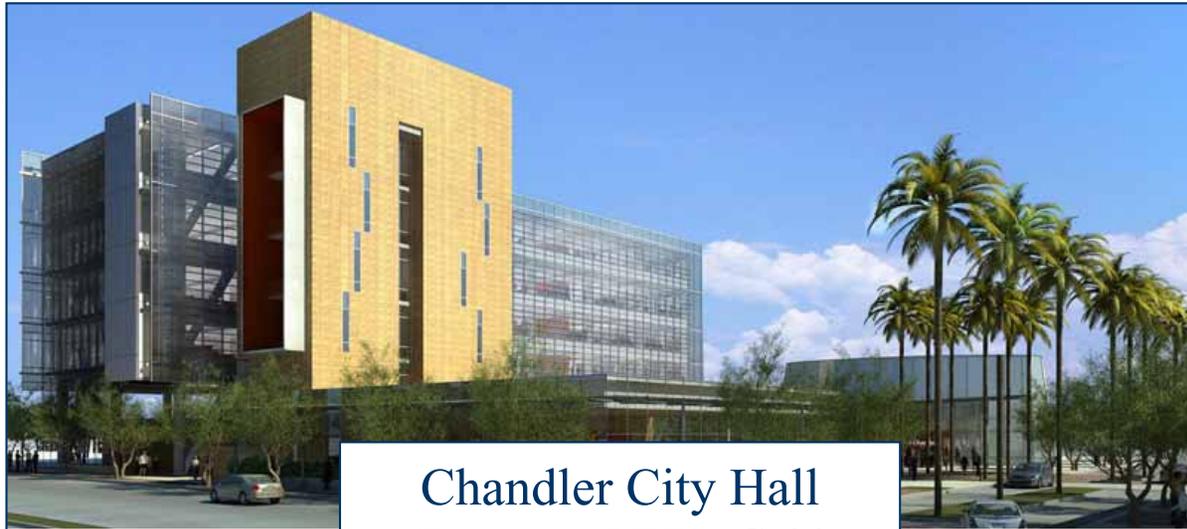


Chandler Green Building Program

December 12, 2008



Chandler City Hall
(Pursuing LEED Gold)

City of Chandler

Jason Crampton, LEED AP

City Planner

Presentation Overview

- ◆ LEED Overview
- ◆ Chandler Green Building Program
 - Program Summary
 - Developing the Program
 - Green Projects in Chandler



Parcland Crossing
(Pursuing LEED Silver)



LEED Semantics

Leeds



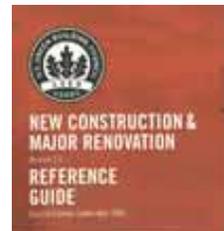
LEED

PROJECT PROFILE

CLARK UNIVERSITY LASRY CENTER
FOR BIOSCIENCE
WORCESTER, MASSACHUSETTS

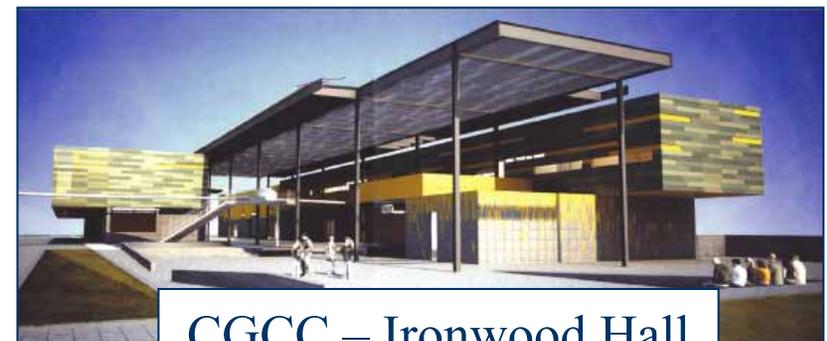
34% less energy use

31% less water use



What is LEED?

- ◆ Leadership in **E**nergy and **E**nvironmental **D**esign
- ◆ Nationally-Recognized Green Building Rating System
- ◆ Established by the U.S. Green Building Council (1998)



CGCC – Ironwood Hall
(Pursuing LEED Silver)



LEED Rating Systems

- ◆ **LEED-NC
(New Construction)**
- ◆ LEED-CS
(Core and Shell)
- ◆ LEED-CI
(Commercial Interiors)
- ◆ LEED-EB
(Existing Buildings)
- ◆ LEED-ND
(Neighborhood Development)
- ◆ LEED for Schools
- ◆ LEED for Retail
- ◆ LEED for Healthcare
- ◆ LEED for Homes

LEED-NC Categories

- ◆ 69 Points and 7 Prerequisites in 6 Categories:
 - ◆ Sustainable Sites
 - ◆ Water Efficiency
 - ◆ Energy and Atmosphere
 - ◆ Materials & Resources
 - ◆ Indoor Environmental Quality
 - ◆ Innovation & Design



SUSTAINABLE SITES

1 prerequisite
14 total points

- ◆ GOALS:
 - Develop appropriate sites
 - Reduce Urban Heat Island Impact
 - Protect natural and agricultural areas
 - Reduce need for automobiles
 - Minimize Water Runoff
 - Minimize Light Pollution



LEED:

Build green. Everyone profits.

Source: USGBC

WATER EFFICIENCY

0 prerequisite

5 total points

- ◆ GOALS:
 - Reduce the quantity of water needed for the building – inside and out
 - Reduce municipal water supply and treatment burden



LEED.

Build green. Everyone profits.

Source: USGBC

ENERGY & ATMOSPHERE

3 prerequisites

17 total points

- ◆ GOALS:
 - Establish energy efficiency and system performance
 - Optimize energy efficiency
 - Encourage renewable and alternative energy sources
 - Supply ozone protection protocols



LEED

Build green. Everyone profits.

Source: USGBC

1 prerequisite

13 total points

MATERIALS & RESOURCES



- ◆ GOALS:
 - Reduce the amount of materials needed
 - Use materials with less environmental impact
 - Reduce and manage waste



LEED

Build green. Everyone profits.

Source: USGBC

2 prerequisites

15 total points

INDOOR ENVIRONMENTAL QUALITY



- ◆ GOALS:
 - Establish good indoor air quality
 - Eliminate, reduce and manage the sources of indoor pollutants
 - Ensure thermal comfort and system controllability
 - Provide for occupant connection to the outdoor environment



Build green. Everyone profits.

Source: USGBC

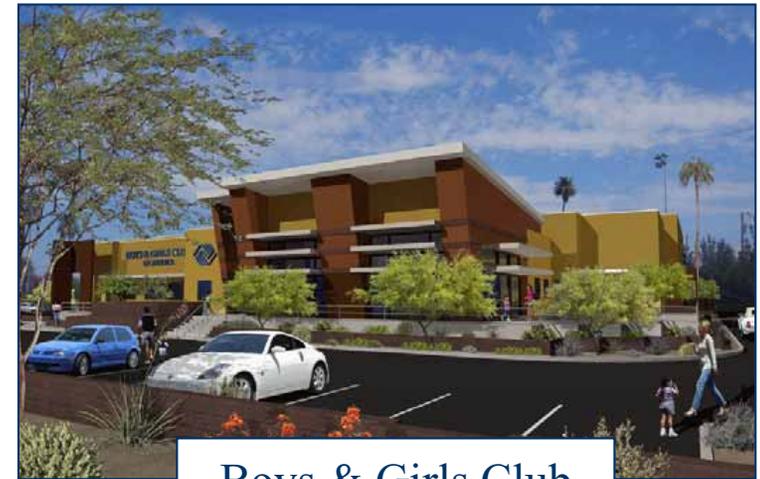
INNOVATIONS IN DESIGN

- Up to 5 additional credits
- LEED Accredited Professional: 1 Credit
- Innovation: 1-4 Credits

- ◆ GOALS:
 - Allow for creative environmental strategies to earn points
 - Significantly exceed threshold of credits
 - Reward climate- or geo-centric strategies
 - Promote inclusion of LEED accredited professional on team

LEED Certification Levels

- ◆ **Meet all Prerequisites and Earn Points as Follows:**
 - **Certified (26 – 32 Points)**
 - **Silver (33 – 38 Points)**
 - **Gold (39 – 51 Points)**
 - **Platinum (52 – 69 Points)**



Boys & Girls Club
Pursuing LEED Silver

\$ LEED Costs \$

- ◆ LEED adds 0 – 10% to initial building cost
 - Certified/ Silver – 0 - 4%
 - Gold/ Platinum – 2 – 10%+
- ◆ Soft Costs can add 0.25 – 1% to building cost
- ◆ Costs paid back over the life of the building



LEED Benefits

- ◆ Operation/ Maintenance Savings
 - Energy
 - Certified/ Silver: 25 – 30% Cost Reduction
 - Gold/ Platinum: 45% Cost Reduction
 - Water: 30 – 40% Reduction



Rockpointe Center
Pursuing LEED Gold Certification

LEED Benefits

- ◆ Productivity Increases/ Reduced Absenteeism (1 – 16%)
- ◆ Increased Sales Price (39%)
- ◆ Higher Rents (22%)
- ◆ Higher Occupancy Rates (3.5%)



Chandler Green Building Program



city of chandler
**green building
program**



Chandler CARE Center:
Pursuing LEED Certification

Chandler Green Building Program

Program Summary

1. City Building
 - a) LEED Silver or Higher



2. Incentives for Private Development
 - a) Expedited Plan Review
 - b) LEED Certification Fee Reimbursements
 - c) Recognition/ Awards



3. Education/ Outreach

Council Goal

“Encourage the use of shade and environmentally sensitive design”



Developing the Program

- ◆ 2006 - 2007 - Planning Clientele Survey
- ◆ Nov. 15, 2007 – Energy and Green Building Forum
- ◆ 2007 - 2008 – Green Building Task Force Meetings
- ◆ Spring, 2008 – Council and P&Z Briefings
- ◆ June 26, 2008 – Program Adoption

November 15th Energy and Green Building Public Forum

- ◆ 63 Attendees
(Including Staff)
- ◆ Participant Support For:
 - City Green Building
 - Incentives to Encourage Private Green Building
 - Voluntary Program



Green Building Task Force



- ◆ 20 Member Group
 - Development Professionals
 - Residents
 - Green Professionals
- ◆ 3 Meetings
 - November 28, 2007
 - February 12, 2008
 - June 3, 2008

Challenges

- ◆ Budget Issues
- ◆ Staffing Limitations
- ◆ Council Support
- ◆ Implementation Challenges





Private Development Response



- ◆ The Waters at Ocotillo
- ◆ Chandler Piazza
- ◆ Rockpointe Center
- ◆ Parcland Crossing
- ◆ Chandler Gilbert Community College
- ◆ Chandler Unified School District



Fire Administration Building

- ◆ 18,420 Square Feet
- ◆ Project Budget
- ◆ Pursuing LEED- Silver
(LEED-NC)
- ◆ Construction
Underway
(Anticipated Completion
in 2009)



Chandler • Arizona
Where Values Make The Difference





Fire Administration Building LEED Points Pursued

- ◆ Sustainable Sites **8 Points**
- ◆ Water Efficiency **3 Points**
- ◆ Energy & Atmosphere **7 Points**
- ◆ Materials & Resources **6 Points**
- ◆ Indoor Environmental Quality . . **11 Points**
- ◆ Innovation in Design **5 Points**





Chandler City Hall

- ◆ 120,000 Square Feet
- ◆ Pursuing LEED- Gold (LEED for New Construction)
- ◆ Design Underway (Anticipated Completion in 2010)





City Hall LEED Points Pursued

- ◆ Sustainable Sites **10 Points**
- ◆ Water Efficiency **5 Points**
- ◆ Energy & Atmosphere **9 Points**
- ◆ Materials & Resources **5 Points**
- ◆ Indoor Environmental Quality . . . **15 Points**
- ◆ Innovation in Design **5 Points**





Chandler Boys and Girls Club

- ◆ 31,000 Square Feet
- ◆ Pursuing LEED-Silver
(LEED for New Construction)
- ◆ Design Underway
(Anticipated Completion in 2009)



Chandler • Arizona
Where Values Make The Difference



**EAST VALLEY BOYS & GIRLS CLUB
COMPADRE BRANCH
CHANDLER, ARIZONA**



Boys and Girls Club LEED Points Pursued

- ◆ Sustainable Sites **9 Points**
- ◆ Water Efficiency **3 Points**
- ◆ Energy & Atmosphere **6 Points**
- ◆ Materials & Resources **5 Points**
- ◆ Indoor Environmental Quality . . . **13 Points**
- ◆ Innovation in Design **5 Points**



Thank You!



city of chandler
**green building
program**

Contact Information:

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480-782-3072



Helpful Resources

- ◆ U.S. Green Building Council: www.usgbc.org
- ◆ GSA LEED Cost Study:
 - www.wbdg.org/ccb/GSAMAN/gsaleed.pdf
- ◆ Davis Langdon “The Cost of Green Revisited”:
 - www.davislangdon.com/USA/Research/ResearchFinder/2007-The-Cost-of-Green-Revisited/
- ◆ Kats, G. “The Costs and Financial Benefits of Green Buildings: A Report to California’s Sustainable Building Task Force”:
 - www.usgbc.org/ShowFile.aspx?DocumentID=1992