meet the maximum certification level of 5 Stars by earning at least 67 of 103 or 75 of 100 points, respectively.



Image: AEGB

**AEGB is one of the few programs, along with the Living Building Challenge, that dedicates a clear category of points to equity, though there is not a larger goal or definition of the term provided. The Education & Equity and Innovation categories of the AEGB program promote social justice through the following measures for Commercial and Multifamily projects:<sup>32</sup>**

<p><b>Construction Worker Equity</b> <i>(also applies to Commercial)</i></p>	<p>Promotes safe and reliable jobs with living wages and fair compensation for injury through participation in the Texas-based Better Builder program, as well as collaboration with local community groups to promote local job creation and workforce training.</p>
<p><b>Housing Affordability</b></p>	<p>Provides affordable dwelling units through a verification program for one of the following: 20% of units affordable for homeowners living at or below 80% median family income (MFI) for 5-15 years; 20% of units affordable to renters living at or below 60% MFI for 5-15 years; or 20% of units affordable to renters living at or below 30% MFI for at least 15 years.</p>
<p><b>Access to Information</b></p>	<p>Ensures access to an extended-hour computer lounge with free internet access for all residents, which is critical to meeting basic needs and “can be a substantial expenditure for people with low disposable incomes.”</p>
<p><b>Car-Free Living</b></p>	<p>In addition to good public transit access, the project offers additional options such as a ride share, car share, or van pool program.</p>
<p><b>Accessibility</b></p>	<p>All units must have blocking for grab bars in at least one bath wall, door handle levers, and faucet controls that are operable with one hand and do not require tight grasping, pinching, or twisting of the wrist.</p>
<p><b>Inclusive Restrooms –</b></p>	<p>Promotes equal access to restrooms facilities regardless of gender identity, ability, personal attendants, or children by requiring 90% of all water closets to</p>

<b>Innovative Performance</b>	be single-user, displaying only gender-neutral signage, and adding restrooms to the public Refuge Restrooms database.
<b>Construction Skills Training – Innovative Performance</b>	In addition to meeting <i>Construction Worker Equity</i> , projects must hire at least 15% local workers who are students or graduates of free Department of Labor-registered apprenticeship programs and bilingual craft training programs with hands-on instruction.
<b>Affordable Housing – Innovative Performance</b>	Requires 10% of all residential units to be certified under the City of Austin’s S.M.A.R.T. (Safe, Mixed-Income, Accessible, Reasonably-priced, Transit-Oriented) housing program.
<b>Local Art – Innovative Performance</b>	Invests in art on the site valued at \$150,000, 1% of the total job valuation, or \$1.50/ft <sup>2</sup> that is either publicly accessible or created by a local and/or minority- or women-owned studio.
<b>Family Planning Education and Resources – Innovative Performance</b>	Requires the installation of a vending machine for male and female contraception on site in a location that is equally accessible to all building occupants regardless of gender and age.

## Built Green

The Built Green program was launched in 1999 to certify residential new construction and remodeling projects in the state of Washington.<sup>33</sup> A product of the Master Builders Association in partnership with King and Snohomish Counties, the program classifies each home as a three-, four- or five-star Built Green project. Minimum requirements for new construction projects include a variety of mandatory credits and a minimum of 300, 400, or 600 points, respectively for each certification level. Categories of points include: Built Green Team; Site & Water; Energy; Health & Indoor Air Quality; Materials Efficiency; and, Operations, Maintenance & Tenant Education.



Image: Built Green

**A stated value of the program is inclusion**, described as the following by the Master Builders Association:<sup>34</sup>

*Often, those most impacted by environmental issues are those who have historically been marginalized. Built Green strives to cultivate relationships and strategic partnerships with diverse stakeholders in our community to better enhance the sustainability of our region for all of its inhabitants.*

There are two major categories of equity credits in the Built Green rating system. First, **Jobsite Operations** provides a suite of strategies to protect construction workers from exposure to hazardous cleaners, materials that emit VOCs, dust, and vehicle emissions. In addition, a set of **universal design** measures provide pathways for accessible entrances, maintenance locations, bathrooms, cabinets, and smart technologies for potential users with physical disabilities.



Image: EarthCraft

## EarthCraft

EarthCraft is a green building certification program designed to address regional environmental issues in the southeastern United States. The Greater Atlanta Homebuilders Association and Southface Energy Institute developed the first EarthCraft program in 1999, and it has expanded from Georgia to Alabama, Tennessee, South Carolina, North Carolina, and Virginia.<sup>35</sup> The certification program rates homes, renovation projects, multifamily structures, community developments, preservation projects, and light-commercial buildings. The third-party verification process is supported by the assessment of EarthCraft Technical Advisors and Builders. The rating system is broken down into 10 categories of mandatory and optional points: Site Planning; Construction Waste Management; Resource Efficiency; Durability and Moisture Management; Indoor Air Quality; High Performance Building Envelope; Energy Efficient Systems; Water Efficiency; Education and Operations; and Innovation. Certification levels include Certified, Gold, and Platinum with point thresholds dependent on project type, as well as topical Badges for Homes.

**While EarthCraft does not articulate a programmatic goal for equity, nearly every rating system acknowledges the disproportionate exposure or susceptibility to negative health impacts from unhealthy indoor environments, particularly for construction workers, maintenance personnel, children, seniors, and individuals with respiratory problems and compromised immune systems.<sup>36</sup> In addition, the program offers the following equity-building options for Multifamily and Community projects:**

<b><i>Innovation: Housing Affordability</i></b>	Reserves at least 20% or 50% of housing units for tenants qualifying for a low-income housing assistance program.
<b><i>Donation of Excess Material for Reuse</i></b>	Promotes the donation of at least \$10,000 worth of deconstructed/excess construction materials to a non-profit 501(c) (3) organization.
<b><i>Jobs and Housing Balance</i></b>	Improves residents' access to employment by ensuring a jobs-to-housing ratio of 3:2

<b>Universal Design</b>	Ensures access for all people through audible and visual signals, 100% ADA-compliant public right of ways, and at least 20% of units certified to be Easy Living Homes.
<b>Mixed Income Community; Housing Type Diversity</b>	Creates a variety of housing options for people of different income levels and stages of life, promoting different options than already available in the surrounding neighborhood.
<b>Community Participation; Community Charette; Ongoing Community Engagement</b>	Engages the surrounding community to better understand their issues and uncover opportunities by hosting a public meeting, community design charette, a public input mechanism, and a community input committee.

## Earth Advantage

The Earth Advantage program, launched in 2005, certifies single-family and multi-family homes in the Northwest (Oregon and Washington) according to five categories of criteria (Energy, Health, Land, Materials, and Water).<sup>37</sup> In addition to mandatory prerequisites, certified projects must achieve a minimum of 15 points for Energy and Water and 10 points in the remaining categories for at least 60 total points. In addition to completing all documentation, each home must pass required performance and inspection tests by Earth Advantage Field Technicians.



Image: Earth Advantage

Though no clear equity definition of goal is available, the Earth Advantage program offers the following Diversity & Inclusion statement:<sup>38</sup>

*At Earth Advantage we believe that climate change is a challenge that crosses boundaries of income, race, ethnicity, religion, age, abilities, geography, gender identities, sexual orientation, and disproportionately affects disadvantaged populations. We actively support and value diversity in company culture, the recruitment of staff and board members, and in our partnerships with organizations and individuals in order to propel the building industry toward a socially, economically, and environmentally just future.*

The rating system for single-family homes includes the following equity-building strategies:<sup>39</sup>

<b>Accessible Design</b>	Encourages homes to include one accessible floor with an ADA-compliant bedroom and bathroom or full ADA Compliance (including kitchen).
<b>Donating Construction Materials</b>	Promotes donation of clean, new, and/or unopened leftover construction materials to a legal non-profit.

## King County Sustainable Infrastructure Scorecard

Published in 2014, the King County Sustainable Infrastructure Scorecard provides guidelines for complying with the 2013 King County Green Building and Sustainable Development Ordinance, which requires that capital projects (government-owned facilities and infrastructure) use either LEED, the Scorecard, or an approved alternative rating system and incorporate green building training for staff of capital projects.<sup>40</sup> The Scorecard was developed using LEED as a foundation and includes nine sections: Required Elements for a Sustainable Development Project; Planning and Designing for Sustainable Development; Construction Best Management; Preserve and Maintain Natural Site Amenities; Social Benefits; Reduce Energy Use and Promote the Use of Renewable Energy; Water Management; Use of Sustainable Materials; and, Enhanced Performance.

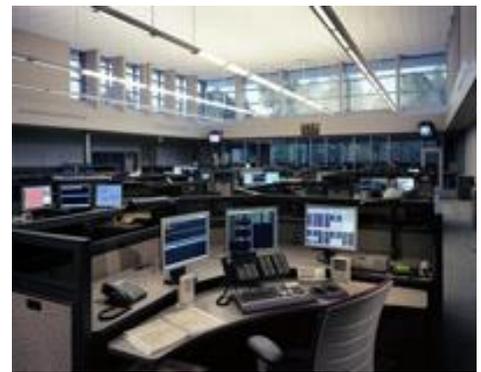


Image: King County

There are a total of 55 points available for credits, and certification is awarded based on the percentage of credits achieved at the following thresholds: Bronze (38%), Silver (48%), Gold (57%), and Platinum (75%).

The two credits in the Social Benefits category include:

<b>Create a public amenity</b>	Provide a public amenity for the community, which can be a centralized location for a wide range of recreational and community activities, such as gatherings; an economic development tool; and a significant source of community pride.
<b>Meet Division-specific social equity goal</b>	Meets a social equity goal explicitly identified by the supervising Division or the project’s planning documents. For example, the project might mitigate negative social impacts, such as nuisances due to odor, noise, or traffic.

Social equity is defined in the Scorecard as “...fair access to livelihood, education, and resources; full participation in the political and cultural life of the community; and self-determination in meeting fundamental needs.”<sup>41</sup>

As of December 2017, in response to a County-wide Equity and Social Justice (ESJ) ordinance and strategic plan, King County has developed a menu of equity and social justice credits that must be utilized and fulfilled by all projects, regardless of which green building rating system is used.<sup>42</sup> These credits identify and account for equity and social justice practices and outcomes throughout the capital project development lifecycle. They recognize project team efforts to advance process, distributional, and cross-generational equity.

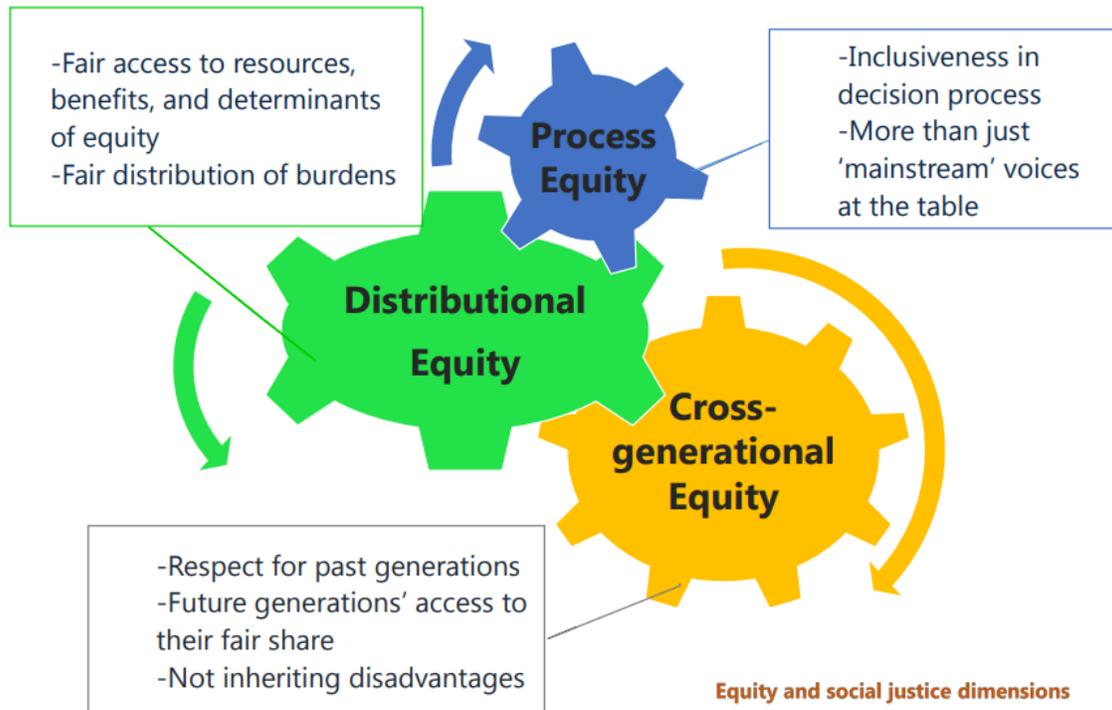


Image: King County Solid Waste Division

There are nine Equity and Social Justice credits that are worth up to 26 credits:

<b><i>Develop a project-specific ESJ plan</i></b>	Publicly documents ESJ objectives that are calibrated to the project scope, sensitive to project context, and clear about the process, distributional, and/or cross-generational equity intent.
<b><i>Stakeholder partnering and collaboration</i></b>	Formal documentation or non-formal memorializing of partnering and collaborative activity that demonstrates the above and beyond efforts to enlist, engage, and collaborate with non-traditional stakeholders.
<b><i>Assemble exemplary diversity in project and design teams</i></b>	Consultants and in-house team members involved in the design and development processes transcend mainstream perspectives and experiences through gender, racial, and other diversities.
<b><i>Conduct equity impact review processes</i></b>	Documents at least the first 3 steps of the EIR process to inform likely equity and social justice effects of siting, design and/or construction alternatives. 1) Scope. Identify who will be affected.2) Assess equity and community context. 3) Analysis and decision process. EIR is public and accessible.
<b><i>Site, design, and construct to counter known disparities in conditions</i></b>	Demonstrates that project planning, siting, design, and/or construction occurred via an approach that countered, remediated, and/or corrected inequities in community conditions, health outcomes, or related determinants.
<b><i>Realize priority elements of project's ESJ plan</i></b>	Equity and social objectives outlined in the project plan have been accomplished in the how the project was planned, designed, and/or constructed.

<b>Advance economic justice</b>	Implements priority hire, project labor agreement, small contractors and suppliers, apprenticeships commitments, select contracts to advance socially just enterprises, and partner with companies and community-based organizations that advance economic justice.
<b>Pro-equity sourcing</b>	Sourcing decisions (for material, equipment, and/or systems) prioritize equity and social justice outcomes upstream through the supply chain.
<b>Innovation</b>	Demonstrates novel, innovative, and/or highly successful approach to pro-equity development, preferable in a case study format that fosters replication of proof of concept.

## GreenPoint Rated

GreenPoint Rated, administered by Built It Green, is a green home certification program operating in California. The program certifies new and existing single-family or multi-family homes with the documentation and on-site verification of a third-party, certified GreenPoint Rater.<sup>43</sup> GreenPoint Rated was launched in 2006 and based on the Green Building Guidelines developed in Alameda County in 2000.



Image: GreenPoint Rated

Projects may earn either an *Elements* or *Whole House/Whole Building* label by meeting certain mandatory prerequisites, achieving a minimum point requirement in each of the environmental categories, and scoring at least 25 or 50 total points, respectively.<sup>44</sup> The five categories of points are: Energy Efficiency; Water Conservation; Indoor Air Quality; Resource Conservation; and, Community. *Whole House/Whole Building* certification levels include certified, Silver, Gold, and Platinum, representing scores from 50 points to 140 points or more.

**GreenPoint Rated does not include a distinct equity goal or category, but various equity-building components of this rating system include:**

<b>Diverse Households</b>	Requires existing single-family homes to have at least one zero-step entrance, minimum 32-inch clearances, a half-bath on the ground floor with blocking for grab bars, and a full-function independent rental unit.
<b>Universal Design</b>	Universal design principles are applied in 50-80% of existing multifamily units.
<b>Adaptable Building</b>	All new homes incorporate universal design principles and a full-function independent rental unit.
<b>Affordability</b>	All multifamily homes have at least 10, 25, or 50% of units dedicated to households earning 80% or less of area median income (AMI), including a variety of multiple-bedroom units. At least 20% of units are for sale at 120% or less of AMI.
<b>Social Equity</b>	All new homes support a diverse or local workforce and/or located within a disadvantaged community.
<b>Mixed-Use Developments</b>	An option for new multifamily buildings is to dedicate half of the non-residential floor space to community service.

## Programs without Discernable Equity Requirements

- International Green Construction Code (IgCC)<sup>45</sup>
- Green Globes<sup>46</sup>
- CALGreen<sup>47</sup>
- Georgia Peach Program<sup>48</sup>

Contains at least one equity element for the following:								
Program	Defines Equity	Equity Category	Equity Requirements (R) vs. Options (O)	Universal Access <sup>1</sup>	Inclusion <sup>2</sup>	Health Promotion for At-Risk Groups	Fair Treatment of Workers	Equitable Emergency Response
LEED	✓		O	✓	✓	✓	✓	
EGC			O	✓	✓	✓		✓
LBC	✓	✓	R	✓	✓		✓	
WELL	✓		O	✓	✓	✓		✓
BREEAM			O,R	✓			✓	✓
NGBS			R	✓				
RELi			O,R	✓	✓		✓	✓
CHPS			O,R	✓		✓		
AEGB		✓	O	✓	✓		✓	
Built Green			O	✓			✓	
EarthCraft			O,R	✓	✓			
Earth Advantage			O	✓	✓			
King County Sustainable Infrastructure Scorecard	✓	✓	R	✓	✓	✓	✓	
GreenPoint Rated			O	✓				

<sup>1</sup> Includes affordability, public access to benefits from the building, implementation of additional community benefits, and universal design.

<sup>2</sup> Defined as participation of underrepresented groups in decision-making and investments related to the project.

Programs not evaluated due to an incompatible scope (i.e. single-attribute certifications, energy benchmarking programs, non-building sustainability certifications, policy-based community-scale certifications, etc.) include:

- **SITES** (sustainable sites/landscapes)
- **PEER** (power system performance)
- **TRUE Zero Waste** (for businesses)
- **GRESB** (Environmental, Social, and Governance performance of real estate assets)
- **Envision** (sustainable civil infrastructure)
- **Parksmart** (sustainable garages)
- **EcoDistricts** (urban development planning)
- **STARS** (sustainability performance for colleges and universities)
- **LEED for Cities and Communities** (urban sustainability policy and performance tracking)
- **STAR Communities** (as above; merging with LEED for Cities)
- **ENERGY STAR** (energy efficiency)
- **Net Zero Energy Ready Home** (energy efficiency, water efficiency, indoor air quality)
- **Fitwel** (health-promoting buildings)
- **BOMA 360 Performance Program** (operations and management)

- **SEED Evaluator** (*design process and stakeholder participation*)
- **Infrastructure Voluntary Evaluation Sustainability Tool**
- **Passive House** (*low-energy buildings*)
- **FORTIFIED** (*resilience to hurricanes, high winds, hail, and severe thunderstorms*)
- **REDi** (*earthquake resilience*)
- **LENSES** (*framework for regenerative development*)
- **Green Key Eco-Rating** (*sustainable hotels*)
- **Green Restaurant Certification Standards**
- **TRA Certification – Green Modular and Manufactured Homes** (*based on NGBS*)
- **District of Columbia Green Construction Code** (*based on LEED, IgCC, etc.*)

## Analysis of Existing Equity Measures in Sustainable Building Standards

### Equity Recommendations to Improve Green Building Rating Standards

For all programs, there are opportunities to develop criteria for additional equity topics and deepen existing criteria already addressed in the above table. Program developers are encouraged to review the variety of equity strategies outlined in the overview of green building programs to identify areas of growth and improvement. In particular, programs are encouraged to be as concrete as possible in specifying steps for equity assessments, meaningful engagement of frontline communities, prioritization of issues, and implementation of strategies. It cannot be assumed that mainstream green building practitioners have a proficient understanding of equity that can be readily translated into the design of processes, partnerships, and places.

For the four programs without discernable equity criteria, significant reevaluation is recommended to uphold the triple bottom line of sustainability.

Below are sample recommendations for additional measures for each program to include equity components before, during, and after the construction process.

Program	Recommendations
LEED	<ul style="list-style-type: none"> <li>• Revisit definition of equity, increase point allocation for equity strategies, establish minimum equity requirements, and create an equity category.</li> <li>• Require all projects to engage in an equity-informed community engagement process.</li> <li>• Elaborate on operational safety requirements for construction workers in addition to safety planning and design.</li> <li>• Shift language for project team equity to require paying prevailing wages or living wages, whichever is higher; exceed standard (and often inadequate) definitions of affordability in terms of area median income.</li> <li>• Establish criteria for contracting with minority and woman-owned businesses.</li> <li>• Establish criteria for equitable emergency response and adaptation.</li> </ul>
EGC	<ul style="list-style-type: none"> <li>• Establish a clear definition of equity, establish minimum equity requirements, and create an equity category.</li> </ul>

	<ul style="list-style-type: none"> <li>• Establish criteria for fair compensation and working conditions during construction <i>and</i> operations.</li> <li>• Expand option for local employment to include diversity measures for employment, subcontractor hiring, and small business/non-profit space.</li> <li>• Expand the definition of universal design beyond accessibility for people with physical disabilities to include people of varying cognitive abilities and to promote mental and emotional health.</li> <li>• Establish criteria for siting affordable housing that protects residents from proximity to hazardous polluting industries and facilities.</li> </ul>
LBC	<ul style="list-style-type: none"> <li>• Establish criteria for health promotion of at-risk groups and equitable emergency response and adaptation.</li> <li>• Require all projects to engage in an equity-informed community engagement process.</li> <li>• Promote inclusive spaces (ex. lactation rooms, all-gender bathrooms) and the joint use of facilities in addition to improvement of the public realm exterior to the building.</li> <li>• Expand the definition of universal design beyond accessibility for people with physical disabilities to include people of varying cognitive abilities and to promote mental and emotional health.</li> <li>• Expand the scope of the Materials requirements for transparency, health, and responsible sourcing to include wider protections for human rights within building supply chains.</li> </ul>
WELL	<ul style="list-style-type: none"> <li>• Establish minimum equity requirements and elevate equity in the Community category.</li> <li>• Further define what is meant by social equity in the <i>Enhanced Occupant Survey</i> and require all projects to engage in an equity-informed community engagement process.</li> <li>• Ensure on-site amenities, such as healthy food access, are publicly-accessible to community members, especially those who would most benefit from them.</li> <li>• Establish criteria for fair compensation and working conditions during construction and operations.</li> <li>• Expand the scope of the Materials requirements for transparency and health to include wider protections for human rights within building supply chains.</li> </ul>
BREEAM	<ul style="list-style-type: none"> <li>• Establish a definition of equity, expand minimum equity requirements, and create an equity category.</li> <li>• Establish criteria for inclusion in decision-making and investments, as well as health promotion for at-risk groups.</li> <li>• Establish criteria for fair compensation and working conditions during construction <i>and</i> operations.</li> <li>• Establish criteria for public access to green building benefits and implementation of community benefits</li> </ul>
NGBS	<ul style="list-style-type: none"> <li>• Establish a definition of equity, expand minimum equity requirements, and create an equity category.</li> <li>• Establish criteria for inclusion, health promotion for at-risk groups, fair treatment of workers, and equitable emergency response.</li> </ul>

	<ul style="list-style-type: none"> <li>• Establish universal access criteria for public access to green building benefits and implementation of community benefits.</li> <li>• Expand the definition of universal design beyond accessibility for people with physical disabilities to include people of varying cognitive abilities and to promote mental and emotional health.</li> </ul>
RELI	<ul style="list-style-type: none"> <li>• Establish a definition of equity, expand minimum equity requirements, and elevate equity in the following categories: Community Cohesion; Social + Economic Vitality and Productivity; and, Health + Diversity.</li> <li>• Establish and deepen criteria for health promotion for at-risk groups prior to emergencies.</li> <li>• Establish criteria for contracting with minority and woman-owned businesses.</li> <li>• Reconsider the promotion of police presence as a socioeconomic equity element for mixed-use areas, unless complemented by additional steps to eliminate policies and practices that are discriminatory.</li> <li>• Avoid abstract, overly-intellectual language in the criteria; eliminate claims to equity for criteria that do not align (ex. <i>Local + Regional Economic and Socio-Economic Equity Study</i> for post-occupancy evaluations); and simplify rating system organization for maximum clarity and user-friendliness.</li> </ul>
CHPS	<ul style="list-style-type: none"> <li>• Establish a definition of equity, expand minimum equity requirements, and create an equity category.</li> <li>• Establish criteria for inclusion in decision-making and investments, fair treatment of workers, and equitable emergency response.</li> <li>• Require all projects to engage in an equity-informed community engagement process.</li> <li>• Promote inclusive spaces (ex. lactation rooms, all-gender bathrooms).</li> <li>• Elaborate on potential inequitable and exclusionary outcomes of <i>Crime Prevention Through Environmental Design</i> and provide solutions.<sup>49</sup></li> </ul>
AEGB	<ul style="list-style-type: none"> <li>• Establish a definition of equity and establish minimum equity requirements.</li> <li>• Establish criteria for health promotion for at-risk groups and equitable emergency response and adaptation.</li> <li>• Expand option for local employment to include diversity measures for employment, subcontractor hiring, and small business/non-profit space.</li> <li>• Expand the definition of universal design beyond accessibility for people with physical disabilities to include people of varying cognitive abilities and to promote mental and emotional health.</li> <li>• Expand the scope of the Materials requirements for health and responsible sourcing to include protections for human rights within building supply chains.</li> <li>• Consider reclassification of Car-Free Living, unless additional steps are taken to ensure equitable access to alternative modes of transport.</li> </ul>

<b>Built Green</b>	<ul style="list-style-type: none"> <li>• Establish a clear definition of equity, establish minimum equity requirements, and create an equity category.</li> <li>• Establish criteria for inclusion (in alignment with the stated value of the organization), health promotion for at-risk populations, and equitable emergency response and adaptation.</li> <li>• Establish criteria for fair compensation and working conditions during construction <i>and</i> operations.</li> <li>• Expand the definition of universal design beyond accessibility for people with physical disabilities to include people of varying cognitive abilities and to promote mental and emotional health.</li> <li>• Establish criteria for public access to green building benefits and implementation of community benefit.</li> </ul>
<b>EarthCraft</b>	<ul style="list-style-type: none"> <li>• Establish a definition of equity, expand minimum equity requirements, and create an equity category.</li> <li>• Expand acknowledgments of health inequity to address race, income, ability, gender, etc.</li> <li>• Establish criteria for health promotion for at-risk groups, fair treatment of workers, and equitable emergency response and adaptation.</li> <li>• Expand the definition of universal design beyond accessibility for people with physical disabilities to include people of varying cognitive abilities and to promote mental and emotional health.</li> <li>• Exceed standard (and often inadequate) definitions of affordability.</li> </ul>
<b>Earth Advantage</b>	<ul style="list-style-type: none"> <li>• Establish a definition of equity, expand minimum equity requirements, and create an equity category.</li> <li>• Establish criteria for health promotion for at-risk groups, fair treatment of workers, and equitable emergency response and adaptation.</li> <li>• Apply equity criteria to multifamily projects in addition to single-family projects.</li> <li>• Expand the definition of universal design beyond accessibility for people with physical disabilities to include people of varying cognitive abilities and to promote mental and emotional health.</li> <li>• Require all projects to engage in an equity-informed community engagement process and establish criteria for contracting with minority and woman-owned businesses.</li> </ul>
<b>King County Sustainable Infrastructure Scorecard</b>	<ul style="list-style-type: none"> <li>• Expand criteria for economic justice to specify affordability measures for the resulting building, as well as fair compensation and working conditions during construction and operations.</li> <li>• Establish criteria for equitable emergency response and adaptation.</li> <li>• Establish criteria for universal design beyond accessibility for people with physical disabilities to include people of varying cognitive abilities and to promote mental and emotional health.</li> </ul>
<b>GreenPoint Rated</b>	<ul style="list-style-type: none"> <li>• Establish a definition of equity, expand minimum equity requirements, and create an equity category.</li> <li>• Establish criteria for inclusion, health promotion for at-risk groups, fair treatment of workers, and equitable emergency response and adaptation.</li> <li>• Expand the definition of universal design beyond accessibility for people with physical disabilities to include people of varying cognitive abilities and to promote mental and emotional health.</li> </ul>

- Exceed standard (and often inadequate) definitions of affordability in terms of area median income.
- Ensure projects located within a disadvantaged community do not contribute to economic or social displacement from gentrification.

An emerging topic not yet specified in any green building rating system is the exclusion of projects contributing to major inequities. For example, the public-benefit organization Architects/Designers/Planners for Social Responsibility (ADPSR), which works for peace, environmental protection, ecological building, social justice, and the development of healthy communities, launched a recent campaign for a Prison Design Boycott and the promotion of community-based alternatives to incarceration. ADPSR describes their boycott as the following:

*As people of conscience and as a profession dedicated to improving the built environment for all people, we cannot participate in the design of spaces that violate human life and dignity. Participating in the development of buildings designed for killing, torture, or cruel, inhuman or degrading [treatment] is fundamentally incompatible with professional practice that respects standards of decency and human rights.*

In a similar line of thinking, an argument can be made to exclude facilities with an inherently unsustainable purpose from being eligible for certification, such as power plants reliant on fossil fuel energy or landfills.<sup>50</sup>

In addition to any advocacy to adopt their standards in local policy, all programs except Enterprise Green Communities (which already leads in this area) should prioritize mobilizing funds to directly resource green building projects for frontline communities. Each certification must have an affordable or flexible pricing structure to ensure the cost of certification itself is not a major barrier to frontline communities, as well as resources and technical support that is equally accessible regardless of education level, language, and ability. Lastly, every organization writing and administering a green building program has the responsibility

to enhance its internal diversity, equity, inclusion, and justice (DEIJ) policies and practices to ensure that frontline communities are leading voices in the development and implementation of the standard. As an initial step, green building programs should publicly report on their current DEIJ baseline through platforms such as Green 2.0's Transparency Report Card for environmental non-governmental organizations and GuideStar.<sup>51</sup>

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*“Flip the narrative. We’re trying to achieve the social benefit through environmental means. What does environmentalism have to offer you for your community?”*

Khalil Shahyd,  
Natural Resources Defense Council,  
Energy Efficiency for All Project  
(2018 NAACP CESBS Summit)

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## Review of Green Projects That Have Integrated Equity Measures

**The best examples of green infrastructure are those projects that include an emphasis on equity in the building design, purpose, or execution.** Unrestricted-access structures such as libraries, hospitals, and cultural centers invariably offer more benefits to the general public and surrounding community compared to restricted-access buildings like employee-only office buildings. Almost all green rating systems award the development team with certification credits for designs that accommodate a wide range of demographics and wider community needs. Though project owners and leaders have creative freedom to delegate core construction segments to the most qualified contractors as they see fit, many take leadership in prioritizing contractors that demonstrate social responsibility and that are owned by and employ underrepresented groups. The most successful projects from our sample include a diverse design team and extensive community outreach. Some outstanding projects are detailed below with accompanying rationale:

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*“Despite the many challenges we face regarding the impacts of pollution and a changing climate, we have just as many effective tools and programs, with long track records of assisting vulnerable communities in meeting their goals of improving public health and enhancing the environmental quality of their local communities.”*

*Mustafa Ali*

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Built in 1870, **Paul Laurence Dunbar High School** in Washington, DC, is the oldest high school established to serve African American students in the country.<sup>52</sup> The institution graduated several prominent leaders who went on to change the course of American history, including the famous poet who is the school’s namesake, the first African American presidential Cabinet member, and several of the lawyers who argued the *Brown v. Board of Education* decision.<sup>53</sup> After identifying problems in the previous building from the 1970s that could not be corrected through renovation, Dunbar High School was built as a new school in 2013 by Smoot/Gilbane, a joint venture, and EEK Architects and Engineers (now Perkins Eastman).<sup>54</sup> This new campus was unique because of its LEED Platinum rating, the highest certification available under the rating system. During construction of the new Dunbar Senior High School, more than \$57 million in contracts were awarded to certified local, small and disadvantaged businesses. In addition to the businesses employed, the project far exceeded the stringent requirements for local Resident Workforce Participation as established by the District of Columbia. Furthermore, the surrounding community is permitted to take swimming lessons in the gymnasium pool and uses the school for local events. The student population at Dunbar is 95% African American, 4% Hispanic, and 1% White American, and categorized as 100% economically disadvantaged.<sup>55</sup> Ward 5, the location of the high school, has been a predominantly African American community for decades, and most students living in the area choose to attend schools within their home ward.<sup>56</sup>



Images: Gilbane Building Company

The LEED Gold **Dahlia Campus for Health and Well-Being** was the result of a strong partnership between the Mental Health Center of Denver and the predominantly African American and low-income Northeast Park Hill community in Denver, Colorado.<sup>57</sup> Over the course of four years of planning, Park Hill residents shared their ideas about holistic well-being with the project team, which was validated by the SEED Evaluator and the LEED Social Equity within the Community pilot credit. Building on the strengths and input of the community, the Dahlia Campus established partnerships and added a comprehensive array of new services to the four-acre site, in addition to their mental health offerings. These include inclusive early childhood education, pediatric dental care, access to naturally grown fish and produce cultivated on-site and a variety of indoor and outdoor community spaces to support multigenerational populations.

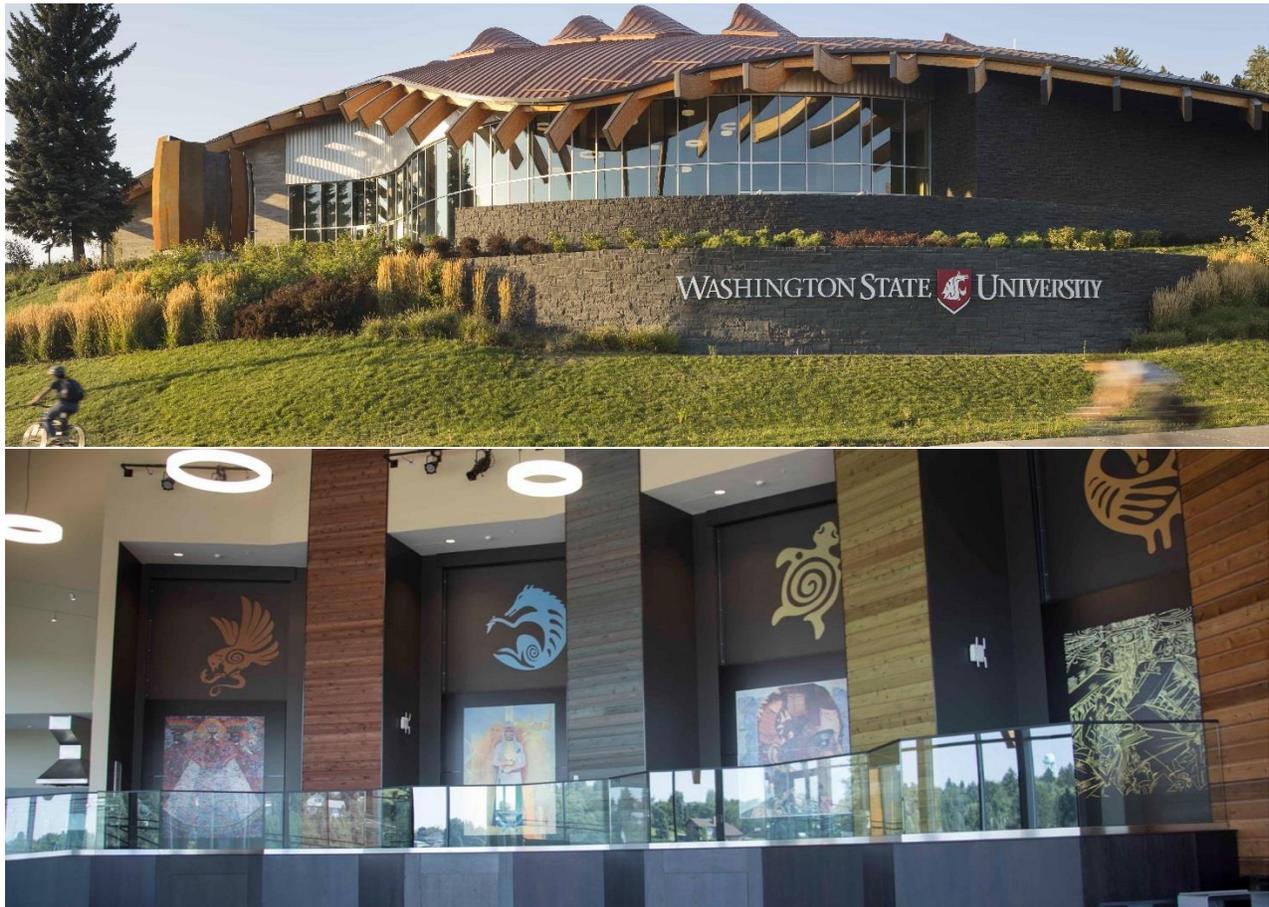


Images: MHCD; Anderson Mason Dale Architects

Located at the entrance to Washington State University (WSU) in Pullman, Washington, the **Elson S. Floyd Cultural Center** is designed to express cultural awareness, acceptance, celebration of heritage, restoration of native landscapes and a sense of place for the campus and larger community.<sup>58</sup> Throughout the space, multicultural design features recognize the history and influence of Niimíípu (Nez Perce) American Indian, African American, Latinx, Chicanx, and Asian American/Pacific Islander communities on the state and the university.

Named in honor of University President Dr. Elson S. Floyd, the building reflects Floyd's commitment to making WSU a campus where diversity is institutionalized and celebrated. In alignment with the ideals of the project, GGLO, the project's architect, landscape and design firm, demonstrated their commitment to social responsibility through JUST Label certification,

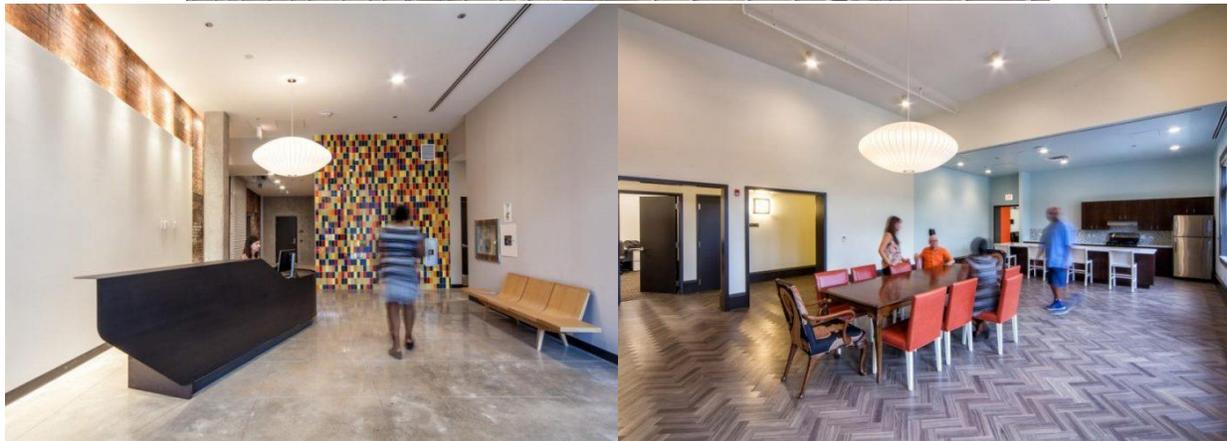
which earned the team the LEED Social Equity within the Project Team pilot credit and contributed to their LEED Gold certification.



Images: Washington State University

**Town Hall Apartments** transformed the decommissioned Town Hall Police Station in the Lakeview neighborhood of Chicago, Illinois, into an affordable senior housing complex that is also LGBTQ-friendly and earned LEED Gold.<sup>59</sup> Using an integrative process and visioning workshops, the project team engaged potential residents and advocates to develop common project goals and design a safe and accepting environment that promotes well-being, community and choice. In this way, they achieved the LEED Social Equity with the Community pilot credit.

The building is co-located with a social services agency to offer programming and trained staff on-site, and it features a wide variety of communal spaces and events proposed during the engagement process. Although Town Hall isn't exclusively for LGBTQ residents, it does provide an inclusive environment to make people of all sexual orientations and gender identities feel welcome.



Images: Heartland Alliance; Center on Halsted

Built in 2016, the **National Museum of African American History and Culture (NMAAHC)** is a physical and emotional monument to visitors and local DC residents. The copper-toned and boxy exterior reflects traditional Nigerian designs, the overhung entrance of the museum called “the porch” creates a comfortable microclimate and reflects southern African American history, and this theme of purposeful architecture continues throughout the entire building.<sup>60</sup> The museum’s achievement of a LEED Gold rating is different from a conventional structure because of the energy-intensive requirements to preserve historic artifacts at specific temperatures and humidity. To provide natural insulation and meet local restrictions, approximately 60% of the structure is built underground. The lead architect, Phil Freelon, an African American himself and designer of many other spaces honoring civil rights, said the building and its sustainability features are expressive of the African-American experience of “making something out of nothing and doing more with less.”



Images: NMAAHC; Alan Karchmer

Established in 1998, **Homes of Hope** is a South Carolina housing developer that combines a faith-based approach with building sustainable, affordable homes for the local community.<sup>61</sup> The organization provides on-the-job training and financial literacy classes for future homeowners, who take part in the build project from start to finish. The build project also employs people recovering from drug and alcohol addiction, providing quality and meaningful work to a marginalized population in the community. The houses are LEED certified, reducing utility costs for homeowners while providing a higher quality home compared to conventional standards. Additional green building properties through the LEED home certification process includes weatherization, energy efficiency, directional orientation to avoid sunlight and using renewable sources for power. In the 20th year of operations, Homes for Hope has developed homes for 560 families and helped more than 300 men lead restored lives.

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*“I derive a tremendous amount of pride in developing places that everyday people can experience. I like to create beauty in everyday lives.”*  
 Phil Freelon

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Images: Homes of Hope

In February 2018, Chicago's **Malcolm X College** was awarded a LEED Gold certification for its new School of Health Sciences campus.<sup>62</sup> The building was designed by the largest African American-owned architectural firm in Chicago and the country, Moody Nolan.<sup>63</sup> City Colleges of Chicago was committed to ensuring that construction benefits the surrounding Near West side community. Of the nearly 1,000 jobs that were created through the project, 120 were dedicated to qualified applicants residing in communities surrounding the college. To prepare local residents without prior training, City Colleges provided slots in its pre-apprentice construction training program offered at Kennedy-King College's Dawson Technical Institute (DTI). To ensure minority and female participation in the project, City Colleges partnered with the Hispanic American Construction Industry Association (HACIA) and the Chicago Urban League to hold hiring events and recruit applicants. Available positions included: plumbers, electricians, carpenters, pipe fitters, brick masons, painters, ironworkers, operators, roofers, laborers, and sheet metal workers.

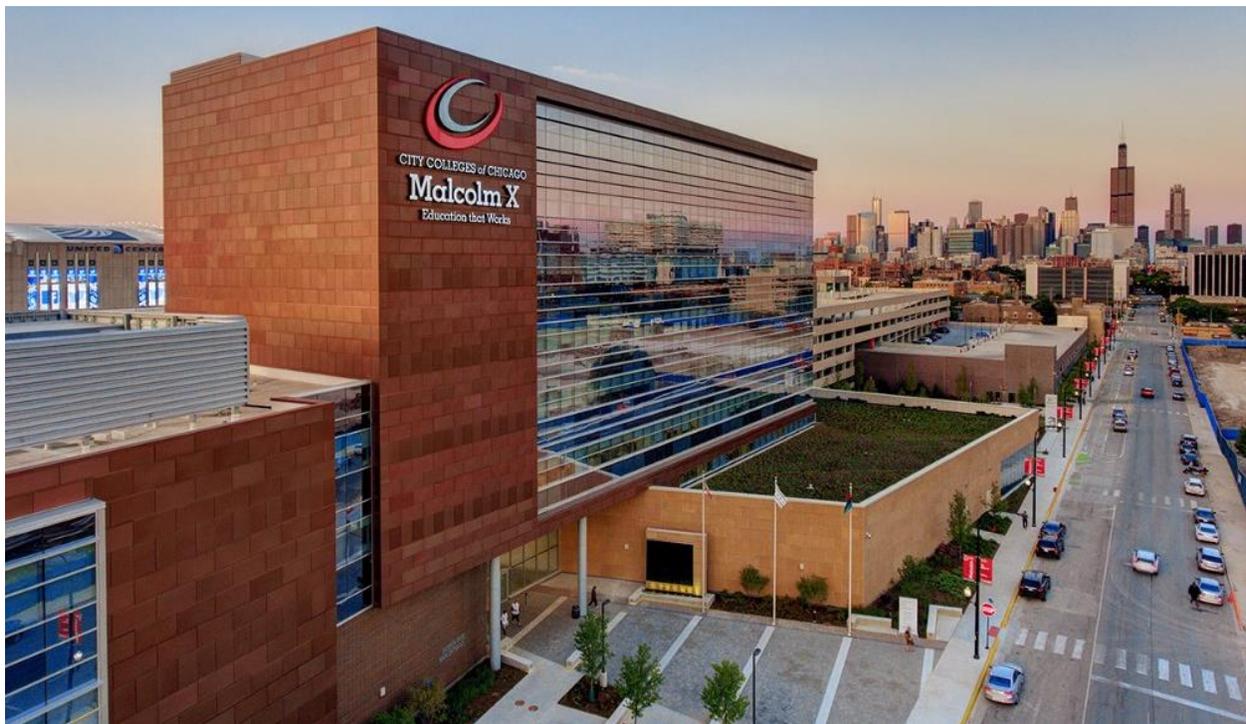


Image: City Colleges of Chicago

The **Mariposa – South Lincoln Redevelopment** in Denver, CO, is a 17-acre master plan for mixed-income redevelopment of the Denver Housing Authority's South Lincoln Homes public housing site. The goal is to create a transit-oriented community where people experience a neighborhood that is environmentally sustainable, culturally diverse, close to downtown and offers a spectrum of housing options. Begun in 2009, Mariposa's interdisciplinary design team (Mithun) included a public health consultant, a Health Impact Assessment, the use of a Healthy Development Measurement Tool from the San Francisco Department of Public Health, and a community-driven design process.<sup>64</sup> The project plan includes 800-900 mixed-income housing units, 100 senior housing units, mixed-use retail spaces, and diverse outdoor living spaces, playgrounds and gardens.<sup>65</sup> At this time, more than 350 units are located in LEED certified

buildings. Other amenities on site include a café that hosts a Youth Culinary Academy, an arts non-profit offering creative job training, Catholic Charities' Early Childhood Education Programs, a youth empowerment recording studio, a weekly farmers' market, and a non-profit community bike shop.



South Lincoln Homes prior to redevelopment. (Images: Denver Housing Authority)



Images: Mariposa; Daniel O'Connor

The **June Key Delta Community Center** is a living building project developed, owned, and operated by the Portland Alumnae Chapter of Delta Sigma Theta Sorority, Inc., established in 1945. Named for one of its founding members who championed the purchase of a permanent meeting site, the Center “provides and sustains the needs of the multi-cultural neighborhood it serves, encouraging sound and healthy social, educational, artistic, economic, and environmental development and awareness.”<sup>66</sup> The small nonprofit organization renovated a 1960s ARCO gas station; they transformed the brownfield property into a productive urban garden, achieved net zero energy, created systems to treat and reuse all rainfall on the site, installed only safe and ethical materials, and created equitable hiring and training opportunities throughout construction. In particular, the Chapter sought to diversify the green design and building industry by partnering with an African-American architectural firm. As the first grassroots and African American-owned living building, the Center embodies the Chapter’s values to provide safe, nurturing environments, particularly for children and senior citizens. The

facility hosts academic, mental health, and social activities, such as seminars, tutoring, and low- or no-cost meeting space for community groups.



Images: The Oregonian; Portland Alumnae Chapter of Delta Sigma Theta Sorority, Inc.

**Rural Studio** is an off-campus design-build program part of the School of Architecture, Planning and Landscape Architecture at Auburn University. The program, established in 1993, gives architecture students a more hands-on educational experience while assisting an underserved population in West Alabama's Black Belt region.<sup>67</sup> The Studio became known for establishing an ethos of recycling, reusing, and remaking, as well as focusing largely on community-oriented work. The students work within the community to define solutions, fundraise, design and, ultimately, build projects. The Studio "continually questions what should be built, rather than what can be built," and has completed more than 200 projects and educated more than 1,000 "Citizen Architects."



Images: Auburn University

**Mohawk Group**, a manufacturer of hard surface flooring and carpeting, has demonstrated leadership in corporate social responsibility by minimizing and offsetting the impacts of their products through ILFI's Living Product Challenge.<sup>68</sup> Given that new products cannot eliminate their entire negative footprint on natural resources, the program measures "handprints" (a product's positive environmental, social, and economic impact across its life cycle) and requires a net-positive impact. In order to achieve this for various carbon-neutral products, Mohawk has partnered with Groundswell to install 10 smartflower solar technology energy systems in low-income communities and schools with STEM programs. The first unit was installed in south Chicago at a historic YMCA with The Renaissance Collaborative, a community development corporation that provides supportive housing, employment and educational services. In addition, Mohawk Group is partnering with historically black colleges and universities (HBCUs) to install new, low-flow showerheads in dormitories to offset the amount of water used to produce one of its carpet collections. At Morehouse College in Atlanta, the upgrade will result in significant savings for the college by reducing its water consumption, one of its largest expenses, by about 1.2 million gallons per year. Both efforts are paired with education and training for students.



Images: Groundswell; Mohawk Group

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