Animo Ralph Bunche & Animo Jefferson Charter Schools  

Green Dot Charter Schools, in partnership with Pacific Charter School Development (PCSD), opened the doors of Animo Ralph Bunche Charter High School and Animo Justice Charter High School in September 2008. Providing over one thousand new seats for students in South Los Angeles, the schools transformed two abutting industrial spaces into a single 77,173 square foot LEED Certified educational campus. Now operating as Animo Ralph Bunche High School and Animo Jefferson Middle School, the schools exemplify success in taking a green approach to planning, design, and operations in an urban setting ripe for adaptive reuse.

With the goal of creating green charter schools in Southern California, Global Green USA and the Local Initiatives Support Corporation (LISC) established a partnership to provide financial and technical assistance to charter school operators and developers in their efforts to incorporate green building measures into their facility projects. Animo Ralph Bunche and Animo Jefferson benefitted from this partnership. The campus consists of forty-eight classrooms (including multiple science labs), a library, a multipurpose room, a gymnasium, and administrative office spaces. The adaptive reuse of existing buildings offered an inherently sustainable component to the development of the project and many of the materials from the previous use were retained and repurposed, including the concrete floors. Added features include extensive daylighting, acoustical performance enhancements, energy and water efficient materials and strategies, and non-toxic paints, sealants, and other finishes.

Located along a light rail line, Ralph Bunche and Jefferson limit Vehicle Miles Traveled (VMT) through an intensive traffic demand management program, which prohibits students from driving private vehicles to school. Building-related carbon emissions are also reduced, as one-third of the campus’ electricity demand is purchased from renewable power sources.

The design team also wanted to create a unique identity for each of the two schools within the shared building. This was accomplished through attention to circulation patterns, points of entry and color choices, while designing a second floor outdoor addition that connects directly to the ground floor outdoor space, creating a joint-use opportunity for the schools and the surrounding community.
**Sustainable Site**
- Adaptive reuse of an existing building
- Reduced automobile parking and extensive bicycle infrastructure
- Nearby light rail access
- Cool roof to reduce the heat island effect

**Water Efficiency**
- Drought resistant landscaping
- Waterless urinals
- Spring loaded water-efficient faucets
- Dual flush toilets

**Energy & Atmosphere**
- Energy efficient HVACs and lighting
- 20% better than California’s Energy Code
- No CFC or HCFC based refrigerants used in any equipment

**Materials & Resources**
- Maintained 95% of the existing walls, roof and floor from the original structure
- Bio-based tiles for the second floor addition
- Extensive campus recycling program

**Indoor Environmental Quality**
- Ventilation systems designed to ensure that adequate fresh air is available to occupants
- Classrooms acoustically isolated from one another and from HVAC system background noise
- Use of low-emitting, non-toxic materials, cleaning products and equipment

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**DAYLIGHTING**

Studies show that appropriate daylighting design in schools has a positive effect on student performance and can reduce energy use by decreasing reliance on electrical lighting and connecting occupants with the outdoors.

In the case of Ralph Bunche and Jefferson, providing adequate daylighting was a major concern because of the existing deep warehouse space, classrooms placed in the center of the building would have lacked access to natural light. This design challenge was remedied by installing light shafts and skylights throughout the building, giving each occupied room access to natural light.
The Green Dot facility was developed by PCSD, a nonprofit that typically funds approximately 25% of school project costs, with the remaining funds obtained from a variety of other sources. Once schools are complete, PCSD typically leases the space to the school operator until the operator can purchase the building outright. In the case of Animo Ralph Bunche and Animo Jefferson, Green Dot Charter Schools is the operator and future owner of the schools.

Under this financing model, development budgets are tight so as to hold down the eventual cost of ownership transfer to the school operator. While specific green elements at the campus—particularly acoustic enhancements, more efficient HVAC systems, and commissioning—did increase upfront costs compared to a conventionally built school, PCSD was able to deliver the project on budget by incorporating green goals early in the design, finding other places to reduce costs, and utilizing a $75,000 grant from Global Green and LISC.

Green Dot expects to take ownership of the campus within the next twelve months and will reap the benefits of the long-term operating cost savings associated with green buildings, while students and staff will continue to benefit from an enhanced learning environment that acts as a safe haven from the environmental health threats many face in their neighborhoods and homes.

In order to assess the operating costs and ultimate financial benefits of certain green building elements included in these schools, Global Green conducted an electricity and water consumption analysis which compared data from both Ralph Bunche and Jefferson and another LEED certified Green Dot charter school facility to a comparable existing Green Dot charter school facility that lacks energy efficiency and water saving measures.

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Data collected on water and electricity use was normalized per student, per square foot for a 550 seat, 35,000 square foot school, typical for Green Dot. The results show that green schools use 38% less electricity (an annual savings of over $13,000), and 64% less water (an annual savings of over $1,000). The actual electricity consumption savings were within 3% of the projections established in the energy modeling of the case study schools. These findings can help future project teams determine the range of potential savings that can be achieved through a commitment to integrated design.

Depending on the financing terms of a particular project, it is possible to capitalize the reduced operating costs into additional sources of upfront capital to build the project. While Green Dot and PCSD did not specifically engage in such leveraging on the project, they are using lessons learned on operating cost benefits of green building to inform financing strategies on future developments. Green Dot has committed to pursuing LEED certification on its future new construction and adaptive reuse projects.
Adaptive Reuse
The reuse of existing buildings can be seen as the ultimate approach to recycling, but transforming a manufacturing warehouse into a new school brings significant challenges. Depth and light were two of the main issues. The challenge of designing classrooms and other complimentary uses within the existing building depth—quite wide to efficiently accommodate classroom layouts—was overcome through innovative design measures that created numerous light wells, shafts, and skylights. Another example is the operable wall installed between the gymnasium and the entry courtyard that allows for multiple configurations of indoor and outdoor recreational space.

LEED Certification
The 18-month timeline for developing two full-scale schools from former industrial uses was ambitious. The additional endeavor of achieving LEED certification only added to the challenge. By including an expert LEED consultant, an architect, and a general contractor—all with previous LEED experience—the development team was well equipped to navigate the certification process. Nevertheless, the project needed the unwavering support for LEED certification of the eventual owner, Green Dot, early on in the pre-development process. While green building measures can certainly be incorporated outside of LEED or any green building certification, the costs and challenges of pursuing certification can be minimized if this goal is set early.

Rezoning
The site of the Animo Ralph Bunche and Animo Jefferson campus is situated between large industrial and single family residential land uses, and was originally zoned for manufacturing uses, thus required a new zoning designation allowing a school use before the project could proceed. The process of changing land uses through a Conditional Use Permit extended the entitlement process, but the argument that a green school building would provide an excellent buffer and transitional space from industrial to residential uses eventually prevailed. Even with this added time, the team met their construction and grand opening deadlines by starting the process with the regulatory agency early in the pre-development phase.

Long-Term Funding
Green Dot’s schools rely on the same public funding as traditional public schools, but receive 15% less and no separate funding for facilities. All facilities and operating expenses must be paid out of each school’s operating funds, which are supplemented by fundraising. Due to state budget cuts, Green Dot had to close one of the two high schools—Animo Justice—at the end of the 2010 school year. Green Dot opened Animo Jefferson Middle School in its place, and students from that school will feed directly into Animo Ralph Bunche High School. Every student at Animo Justice was also guaranteed a seat at Animo Ralph Bunche. Already, the Animo campus has proven itself as a good example of a facility that is flexible enough to handle fluctuating enrollment and funding priorities while maintaining core green elements.

CONTACTS

Pacific Charter School Development Inc.
Megan Hadden
(213) 542-4700
megan@pacificcharter.org

Green Dot Charter Schools
Akil Manley
(323) 565-1600
amanley@greendot.org

Global Green USA
Ted Bardacke
(310) 581-2700
tbardacke@globalgreen.org

Local Initiatives Support Corporation
Reena Bhatia
(212) 455-9800
rbhatia@lisc.org

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