



GAIA *profitability through sustainability*

LEED + ENERGY MODELING + COMMISSIONING



11,372 sq ft

Construction : Education | Type : Child Care Facility

PROJECT TEAM

Owner : Paramount Farms

Architect : MSP Architects

General Contractor : Clarion Construction

Mechanical Engineer : P2S

Electrical Engineer : P2S

Plumbing Engineer : P2S

Landscape Architect : McIntosh & Associates

LEED Consultant : Gaia

Commissioning : Gaia

26% reduction in annual water use for building through use of high-efficiency and waterless plumbing fixtures

33% reduction in total energy use due to high-efficiency mechanical & lighting systems and PV solar array

62% of construction waste was diverted from landfills



PARAMOUNT FARMS
CHILD DEVELOPMENT CENTER
AVENAL, CA



LEED-NC v2.2 FACTS

LEED GOLD

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Sustainable Sites :	7 of 14
Water Efficiency :	2 of 5
Energy and Atmosphere :	13 of 17
Materials and Resources :	3 of 13
Indoor Environmental Quality :	9 of 15
Innovation and Design :	5 of 5

LEED ACCOMPLISHMENTS

Sustainable Sites

- Preferred parking for low-emitting, fuel-efficient & carpool vehicles
- Project maximized open space requirement to promote biodiversity
- A reflective "cool roof" was installed to reduce heat island effect

Water Efficiency

- Drought-tolerant plants and high-efficiency irrigation controls reduce potable water use for irrigation by over 59%
- Ultra low-flow lavatory faucets and waterless urinals were used to reduce annual water use by 26%

Energy and Atmosphere

- Efficient HVAC, lighting system with daylight controls and a solar photovoltaic system reduces energy consumption by 33%
- Strategically selected refrigerants and an HVAC&R system minimizes the emission of ozone-depleting compounds

Materials and Resources

- 62% of construction waste was diverted from landfills
- Over 13% of total building materials were recycled
- Over 14% of total building materials were extracted, processed and manufactured locally (within 500 miles)

Indoor Environmental Quality

- Interior finishes were selected with low levels of volatile organic compounds (VOC's) to reduce indoor air contamination, including carpet, paint, coatings, adhesives and sealants
- Over 83% of regularly occupied spaces have high levels of daylighting to improve human comfort and energy-efficiency
- Over 92% of regularly occupied spaces have views to outside

LEED-NC v2.2 SCORECARD

Owner : Paramount Farms

Project : Child Development Center

Location : Avenal, CA

Certification : LEED Gold



7 0 7

Sustainable Sites

POSSIBLE POINTS 14

Y ? N			Required
1		Prereq 1	Construction Activity Pollution Prevention
1		Credit 1	Site Selection
1		Credit 2	Development Density & Community Connectivity (EB)
1		Credit 3	Brownfield Redevelopment
1		Credit 4.1	Alternative Transportation, Public Transportation Access (ID) (EB)
1		Credit 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms (ID)
1		Credit 4.3	Alternative Transportation, Low-Emitting & Fuel-Efficient Vehicles (ID)
1		Credit 4.4	Alternative Transportation, Parking Capacity 5% (ID)
1		Credit 5.1	Site Development, Protect & Restore Habitat 50% (75%)
1		Credit 5.2	Site Development, Maximize Open Space 25% (50%)
1		Credit 6.1	Stormwater Design, Quantity Control
1		Credit 6.2	Stormwater Design, Quality Control
1		Credit 7.1	Heat Island Effect, Non-Roof 50% (100%)
1		Credit 7.2	Heat Island Effect, Green Roof 50% (100%) Cool Roof 75%
1		Credit 8	Light Pollution Reduction

2 0 3

Water Efficiency

POSSIBLE POINTS 5

Y ? N			
1		Credit 1.1	Water Efficient Landscaping, Reduce by 50%
1		Credit 1.2	Water Efficient Landscaping, No Potable Use or No Irrigation
1		Credit 2	Innovative Wastewater Technologies, 50% (100%)
1		Credit 3.1	Water Use Reduction, 20% Reduction (Process Load 10%)
1		Credit 3.2	Water Use Reduction, 30% Reduction (40%)

13 0 4

Energy & Atmosphere

POSSIBLE POINTS 17

Y ? N			
1		Prereq 1	Fundamental Commissioning of the Building Energy Systems
1		Prereq 2	Minimum Energy Performance
1		Prereq 3	Fundamental Refrigerant Management
3		Credit 1	Optimize Energy Performance, 10.5% - 42.5% (45.5%) (EB)
1		Credit 2	On-site Renewable Energy 2.5%, 7.5%, 12.5%, (17.5%)
1		Credit 3	Enhanced Commissioning (EB)
1		Credit 4	Enhanced Refrigerant Management
1		Credit 5	Measurement & Verification (EB)
1		Credit 6	Green Power, 35% (70%)

3 0 10

Materials & Resources

POSSIBLE POINTS 13

Y ? N			
1		Prereq 1	Storage & Collection of Recyclables
1		Credit 1.1	Building Reuse, Maintain 75% of Existing Walls, Floors & Roof
1		Credit 1.2	Building Reuse, Maintain 95% of Existing Walls, Floors & Roof
1		Credit 1.3	Building Reuse, Maintain 50% of Interior Non-Structural Elements
1		Credit 2.1	Construction Waste Management, Divert 50% from Disposal
1		Credit 2.2	Construction Waste Management, Divert 75% from Disposal (95%)
1		Credit 3.1	Materials Reuse, 5%
1		Credit 3.2	Materials Reuse, 10% (15%)
1		Credit 4.1	Recycled Content, 10% (Post-Consumer + 1/2 Pre-Consumer) (EB)
1		Credit 4.2	Recycled Content, 20% (Post-Consumer + 1/2 Pre-Consumer) (30%) (EB)
1		Credit 5.1	Regional Materials, 10% Extracted, Processed & Manufactured Regionally (EB)
1		Credit 5.2	Regional Materials, 20% Extracted, Processed & Manufactured Regionally (40%) (EB)
1		Credit 6	Rapidly Renewable Materials, 2.5% (5%) (EB)
1		Credit 7	Certified Wood, FSC 50% of all Wood Used (95%) (EB)

9 0 6

Indoor Environmental Quality

POSSIBLE POINTS 15

Y ? N			
1		Prereq 1	Minimum IAQ Performance
1		Prereq 2	Environmental Tobacco Smoke (ETS) Control
1		Credit 1	Outdoor Air Delivery Monitoring (EB)
1		Credit 2	Increased Ventilation
1		Credit 3.1	Construction IAQ Management Plan, During Construction
1		Credit 3.2	Construction IAQ Management Plan, Before Occupancy
1		Credit 4.1	Low-Emitting Materials, Adhesives & Sealants
1		Credit 4.2	Low-Emitting Materials, Paints & Coatings
1		Credit 4.3	Low-Emitting Materials, Carpet Systems
1		Credit 4.4	Low-Emitting Materials, Composite Wood & Agrifiber Products
1		Credit 5	Indoor Chemical & Pollutant Source Control
1		Credit 6.1	Controllability of Systems, Lighting
1		Credit 6.2	Controllability of Systems, Thermal Comfort (EB)
1		Credit 7.1	Thermal Comfort, Design (EB)
1		Credit 7.2	Thermal Comfort, Verification (EB)
1		Credit 8.1	Daylight & Views, Daylight 75% of Spaces (95%) (EB)
1		Credit 8.2	Daylight & Views, Views for 90% of Spaces (ID) (EB)

5 0 0

Innovation & Design

POSSIBLE POINTS 5

Y ? N			
1		Credit 1.1	Innovation in Design, Green Cleaning
1		Credit 1.2	Innovation in Design, Exemplary Performance (EA Credit 6)
1		Credit 1.3	Innovation in Design, Learning Garden
1		Credit 1.4	Innovation in Design, Exemplary Performance (SS Credit 5.2)
1		Credit 2	LEED Accredited Professional

39 0 29

Project Totals

POSSIBLE POINTS 69

(EB) - Credit Can Assist in Certification Under LEED for Existing Buildings