

The Donald Bren School of Environmental Science & Management

Santa Barbara, California



Photo credit: Donald Bren School of Environmental Science & Management



Version 1.0
Platinum
 (upgraded in March, 2002)

Notes from the Project Team: *LEED was instrumental in providing structure for the research effort as well as a means to measure results.*

Sustainable Sites

- **Site Selection:** *Near public transport; uses existing parking lot.*
- **Reduced Heat Island Effect:** *trees provide shading.*
- **Resource Protection:** *Drought-tolerant and native plants; fire road is made from recycled permeable turf-block with grass overlay; minimized development footprint; preserved topsoil and trees.*

Water Efficiency

- *Reclaimed water used for toilets and irrigation; waterless urinals.*

Energy and Atmosphere

- **Energy:** *Exceeds California Title 24 (1998) by 30%.*
- **HVAC:** *Natural ventilation in office wing with operable windows, coordinated with mechanical system; variable volume exhaust system in lab.*
- **Controls/Monitoring:** *Energy management and control system; M&V plan.*
- **Lighting:** *Daylight control, efficient fixtures and motion sensors.*
- **Alternative Energy:** *25% (125kW) of the building's energy needs are met by grid power from landfill methane gas; roof-mounted solar panels supply 7% of the energy needed.*

Materials and Resources

- **Construction Waste Management:** *mandated; estimated 75% recycling rate.*
- **Certified Wood:** *Wood paneling from certified sustainably managed forest.*
- **Recycled Content:** *24% of all materials (by cost) contain at least 20% post-consumer or 40% post-industrial recycled content. Specific materials contain 35% to 100% recycled content, including window frames, insulation, lab casework, ceramic tile, acoustic ceilings and wall panels, toilet partitions, and carpet. Structural steel contains 77% post-consumer and 18% post-industrial recycled content.*

Indoor Environmental Quality

- **Low Emitting Materials:** *Minimal volatile organic compounds in adhesives and sealants.*
- **Controllability:** *Operable windows; permanent air monitoring system.*

Owner: University of California - Santa Barbara

Project Team: Architect: *Zimmer Gunsul Frasca Partnership*
 Engineer: *Flack & Kurtz, MEP & KPFF, Structural Penfield & Smith, Civil*
 Contractor: *Soltek Pacific*
 Consultant: *Eley Associates, Energy, Wallace Roberts & Todd, Landscape, and Earl Walls Associates, Lab.*

Building Statistics:

Completion Date: *January, 2002*
 Cost: *\$22 M*
 Size: *85,000 gross square feet*
 Footprint: *23,500 square feet*
 Construction Type: *Type II, Fire Resistive*
 Use Group: *Business (B), Assembly(A-3), Laboratory(H-7)*
 Lot Size: *2.9 acres*
 Annual Energy Use: *144.7 kBtu/sf/year*
 Occupancy: *239*

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LEED® Project # PP58
LEED Version 1 Certification Level: PLATINUM
April 18, 2002

36 Points Achieved Possible Points: **51**

Bronze 22 to 26 points Silver 27 to 30 points Gold 31 to 35 points Platinum 36 or more points

7 Planning Sustainable Sites Possible Points: **11** **7 Enhancing IEQ** Possible Points: **7**

1	Credit 1	Landscaping for Erosion Control	1
1	Credit 2	Reduced Heat Islands (1 or 2 points)	2
	Credit 3	Infill Development	1
1	Credit 4	Reduce Habitat Disturbance	1
1	Credit 5	Site Preservation/ Restoration	1
1	Credit 6	Efficient Building Location	1
2	Credit 7	Alternative Transit Facilities (1 or 2 points)	2
	Bonus	Bonus Credit 1 - Alternative Fueling Facilities	1
	Bonus	Bonus Credit 2 - Brownfield Development	1

Y			
Y	Prereq 1	Elimination/Control of Asbestos	
Y	Prereq 2	Indoor Air Quality	
Y	Prereq 3	Smoking Ban	
Y	Prereq 4	Thermal Comfort	
2	Credit 1	IAQ Management Plan (1 or 2 points)	2
2	Credit 2	Low VOC Materials (1 or 2 points)	2
1	Credit 3	Permanent Air Monitoring	1
1	Credit 4	Chemical Storage Areas	1
1	Credit 5	Architectural Entryways	1

7 Improving Energy Efficiency Possible Points: **11**

Y			
Y	Prereq 1	Building Commissioning	
Y	Prereq 2	Energy Efficiency	
3	Credit 1	Energy Efficiency (1 to 5 points)	5
	Credit 2	Natural Ventilation, Heating & Cooling	1
	Credit 3	Waste Heat Recovery	1
3	Credit 4	Renewable/Alternative Energy (1 to 3 points)	3
1	Bonus	Bonus Credit 1 - Measurement and Verification	1

6 Safeguarding Water Possible Points: **8**

Y			
Y	Prereq 1	Water Conservation	
Y	Prereq 2	Elimination of Lead	
1	Credit 1	Water Conserving Fixtures	1
1	Credit 2	Water Recovery System	1
1	Credit 3	Water Conserving Cooling Towers	1
1	Credit 4	Water Efficient Landscaping	1
1	Credit 5	Surface Runoff Filtration	1
	Credit 6	Surface Runoff Reduction	1
	Bonus	Bonus Credit 1 - Biological Waste Treatment	1
1	Bonus	Bonus Credit 2 - Measurement and Verification	1

7 Conserving Materials & Resources Possible Points: **12**

Y			
Y	Prereq 1	Elimination of CFCs	
Y	Prereq 2	Storage & Collection of Recyclables	
	Credit 1	Existing Building Rehab (1 or 2 points)	2
1	Credit 2	Resource Reuse (1 or 2 points)	2
1	Credit 3	Recycled Content (1 or 2 points)	2
2	Credit 4	Construction Waste Management (1 or 2 points)	2
1	Credit 5	Local Materials	1
1	Credit 6	Elimination of CFCs/Halons (1 or 2 points)	2
1	Credit 7	Occupant Recycling	1

2 Improving the Design Process Possible Points: **2**

1	Credit 1	LEED® Accredited Professional	1
1	Credit 2	Lab Exhaust System	1