
Green Building in a Green Space:

Audubon Center at Debs Park,
Los Angeles

Ernest E. Debs Park, Los Angeles

- Located in East Los Angeles
 - Kept as a Natural Area – no landscaping done or changes made
 - Surrounding neighborhoods
 - 97% Hispanic
 - 50,000 school-aged children
 - Low income households
 - Park managed to escape development pressures that had transformed other hilly areas in L.A.
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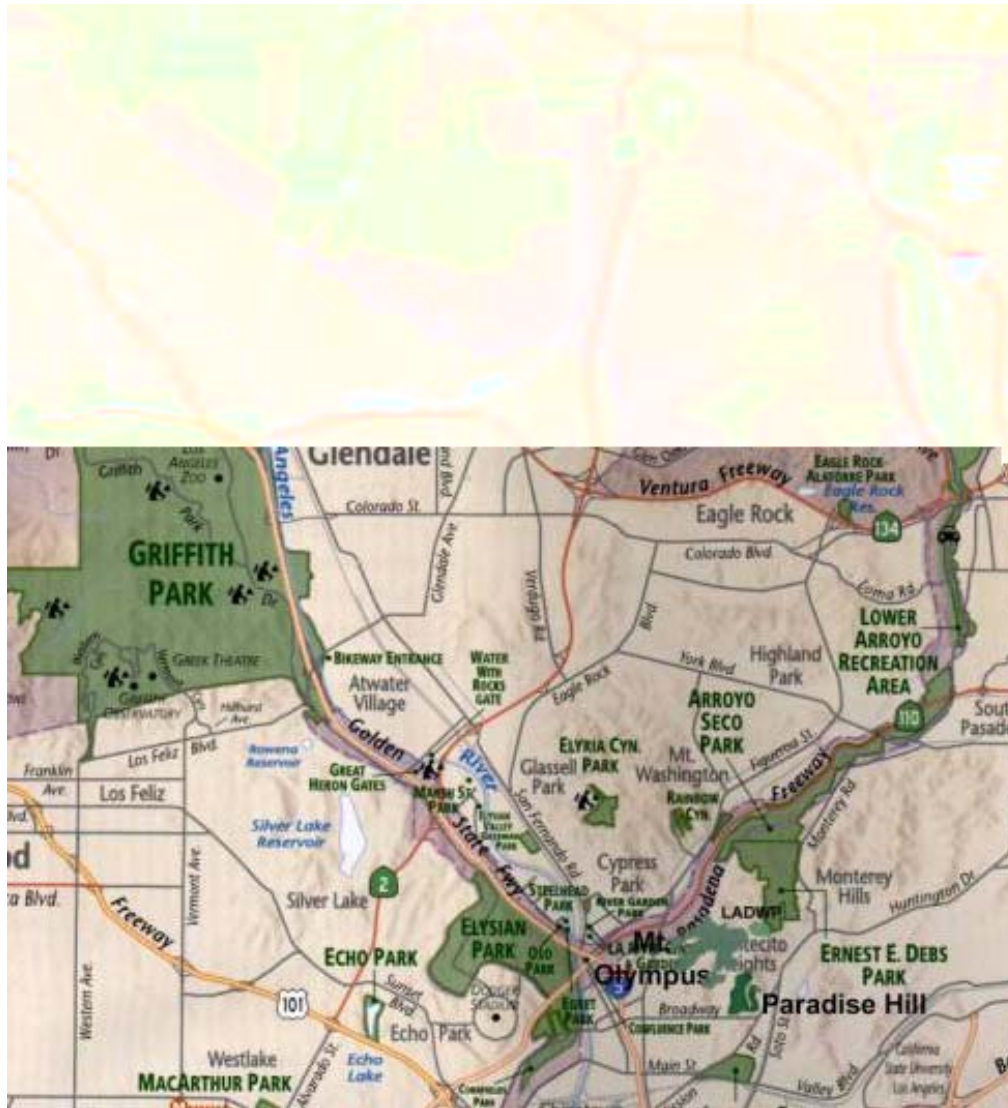
Debs Park – 282 acres of Nature



10 Minutes from Downtown



A Link in the Greenway System



California Audubon Society

- Part of the national Audubon community
 - Promoting and preserving wildlife habitat and ecosystems, with a focus on education
 - Audubon plans an education center in Debs Park
 - Negotiations with Dept of Recreation and Parks
 - Extensive community outreach
 - Years of planning
 - Before any drawings or site plans, the decision was made to build a highly sustainable structure
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The Audubon Center at Debs Park

- After 6 years of planning and 1 year of construction, the building finally opens
 - Achieved a LEED Platinum rating (53 points) – the first building to do so under Version 2
 - 17 acres of the park leased from the city
 - Newly constructed building
 - 5,020 square feet (office, visitor's center)
 - Not connected to city sewer or power grid!
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Completed Site



Audubon Center

Sustainable Sites Rating – 10/14

- Built on the most degraded portion of Debs Park
 - Access to sustainable transportation
 - Served by Bus routes
 - Includes bicycle facilities
 - Alternative fuel stations nearby
 - Building colors blend in with natural areas and minimize the heat island
 - Society and community volunteers are working to restore areas of the park
 - Native Plant restoration
 - Invasive species removal and habitat restoration
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Sustainable Sites



Audubon Center

Water Efficiency Rating – 5/5

- Not connected to city sewer system
 - Low flow and waterless fixtures
 - All wastewater treated on-site
 - Greywater re-use
 - Blackwater and excess greywater treated and released into the soil
 - Uses 70% of the water of a standard, comparable structure
 - Landscaping on site requires no permanent irrigation
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Audubon Center

Energy & Atmosphere Rating – 15/17

- Operates independent of the Los Angeles power grid
 - Photo-voltaic cells provide renewable, solar energy
 - Runs HVAC, computers, lights, water treatment system, and dedicated ice cream freezer
 - More than enough energy (summer), just enough energy (winter)
 - System of backup batteries (charged bi-annually by a generator) can provide 2.5 days of electricity
 - Building design includes several energy saving features
 - T-8 fluorescent bulbs (rarely used) and Energy Star appliances
 - Manual switches for turn-on, automatic systems for turn-off
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Energy & Atmosphere



Energy & Atmosphere



Audubon Center

Materials & Resources Rating – 6/13

- 97% of the construction debris created by building the Center was recycled
 - Recycled materials used
 - Concrete – ¼ flyash (coal byproduct)
 - Insulation, wall board, and floor tiles
 - Iron rebar and decorative metal work – 95% recycled from guns and old cars!
 - Rapidly Renewable resources used
 - Cabinets – sunflower seed shells and resin
 - Carpets – from agave plant fibers
 - Certified ‘sustainably managed forest’ wood used in construction
 - Half of all materials were locally manufactured, ¼ harvested locally
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Thank Goodness for those L.A. gangs.....



Materials & Resources



Audubon Center

Indoor Environmental Quality Rating – 12/15

- Made use of carpets, paints, and sealants with low VOC content
 - Bright interior surfaces reflect daylight
 - Fluorescent lights only needed during winter evenings
 - Indoor Air Quality plan drafted before construction and implemented all the way through to building occupancy
 - Thin, “L” shape of the building and tall windows
 - Allows natural light to reach all areas
 - Provides cross ventilation for heat removal
 - Strategic shading from trees and overhangs limit direct sunlight during summer months
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Indoor Environmental Quality



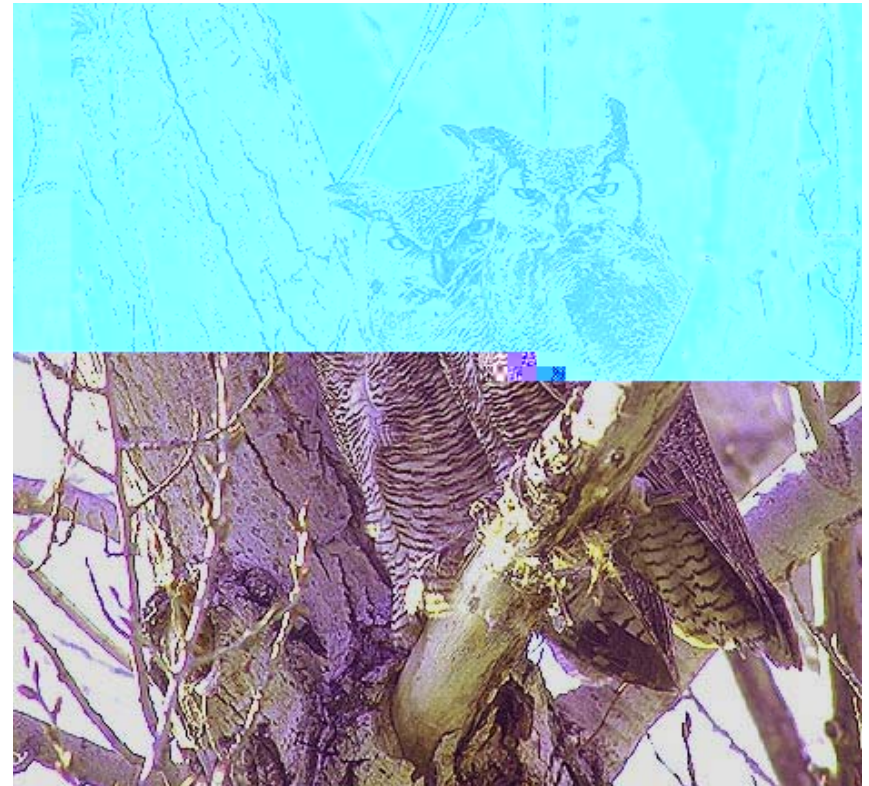
Audubon Center

Innovation & Design Process – 5/5

- 1 credit for the involvement of LEED certified professionals
 - Credit for exemplary mitigation of construction waste (97% recycled)
 - 2 credits for outstanding energy aspects
 - 100% renewable energy produced on site
 - Reduction of building energy budget by 100%
 - Credit for providing “Sustainability Education” to children and the general public
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LEED Extra Credit?

- The fact that the Audubon Center provides Sustainability Education to children is very important
 - Knowledge lasts much longer than “bricks and mortar”
- Restoration of natural ecosystem provides a long term benefit
 - Habitat for native plants and animals
 - Los Angeles area has a major lack of natural space



Increasing Sustainability....

- Although the Audubon Center is a LEED Platinum building, there is still *slight* room for improvement
 - Outstanding performance in the water, energy, and indoor environment categories of LEED
 - Some room for improvement with regards to Materials
 - Potentially could have used more recycled or rapidly-renewable materials to construct the building
 - Could have reused construction materials from recently demolished structures
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Sources:

Websites:

- United States Green Building Council:
<http://www.usgbc.org>
 - USGBC – LEED case study, Audubon Center at Debs Park:
<http://leedcasestudies.usgbc.org/overview.cfm?ProjectID=234>
 - California Audubon Society newsletter, March 2004:
http://magazine.audubon.org/features0403/urban_oasis.html
 - Audubon Center at Debs Park homepage:
http://ca.audubon.org/debs_park.htm
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Sources:

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