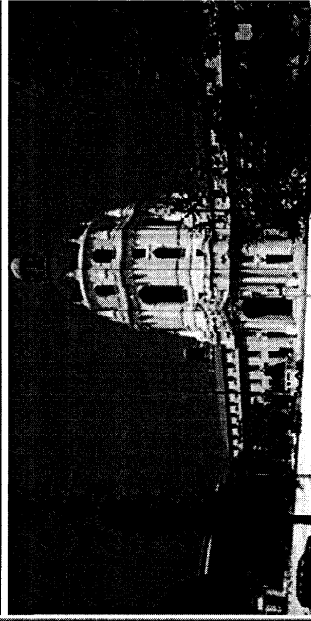
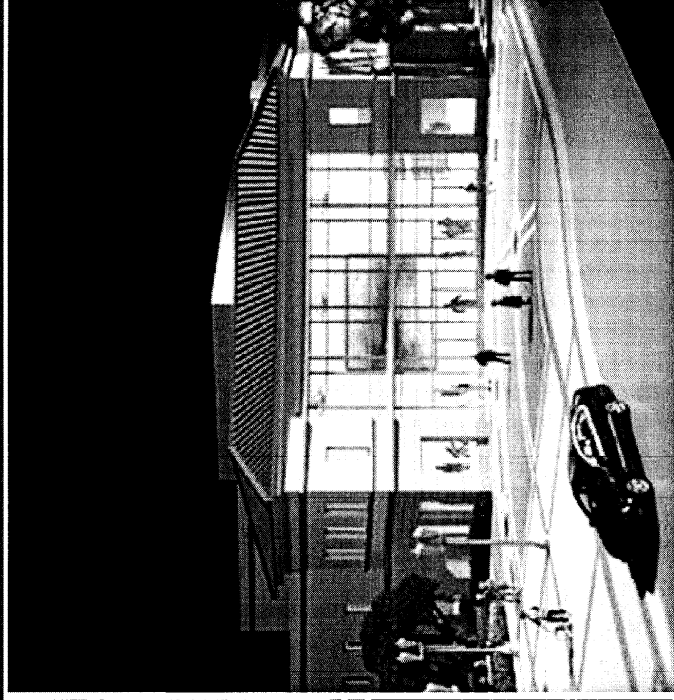
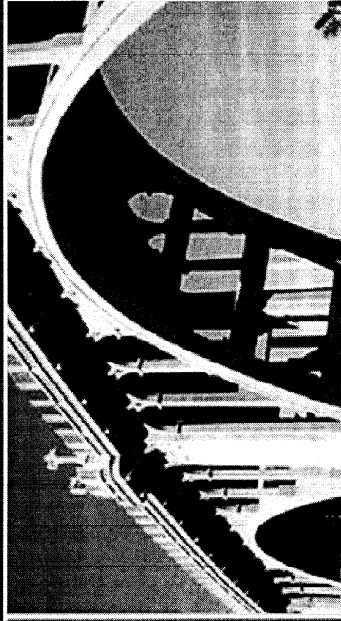


PARSONS

Pasadena Convention Center Expansion & Renovation

PCOC – Sustainability Program



January 23, 2008

Agenda

- Pasadena – THINK GREEN
- Greening of the PCOC (sustainability)
- Design/Construction Measures
- Operations & Maintenance Practices
- Agency (City & PWP) participation
- LEED Certification
- Future Options



PASADENA
THINK GREEN

PARSONS

City of Pasadena – Think Green

- Adoption of an Environmental Charter
- Endorsement of the United Nations Green Cities Declaration and Urban Environmental Accords
- Endorsement of the US Conference of Mayors Climate Protection Agreement
- Adoption of a Green City Action Plan
- Adoption of ordinance creating an Environmental Advisory Commission
- Adoption of a Green Building Program



PASADENA
THINK GREEN

PARSONS



USGBC/LEED

- Transform existing building markets so that sustainable design, construction, and operations practices are mainstreamed.
- Consensus process involving many stakeholders in the building industry.
- Define, promote, and standardize green design in the United States.
- Advocate a whole-building integrated design process.

PCOC sustainability benefits

- **Lower Operation Costs**
 - Energy: 30-50% average reduction
 - Water: 30-45% average reduction
- **Increase Employee Productivity**
 - Increased ventilation control
 - Temperature control
 - Lighting control
- **Employee Health and Well Being**
 - EPA – Indoor air quality (top 5 environmental risks)
 - Risk Reductions – Insurance premiums
- **Create Value for Exhibitors / Clients**
 - Increase bottom line
 - Strengthen Brand and Corporate Identity / Philosophy

▪ **GREEN is GOOD!!!**

PARSONS



Energy & Atmosphere (power smart investment)

- Energy performance increased to 22.5% higher efficiency than required standard (ASHRAE 90.1-1999 std.)
- HVAC systems with variable speed motors, isolation dampers, and electronic sensors
- Help reduce ozone depletion by not using CFC refrigerant systems
- All systems to be calibrated for optimum performance
- Building designed to re-use an existing site, minimizing the impact of construction on undeveloped land resources
- Additional measurement will be performed to maximize operational savings in:
 - Lighting
 - Fan systems
 - Water usage
 - Chiller and boilers

Water Efficiency & Controls

- Waterless urinals and high efficiency plumbing fixtures will reduce water usage by 30%.
- Low flow toilets.
- Upgrade of existing service lines. (new lines and metering – higher efficiency and reduced cost)
- PCOC will implement a recycling plan for the facility.
- Motion sensors for lights and fans.
- All restroom paper and products will be made from 100% recovered paper fiber; Green Seal certified.
- Soaps and cleaning products will also be Green Seal certified.



City of Pasadena & PWP

- PWP is actively reviewing the project for performance credits
- PWP will provide a consultant for review of potential purchase of renewable energy sources
- PWP and third party agencies are reviewing project for potential solar installations
- PWP is partnering and championing the PCOC as one of their PRIME sustainable client

REDUCE/RECYCLE

- Schedule HVAC to match event activities
- Adjust set points
- Turn off equipment, unplug equipment
- Print double-sided
- Choose bio-degradable & reusable products
- Re-use boxes and packing materials
- Paper, cardboard, wood, metal, plastic
- Glass, lamp ballasts, fluorescent bulbs, batteries
- **BIODEGRADABLE**
- Grease/oil rendering and recycling
- Use of local purveyors, recycle all consumer glass products
- Use 90% china service-ware for catered events
- Wood pallets